ITU出版物
建议书

国际电信联盟
无线电通信部门

ITU-R M.2175-0建议书

(04/2026)

M系列：移动、无线电测定、业余及相关卫星业务

使用IMT-2020地面无线接口的移动电台的无用发射特性

前言

无线电通信部门的作用是确保所有无线电通信业务，包括卫星业务，合理、公平、有效和经济地使用无线电频谱，并开展没有频率范围限制的研究，在此基础上通过建议书。

无线电通信部门制定规章制度和政策的职能由世界和区域无线电通信大会以及无线电通信全会完成，并得到各研究组的支持。

知识产权

国际电联提请注意：本建议书的应用或实施可能涉及使用已申报的知识产权。国际电联对无论是其成员还是建议书制定程序之外的其他机构提出的有关已申报的知识产权的证据、有效性或适用性不表示意见。

至本建议书批准之日止，国际电联未收到实施本建议书可能需要的受专利保护的知识产权的通知。但需要提醒实施者注意的是，这可能并非最新信息，因此大力提倡他们通过下列网站查询适当的 ITU-R 专利信息：https://www.itu.int/en/ITU-R/study-groups/Pages/itu-r-patent-information.aspx。

ITU-R 建议书系列

（可同时在以下网址获得：https://www.itu.int/publ/R-REC/zh）

系列	标题
BO	卫星传输
BR	用于制作、存档和播放的记录；用于电视的胶片
BS	广播业务（声音）
BT	广播业务（电视）
F	固定业务
M	**移动、无线电测定、业余无线电以及相关卫星业务**
P	无线电波传播
RA	射电天文
RS	遥感系统
S	卫星固定业务
SA	空间应用和气象
SF	卫星固定和固定业务系统之间频率共用和协调
SM	频谱管理
SNG	卫星新闻采集
TF	时间信号和标准频率发射
V	词汇和相关课题

注：本ITU-R建议书英文版已按ITU-R第1号决议规定的程序批准。

电子出版物
2026年，日内瓦

© 国际电联 2026

版权所有。未经国际电联书面许可，不得以任何手段翻印本出版物的任何部分。

ITU-R M.2175-0 建议书

使用IMT-2020地面无线接口的移动电台的无用发射特性

（2026年）

范围

依据外部组织提交给国际电联的材料，本建议书提供了使用IMT-2020地面部分无线接口并在为IMT确定的频段内频率操作的移动电台（用户设备）的无用发射特性。

主管部门可以使用这些无用发射特性来确保IMT-2020地面网络之间的系统内兼容性，但须遵守《无线电规则》。

这些特性可被视为IMT2020终端全球漫游的通用技术基础，也可为主管部门在国家层面制定规则提供指导。

关键词

IMT-2020、发射特性、带外、杂散、无用、移动电台

缩略语

ACLR	相邻信道泄漏比
ACS	相邻信道选择性
A-MPR	额外最大功率降低
BCS	带宽组合集
CA	载波聚合
CC	分量载波
DC	双连接
DFT	离散傅立叶变换
DL	下行链路
EIRP	等效全向辐射功率
EIS	有效各向同性灵敏度
ENBW	E-UTRA子块和相邻NR子块的聚合带宽
EN-DC	E-UTRA/NR DC
E-UTRA	演进的UMTS地面无线电接入
EVM	误差矢量幅度
FDD	频分双工
FR	频率范围
IMT	国际移动通信

ITS	智能交通系统
ITU-R	国际电信联盟无线电通信部门
LTE	长期演进
MBW	测量带宽
MCG	主单元组
MPR	允许的最大功率降低
MS	移动电台
MSD	最大灵敏度下降
NR	新空中接口
NS	网络信令
NSA	非独立模式，一种由另一无线电设备辅助操作的工作模式。
OOB	带外
OOBE	带外发射
OTA	空中接口
PRB	物理资源块
PSCCH	物理侧链路控制信道
PSSCH	物理侧链路共享信道
RE	资源元素
REFSENS	参考参考灵敏度
RF	射频
RIT	无线接口技术
RR	《无线电规则》
Rx	接收机
SA	独立
SCG	次小区组
SCS	副载波间隔
SEM	频谱发射掩模
SL	侧链路
SRIT	无线接口技术集
SUL	补充上行链路
TDD	时分双工
TDM	时分复用
TT	测试公差

Tx	发射机
UE	用户设备
UL	上行链路
UL MIMO	上行链路多天线发射
ULSUP	UE视角的上行链路共用
V2X	车联网

其他术语可以在文档3GPP TR 21.905“3GPP规范的词汇”中找到。

相关国际电联文件[1]

ITU-RSM.329建议书 – 杂散域中的无用发射

ITU-RSM.1541建议书 – 带外域的无用发射

ITU-RM.1036建议书 – 在《无线电规则》（RR）为IMT确定的频段内实施国际移动通信（IMT）地面部分的频率安排

ITU-RM.1545建议书 – 应用于IMT-2000地面部分测试限值的测量不确定性

ITU-RM.1579建议书 – IMT地面终端的全球漫游

ITU-RM.2012建议书 – 先进国际移动通信（IMT-Advanced）地面无线接口的详细规范

ITU-RM.2070建议书 – 使用IMT-Advanced地面无线接口的基站的无用发射特性

ITU-RM.2071建议书 – 使用IMT-Advanced地面无线接口的移动电台的无用发射特性

ITU-RM.2150建议书 – 国际移动通信-2020（IMT-2020）地面无线接口的详细规范

国际电联无线电通信全会，

考虑到

a) 根据《无线电规则》（RR）第**1.146**款，无用发射是由杂散发射和带外（OoB）发射组成，杂散发射和带外OoB发射的定义分别见《无线电规则》第**1.145**和**1.144**款；

b) 为保护其他无线电系统和业务免受干扰并使不同技术能够共存，有必要限制IMT-2020移动电台（MS）无用发射的最大允许电平；

c) 全球漫游的基本要求之一是，MS不得在任何使用国造成有害干扰；

d) 协调统一无用发射限值将有助于实现设备的全球使用，并促进进入全球市场；

e) 无用发射限值除取决于发射机的发射特性、国际电联杂散发射限值以及各国标准和法规外，还取决于在其他频段操作的业务，

认识到

a) 《无线电规则》第3.3款；

[1] 应使用最新版本的建议书/报告。

b) ITU-R M.1036建议书为在《无线电规则》中针对IMT确定的频段内实施国际移动通信的地面部分提供了频率安排；

c) ITU-R SM.329建议书规定了杂散域中无用发射的限值以及杂散发射的测量方法；

d) ITU-R SM.1541建议书规定了OoB域的无用发射限值，并鼓励为每个系统和每个频段制定更为具体的限值；

e) ITU-R M.1579建议书为IMT-2000和IMT-Advanced MS的全球漫游奠定了技术基础；

f) ITU-R M.2150建议书提供了“国际移动通信-2020（IMT-2020）地面无线接口的详细规范”，并特别建议IMT-2020的地面无线接口应为“3GPP 5G-SRIT”、“3GPP 5G-RIT”、“5Gi-RIT”和“DECT 5G-SRIT”，

注意到

为体现IMT-2020无线接口技术的广泛适用性，并保持与相关技术规范的一致性，本建议书的注释和附件 – 由于其内容基于各标准化机构正在开展的工作 – 可能包含反映这些技术在除已确定用于IMT的频段之外其他频段中应用的信息，

建议

1 应考虑附件1中与IMT-2020地面部分3GPP-5G SRIT无线接口规范相对应的移动电台无用发射特性（适用于表A1-1、表A1-3和表A1-6所列频段[2]），以确保采用3GPP-5G SRIT无线接口的IMT-2020地面网络之间的兼容性。

2 应考虑附件2[3]中与IMT-2020地面部分3GPP-5G RIT无线接口规范相对应的移动电台无用发射特性，以确保采用3GPP-5G RIT无线接口的IMT-2020地面网络之间的兼容性。

3 应考虑附件3[4]中与IMT-2020地面部分5Gi无线接口规范相对应的移动电台无用发射特性，以确保采用5Gi无线接口的IMT-2020地面网络之间的兼容性。

4 应考虑附件4[5]中与IMT-2020地面部分DECT-2020 NR-RIT Component无线接口规范相对应的移动电台无用发射特性，以确保采用DECT-2020 NR-RIT无线接口的IMT-2020地面网络之间的兼容性。

附件：4件

---

[2] 对于《无线电规则》中未确定用于IMT的频段中的3GPP-5G SRIT移动电台，表A1-2、A1-4和A1-7中的无用发射特性仅供参考，可用于国家层面的决策。

[3] 对于《无线电规则》中未确定用于IMT的频段中的3GPP-5G RIT移动电台，附件2中的无用发射特性仅供参考，可用于国家层面的决策。

[4] 对于《无线电规则》中未确定用于IMT的频段中的5Gi移动电台，附件3中的无用发射特性仅供参考，可用于国家层面的决策。

[5] 对于《无线电规则》中未确定用于IMT的频段中的DECT-2020 NR-RIT Component移动电台，附件4中的无用发射特性仅供参考，可用于国家层面的决策。

目录

页码

附件1 – 3GPP 5G-SRIT 6

1 E-UTRA的无用发射特性 6

1.1 操作频段和频道安排 6

1.2 射频频谱发射 182

1.3 接收机杂散发射 327

2 NR频率范围1独立组网模式下的一般无用发射特性 341

2.1 操作频段和信道安排 341

2.2 射频频谱发射 521

2.2A CA的输出RF频谱发射 537

2.2B NR-DC的输出RF频谱发射 551

2.2C SUL的RF频谱发射输出 552

2.2D UL MIMO的射频频谱发射 556

2.2E V2X的射频频谱发射 561

2.2F 共用频谱信道接入的射频频谱发射 566

2.2G 发射分集的射频频谱发射 568

3 NR频率范围2独立组网模式下的一般无用发射特性 569

3.1 操作频段和信道安排 569

3.2 射频频谱发射 599

3.2A CA的输出RF频谱发射 602

3.2D UL MIMO的射频频谱发射 607

4 NR频率范围1和范围2独立组网模式下的一般无用发射特性 611

4.1 操作频段和信道安排 611

4.2 输出射频频谱发射 693

5 参考文献 746

附件1的附录1 – 测试容限的定义 747

附件2 – 3GPP 5G-RIT 747

附件3 – 5Gi RIT 747

附件4 – DECT-2020 NR – RIT组件 748

附件4的后附资料1 – 测试容限的定义 753

附件1

3GPP 5G-SRIT[6]

本附件包含适用于移动台的长期演进（LTE）和新空口（NR）各版本规范中的无用发射要求。在3GPP术语中，“演进的UMTS地面无线电接入”（E-UTRA）一词也用于表示LTE无线接口。

本附件分为四个部分：

– 第1章包含E-UTRA MS无用发射要求。
– 第2章包含NR范围1独立的无用发射要求。
– 第3章包含NR范围2独立的无用发射要求。
– 第4章包含NR范围1和范围2与其他无线电设备的互通操作。

本附件中规定的值结合了ITU-R M.1545建议书[10]中定义的测试容限。

本附件收录了源自转化标准的相关内容，并通过相应的表格和章节进行了组织和说明。

1 E-UTRA的无用发射特性

1.1 操作频段和频道安排

1.1.1 操作频段

E-UTRA设计用于在表A1-1和表A1-2中规定的FR1操作频段内工作。

6 此技术方案由3GPP作为提案方开发，提交名称为“5G，Release 15及后续版本 – LTE+NR SRIT”

表A1-1

由E-UTRA使用并在《无线电规则》中确定用于IMT的频段

E-UTRA操作频段	上行链路（UL）操作频段 BS接收/UE发射 F_{UL}_low – FUL_high	下行链路（DL）操作频段 BS发射/UE接收 F_{DL}_low – FDL_high	双工模式	为各国/各区域确定IMT频段或其中一部分的脚注
1	1 920 MHz – 1 980 MHz	2 110 MHz – 2 170 MHz	FDD	**5.388**
2	1 850 MHz – 1 910 MHz	1 930 MHz – 1 990 MHz	FDD	**5.384A、5.388**
3	1 710 MHz – 1 785 MHz	1 805 MHz – 1 880 MHz	FDD	**5.384A**
4	1 710 MHz – 1 755 MHz	2 110 MHz – 2 155 MHz	FDD	**5.384A、5.388**
5	824 MHz – 849 MHz	869 MHz – 894 MHz	FDD	**5.317A**
6[1]	830 MHz – 840 MHz	875 MHz – 885 MHz	FDD	**5.317A**
7	2 500 MHz – 2 570 MHz	2 620 MHz – 2 690 MHz	FDD	**5.384A**
8	880 MHz – 915 MHz	925 MHz – 960 MHz	FDD	**5.317A**
9	1 749.9 MHz – 1 784.9 MHz	1 844.9 MHz – 1 879.9 MHz	FDD	**5.384A**
10	1 710 MHz – 1 770 MHz	2 110 MHz – 2 170 MHz	FDD	**5.384A、5.388**
11	1 427.9 MHz – 1 447.9 MHz	1 475.9 MHz – 1 495.9 MHz	FDD	**5.341A、5.341B、5.341C、5.346、5.346A**
12	699 MHz – 716 MHz	729 MHz – 746 MHz	FDD	**5.313A、5.317A**
13	777 MHz – 787 MHz	746 MHz – 756 MHz	FDD	**5.313A、5.317A**
14	788 MHz – 798 MHz	758 MHz – 768 MHz	FDD	**5.313A、5.317A**
15	保留	保留	FDD	
16	保留	保留	FDD	
17	704 MHz – 716 MHz	734 MHz – 746 MHz	FDD	**5.313A、5.317A**
18	815 MHz – 830 MHz	860 MHz – 875 MHz	FDD	**5.313A、5.317A**
19	830 MHz – 845 MHz	875 MHz – 890 MHz	FDD	**5.313A，**
20	832 MHz – 862 MHz	791 MHz – 821 MHz	FDD	**5.317A**
21	1 447.9 MHz – 1 462.9 MHz	1 495.9 MHz – 1 510.9 MHz	FDD	**5.341A、5.341B、5.341C、5.346、5.346A**
22	3 410 MHz – 3 490 MHz	3 510 MHz – 3 590 MHz	FDD	**5.430A、5.431B、5.432A、5.432B、5.433A**
231	2 000 MHz – 2 020 MHz	2 180 MHz – 2 200 MHz	FDD	**5.388**
25	1 850 MHz – 1 915 MHz	1 930 MHz – 1 995 MHz	FDD	**5.384A、5.388**
26	814 MHz – 849 MHz	859 MHz – 894 MHz	FDD	**5.317A**
27	807 MHz – 824 MHz	852 MHz – 869 MHz	FDD	**5.317A**

E-UTRA操作频段	上行链路（UL）操作频段 BS接收/UE发射 F_{UL}_low – FUL_high	下行链路（DL）操作频段 BS发射/UE接收 F_{DL}_low – FDL_high	双工模式	为各国/各区域确定IMT频段或其中一部分的脚注
28	703 MHz – 748 MHz	758 MHz – 803 MHz	FDD	5.313A、5.317A
29	不适用	717 MHz – 728 MHz	FDD[2]	5.313A、5.317A
30	2 305 MHz – 2 315 MHz	2 350 MHz – 2 360 MHz	FDD[15]	5.384A
31	452.5 MHz – 457.5 MHz	462.5 MHz – 467.5 MHz	FDD	5.286AA
32	不适用	1 452 MHz – 1 496 MHz	FDD[2]	5.341A、5.341B、5.341C、5.346、5.346A
33	1 900 MHz – 1 920 MHz	1 900 MHz – 1 920 MHz	TDD	5.388
34	2 010 MHz – 2 025 MHz	2 010 MHz – 2 025 MHz	TDD	5.388
35	1 850 MHz – 1 910 MHz	1 850 MHz – 1 910 MHz	TDD	5.384A、5.388
36	1 930 MHz – 1 990 MHz	1 930 MHz – 1 990 MHz	TDD	5.388
37	1 910 MHz – 1 930 MHz	1 910 MHz – 1 930 MHz	TDD	5.388
38	2 570 MHz – 2 620 MHz	2 570 MHz – 2 620 MHz	TDD	5.384A的
39	1 880 MHz – 1 920 MHz	1 880 MHz – 1 920 MHz	TDD	5.384A、5.388
40	2 300 MHz – 2 400 MHz	2 300 MHz – 2 400 MHz	TDD	5.384A的
42	3 400 MHz – 3 600 MHz	3 400 MHz – 3 600 MHz	TDD	5.430A、5.431B、5.432A、5.432B、5.433A
44	703 MHz – 803 MHz	703 MHz – 803 MHz	TDD	5.313A、5.317A
45	1 447 MHz – 1 467 MHz	1 447 MHz – 1 467 MHz	TDD	5.341A、5.341B、5.341C、5.346、5.346A
48	3 550 MHz – 3 700 MHz	3 550 MHz – 3 700 MHz	TDD	5.430A、5.431B、5.433A、5.433B、5.434、5.434B
50	1 432 MHz - 1 517 MHz	1 432 MHz - 1 517 MHz	TDD[13]	5.341A、5.341B、5.341C、5.346、5.346A
51	1 427 MHz - 1 432 MHz	1 427 MHz - 1 432 MHz	TDD[13]	5.341A、5.341B、5.341C
65	1 920 MHz – 2 010 MHz	2 110 MHz – 2 200 MHz	FDD	5.388
66	1 710 MHz – 1 780 MHz	2 110 MHz – 2 200 MHz	FDD[4]	5.384A、5.388
67	不适用	738 MHz – 758 MHz	FDD[2]	5.313A、5.317A
68	698 MHz – 728 MHz	753 MHz – 783 MHz	FDD	5.313A、5.317A
69	不适用	2 570 MHz – 2 620 MHz	FDD[2]	5.384A的
71	663 MHz – 698 MHz	617 MHz – 652 MHz	FDD	5.296A、5.308A、5.307A
72	451 MHz – 456 MHz	461 MHz – 466 MHz	FDD	5.286AA
73	450 MHz – 455 MHz	460 MHz – 465 MHz	FDD	5.286AA
74	1 427 MHz – 1 470 MHz	1 475 MHz – 1 518 MHz	FDD	5.341A、5.341B、5.341C、5.346、5.346A

E-UTRA操作频段	上行链路（UL）操作频段 BS接收/UE发射 F_{UL}_low – FUL_high	下行链路（DL）操作频段 BS发射/UE接收 F_{DL}_low – FDL_high	双工模式	为各国/各区域确定IMT频段或其中一部分的脚注
75	不适用	1 432 MHz – 1 517 MHz	FDD[2]	**5.341A、5.341B、5.341C、5.346、5.346A**
76	不适用	1 427 MHz – 1 432 MHz	FDD[2]	**5.341A、5.341B、5.341C**
85	698 MHz – 716 MHz	728 MHz – 746 MHz	FDD	**5.313A、5.317A**

表A1-2

由E-UTRA使用但尚未或未完全确定用于《无线电规则》中IMT的频段

E-UTRA操作频段	上行链路（UL）操作频段 BS接收/UE发射 F_{UL}_low – FUL_high	下行链路（DL）操作频段 BS发射/UE接收 F_{DL}_low – FDL_high	双工模式	为各国/各区域确定IMT频段或其中一部分的脚注
24[17]	1 626.5 MHz – 1 660.5 MHz	1 525 MHz – 1 559 MHz	FDD	在《无线电规则》中未确定用于IMT
41	2 496 MHz – 2 690 MHz	2 496 MHz – 2 690 MHz	TDD	**5.384A的**
43	3 600 MHz – 3 800 MHz	3 600 MHz – 3 800 MHz	TDD	**5.433B、5.434、5.434B 5.435B**
46	5 150 MHz – 5 925 MHz	5 150 MHz – 5 925 MHz	TDD[8,9]	在《无线电规则》中未确定用于IMT
47	5 855 MHz – 5 925 MHz	5 855 MHz – 5 925 MHz	TDD[11]	在《无线电规则》中未确定用于IMT
53	2 483.5 MHz – 2 495 MHz	2 483.5 MHz - 2 495 MHz	TDD	在《无线电规则》中未确定用于IMT
70	1 695 MHz – 1 710 MHz	1 995 MHz – 2 020 MHz	FDD[10]	**5.388**
87	410 MHz – 415 MHz	420 MHz – 425 MHz	FDD	在《无线电规则》中未确定用于IMT
88	412 MHz – 417 MHz	422 MHz – 427 MHz	FDD	在《无线电规则》中未确定用于IMT

注 1 – 频段6、23不适用。

注2 – 限于配置载波聚合时的E-UTRA操作。该下行操作频段与支撑所配置主小区（PCell）的载波聚合配置中对应的上行工作频段（外部频段）构成配对关系。

注3 – 符合本规范E-UTRA频段65最低要求的UE，亦应符合E-UTRA频段1的最低要求。

注4 – 在启用载波聚合配置的情况下，下行操作频段内 2 180–2 200 MHz 频段仅允许用于 E-UTRA（LTE）业务操作。

注5 – 支持E-UTRA频段66的UE应在整个DL操作频段接收。

注6 – 支持E-UTRA频段66和任何CA频段中CA操作的UE，还应符合DL CA配置CA_66B、CA_66C和CA_66A-66A的最低要求。

注7 – 符合本规范中E-UTRA频段66最低要求的UE，亦应符合E-UTRA频段4的最低要求。

注 8 – 此频段是非许可频段，仅限使用帧结构类型3的许可辅助操作。

注9 – 在本版本的规范中，在启用配置载波聚合的情况下，仅限于E-UTRA DL操作。

注10 – 当配置了载波聚合且TX-RX间隔为300 MHz时，DL操作频段的2 010-2 020 MHz范围限于进行E-UTRA操作，当配置了载波聚合且TX-RX间隔为295 MHz时，DL操作频段的2 005-2 020 MHz范围限于进行E-UTRA操作。

注11：此频段是用于V2X通信的免许可频段。预计在此频段内没有网络部署，因此使用帧结构类型1。

注12 – 符合本规范E-UTRA频段74最低要求的UE，亦应符合E-UTRA频段11和频段21的最低要求。

注13 – 符合本规范E-UTRA频段50最低要求的UE，亦应符合E-UTRA频段51的最低要求。

注14 – 符合本规范E-UTRA频段75最低要求的UE，亦应符合E-UTRA频段76的最低要求。

注15 – 对于带有外置车载天线的UE，不允许在该频段进行上行链路传输。

注 16 – 此频段仅限使用帧结构类型3的许可辅助操作。

注17 – 此频段的DL操作限制使用1 526-1 536 MHz，UL操作限制使用1 627.5-1 637.5 MHz和1 646.5-1 656.5 MHz。

用于E-UTRA载波聚合的UE操作频段在TS 36.101 [1]中的第5.5A节定义。

E-UTRA UL-MIMO的UE操作频段在TS 36.101 [1]中的第5.5B节定义。

E-UTRA双连接的UE操作频段在TS 36.101 [1]中的第5.5C节定义。

E-UTRA ProSe的UE操作频段在TS 36.101 [1]中的第5.5D节定义。

UE类别0、UE类别M1和M2以及UE类别1bis的UE操作频段在TS 36.101 [1]中的第5.5E节定义。

类别NB1和NB2的UE操作频段在TS 36.101 [1]中的第5.5F节定义。

V2X通信的UE操作频段在TS 36.101 [1]中的第5.5G节定义。

5.5A Operating bands for CA

E-UTRA carrier aggregation is designed to operate in the operating bands defined in Tables 5.5A-1, 5.5A-2, 5.5A-2a, 5.5A-2b, 5.5A-2c and 5.5A-3.

Table 5.5A-1: Intra-band contiguous CA operating bands

E-UTRA CA Band	E-UTRA Band (Table 5.5.1)
CA_1	1
CA_2	2
CA_3	3
CA_5	5
CA_7	7
CA_8	8
CA_12	12
CA_23	23
CA_27	27
CA_28	28
CA_38	38
CA_39	39
CA_40	40
CA_41	41
CA_42	42

CA_43	43
CA_48	48
CA_66	66
CA_70	70

Table 5.5A-2: Inter-band CA operating bands (two bands)

E-UTRA CA Band	E-UTRA Band (Table 5.5.1)
CA_1-3	1, 3
CA_1-1-3	1,3
CA_1-1-5	1,5
CA_1-1-7	1,7
CA_1-1-28	1,28
CA_1-3-3	1, 3
CA_1-5	1, 5
CA_1-7	1, 7
CA_1-7-7	1, 7
CA_1-8	1, 8
CA_1-11	1, 11
CA_1-18	1, 18
CA_1-19	1, 19
CA_1-20	1, 20
CA_1-21	1, 21
CA_1-26	1, 26
CA_1-28	1, 28
CA_1-32	1, 32
CA_1-38	1, 38
CA_1-1-38	1, 38
CA_1-40	1, 40
CA_1-40-40	1, 40
CA_1-41	1, 41
CA_1-42	1, 42
CA_1-42-42	1, 42
CA_1-43	1, 43
CA_1-46	1, 46
CA_2-4	2, 4
CA_2-2-4	2, 4
CA_2-2-4-4	2, 4
CA_2-4-4	2, 4
CA_2-5	2, 5
CA_2-2-5	2, 5
CA_2-2-7	2, 7
CA_2-2-7-7	2, 7
CA_2-7	2, 7
CA_2-7-7	2, 7
CA_2-8	2, 8
CA_2-12	2, 12
CA_2-2-12	2, 12
CA_2-2-12-12	2, 12
CA_2-2-29	2, 29
CA_2-12-12	2, 12
CA_2-13	2, 13
CA_2-2-13	2, 13
CA_2-14	2, 14
CA_2-2-14	2, 14

	CA_2-17	2, 17	
	CA_2-26	2, 26	
	CA_2-28	2, 28	
	CA_2-29	2, 29	
	CA_2-30	2, 30	
	CA_2-2-30	2, 30	
	CA_2-46	2, 46	
	CA_2-2-46	2, 46	
	CA_2-46-46	2, 46	
	CA_2-48-48	2, 48	
	CA_2-49	2, 49	
	CA_2-66	2, 66	
	CA_2-48	2, 48	
	CA_2-2-66	2, 66	
	CA_2-2-66-66	2, 66	
	CA_2-66-66	2, 66	
	CA_2-66-66-66	2, 66	
	CA_2-71	2, 71	
	CA_2-2-71	2, 71	
	CA_3-5	3, 5	
	CA_3-3-5	3, 3, 5	
	CA_3-7	3, 7	
	CA_3-3-7	3, 7	
	CA_3-3-7-7	3, 7	
	CA_3-7-7	3, 7	
	CA_3-8	3, 8	
	CA_3-3-8	3, 8	
	CA_3-11	3, 11	
	CA_3-18	3, 18	
	CA_3-19	3, 19	
	CA_3-3-19	3, 19	
	CA_3-20	3, 20	
	CA_3-3-20	3, 20	
	CA_3-3-21	3, 21	
	CA_3-3-28	3, 28	
	CA_3-3-41	3, 41	
	CA_3-3-42	3, 42	
	CA_3-21	3, 21	
	CA_3-26	3, 26	
	CA_3-27	3, 27	
	CA_3-28	3, 28	
	CA_3-31	3, 31	
	CA_3-32	3, 32	
	CA_3-38	3, 38	
	CA_3-40	3, 40	
	CA_3-40-40	3, 40	
	CA_3-41	3, 41	
	CA_3-42	3, 42	
	CA_3-42-42	3, 42	
	CA_3-43	3, 43	
	CA_3-46	3, 46	
	CA_3-3-46	3, 46	
	CA_3-69	3, 69	
	CA_4-5	4, 5	
	CA_4-4-5	4, 5	
	CA_4-7	4, 7	
	CA_4-4-7	4, 7	

	CA_4-7-7	4, 7	
	CA_4-12	4, 12	
	CA_4-4-12	4, 12	
	CA_4-4-12-12	4, 12	
	CA_4-12-12	4, 12	
	CA_4-13	4, 13	
	CA_4-4-13	4, 13	
	CA_4-17	4, 17	
	CA_4-27	4, 27	
	CA_4-28	4, 28	
	CA_4-29	4, 29	
	CA_4-4-29	4, 29	
	CA_4-30	4, 30	
	CA_4-4-30	4, 30	
	CA_4-46	4, 46	
	CA_4-46-46	4, 46	
	CA_4-48	4, 48	
	CA_4-71	4,71	
	CA_4-4-71	4, 71	
	CA_5-5-40	5, 40	
	CA_5-7	5, 7	
	CA_5-7-7	5, 7	
	CA_5-12	5, 12	
	CA_5-12-12	5, 12	
	CA_5-13	5 ,13	
	CA_5-17	5, 17	
	CA_5-25	5, 25	
	CA_5-28	5, 28	
	CA_5-29	5, 29	
	CA_5-30	5, 30	
	CA_5-38	5, 38	
	CA_5-40	5, 40	
	CA_5-40-40	5, 40	
	CA_5-41	5, 41	
	CA_5-46	5, 46	
	CA_5-48	5, 48	
	CA_5-66	5, 66	
	CA_5-5-66	5, 66	
	CA_5-66-66	5, 66	
	CA_5-5-66-66	5, 66	
	CA_7-8	7, 8	
	CA_7-7-8	7, 8	
	CA_7-12	7, 12	
	CA_7-20	7, 20	
	CA_7-22	7, 22	
	CA_7-35	7, 25	
	CA_7-26	7, 26	
	CA_7-7-26	7, 26	
	CA_7-28	7, 28	
	CA_7-7-28	7, 28	
	CA_7-29	7,29	
	CA_7-7-29	7,29	
	CA_7-30	7, 30	
	CA_7-32	7, 32	
	CA_7-40	7, 40	
	CA_7-40-40	7, 40	
	CA_7-42	7, 42	

	CA_7-42-42	7, 42	
	CA_7-46	7, 46	
	CA_7-7-46	7, 46	
	CA_7-7-66	7, 66	
	CA_7-66	7, 66	
	CA_7-66-66	7, 66	
	CA_7-7-66-66	7, 66	
	CA_8-11	8, 11	
	CA_8-20	8, 20	
	CA_8-27	8, 27	
	CA_8-28	8, 28	
	CA_8-32	8, 32	
	CA_8-38	8, 38	
	CA_8-39	8, 39	
	CA_8-40	8, 40	
	CA_8-41	8, 41	
	CA_8-42	8, 42	
	CA_8-46	8, 46	
	CA_11-18	11, 18	
	CA_11-26	11, 26	
	CA_11-28	11, 28	
	CA_11-41	11, 41	
	CA_11-42	11, 42	
	CA_11-46	11, 46	
	CA_12-25	12, 25	
	CA_12-30	12, 30	
	CA_12-46	12, 46	
	CA_12-48	12, 48	
	CA_12-48	12, 48	
	CA_12-66	12, 66	
	CA_12-66-66	12, 66	
	CA_13-46	13, 46	
	CA_13-46-46	13, 46	
	CA_13-48	13, 48	
	CA_13-48-48	13, 48	
	CA_13-66	13, 66	
	CA_13-66-66	13, 66	
	CA_14-66	14, 66	
	CA_14-66-66	14, 66	
	CA_14-66-66-66	14, 66	
	CA_14-30	14, 30	
	CA_18-28[1]	18, 28	
	CA_18-42	18, 42	
	CA_19-21	19, 21	
	CA_19-28[2]	19, 28	
	CA_19-42	19, 42	
	CA_19-46	19, 46	
	CA_20-28[1]	20, 28	
	CA_20-31	20, 31	
	CA_20-32	20, 32	
	CA_20-38	20, 38	
	CA_20-40	20, 40	
	CA_20-40-40	20, 40	
	CA_20-42	20, 42	
	CA_20-42-42	20, 42	
	CA_20-43	20, 43	
	CA_20-67	20, 67	

	CA_20-75	20, 75	
	CA_20-76	20, 76	
	CA_21-28	21, 28	
	CA_21-42	21, 42	
	CA_21-46	21, 46	
	CA_23-29	23, 29	
	CA_25-26	25, 26	
	CA_25-25-26	25, 26	
	CA_25-41	25, 41	
	CA_25-25-41	25, 41	
	CA_25-46	25, 46	
	CA_25-66	25, 66	
	CA_26-41	26, 41	
	CA_26-46	26, 46	
	CA_26-48	26,48	
	CA_26-48-48	26,48	
	CA_26-66	26, 66	
	CA_28-32	28, 32	
	CA_28-38	28,38	
	CA_28-40	28, 40	
	CA_28-40-40	28, 40	
	CA_28-41	28, 41	
	CA_28-42	28, 42	
	CA_28-42-42	28, 42	
	CA_28-46	28, 46	
	CA_28-66	28, 66	
	CA_29-30	29, 30	
	CA_29-66	29, 66	
	CA_29-66-66	29, 66	
	CA_29-70	29, 70	
	CA_30-66	30, 66	
	CA_30-66-66	30, 66	
	CA_32-42	32, 42	
	CA_32-43	32, 43	
	CA_34-39	34, 39	
	CA_34-41	34, 41	
	CA_38-40	38, 40	
	CA_38-40-40	38, 40	
	CA_39-41	39, 41	
	CA_39-40	39, 40	
	CA_39-42	39, 42	
	CA_39-46	39, 46	
	CA_40-41	40, 41	
	CA_40-42	40, 42	
	CA_40-43	40, 43	
	CA_40-46	40, 46	
	CA_41-42	41, 42	
	CA_41-42-42	41, 42	
	CA_41-46	41, 46	
	CA_41-48	41, 48	
	CA_42-43	42,43	
	CA_42-46	42, 46	
	CA_46-48	46, 48	
	CA_46-48-48	46, 48	
	CA_46-53	46, 53	
	CA_46-66	46, 66	
	CA_46-46-66	46, 66	

CA_46-66-66	46, 66
CA_46-70	46, 70
CA_46-71	46, 71
CA_48-53	48, 53
CA_48-66	48, 66
CA_48-66-66	48, 66
CA_48-48-66-66	48, 66
CA_48-48-66	48, 66
CA_48-71	48, 71
CA_48-48-71	48, 71
CA_66-70	66,70
CA_66-66-70	66,70
CA_66-71	66, 71
CA_66-66-71	66, 71
CA_70-71	70, 71
NOTE 1: The frequency range in band 28 is restricted for this CA band combination to 703-733 MHz for the UL and 758-788 MHz for the DL. This restriction also apply for any band combinations when CA_20-28 is a subset of a higher order band combination. NOTE 2: The frequency range in band 28 is restricted for this CA band combination to 718-748 MHz for the UL and 773-803 MHz for the DL	

Table 5.5A-2a: Inter-band CA operating bands (three bands)

E-UTRA CA Band	E-UTRA Band (Table 5.5.1)
CA_1-3-5	1, 3, 5
CA_1-3-3-5	1, 3, 5
CA_1-1-3-5	1, 3, 5
CA_1-1-3-7	1, 3, 7
CA_1-1-3-3-7	1, 3, 7
CA_1-3-7	1, 3, 7
CA_1-3-3-7	1, 3, 7
CA_1-3-3-7-7	1, 3, 7
CA_1-3-7-7	1, 3, 7
CA_1-3-8	1, 3, 8
CA_1-3-3-8	1, 3, 8
CA_1-3-3-43	1, 3, 43
CA_1-3-11	1, 3, 11
CA_1-3-18	1, 3, 18
CA_1-3-19	1, 3, 19
CA_1-3-3-19	1, 3, 19
CA_1-3-20	1, 3, 20
CA_1-3-3-20	1, 3, 20
CA_1-3-21	1, 3, 21
CA_1-3-3-21	1, 3, 21
CA_1-3-26	1, 3, 26
CA_1-3-28	1, 3, 28
CA_1-3-3-28	1, 3, 28
CA_1-1-3-28	1, 3, 28
CA_1-1-3-3-28	1, 3, 28
CA_1-3-32	1, 3, 32
CA_1-3-38	1, 3, 38
CA_1-1-3-38	1, 3, 38
CA_1-3-40	1, 3, 40
CA_1-3-40-40	1, 3, 40, 40
CA_1-3-41	1, 3, 41
CA_1-3-42	1, 3, 42
CA_1-3-3-42	1, 3, 42
CA_1-3-42-42	1, 3, 42

	CA_1-3-43	1, 3, 43	
	CA_1-3-46	1, 3, 46	
	CA_1-5-7	1, 5, 7	
	CA_1-5-7-7	1, 5, 7	
	CA_1-5-28[2]	1, 5, 28	
	CA_1-5-40	1, 5, 40	
	CA_1-5-41	1, 5, 41	
	CA_1-5-46	1, 5, 46	
	CA_1-7-8	1, 7, 8	
	CA_1-7-7-8	1, 7, 8	
	CA_1-7-20	1, 7, 20	
	CA_1-7-7-20	1, 7, 20	
	CA_1-7-26	1, 7, 26	
	CA_1-7-7-26	1, 7, 26	
	CA_1-7-28	1, 7, 28	
	CA_1-7-32	1, 7, 32	
	CA_1-7-38	1, 7, 38	
	CA_1-1-7-38	1, 7, 38	
	CA_1-7-40	1, 7, 40	
	CA_1-7-40-40	1, 7, 40, 40	
	CA_1-7-42	1, 7, 42	
	CA_1-7-46	1, 7, 46	
	CA_1-8-11	1, 8, 11	
	CA_1-8-20	1, 8, 20	
	CA_1-8-28	1, 8, 28	
	CA_1-8-32	1, 8, 32	
	CA_1-8-38	1, 8, 38	
	CA_1-8-40	1, 8, 40	
	CA_1-8-41	1, 8, 41	
	CA_1-8-42	1, 8, 42	
	CA_1-11-18	1, 11, 18	
	CA_1-11-28	1, 11, 28	
	CA_1-11-42	1, 11, 42	
	CA_1-18-28[1]	1, 18, 28	
	CA_1-18-41	1, 18, 41	
	CA_1-18-42	1, 18, 42	
	CA_1-19-21	1, 19, 21	
	CA_1-19-28[2]	1, 19, 28	
	CA_1-19-42	1, 19, 42	
	CA_1-20-28	1, 20, 28	
	CA_1-20-32	1, 20, 32	
	CA_1-20-38	1, 20, 38	
	CA_1-20-42	1, 20, 42	
	CA_1-20-43	1, 20, 43	
	CA_1-21-28	1, 21, 28	
	CA_1-21-42	1, 21, 42	
	CA_1-28-32	1, 28, 32	
	CA_1-28-38	1, 28, 38	
	CA_1-28-40	1, 28, 40	
	CA_1-28-40-40	1, 28, 40, 40	
	CA_1-28-42	1, 28, 42	
	CA_1-32-38	1, 32, 38	
	CA_1-32-42	1, 32, 42	
	CA_1-32-43	1, 32, 43	
	CA_1-40-41	1, 40, 41	
	CA_1-41-42	1, 41, 42	
	CA_1-42-42	1, 42, 42	
	CA_1-42-43	1, 42, 43	
	CA_2-4-5	2, 4, 5	
	CA_2-2-4-5	2, 4, 5	
	CA_2-4-4-5	2, 4, 5	
	CA_2-4-12-12	2, 4, 12	
	CA_2-5-12-12	2, 5, 12	
	CA_2-2-5-7	2, 5, 7	
	CA_2-2-5-30	2, 5, 30	

	CA_2-5-46	2, 5, 46	
	CA_2-2-5-66	2, 5, 66	
	CA_2-2-7-12	2, 7, 12	
	CA_2-2-7-66	2, 7, 66	
	CA_2-7-66-66	2, 7, 66	
	CA_2-2-12-30	2, 12, 30	
	CA_2-2-12-66	2, 12, 66	
	CA_2-2-12-66-66	2, 12, 66	
	CA_2-2-13-66	2, 13, 66	
	CA_2-2-14-66-66	2, 14, 66	
	CA_2-2-30-66	2, 30, 66	
	CA_2-4-7	2, 4, 7	
	CA_2-4-7-7	2, 4, 7	
	CA_2-4-12	2, 4, 12	
	CA_2-2-4-12	2, 4, 12	
	CA_2-2-5-66-66	2, 5, 66	
	CA_2-4-4-12	2, 4, 12	
	CA_2-4-13	2, 4, 13	
	CA_2-4-28	2, 4, 28	
	CA_2-4-29	2, 4, 29	
	CA_2-4-30	2, 4, 30	
	CA_2-4-71	2, 4, 71	
	CA_2-2-4-71	2, 4, 71	
	CA_2-5-7	2, 5, 7	
	CA_2-5-7-7	2, 5, 7	
	CA_2-5-12	2, 5, 12	
	CA_2-2-5-12	2, 5, 12	
	CA_2-5-13	2, 5, 13	
	CA_2-5-28	2, 5, 28	
	CA_2-5-29	2, 5, 29	
	CA_2-5-30	2, 5, 30	
	CA_2-5-46	2, 5, 46	
	CA_2-5-66	2, 5, 66	
	CA_2-5-66-66	2, 5, 66	
	CA_2-7-12	2, 7, 12	
	CA_2-7-13	2, 7, 13	
	CA_2-2-7-13	2, 7, 13	
	CA_2-2-7-7-13	2, 7, 13	
	CA_2-7-26	2, 7, 26	
	CA_2-7-28	2, 7, 28	
	CA_2-7-29	2, 7, 29	
	CA_2-7-30	2, 7, 30	
	CA_2-7-46	2, 7, 46	
	CA_2-7-66	2, 7, 66	
	CA_2-7-7-66	2, 7, 66	
	CA_2-7-66-66	2, 7, 66	
	CA_2-7-7-66-66	2, 7, 66	
	CA_2-2-7-66-66	2, 7, 66	
	CA_2-12-30	2, 12, 30	
	CA_2-12-66	2, 12, 66	
	CA_2-12-66-66	2, 12, 66	
	CA_2-13-46	2, 13, 46	
	CA_2-13-48	2, 13, 48	
	CA_2-13-48-48	2, 13, 48	
	CA_2-13-66	2, 13, 66	
	CA_2-13-66-66	2, 13, 66	
	CA_2-14-30	2, 14, 30	
	CA_2-2-14-30	2, 14, 30	
	CA_2-14-66	2, 14, 66	
	CA_2-2-14-66	2, 14, 66	
	CA_2-14-66-66	2, 14, 66	
	CA_2-14-66-66-66	2, 14, 66	
	CA_2-26-66	2, 26, 66	
	CA_2-28-66	2, 28, 66	
	CA_2-2-29-30	2, 29, 30	

	CA_2-29-30	2, 29, 30	
	CA_2-29-66	2, 29, 66	
	CA_2-30-66	2, 30, 66	
	CA_2-30-66-66	2, 30, 66	
	CA_2-46-48	2, 46, 48	
	CA_2-46-66	2, 46, 66	
	CA_2-46-46-66	2, 46, 66	
	CA_2-48-66	2, 48,66	
	CA_2-48-48-66	2, 48, 66	
	CA_2-66-71	2, 66, 71	
	CA_2-2-66-71	2, 66, 71	
	CA_2-66-66-71	2, 66, 71	
	CA_3-5-7	3, 5, 7	
	CA_3-5-7-7	3, 5, 7	
	CA_3-5-28	3, 5, 28	
	CA_3-3-5-28[2]	3, 5, 28	
	CA_3-5-40	3, 5, 40	
	CA_3-5-40-40	3, 5, 40	
	CA_3-5-41	3, 5, 41	
	CA_3-3-7-8	3, 7, 8	
	CA_3-3-7-7-8	3, 7, 8	
	CA_3-7-7-8	3, 7, 8	
	CA_3-7-8	3, 7, 8	
	CA_3-7-20	3, 7, 20	
	CA_3-3-7-20	3, 7, 20	
	CA_3-7-7-20	3, 7, 20	
	CA_3-7-26	3, 7, 26	
	CA_3-7-7-26	3, 7, 26	
	CA_3-7-28	3, 7, 28	
	CA_3-3-7-28	3, 7, 28	
	CA_3-7-32	3, 7, 32	
	CA_3-7-38	3, 7, 38	
	CA_3-3-7-38	3, 7, 38	
	CA_3-7-40	3, 7, 40	
	CA_3-7-40-40	3, 7, 40, 40	
	CA_3-7-42	3, 7, 42	
	CA_3-7-46	3, 7, 46	
	CA_3-8-11	3, 8, 11	
	CA_3-8-20	3, 8, 20	
	CA_3-8-28	3, 8, 28	
	CA_3-8-32	3, 8, 32	
	CA_3-8-38	3, 8, 38	
	CA_3-8-40	3, 8, 40	
	CA_3-8-41	3, 8, 41	
	CA_3-8-42	3, 8, 42	
	CA_3-11-18	3, 11,18	
	CA_3-11-26	3, 11, 26	
	CA_3-11-28	3, 11, 28	
	CA_3-18-42	3, 18, 42	
	CA_3-19-21	3, 19, 21	
	CA_3-3-19-21	3, 19, 21	
	CA_3-19-42	3, 19, 42	
	CA_3-20-28	3, 20, 28	
	CA_3-3-20-28	3, 20, 28	
	CA_3-20-32	3, 20, 32	
	CA_3-20-38	3, 20, 38	
	CA_3-20-42	3, 20, 42	
	CA_3-20-43	3, 20, 43	
	CA_3-21-28	3, 21, 28	
	CA_3-21-42	3, 21, 42	
	CA_3-28-32	3, 28, 32	
	CA_3-28-38	3, 28, 38	
	CA_3-28-40	3, 28, 40	
	CA_3-28-40-40	3, 28, 40, 40	
	CA_3-28-41	3, 28, 41	

	CA_3-28-42	3, 28, 42	
	CA_3-28-42-42	3, 28, 42	
	CA_3-32-42	3, 32, 42	
	CA_3-32-43	3, 32, 43	
	CA_3-32-46	3, 32, 46	
	CA_3-40-41	3, 40, 41	
	CA_3-41-42	3, 41, 42	
	CA_3-41-42-42	3, 41, 42	
	CA_3-42-43	3, 42, 43	
	CA_4-5-12	4, 5, 12	
	CA_4-4-5-12	4, 5, 12	
	CA_4-5-12-12	4, 5, 12	
	CA_4-5-13	4, 5, 13	
	CA_4-5-29	4, 5, 29	
	CA_4-5-30	4, 5, 30	
	CA_4-4-5-30	4, 5, 30	
	CA_4-7-12	4, 7, 12	
	CA_4-7-28	4, 7, 28	
	CA_4-12-30	4, 12, 30	
	CA_4-4-12-30	4, 12, 30	
	CA_4-29-30	4, 29, 30	
	CA_4-4-29-30	4, 29, 30	
	CA_5-7-28	5, 7, 28	
	CA_5-7-46	5, 7, 46	
	CA_5-7-66	5, 7, 66	
	CA_5-7-7-66	5, 7, 7, 66	
	CA_5-7-66-66	5, 7, 66, 66	
	CA_5-12-46	5, 12, 46	
	CA_5-12-48	5, 12, 48	
	CA_5-12-66	5, 12, 66	
	CA_5-30-66	5, 30, 66	
	CA_5-30-66-66	5, 30, 66	
	CA_5-40-41	5, 40, 41	
	CA_5-46-66	5, 46, 66	
	CA_5-46-66-66	5, 46, 66	
	CA_5-48-66	5, 48, 66	
	CA_5-48-66-66	5, 48, 66	
	CA_7-8-20	7, 8, 20	
	CA_7-8-28	7, 8, 28	
	CA_7-8-32	7, 8, 32	
	CA_7-8-38	7, 8, 38	
	CA_7-8-40	7, 8, 40	
	CA_7-12-66	7, 12, 66	
	CA_7-12-66-66	7, 12, 66	
	CA_7-13-66	7, 13, 66	
	CA_7-7-13-66	7, 13, 66	
	CA_7-20-28	7, 20, 28	
	CA_7-20-32	7, 20, 32	
	CA_7-20-38	7, 20, 38	
	CA_7-20-42	7, 20, 42	
	CA_7-25-66	7, 25, 66	
	CA_7-7-25-66	7, 7, 25, 66	
	CA_7-7-25-25-66	7, 7, 25, 25, 66	
	CA_7-25-25-66	7, 25, 25, 66	
	CA_7-26-66	7, 26, 66	
	CA_7-28-32	7, 28, 32	
	CA_7-28-38	7, 28, 38	
	CA_7-28-40	7, 28, 40	
	CA_7-28-40-40	7, 28, 40, 40	
	CA_7-28-66	7, 28, 66	
	CA_7-29-66	7, 29, 66	
	CA_7-7-29-66	7, 29, 66	
	CA_7-30-66	7, 30, 66	
	CA_7-32-46	7, 32, 46	
	CA_7-38-66	7, 38, 66	

CA_7-46-66	7, 46, 66
CA_8-11-28	8, 11, 28
CA_8-11-42	8, 11, 42
CA_8-20-28	8, 20, 28
CA_8-20-32	8, 20, 32
CA_8-20-38	8, 20, 38
CA_8-28-32	8, 28, 32
CA_8-28-41	8, 28, 41
CA_8-32-38	8, 32, 38
CA_8-39-41	8, 39 ,41
CA_8-40-41	8, 40, 41
CA_12-30-66	12, 30, 66
CA_12-30-66-66	12, 30, 66
CA_13-46-66	13, 46, 66
CA_13-48-66	13, 48, 66
CA_13-48-48-66	13, 48, 66
CA_14-30-66	14, 30, 66
CA_14-30-66-66	14, 30, 66
CA_19-21-42	19, 21, 42
CA_20-28-32	20, 28, 32
CA_20-28-38	20, 28, 38
CA_20-32-38	20, 32, 38
CA_20-32-42	20, 32, 42
CA_20-32-43	20, 32, 43
CA_20-38-40	20, 38, 40
CA_25-26-41	25, 26, 41
CA_25-25-26-41	25, 26, 41
CA_20-38-40-40	20, 38, 40
CA_21-28-42	21, 28, 42
CA_29-30-66-66	29, 30, 66
CA_28-41-42	28, 41, 42
CA_28-41-42-42	28, 41, 42
CA_29-30-66	29, 30, 66
CA_29-46-66	29, 46, 66
CA_29-66-70	29, 66, 70
CA_29-66-66-70	29, 66, 70
CA_32-42-43	32, 42, 43
CA_46-48-66	46, 48, 66
CA_46-48-71	46, 48, 71
CA_46-48-48-71	46, 48, 71
CA_66-70-71	66, 70, 71
CA_66-66-70-71	66, 70, 71
NOTE 1: The frequency range in band 28 is restricted for this CA band combination to 703-733 MHz for the UL and 758-788 MHz for the DL NOTE 2: The frequency range in band 28 is restricted for this CA band combination to 718-748 MHz for the UL and 773-803 MHz for the DL	

Table 5.5A-2b: Inter-band CA operating bands (four bands)

E-UTRA CA Band	E-UTRA Band (Table 5.5)
CA_1-3-5-7	1, 3, 5, 7
CA_1-3-3-5-7	1, 3, 5, 7
CA_1-3-5-7-7	1, 3, 5, 7
CA_1-3-5-28[2]	1, 3, 5, 28
CA_1-3-5-40	1, 3, 5, 40
CA_1-3-5-41	1, 3, 5, 41
CA_1-3-7-7-26	1, 3, 7, 26
CA_1-3-7-8	1, 3, 7, 8
CA_1-3-3-7-8	1, 3, 7, 8
CA_1-3-7-7-8	1, 3, 7, 8
CA_1-3-3-7-7-8	1, 3, 7, 8

	CA_1-3-7-20	1, 3, 7, 20	
	CA_1-3-7-7-20	1, 3, 7, 20	
	CA_1-3-3-7-20	1, 3, 7, 20	
	CA_1-3-7-26	1, 3, 7, 26	
	CA_1-3-7-28	1, 3, 7, 28	
	CA_1-1-3-7-28	1, 3, 7, 28	
	CA_1-3-3-7-28	1, 3, 7, 28	
	CA_1-1-3-3-7-28	1, 3, 7, 28	
	CA_1-3-7-7-28	1, 3, 7, 28	
	CA_1-3-7-32	1, 3, 7, 32	
	CA_1-3-7-38	1, 3, 7, 38	
	CA_1-1-3-7-38	1, 3, 7, 38	
	CA_1-3-3-7-38	1, 3, 7, 38	
	CA_1-3-7-40	1, 3, 7, 40	
	CA_1-3-7-40-40	1, 3, 7, 40	
	CA_1-3-7-42	1, 3, 7, 42	
	CA_1-3-7-46	1, 3, 7, 46	
	CA_1-3-8-11	1, 3, 8, 11	
	CA_1-3-8-20	1, 3, 8, 20	
	CA_1-3-8-28	1, 3, 8, 28	
	CA_1-3-8-38	1, 3, 8, 38	
	CA_1-3-3-8-38	1, 3, 8, 38	
	CA_1-3-11-28	1, 3, 11, 28	
	CA_1-3-8-40	1, 3, 8, 40	
	CA_1-3-8-41	1, 3, 8, 41	
	CA_1-3-8-42	1, 3, 8, 42	
	CA_1-3-18-42	1, 3, 18, 42	
	CA_1-3-19-21	1, 3,19, 21	
	CA_1-3-3-19-21	1, 3,19, 21	
	CA_1-3-19-42	1, 3,19, 42	
	CA_1-3-20-28[1]	1, 3, 20, 28	
	CA_1-3-3-20-28[1]	1, 3, 20, 28	
	CA_1-3-20-32	1, 3, 20, 32	
	CA_1-3-20-38	1, 3, 20, 38	
	CA_1-3-20-42	1, 3, 20, 42	
	CA_1-3-20-43	1, 3, 20, 43	
	CA_1-3-21-28	1, 3, 21, 28	
	CA_1-3-21-42	1, 3, 21, 42	
	CA_1-3-28-32	1, 3, 28, 32	
	CA_1-3-28-38	1, 3, 28, 38	
	CA_1-3-28-40	1, 3, 28, 40	
	CA_1-3-28-42	1, 3, 28, 42	
	CA_1-3-32-42	1, 3, 32, 42	
	CA_1-3-32-43	1, 3, 32, 43	
	CA_1-3-40-41	1, 3, 40, 41	
	CA_1-3-41-42	1, 3, 41, 42	
	CA_1-3-42-43	1, 3, 42, 43	
	CA_1-5-7-28[2]	1, 5, 7, 28	
	CA_1-5-7-7-28[2]	1, 5, 7, 28	
	CA_1-5-7-46	1, 5, 7, 46	
	CA_1-7-8-20	1, 7, 8, 20	
	CA_1-7-8-28	1, 7, 8, 28	
	CA_1-7-8-32	1, 7, 8, 32	
	CA_1-7-8-38	1, 7, 8, 38	
	CA_1-7-8-40	1, 7, 8, 40	
	CA_1-7-20-28	1, 7, 20, 28	
	CA_1-7-20-32	1, 7, 20, 32	
	CA_1-7-20-38	1, 7, 20, 38	
	CA_1-7-20-42	1, 7, 20, 42	
	CA_1-7-28-32	1, 7, 28, 32	

	CA_1-7-28-38	1, 7, 28, 38	
	CA_1-7-28-40	1, 7, 28, 40	
	CA_1-7-28-40-40	1, 7, 28, 40	
	CA_1-7-32-38	1, 7, 32, 38	
	CA_1-8-11-28	1, 8, 11, 28	
	CA_1-8-11-42	1, 8, 11, 42	
	CA_1-8-20-28	1, 8, 20, 28	
	CA_1-8-20-32	1, 8, 20, 32	
	CA_1-8-20-38	1, 8, 20, 38	
	CA_1-8-28-32	1, 8, 28, 32	
	CA_1-8-32-38	1, 8, 32, 38	
	CA_1-19-21-42	1, 19, 21, 42	
	CA_1-20-28-32[1]	1, 20, 28, 32	
	CA_1-20-28-38[1]	1, 20, 28, 38	
	CA_1-8-32-38	1, 8, 32, 38	
	CA_1-19-21-42	1, 19, 21, 42	
	CA_1-20-28-32	1, 20, 28, 38	
	CA_1-20-28-38	1, 20, 32, 38	
	CA_1-20-32-42	1, 20, 32, 42	
	CA_2-2-5-12-66	2, 5, 12, 66	
	CA_2-2-5-30-66	2, 5, 30, 66	
	CA_2-2-7-12-66	2. 7, 12, 66	
	CA_2-7-12-66-66	2. 7, 12, 66	
	CA_2-2-12-30-66	2, 12, 30, 66	
	CA_2-2-14-30-66	2, 14, 30, 66	
	CA_2-4-5-12	2, 4, 5, 12	
	CA_2-4-5-29	2, 4, 5, 29	
	CA_2-4-5-30	2, 4, 5, 30	
	CA_2-4-7-12	2, 4, 7, 12	
	CA_2-4-12-30	2, 4, 12, 30	
	CA_2-4-29-30	2, 4, 29, 30	
	CA_2-5-7-28	2, 5, 7, 28	
	CA_2-5-7-66	2, 5, 7, 66	
	CA_2-2-5-7-66	2, 5, 7, 66	
	CA_2-5-7-7-66	2, 5, 7, 66	
	CA_2-5-7-66-66	2, 5, 7, 66	
	CA_2-5-12-66	2, 5, 12, 66	
	CA_2-5-30-66	2, 5, 30, 66	
	CA_2-5-30-66-66	2, 5, 30, 66	
	CA_2-7-12-66	2, 7, 12, 66	
	CA_2-7-13-66	2, 7, 13, 66	
	CA_2-7-7-13-66	2, 7, 13, 66	
	CA_2-7-26-66	2, 7, 26, 66	
	CA_2-7-28-66	2, 7, 28, 66	
	CA_2-7-29-66	2, 7, 29, 66	
	CA_2-7-7-29-66	2, 7, 29, 66	
	CA_2-7-46-66	2, 7, 46, 66	
	CA_2-12-30-66	2, 12, 30, 66	
	CA_2-12-30-66-66	2, 12, 30, 66	
	CA_2-13-48-66	2, 13, 48, 66	
	CA_2-13-48-48-66	2, 13, 48, 66	
	CA_2-14-30-66	2, 14, 30, 66	
	CA_2-14-30-66-66	2, 14, 30, 66	
	CA_2-29-30-66	2, 29, 30, 66	
	CA_2-2-29-30-66	2, 29, 30, 66	
	CA_2-46-48-66	2, 46, 48, 66	
	CA_3-3-5-7-28[2]	3, 5, 7, 28	
	CA_3-5-7-28[2]	3, 5, 7, 28	
	CA_3-5-7-7-28[2]	3, 5, 7, 28	
	CA_3-7-8-20	3, 7, 8, 20	

CA_3-7-8-28	3, 7, 8, 28
CA_3-7-8-38	3, 7, 8, 38
CA_3-7-8-40	3, 7, 8, 40
CA_3-7-20-28	3, 7, 20, 28
CA_3-7-20-32	3, 7, 20, 32
CA_3-7-20-38	3, 7, 20, 38
CA_3-7-20-42	3, 7, 20, 42
CA_3-7-28-38	3, 7, 28, 38
CA_3-7-28-40	3, 7, 28, 40
CA_3-7-28-40-40	3, 7, 28, 40
CA_3-7-32-46	3, 7, 32, 46
CA_3-8-11-28	3, 8, 11, 28
CA_3-8-20-28	3, 8, 20, 28
CA_3-8-20-38	3, 8, 20, 38
CA_3-8-40-41	3, 8, 40, 41
CA_3-19-21-42	3, 19, 21, 42
CA_3-20-28-38	3, 20, 28, 38
CA_3-20-32-42	3, 20, 32, 42
CA_3-20-32-43	3, 20, 32, 43
CA_3-21-28-42	3, 21, 28, 42
CA_3-28-41-42	3, 28, 41, 42
CA_3-32-42-43	3, 32, 42, 43
CA_7-8-20-28	7, 8, 20, 28
CA_7-8-20-32	7, 8, 20, 32
CA_7-8-20-38	7, 8, 20, 38
CA_7-8-28-32	7, 8, 28, 32
CA_7-8-32-38	7, 8, 32, 38
CA_7-20-28-32	7, 20, 28, 32
CA_7-20-28-38	7, 20, 28, 38
CA_7-20-32-38	7, 20, 32, 38
CA_8-20-28-32	8, 20, 28, 32
CA_8-20-32-38	8, 20, 32, 38
NOTE 1: The frequency range in band 28 is restricted for this CA band combination to 703-733 MHz for the UL and 758-788 MHz for the DL NOTE 2: The frequency range in band 28 is restricted for this CA band combination to 718-748 MHz for the UL and 773-803 MHz for the DL	

Table 5.5A-2c: Inter-band CA operating bands (five bands)

E-UTRA CA Band	E-UTRA Band (Table 5.5)
CA_1-3-5-7-28[2]	1, 3, 5, 7, 28
CA_1-3-5-7-7-28[2]	1, 3, 5, 7, 28
CA_1-3-7-8-20	1, 3, 7, 8, 20
CA_1-3-7-8-28	1, 3, 7, 8, 28
CA_1-3-7-8-38	1, 3, 7, 8, 38
CA_1-3-7-8-40	1, 3, 7, 8, 40
CA_1-3-7-20-28	1, 3, 7, 20, 28
CA_1-3-7-20-32	1, 3, 7, 20, 32
CA_1-3-7-20-38	1, 3, 7, 20, 38
CA_1-3-7-20-42	1, 3, 7, 20, 42
CA_1-3-7-28-38	1, 3, 7, 28, 38
CA_1-3-7-28-40	1, 3, 7, 28, 40
CA_1-3-8-11-28	1, 3, 8, 11, 28
CA_1-3-8-20-28	1, 3, 8, 20, 28
CA_1-3-8-20-38	1, 3, 8, 20, 38
CA_1-3-20-28-38	1, 3, 20, 28, 38
CA_1-3-20-32-42	1, 3, 20, 32, 42
CA_1-3-20-32-43	1, 3, 20, 32, 43
CA_1-3-32-42-43	1, 3, 32, 42, 43

CA_1-7-8-20-28	1, 7, 8, 20, 28
CA_1-7-8-20-32	1, 7, 8, 20, 32
CA_1-7-8-20-38	1, 7, 8, 20, 38
CA_1-7-8-28-32	1, 7, 8, 28, 32
CA_1-7-8-32-38	1, 7, 8, 32, 38
CA_1-7-20-28-32	1, 7, 20, 28, 32
CA_1-7-20-28-38	1, 7, 20, 28, 38
CA_1-7-20-32-38	1, 7, 20, 32, 38
CA_1-8-20-32-38	1, 7, 20, 32, 38
CA_3-7-8-20-28	3, 7, 8, 20, 28
CA_3-7-8-20-38	3, 7, 8, 20, 38
CA_3-7-20-28-38	3, 7, 20, 28, 38
CA_7-8-20-28-32	7, 8, 20, 28, 32
CA_7-8-20-32-38	7, 8, 20, 32, 38
NOTE 1: The frequency range in band 28 is restricted for this CA band combination to 703-733 MHz for the UL and 758-788 MHz for the DL NOTE 2: The frequency range in band 28 is restricted for this CA band combination to 718-748 MHz for the UL and 773-803 MHz for the DL	

Table 5.5A-2d: Inter-band CA operating bands (six bands)

E-UTRA CA Band	E-UTRA Band (Table 5.5)
CA_1-3-7-8-20-28	1, 3, 7, 8, 20, 28
CA_1-3-7-20-28-38	1, 3, 7, 20, 28, 38
CA_1-7-8-20-28-32	1, 7, 8, 20, 28, 32

Table 5.5A-3: Intra-band non-contiguous CA operating bands (with two sub-blocks)

E-UTRA CA Band	E-UTRA Band (Table 5.5)
CA_1-1	1
CA_2-2	2
CA_3-3	3
CA_4-4	4
CA_5-5	5
CA_7-7	7
CA_12-12	12
CA_23-23	23
CA_25-25	25
CA_40-40	40
CA_41-41	41
CA_42-42	42
CA_43-43	43
CA_48-48	48
CA_66-66	66

Table 5.5A-4: Intra-band non-contiguous CA operating bands (with three sub-blocks)

E-UTRA CA Band	E-UTRA Band (Table 5.5)
CA_25-25-25	25
CA_41-41-41	41
CA_48-48-48	48
CA_66-66-66	66

Table 5.5A-5: Intra-band non-contiguous CA operating bands (with four sub-blocks)

E-UTRA CA Band	E-UTRA Band (Table 5.5)
CA_48-48-48-48	48

5.5B Operating bands for UL-MIMO

E-UTRA UL-MIMO is designed to operate in the operating bands defined in Table 5.5B-1.

Table 5.5B-1: Void

5.5C Operating bands for Dual Connectivity

E-UTRA dual connectivity is designed to operate in the operating bands defined in Table 5.5C-1.

Table 5.5C-1: Inter-band dual connectivity operating bands (two bands)

E-UTRA DC Band	E-UTRA Band (Table 5.5)
DC_1-3	1, 3
DC_1-5	1, 5
DC_1-7	1, 7
DC_1-8	1, 8
DC_1-11	1, 11
DC_1-19	1, 19
DC_1-20	1, 20
DC_1-21	1, 21
DC_1-40	1, 40
DC_1-42	1, 42
DC_2-4	2, 4
DC_2-5	2, 5
DC_2-7	2, 7
DC_2-12	2, 12
DC_2-13	2, 13
DC_2-14	2, 14
DC_2-30	2, 30
DC_2-48	2, 48
DC_2-66	2, 66
DC_3-5	3, 5
DC_3-7	3, 7
DC_3-8	3, 8
DC_3-11	3, 11
DC_3-18	3, 18
DC_3-19	3, 19
DC_3-20	3, 20
DC_3-21	3, 21
DC_3-26	3, 26
DC_3-28	3, 28
DC_3-38	3, 38
DC_3-40	3, 40
DC_3-42	3, 42
DC_4-5	4, 5
DC_4-7	4, 7
DC_4-12	4, 12
DC_4-13	4, 13
DC_4-17	4, 17
DC_4-28	4, 28
DC_5-7	5, 7
DC_5-12	5,12
DC_5-17	5,17
DC_5-30	5, 30
DC_5-40	5, 40

DC_5-66	5, 66
DC_7-8	7, 8
DC_7-20	7, 20
DC_7-26	7, 26
DC_7-28	7, 28
DC_8-20	8, 20
DC_8-28	8, 28
DC_8-39	8, 39
DC_8-41	8, 41
DC_11-18	11, 18
DC_11-26	11, 26
DC_12-30	12, 30
DC_12-66	12, 66
DC_13-66	13, 66
DC_14-30	14, 30
DC_14-66	14, 66
DC_19-21	19, 21
DC_19-42	19, 42
DC_21-42	21, 42
DC_21-28	21, 28
DC_25-26	25, 26
DC_25-41	25, 41
DC_26-46	26, 46
DC_26-48	26, 48
DC_28-40	28, 40
DC_28-41	28, 41
DC_28-42	28, 42
DC_30-48	30, 48
DC_30-66	30, 66
DC_39-41	39, 41
DC_40-42	40, 42
DC_41-42	41, 42

Table 5.5C-2: Inter-band dual connectivity operating bands (three bands)

E-UTRA DC Band	E-UTRA Band (Table 5.5)
DC_1-3-19	1, 3, 19
DC_1-19-21	1, 19, 21

5.5D Operating bands for ProSe

E-UTRA ProSe is designed to operate in the operating bands defined in Table 5.5D-1.

Table 5.5D-1 E-UTRA ProSe operating band

E-UTRA ProSe Band	E-UTRA Operating Band	ProSe UE transmit	ProSe UE receive	ProSe Duplex Mode	ProSe Direct	
		F_{UL_low} – F_{UL_high}	F_{DL_low} – F_{DL_high}		Disc.	Comm.
2	2	1 850 MHz – 1 910 MHz	1 850 MHz – 1 910 MHz	HD	Yes	
3	3	1 710 MHz – 1 785 MHz	1 710 MHz – 1 785 MHz	HD	Yes	Yes
4	4	1 710 MHz – 1 755 MHz	1 710 MHz – 1 755 MHz	HD	Yes	
7	7	2 500 MHz – 2 570 MHz	2 500 MHz – 2 570 MHz	HD	Yes	Yes
14	14	788 MHz – 798 MHz	788 MHz – 798 MHz	HD	Yes	Yes
20	20	832 MHz – 862 MHz	832 MHz – 862 MHz	HD	Yes	Yes
26	26	814 MHz – 849 MHz	814 MHz – 849 MHz	HD	Yes	Yes
28	28	703 MHz – 748 MHz	703 MHz – 748 MHz	HD	Yes	Yes
31	31	452.5 MHz – 457.5 MHz	452.5 MHz – 457.5 MHz	HD	Yes	Yes
41	41	2 496 MHz – 2 690 MHz	2 496 MHz – 2 690 MHz	HD	Yes	
68	68	698 MHz – 728 MHz	698 MHz – 728 MHz	HD	Yes	Yes

72	72	451 MHz – 456 MHz	451 MHz – 456 MHz	HD	Yes	Yes

E-UTRA ProSe is designed to operate concurrent with E-UTRA uplink/downlink on the operating bands combinations listed in Table 5.5D-2.

Table 5.5D-2 Inter-band E-UTRA ProSe / E-UTRA operating bands

E-UTRA ProSe Band Note 1	E-UTRA band / E-UTRA CA band Note 2
2	4
	CA_2-4 Note 3
28	1
	CA_1-28 Note 3
NOTE 1: As specified in Table 5.5D-1 NOTE 2: As specified in Table 5.5-1 and Table 5.5A-2 NOTE 3: Applies when E-UTRA uplink is assigned to one E-UTRA band and ProSe operation is restricted to the uplink frequencies paired with either PCC or SCC. NOTE 4: The concurrency for E-UTRA ProSe Direct Discovery with E-UTRA uplink/downlink applies after allowing for any transmission and/or reception gap requested by the UE.	

5.5E Operating bands for UE category 0, UE category M1 and M2 and UE category 1bis

UE category 0 is designed to operate in the E-UTRA operating bands 2, 3, 4, 5, 8, 13, 20, 25, 26 and 28 in both half duplex FDD mode and full-duplex FDD mode and in bands 39, 40 and 41 in TDD mode. The E-UTRA bands are defined in Table 5.5-1.

UE category M1 and M2 is designed to operate in the E-UTRA operating bands 1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 14, 18, 19, 20, 21, 24, 25, 26, 27, 28, 31, 66, 71, 72, 73, 74, 85, 87 and 88 in both half duplex FDD mode and full-duplex FDD mode, and in bands 39, 40, 41, 42, 43 and 48 in TDD mode. The E-UTRA bands are defined in Table 5.5-1.

UE category 1bis is designed to operate in the E-UTRA operating bands 1, 2, 3, 4, 5, 7, 8, 12, 13, 18, 20, 26, 28, 31, 66 and 72 in full duplex FDD mode and in bands 34, 39, 40 and 41 in TDD mode. The E-UTRA bands are defined in Table 5.5-1

5.5F Operating bands for category NB1 and NB2

Category NB1 and NB2 are designed to operate in the E-UTRA operating bands 1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 14, 17, 18, 19, 20, 21, 24, 25, 26, 28, 31, 41, 42, 43, 48, 65, 66, 70, 71, 72, 73, 74, 85, 87, 88, and 103 which are defined in Table 5.5-1. Category NB1 and NB2 are designed to operate in the NR operating bands n1, n2, n3, n5, n7, n8, n12, n14, n18, n20, n25, n26, n28, n41, n65, n66, n70, n71, n74, n90.

Category NB1 and NB2 systems operate in HD-FDD duplex mode or in TDD mode.

In case UE receives network signaling value NS_04 on any of the operating bands listed in Table 5.5F-1 then the lower and upper limit of those bands are shown in Table 5.5F-1 to account for the USA emission requirements.

Table 5.5F-1 E-UTRA operating bands for NB-IoT in the USA

E-UTRA Operating Band	Uplink (UL) operating band BS receive UE transmit	Downlink (DL) operating band BS transmit UE receive	Duplex Mode
	F_{UL_low} – F_{UL_high}	F_{DL_low} – F_{DL_high}	
2	1 850.1 MHz – 1 909.9 MHz	1 930.1 MHz – 1 989.9 MHz	FDD
4	1 710.1 MHz – 1 754.9 MHz	2 110.1 MHz – 2 154.9 MHz	FDD
5	824.1 MHz – 848.9 MHz	869.1 MHz – 893.9MHz	FDD
12	699 MHz – 715.9 MHz	729 MHz – 745.9 MHz	FDD
13	777 MHz – 786.9 MHz	746 MHz – 755.9 MHz	FDD
17	704.1 MHz – 715.9 MHz	734.1 MHz – 745.9 MHz	FDD
25	1 850.1 MHz – 1 914.9 MHz	1 930.1 MHz – 1 994.9 MHz	FDD
26	814.1 MHz – 848.9 MHz	859.1 MHz – 893.9 MHz	FDD
66	1 710.1 MHz – 1 779.9 MHz	2 110.1 MHz – 2 199.9 MHz	FDD

70	1695.1 MHz – 1 709.9 MHz	1 995.1 MHz – 2 019.9 MHz	FDD
71	663.1 MHz – 697.9 MHz	617.1 MHz – 651.9 MHz	FDD
85	698.1 MHz – 715.9 MHz	728.1 MHz – 745.9 MHz	FDD
103	787.1 MHz – 787.9 MHz	757.1 MHz – 757.9 MHz	FDD

5.5G Operating bands for V2X Communication

E-UTRA V2X Communication is designed to operate in the operating bands defined in Table 5.5G-1.

Table 5.5G-1 V2X operating band

E-UTRA Operating Band	E-UTRA V2X Operating Band	V2X UE transmit		V2X UE receive		Duplex Mode	Interface
		F_{UL_low} – F_{UL_high}		F_{DL_low} – F_{DL_high}			
47	47	5 855 MHz	5 925 MHz	5 855 MHz	5 925 MHz	HD	PC5

E-UTRA V2X communication is designed to operate concurrent with E-UTRA uplink/downlink on the operating bands combinations listed in Table 5.5G-2.

Table 5.5G-2 Inter-band con-current V2X operating bands

V2X con-current band configuration	E-UTRA or V2X Operating Band	Interface	Uplink (UL) operating band BS receive UE transmit	Downlink (DL) operating band BS transmit UE receive	Duplex Mode
			F_{UL_low} – F_{UL_high}	F_{DL_low} – F_{DL_high}	
V2X_3-47	3	Uu	1 710 MHz – 1 785 MHz	1 805 MHz – 1 880 MHz	FDD
	47	PC5	5 855 MHz – 5 925 MHz	5 855 MHz – 5 925 MHz	HD
V2X_5-47	5	Uu	824 MHz – 849 MHz	869 MHz – 894 MHz	FDD
	47	PC5	5 855 MHz – 5 925 MHz	5 855 MHz – 5 925 MHz	HD
V2X_7-47	7	Uu	2 500 MHz – 2 570 MHz	2 620 MHz – 2 690 MHz	FDD
	47	PC5	5 855 MHz – 5 925 MHz	5 855 MHz – 5 925 MHz	HD
V2X_8-47	8	Uu	880 MHz – 915 MHz	925 MHz – 960 MHz	FDD
	47	PC5	5 855 MHz – 5 925 MHz	5 855 MHz – 5 925 MHz	HD
V2X_20-47	20	Uu	832 MHz – 862 MHz	791 MHz – 821 MHz	FDD
	47	PC5	5 855 MHz – 5 925 MHz	5 855 MHz – 5 925 MHz	HD
V2X_28-47	28	Uu	703 MHz – 748 MHz	758 MHz – 803 MHz	FDD
	47	PC5	5 855 MHz – 5 925 MHz	5 855 MHz – 5 925 MHz	HD
V2X_34-47	34	Uu	2 010 MHz – 2 025 MHz	2 010 MHz – 2 025 MHz	TDD
	47	PC5	5 855 MHz – 5 925 MHz	5 855 MHz – 5 925 MHz	HD
V2X_39-47	39	Uu	1 880 MHz – 1 920 MHz	1 880 MHz – 1 920 MHz	TDD
	47	PC5	5 855 MHz – 5 925 MHz	5 855 MHz – 5 925 MHz	HD
V2X_41-47	41	Uu	2 496 MHz – 2 690 MHz	2 496 MHz – 2 690 MHz	TDD
	47	PC5	5 855 MHz – 5 925 MHz	5 855 MHz – 5 925 MHz	HD
V2X_71-47	71	Uu	663 MHz – 698 MHz	617 MHz – 652 MHz	FDD
	47	PC5	5 855 MHz – 5 925 MHz	5 855 MHz – 5 925 MHz	HD

E-UTRA V2X communication is also designed to operate for intra-band multi-carrier operation in the operating bands defined in Table 5.5G-3.

Table 5.5G-3: V2X intra-band multi-carrier operation

V2X multi-carrier Band configuration	V2X operating Band	Interface
V2X_47	47	PC5

1.1.2 UE信道带宽

不同E-UTRA频段的UE信道带宽在TS 36.101-1 [1]中的第5.6节定义。

UE CA配置和带宽组合集在TS 36.101-1 [1]中的第5.6A节定义。

UL-MIMO的UE信道带宽在TS 36.101-1 [1]中的第5.6B节定义。

用于双连接的UE信道带宽在TS 36.101-1 [1]中的第5.6C节定义。

用于ProSe的UE信道带宽在TS 36.101-1 [1]中的第5.6D节定义。

类别NB1和NB2的UE信道带宽在TS 36.101-1 [1]中的第5.6F节定义。

UE V2X配置和带宽组合集信道带宽在TS 36.101-1 [1]中的第5.6G节定义。

5.6 Channel bandwidth

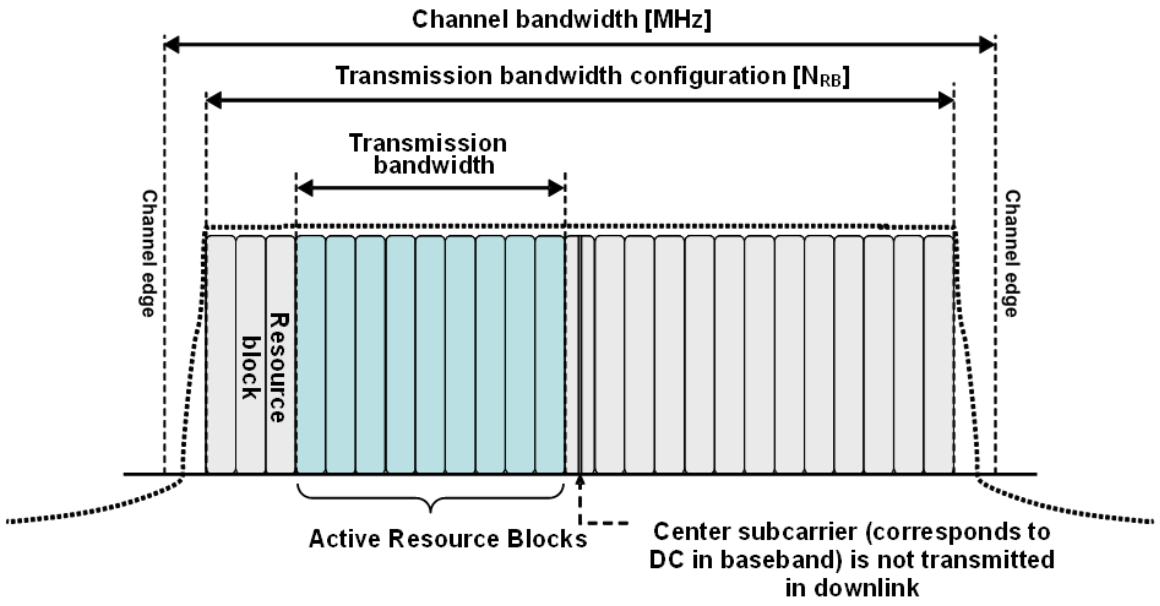
Requirements in present document are specified for the channel bandwidths listed in Table 5.6-1.

Table 5.6-1: Transmission bandwidth configuration N_{RB} in E-UTRA channel bandwidths

Channel bandwidth $BW_{Channel}$ [MHz]	1.4	3	5	10	15	20
Transmission bandwidth configuration N_{RB}	6	15	25	50	75	100

Figure 5.6-1 shows the relation between the Channel bandwidth ($BW_{Channel}$) and the Transmission bandwidth configuration (N_{RB}). The channel edges are defined as the lowest and highest frequencies of the carrier separated by the channel bandwidth, i.e. at F_C +/- $BW_{Channel}$ /2.

Figure 5.6-1: Definition of channel bandwidth and transmission bandwidth configuration for one E-UTRA carrier



5.6.1 Channel bandwidths per operating band

a) The requirements in this specification apply to the combination of channel bandwidths and operating bands shown in Table 5.6.1-1. The transmission bandwidth configuration in Table 5.6.1-1 shall be supported for each of the specified channel bandwidths. The same (symmetrical) channel bandwidth is specified for both the TX and RX path.

Table 5.6.1-1: E-UTRA channel bandwidth

E-UTRA band / Channel bandwidth						
E-UTRA Band	**1.4 MHz**	**3 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
1			Yes	Yes	Yes	Yes
2	Yes	Yes	Yes	Yes	Yes[1]	Yes[1]
3	Yes	Yes	Yes	Yes	Yes[1]	Yes[1]
4	Yes	Yes	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	Yes[1]		
6			Yes	Yes[1]		
7			Yes	Yes	Yes[3]	Yes[1, 3]
8	Yes	Yes	Yes	Yes[1]		
9			Yes	Yes	Yes[1]	Yes[1]
10			Yes	Yes	Yes	Yes
11			Yes	Yes[1]		
12	Yes	Yes	Yes[1]	Yes[1]		
13			Yes[1]	Yes[1]		
14			Yes[1]	Yes[1]		
...						
17			Yes[1]	Yes[1]		
18			Yes	Yes[1]	Yes[1]	
19			Yes	Yes[1]	Yes[1]	
20			Yes	Yes[1]	Yes[1]	Yes[1]
21			Yes	Yes[1]	Yes[1]	
22			Yes	Yes	Yes[1]	Yes[1]
23	Yes	Yes	Yes	Yes	Yes[1]	Yes[1]
24			Yes	Yes		
25	Yes	Yes	Yes	Yes	Yes[1]	Yes[1]
26	Yes	Yes	Yes	Yes[1]	Yes[1]	
27	Yes	Yes	Yes	Yes[1]		
28		Yes	Yes	Yes[1]	Yes[1]	Yes[1, 2]
30			Yes	Yes[1]		
31	Yes	Yes[1]	Yes[1]			
...						
33			Yes	Yes	Yes	Yes
34			Yes	Yes	Yes	
35	Yes	Yes	Yes	Yes	Yes	Yes
36	Yes	Yes	Yes	Yes	Yes	Yes
37			Yes	Yes	Yes	Yes
38			Yes	Yes	Yes[3]	Yes[3]
39			Yes	Yes	Yes[3]	Yes[3]
40			Yes	Yes	Yes	Yes
41			Yes	Yes	Yes	Yes
42			Yes	Yes	Yes	Yes
43			Yes	Yes	Yes	Yes
44		Yes	Yes	Yes	Yes	Yes
45			Yes	Yes	Yes	Yes
46				Yes		Yes
47				Yes		Yes
48			Yes	Yes	Yes	Yes
49				Yes		Yes
50		Yes	Yes	Yes	Yes	Yes

51		Yes	Yes			
52			Yes	Yes	Yes	Yes
53	Yes	Yes	Yes	Yes		
…						
64	Reserved					
65	Yes	Yes	Yes	Yes	Yes	Yes
66	Yes	Yes	Yes	Yes	Yes	Yes
68			Yes	Yes	Yes[5]	
70			Yes	Yes	Yes	Yes[4]
71			Yes	Yes[1]	Yes[1]	Yes[1,6]
72	Yes	Yes[1]	Yes[1]			
73	Yes	Yes	Yes			
74	Yes	Yes	Yes	Yes[1]	Yes[1]	Yes[1]
85			Yes[1]	Yes[1]		
87	Yes	Yes[1]	Yes[1]			
88	Yes	Yes[1]	Yes[1]			
103[7]						

NOTE 1: [1] refers to the bandwidth for which a relaxation of the specified UE receiver sensitivity requirement (subclause 7.3) is allowed.

NOTE 2: [2] For the 20 MHz bandwidth, the minimum requirements are specified for E-UTRA UL carrier frequencies confined to either 713-723 MHz or 728-738 MHz

NOTE 3: [3] refers to the bandwidth for which the uplink transmission bandwidth can be restricted by the network for some channel assignments in FDD/TDD co-existence scenarios in order to meet unwanted emissions requirements (Clause 6.6.3.2).

NOTE 4: [4] For the 20 MHz bandwidth, the minimum requirements are restricted to E-UTRA operation when carrier aggregation is configured.

NOTE 5: [5] For the 15 MHz bandwidth, the minimum requirements are specified for E-UTRA UL carrier frequencies confined to either 705.5 MHz or 710.5-720.5 MHz

NOTE 6: [6] For the 20MHz bandwidth, the minimum requirements are specified for E-UTRA UL carrier frequencies confined to either 673-678 MHz or 683-688MHz.

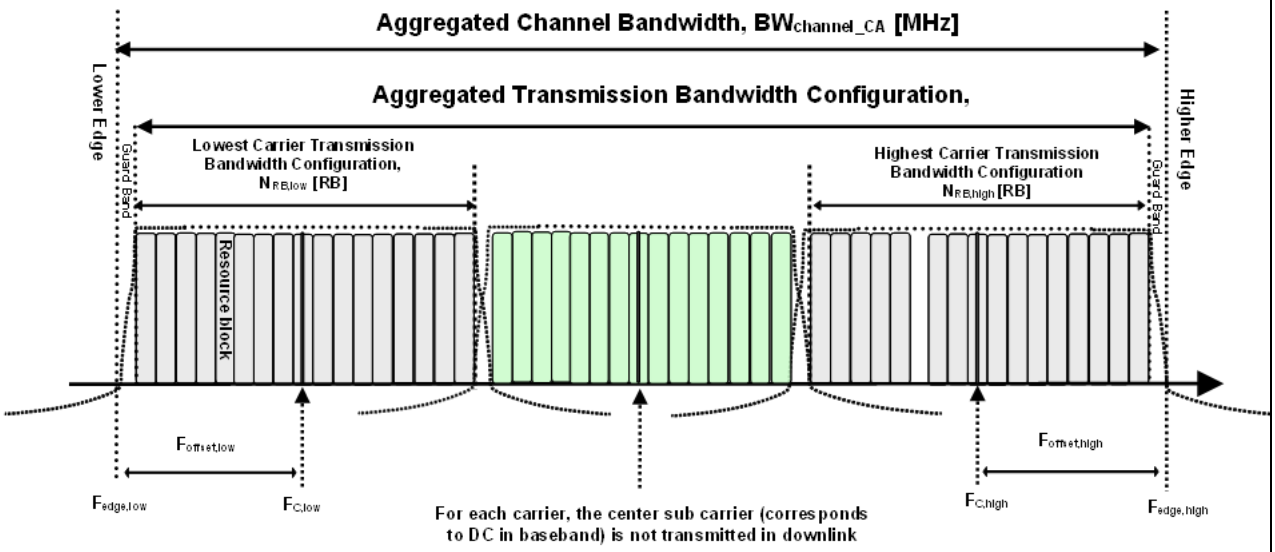
NOTE 7: [7] This band is for standalone NB-IoT operation only. None of E-UTRA standard channel bandwidths is applicable.

b) The use of different (asymmetrical) channel bandwidth for the TX and RX is not precluded and is intended to form part of a later release.

5.6A Channel bandwidth for CA

For intra-band contiguous carrier aggregation *Aggregated Channel Bandwidth*, *Aggregated Transmission Bandwidth Configuration* and *Guard Bands* are defined as follows, see Figure 5.6A-1.

Figure 5.6A-1. Definition of Aggregated channel bandwidth and aggregated channel bandwidth edges



The *aggregated channel bandwidth,* $BW_{Channel_CA}$, is defined as

$$BW_{Channel_CA} = F_{edge,high} - F_{edge,low} \text{ [MHz]}.$$

The lower bandwidth edge $F_{edge,low}$ and the upper bandwidth edge $F_{edge,high}$ of the aggregated channel bandwidth are used as frequency reference points for transmitter and receiver requirements and are defined by

$$F_{edge,low} = F_{C,low} - F_{offset,low}$$

$$F_{edge,high} = F_{C,high} + F_{offset,high}$$

The lower and upper frequency offsets depend on the transmission bandwidth configurations of the lowest and highest assigned edge component carrier and are defined as

$$F_{offset,low} = (0.18N_{RB,low} + \Delta f_1)/2 + BW_{GB} \text{ [MHz]}$$

$$F_{offset,high} = (0.18N_{RB,high} + \Delta f_1)/2 + BW_{GB} \text{ [MHz]}$$

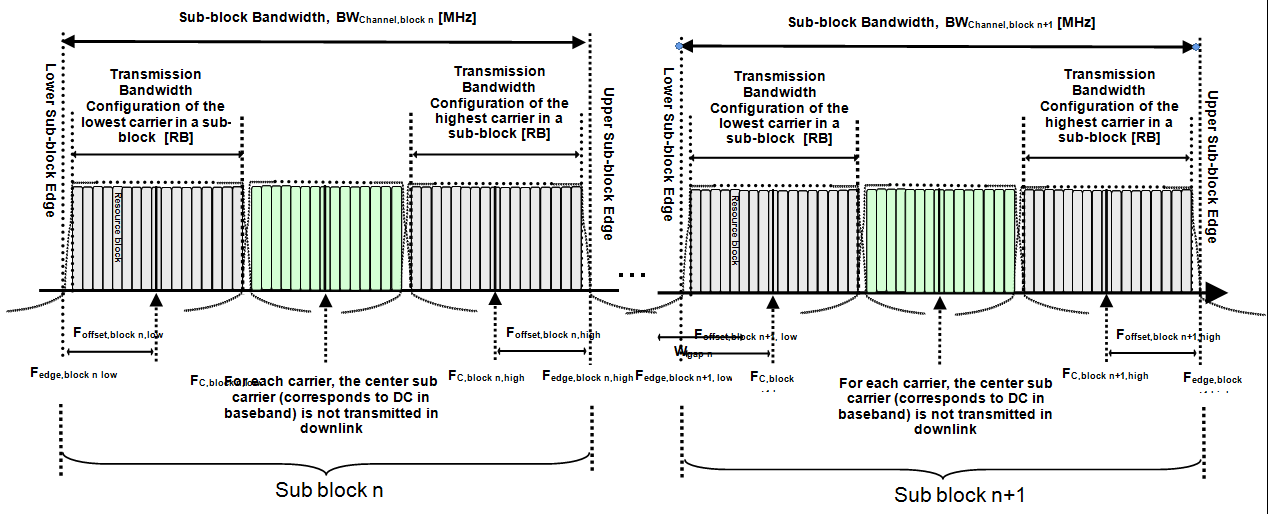
where $\Delta f_1 = \Delta f$ for the downlink with Δf the subcarrier spacing and $\Delta f_1 = 0$ for the uplink, while $N_{RB,low}$ and $N_{RB,high}$ are the transmission bandwidth configurations according to Table 5.6-1 for the lowest and highest assigned component carrier, respectively. BW_{GB} denotes the *Nominal Guard Band* and is defined in Table 5.6A-1, and the factor 0.18 is the PRB bandwidth in MHz.

NOTE: The values of $BW_{Channel_CA}$ for UE and BS are the same if the lowest and the highest component carriers are identical.

Aggregated Transmission Bandwidth Configuration is the number of the aggregated RBs within the fully allocated Aggregated Channel bandwidth and is defined per CA Bandwidth Class (Table 5.6A-1).

For intra-band non-contiguous carrier aggregation *Sub-block Bandwidth* and *Sub-block edges* are defined as follows, see Figure 5.6A-2.

Figure 5.6A-2. Non-contiguous intraband CA terms and definitions



The lower sub-block edge of the Sub-block Bandwidth ($BW_{Channel,block}$) is defined as

$$F_{edge,block,\ low} = F_{C,block,low} - F_{offset,block,\ low.}$$

The upper sub-block edge of the Sub-block Bandwidth is defined as

$$F_{edge,block,high} = F_{C,block,high} + F_{offset,block,high}\ .$$

The Sub-block Bandwidth, $BW_{Channel,block}$, is defined as follows:

$$BWChannel,block = F_{edge,block,high} - F_{edge,block,low\ [MHz]}$$

The lower and upper frequency offsets $F_{offset,block,low}$ and $F_{offset,block,high}$ depend on the transmission bandwidth configurations of the lowest and highest assigned edge component carriers within a sub-block and are defined as

$$F_{offset,block,low} = (0.18N_{RB,low} + \Delta f_1)/2 + BW_{GB}\ [MHz]$$

$$F_{offset,block,high} = (0.18N_{RB,high} + \Delta f_1)/2 + BW_{GB}\ [MHz]$$

where $\Delta f_1 = \Delta f$ for the downlink with Δf the subcarrier spacing and $\Delta f_1 = 0$ for the uplink, while $N_{RB,low}$ and $N_{RB,high}$ are the transmission bandwidth configurations according to Table 5.6-1 for the lowest and highest assigned component carrier within a sub-block, respectively. BW_{GB} denotes the *Nominal Guard Band* and is defined in Table 5.6A-1, and the factor 0.18 is the PRB bandwidth in MHz.

The sub-block gap size between two consecutive sub-blocks W_{gap} is defined as

$$W_{gap} = F_{edge,block\ n+1,low} - F_{edge,block\ n,high\ [MHz]}$$

Table 5.6A-1: CA bandwidth classes and corresponding nominal guard bands

CA Bandwidth Class	Aggregated Transmission Bandwidth Configuration	Number of contiguous CC	Nominal Guard Band BW_{GB}
A	$N_{RB,agg} \le 100$	1	$a_1\ BW_{Channel(1)} - 0.5\Delta f_1$ (NOTE 2)
B	$25 < N_{RB,agg} \le 100$	2	$0.05\ max(BW_{Channel(1)}, BW_{Channel(2)}) - 0.5\Delta f_1$
C	$100 < N_{RB,agg} \le 200$	2	$0.05\ max(BW_{Channel(1)}, BW_{Channel(2)}) - 0.5\Delta f_1$
D	$200 < N_{RB,agg} \le 300$	3	$0.05\ max(BW_{Channel(1)}, BW_{Channel(2)}, BW_{Channel(3)}) - 0.5\Delta f_1$
E	$300 < N_{RB,agg} \le 400$	4	$0.05\ max(BW_{Channel(1)}, BW_{Channel(2)}, BW_{Channel(3)}, BW_{Channel(4)}) - 0.5\Delta f_1$

F	$400 < N_{RB,agg} \leq 500$	5	$0.05\ max(BW_{Channel(1)}, BW_{Channel(2)}, BW_{Channel(3)}, BW_{Channel(4)}, BW_{Channel(5)}) - 0.5\Delta f_1$
I	$700 < N_{RB,agg} \leq 800$	8	NOTE 3
NOTE 1: $BW_{Channel(j)}$, j = 1, 2, 3, 4 is the channel bandwidth of an E-UTRA component carrier according to Table 5.6-1 and $\Delta f_1 = \Delta f$ for the downlink with Δf the subcarrier spacing while $\Delta f_1 = 0$ for the uplink. NOTE 2: $a_1 = 0.16/1.4$ for $BW_{Channel(1)} = 1.4$ MHz whereas $a_1 = 0.05$ for all other channel bandwidths. NOTE 3: Applicable for later releases.			

The channel spacing between centre frequencies of contiguously aggregated component carriers is defined in subclause 5.7.1A.

5.6A.1 Channel bandwidths per operating band for CA

The requirements for carrier aggregation in this specification are defined for carrier aggregation configurations with associated bandwidth combination sets. For inter-band carrier aggregation, a *carrier aggregation configuration* is a combination of operating bands, each supporting a carrier aggregation bandwidth class. For intra-band contiguous carrier aggregation, a carrier aggregation configuration is a single operating band supporting a carrier aggregation bandwidth class.

For each carrier aggregation configuration, requirements are specified for all bandwidth combinations contained in a *bandwidth combination set*, which is indicated per supported band combination in the UE radio access capability. A UE can indicate support of several bandwidth combination sets per band combination.

Requirements for intra-band contiguous carrier aggregation are defined for the carrier aggregation configurations and bandwidth combination sets specified in Table 5.6A.1-1. Requirements for inter-band carrier aggregation are defined for the carrier aggregation configurations and bandwidth combination sets specified in Table 5.6A.1-2, Table 5.6A.1-2a, Table 5.6A.1-2b and Table 5.6A.1-2c. Requirements for intra-band non-contiguous carrier aggregation are defined for the carrier aggregation configurations and bandwidth combination sets specified in Table 5.6A.1-3.

The DL component carrier combinations for a given CA configuration shall be symmetrical in relation to channel centre unless stated otherwise in Table 5.6A.1-1, Table 5.6A.1-2, Table 5.6A.1-2a, Table 5.6A.1-2b and Table 5.6A.1-2c.

Table 5.6A.1-1: E-UTRA CA configurations and bandwidth combination sets defined for intra-band contiguous CA

		E-UTRA CA configuration / Bandwidth combination set						
E-UTRA CA configuration	Uplink CA configurations (NOTE 3)	Component carriers in order of increasing carrier frequency					Maximum aggregated bandwidth [MHz]	Bandwidth combination set
		Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]		
CA_1C	CA_1C	15	15				40	0
		20	20					
		5, 10, 15	20				40	1
		20	5, 10, 15, 20					
CA_2C		5	20				40	0
		10	15, 20					
		15	10, 15, 20					
		20	5, 10, 15, 20					
CA_3B		5	3				10	0

		3, 5	5					
CA_3C	CA_3C	5, 10, 15	20				40	0
		20	5, 10, 15, 20					
CA_5B	CA_5B	5, 10	10				20	0
		10	5					
CA_7B		15	5				20	0
CA_7C	CA_7C	15	15				40	0
		20	20					
		10	20				40	1
		15	15, 20					
		20	10, 15, 20					
		15	10, 15				40	2
		20	15, 20					
CA_8B	CA_8B	5,10	10				20	0
		10	5					
CA_12B	-	5	5, 10				15	0
CA_23B	-	10	10				20	0
		5	15					
CA_27B	-	1.4, 3, 5	5				13	0
		1.4, 3	10					
CA_28C	-	5	20				30	0
		10	15, 20					
		15	10, 15					
		20	5, 10					
CA_38C	CA_38C	15	15				40	0
		20	20					
CA_39C	CA_39C	5,10,15	20				35	0
		20	5, 10, 15					
CA_40C	CA_40C	10	20				40	0
		15	15					
		20	10, 20					
		10, 15	20				40	1
		15	15					

		20	10, 15, 20					
CA_40D	CA_40C, CA_40D	10, 15, 20	20	20			60	0
		20	10, 15	20				
		20	20	10, 15				
		15, 20	15, 20	15, 20			60	1
CA_40E	-	15, 20	15, 20	15, 20	20		80	0
CA_40F	-	15, 20	15, 20	15, 20	20	20	100	0
CA_41C[5]	CA_41C	10	20				40	0
		15	15, 20					
		20	10, 15, 20					
		5, 10	20				40	1
		15	15, 20					
		20	5, 10, 15, 20					
		10	15, 20				40	2
		15	10, 15, 20					
		20	10, 15, 20					
		10	20				40	3
		20	20					
CA_41D	CA_41C, CA_41D	10	20	15			60	0
		10	15, 20	20				
		15	20	10, 15				
		15	10, 15, 20	20				
		20	15, 20	10				
		20	10, 15, 20	15, 20				
CA_41E	CA_41C, CA_41D	15, 20	15, 20	15, 20	20		80	0
CA_41F	CA_41C, CA_41D	10,15, 20	15, 20	20	20	20	100	0
CA_42C[5]	CA_42C	5, 10, 15, 20	20				40	0
		20	5, 10, 15					
		10, 15, 20	20				40	1
		20	10, 15					
CA_42D	CA_42C	5,10,15,20	20	20			60	0
		20	20	5,10,15				
		10, 15, 20	20	20			60	1
		20	20	10, 15				

CA_42E	CA_42C	5,10,15,20	20	20	20		80	0
		20	20	20	5,10,15			
CA_42F	CA_42C	5, 10, 15, 20	20	20	20	20	100	0
		20	20	20	20	5, 10, 15, 20		
CA_43C	-	5	20				40	0
		10	15, 20					
		15	10, 15, 20					
		20	5, 10, 15, 20					
CA_46C [4]	-	20	20				40	0
		20	10, 20				40	1
		10, 20	20					
CA_46D [4]	-	20	20	20			60	0
		20	20	10, 20			60	1
		10, 20	20	20				
CA_46E [4]	-	20	20	20	20		80	0
		20	20	20	10, 20		80	1
		10	20	20	20			
CA_48B	CA_48B	10	10				20	0
CA_48C	CA_48C	5, 10, 15, 20	20				40	0
		20	5, 10, 15					
CA_48D	CA_48C	5,10,15,20	20	20			60	0
		20	20	5,10,15				
CA_48E	CA_48C	5,10,15,20	20	20	20		80	0
		20	20	20	5,10,15			
CA_48F	-	5, 10, 15, 20	20	20	20	20	100	0
		20	20	20	20	5, 10, 15, 20		
CA_66B	CA_66B	5	5, 10, 15				20	0
		10	5, 10					
		15	5					
CA_66C	CA_66C	5	20				40	0
		10	15, 20					
		15	10, 15, 20					
		20	5, 10, 15, 20					
CA_66D	-	5	20	20			60	0

		20	5	20				
		20	20	5				
		10	20	15				
		15	20	10				
		10, 15, 20	15, 20	20				
		15, 20	10	20				
		15	15, 20	15				
		20	15, 20	10, 15				
		20	10	15				
CA_70C	-	5	20				25	0
		10	15					
		15	10					

NOTE 1: The CA configuration refers to an operating band and a CA bandwidth class specified in Table 5.6A-1 (the indexing letter). Absence of a CA bandwidth class for an operating band implies support of all classes.
NOTE 2: For the supported CC bandwidth combinations, the CC downlink and uplink bandwidths are equal.
NOTE 3: Uplink CA configurations are the configurations supported by the present release of specifications.
NOTE 4: Restricted to E-UTRA operation when inter-band carrier aggregation is configured. The downlink operating band is paired with the uplink operating band (external) of the carrier aggregation configuration that is supporting the configured Pcell.
NOTE 5: 8Rx Requirements are applicable for this band configuration if UE supports 8Rx.

Table 5.6A.1-2: E-UTRA CA configurations and bandwidth combination sets defined for inter-band CA (two bands)

E-UTRA CA configuration / Bandwidth combination set										
E-UTRA CA Configuration	**Uplink CA configurations (NOTE 4)**	**E-UTRA Bands**	**1.4 MHz**	**3 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Maximum aggregated bandwidth [MHz]**	**Bandwidth combination set**
CA_1A-3A	CA_1A-3A	1			Yes	Yes	Yes	Yes	40	0
		3			Yes	Yes	Yes	Yes		
		1			Yes	Yes	Yes	Yes	40	1
		3		Yes	Yes	Yes	Yes	Yes		
CA_1A-1A-3A	-	1	See CA_1A-1A Bandwidth combination set 0 in Table 5.6A.1-3						60	0
		3			Yes	Yes	Yes	Yes		
CA_1A-1A-7A	CA_1A-7A	1	See CA_1A-1A Bandwidth combination set 0 in Table 5.6A.1-3						60	0
		7			Yes	Yes	Yes	Yes		
CA_1A-1A-7C	CA_7C	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0
		7	See CA_7C in Table 5.6A.1-1 of 36.101 Bandwidth combination set 2							
CA_1A-1A-38A	-	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						60	0
		38			Yes	Yes	Yes	Yes		
CA_1A-3A-3A	CA_1A-3A	1			Yes	Yes	Yes	Yes	60	0
		3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_1A-1A-3A-3A	-	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0
		3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_1A-3C	CA_1A-3A, CA_3C	1			Yes	Yes	Yes	Yes	60	0
		3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1							

CA_1A-1A-3C	CA_3C	1	See CA_1A-1A Bandwidth Combination Set 0 in the Table 5.6A.1-3							80	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1								
CA_1A-5A	CA_1A-5A	1				Yes				20	0
		5				Yes					
		1			Yes	Yes	Yes	Yes		30	1
		5			Yes	Yes					
CA_1A-1A-5A	-	1	See CA_1A-1A Bandwidth combination set 0 in Table 5.6A.1-3							50	0
		5			Yes	Yes					
CA_1C-5A	-	1	See CA_1C Bandwidth Combination Set 1 in Table 5.6A.1-1							50	0
		5			Yes	Yes					
CA_1A-7A	CA_1A-7A	1			Yes	Yes	Yes	Yes		40	0
		7				Yes	Yes	Yes			
		1			Yes	Yes	Yes	Yes		40	1
		7			Yes	Yes	Yes	Yes			
CA_1A-7A-7A	CA_1A-7A	1			Yes	Yes	Yes	Yes		60	0
		7	See CA_7A-7A Bandwidth Combination Set 3 in Table 5.6A.1-3								
		1			Yes	Yes	Yes	Yes		60	1
		7	See CA_7A-7A Bandwidth Combination Set 1 in Table 5.6A.1-3								
CA_1A-7C	CA_1A-7A, CA_7C	1			Yes	Yes	Yes	Yes		60	0
		7	See CA_7C Bandwidth Combination Set 2 in Table 5.6A.1-1								
		1			Yes	Yes	Yes	Yes		60	1
		7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1								
CA_1A-8A	CA_1A-8A	1			Yes	Yes	Yes	Yes		30	0
		8			Yes	Yes					
		1			Yes	Yes				20	1
		8			Yes	Yes					
		1			Yes	Yes	Yes	Yes		30	2
		8		Yes	Yes	Yes					
CA_1A-11A	CA_1A-11A	1			Yes	Yes	Yes	Yes		30	0
		11			Yes	Yes					
CA_1A-18A	CA_1A-18A	1			Yes	Yes	Yes	Yes		35	0
		18			Yes	Yes	Yes				
		1			Yes	Yes				20	1
		18			Yes	Yes					
CA_1A-19A	CA_1A-19A	1			Yes	Yes	Yes	Yes		35	0
		19			Yes	Yes	Yes				
CA_1A-20A	CA_1A-20A	1			Yes	Yes	Yes	Yes		40	0
		20			Yes	Yes	Yes	Yes			
CA_1A-21A	CA_1A-21A	1			Yes	Yes	Yes	Yes		35	0
		21			Yes	Yes	Yes				
CA_1A-26A	CA_1A-26A	1			Yes	Yes	Yes	Yes		35	0
		26			Yes	Yes	Yes				
		1			Yes	Yes				20	1
		26			Yes	Yes					
CA_1A-28A	CA_1A-28A	1			Yes	Yes	Yes	Yes		40	0
		28			Yes	Yes	Yes	Yes			
		1			Yes	Yes				20	1
		28			Yes	Yes					
CA_1A-1A-28A	-	1	See CA_1A-1A Bandwidth combination set 0 in Table 5.6A.1-3							60	0
		28			Yes	Yes	Yes	Yes			
CA_1A-32A	-	1			Yes	Yes	Yes	Yes		40	0
		32			Yes	Yes	Yes	Yes			

CA_1A-38A	-	1			Yes	Yes	Yes	Yes	40	0
		38			Yes	Yes	Yes	Yes		
CA_1A-40A	CA_1A-40A	1			Yes	Yes	Yes	Yes	40	0
		40			Yes	Yes	Yes	Yes		
CA_1A-40A-40A	CA_1A-40A	1			Yes	Yes	Yes	Yes	60	0
		40	See CA_40A-40A Bandwidth Combination Set 1 in Table 5.6A.1-3							
CA_1A-40C	-	1			Yes	Yes	Yes	Yes	60	0
		40	See CA_40C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_1A-40D	CA_1A-40A	1			Yes	Yes	Yes	Yes	80	0
		40	See CA_40D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_1A-41A	CA_1A-41A	1			Yes	Yes	Yes	Yes	40	1
		41			Yes	Yes	Yes	Yes		
CA_1A-41A[8]	-	1			Yes	Yes	Yes	Yes	40	0
		41			Yes	Yes	Yes	Yes		
CA_1A-41C[8]	CA_1A-41A CA_1A-41C	1			Yes	Yes	Yes	Yes	60	0
		41	See CA_41C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_1A-41D[8]	-	1			Yes	Yes	Yes	Yes	80	0
		41	See CA_41D Bandwidth combination set 0 at Table 5.6A.1-1							
CA_1A-42A	CA_1A-42A	1			Yes	Yes	Yes	Yes	40	0
		42			Yes	Yes	Yes	Yes		
CA_1A-42A-42A	CA_1A-42A	1			Yes	Yes	Yes	Yes	60	0
		42	See CA_42A-42A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_1A-42C	CA_1A-42A, CA_1A-42C, CA_42C	1			Yes	Yes	Yes	Yes	60	0
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_1A-42A-42C	CA_1A-42A	1			Yes	Yes	Yes	Yes	80	0
		42	See CA_42A-42C Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_1A-42C-42C	CA_1A-42A	1			Yes	Yes	Yes	Yes	100	0
		42	See CA_42C-42C Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_1A-42D	CA_1A-42A	1			Yes	Yes	Yes	Yes	80	0
		42	See CA_42D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_1A-42E	CA_1A-42A	1			Yes	Yes	Yes	Yes	100	0
		42	See CA_42E Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_1A-43A	-	1			Yes	Yes	Yes		35	0
		43			Yes	Yes	Yes	Yes		
CA_1A-46A	-	1			Yes	Yes	Yes	Yes	40	0
		46						Yes		
		1			Yes	Yes	Yes	Yes	40	1
		46				Yes		Yes		
CA_1A-46C	-	1			Yes	Yes	Yes	Yes	60	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
	-	1			Yes	Yes	Yes	Yes	60	1
		46	See CA_46C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_1A-46D	-	1			Yes	Yes	Yes	Yes	80	0
		46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							
		1			Yes	Yes	Yes	Yes	80	1
		46	See CA_46D Bandwidth combination set 1 in Table 5.6A.1-1							
CA_1A-46E	-	1			Yes	Yes	Yes	Yes	100	0
		46	See CA_46E Bandwidth Combination Set 0 in Table 5.6A.1-1							

		1			Yes	Yes	Yes	Yes	100	1
		46	See CA_46E Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_1C-3A	-	1	See CA_1C Bandwidth combination set 1 in Table 5.6A.1-1						60	0
		3			Yes	Yes	Yes	Yes		
CA_1C-20A	-	1	See CA_1C Bandwidth combination set 1 in Table 5.6A.1-1						60	0
		20			Yes	Yes	Yes	Yes		
CA_2A-4A	CA_2A-4A	2	Yes	Yes	Yes	Yes	Yes	Yes	40	0
		4			Yes	Yes	Yes	Yes		
		2			Yes	Yes			20	1
		4			Yes	Yes				
		2			Yes	Yes	Yes	Yes	40	2
		4			Yes	Yes	Yes	Yes		
CA_2A-2A-4A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						60	0
		4			Yes	Yes	Yes	Yes		
CA_2A-4A-4A	-	2			Yes	Yes	Yes	Yes	60	0
		4	See CA_4A-4A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-2A-4A-4A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0
		4	See CA_4A-4A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-5A	CA_2A-5A	2			Yes	Yes	Yes	Yes	30	0
		5			Yes	Yes				
		2			Yes	Yes			20	1
		5			Yes	Yes				
CA_2A-2A-5A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						50	0
		5			Yes	Yes				
CA_2A-5A-5A	-	2			Yes	Yes	Yes	Yes	40	0
		5	See CA_5A-5A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-2A-46D	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						100	0
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_2C-5A	-	2	See CA_2C Bandwidth combination set 0 in Table 5.6A.1-1						50	0
		5			Yes	Yes				
CA_2A-5B	CA_2A-5A	2			Yes	Yes	Yes	Yes	40	0
		5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_2A-2A-5B	-	2	See CA_2A-2A Bandwidth combination set 0 in Table 5.6A.1-3						60	0
		5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_2C-5B	-	2	See CA_2C Bandwidth combination set 0 in Table 5.6A.1-1						60	0
		5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_2A-2A-7A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						60	0
		7			Yes	Yes	Yes	Yes		
CA_2A-2A-7C	-	2	See the CA_2A-2A Bandwidth combination set 0 in Table 5.6A.1-3						80	0
		7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_2A-7A	CA_2A-7A	2			Yes	Yes	Yes	Yes	40	0
		7			Yes	Yes	Yes	Yes		
CA_2A-7A-7A	-	2			Yes	Yes	Yes	Yes	60	0

		7	See the CA_7A-7A Bandwidth combination set 1 in Table 5.6A.1-3								
CA_2A-2A-7A-7A	-	2	See the CA_2A-2A Bandwidth combination set 0 in Table 5.6A.1-3							80	0
		7	See the CA_7A-7A Bandwidth combination set 1 in Table 5.6A.1-3								
CA_2A-7C	-	2			Yes	Yes	Yes	Yes		60	0
		7	See the CA_7C Bandwidth combination set 1 in Table 5.6A.1-1								
CA_2A-8A	-	2			Yes	Yes	Yes	Yes		30	0
		8			Yes	Yes					
CA_2A-12A	CA_2A-12A	2			Yes	Yes	Yes	Yes		30	0
		12			Yes	Yes					
		2			Yes	Yes	Yes	Yes		30	1
		12		Yes	Yes	Yes					
		2			Yes	Yes				20	2
		12			Yes	Yes					
CA_2A-2A-12A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3							50	0
		12			Yes	Yes					
CA_2A-12A-12A	-	2			Yes	Yes	Yes	Yes		30	0
		12	See CA_12A-12A Bandwidth Combination Set 0 in Table 5.6A.1-3								
CA_2A-2A-12A-12A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3							50	0
		12	See CA_12A-12A Bandwidth Combination Set 0 in Table 5.6A.1-3								
CA_2A-12B	CA_2A-12A	2			Yes	Yes	Yes	Yes		35	0
		12	See CA_12B Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_2A-2A-12B	-	2	See CA_2A-2A Bandwidth combination set 0 in Table 5.6A.1-3							55	0
		12	See CA_12B Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_2C-12A	-	2	See CA_2C Bandwidth combination set 0 in Table 5.6A.1-1							50	0
		12			Yes	Yes					
CA_2A-13A	CA_2A-13A	2			Yes	Yes	Yes	Yes		30	0
		13				Yes					
		2			Yes	Yes				20	1
		13				Yes					
		2			Yes	Yes	Yes	Yes		30	2
		13			Yes	Yes					
CA_2A-2A-13A	CA_2A-13A	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3							50	0
		13				Yes					
		2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3							50	1
		13			Yes	Yes					
CA_2A-14A	CA_2A-14A	2			Yes	Yes	Yes	Yes		30	0
		14			Yes	Yes					
CA_2A-2A-14A	CA_2A-14A	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3							50	0
		14			Yes	Yes					
CA_2A-17A	-	2			Yes	Yes				20	0
		17			Yes	Yes					
CA_2A-26A	-	2			Yes	Yes	Yes	Yes		35	0
		26			Yes	Yes	Yes				
CA_2A-28A	-	2			Yes	Yes	Yes	Yes		40	0
		28			Yes	Yes	Yes	Yes			
CA_2C-28A	-	2	See CA_2C Bandwidth Combination Set 0 in table 5.6A.1-1							60	0
		28			Yes	Yes	Yes	Yes			
CA_2A-29A	-	2			Yes	Yes				20	0

		29		Yes	Yes	Yes				
		2			Yes	Yes			20	1
		29			Yes	Yes				
		2			Yes	Yes	Yes	Yes	30	2
		29			Yes	Yes				
CA_2A-2A-29A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						50	0
		29			Yes	Yes				
CA_2C-29A	-	2	See CA_2C Bandwidth Combination Set 0 in table 5.6A.1-1						50	0
		29			Yes	Yes				
CA_2A-30A	CA_2A-30A	2			Yes	Yes	Yes	Yes	30	0
		30			Yes	Yes				
CA_2A-2A-30A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in table 5.6A.1-3						50	0
		30			Yes	Yes				
CA_2C-30A	-	2	See CA_2C Bandwidth combination set 0 in Table 5.6A.1-1						50	0
		30			Yes	Yes				
CA_2A-38A	-	2			Yes	Yes	Yes	Yes	40	0
		38			Yes	Yes	Yes	Yes		
CA_2A-46A	CA_2A-46A	2			Yes	Yes	Yes	Yes	40	0
		46						Yes		
CA_2A-2A-46A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in table 5.6A.1-3						60	0
		46						Yes		
CA_2A-46A-46C	-	2			Yes	Yes	Yes	Yes	80	0
		46	See CA_46A-46C Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-46C	-	2			Yes	Yes	Yes	Yes	60	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_2A-2A-46C	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_2A-46D	-	2			Yes	Yes	Yes	Yes	80	0
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_2A-46E	-	2			Yes	Yes	Yes	Yes	100	0
		46	See CA_46E Bandwidth combination set 0 in the Table 5.6A.1-1							
CA_2A-2A-46E	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						120	0
		46	See CA_46E Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_2A-46A-46A	-	2			Yes	Yes	Yes	Yes	60	0
		46	See CA_46A-46A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_2A-46A-46A-46A	-	2			Yes	Yes	Yes	Yes	80	0
		46	See CA_46A-46A-46A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_2A-46A-46D	-	2			Yes	Yes	Yes	Yes	100	0
		46	See CA_46A-46D Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-48A	CA_2A-48A	2			Yes	Yes	Yes	Yes	40	0
		48			Yes	Yes	Yes	Yes		
CA_2A-48A-48A	CA_2A-48A	2			Yes	Yes	Yes	Yes	60	0
		48	See CA_48A-48A Bandwidth combination set 0 in the Table 5.6A.1-3							
CA_2A-48A-48A-48A	-	2			Yes	Yes	Yes	Yes	80	0

		48	See CA_48A-48A-48A Bandwidth combination set 0 in the Table 5.6A.1-3								
CA_2A-48C	CA_2A-48A, CA_48C	2			Yes	Yes	Yes	Yes	60	0
		48	See CA_48C Bandwidth combination set 0 in Table 5.6A.1-1								
CA_2A-48A-48C	CA_2A-48A	2			Yes	Yes	Yes	Yes	80	0
		48	See the CA_48A-48C Bandwidth combination set 0 in the Table 5.6A.1-3								
CA_2A-48A-48D	CA_2A-48A	2			Yes	Yes	Yes	Yes	100	0
		48	See CA_48A-48D Bandwidth Combination Set 0 in Table 5.6A.1-3								
CA_2A-48C-48C	CA_2A-48A	2			Yes	Yes	Yes	Yes	100	0
		48	See CA_48C-48C Bandwidth Combination Set 0 in Table 5.6A.1-3								
CA_2A-48D	CA_2A-48A	2			Yes	Yes	Yes	Yes	80	0
		48	See the CA_48D Bandwidth combination set 0 in the Table 5.6A.1-1								
CA_2A-48E	CA_2A-48A	2			Yes	Yes	Yes	Yes	100	0
		48	See CA_48E Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_2A-49A	CA_2A-49A	2			Yes	Yes	Yes	Yes	40	0
		49				Yes		Yes			
CA_2A-66A	CA_2A-66A	2	Yes	Yes	Yes	Yes	Yes	Yes	40	0
		66			Yes	Yes	Yes	Yes		
		2			Yes	Yes			20	1
		66			Yes	Yes				
		2			Yes	Yes	Yes	Yes	40	2
		66			Yes	Yes	Yes	Yes		
CA_2A-66B	CA_66B	2			Yes	Yes	Yes	Yes	40	0
		66	See CA_66B Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_2A-66C	-	2			Yes	Yes	Yes	Yes	60	0
		66	See CA_66C Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_2A-66D	-	2			Yes	Yes	Yes	Yes	80	0
		66	See CA_66D Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_2A-2A-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						60	0	
		66			Yes	Yes	Yes	Yes			
CA_2A-2A-66A-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0	
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3								
CA_2A-2A-66A-66B	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0	
		66	See CA_66A-66B Bandwidth Combination Set 0 in Table 5.6A.1-3								
CA_2A-2A-66A-66C	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						100	0	
		66	See CA_66A-66C Bandwidth Combination Set 0 in Table 5.6A.1-3								
CA_2A-66A-66A	-	2			Yes	Yes	Yes	Yes	60	0	
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3								
CA_2A-66A-66A-66A	-	2			Yes	Yes	Yes	Yes	80	0	
		66	See CA_66A-66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-4								
CA_2A-66A-66B	CA_66B	2			Yes	Yes	Yes	Yes	60	0	
		66	See CA_66A-66B Bandwidth combination set 0 in Table 5.6A.1-3								
CA_2A-66A-66C		2			Yes	Yes	Yes	Yes	80	0	
		66	See CA_66A-66C Bandwidth combination set 0 in Table 5.6A.1-3								

CA_2A-2A-66B	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						60	0
		66	See CA_66B Bandwidth combination set 0 in Table 5.6A.1-1							
CA_2A-2A-66C	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0
		66	See CA_66C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_2A-2A-66D		2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						100	0
		66	See CA_66D Bandwidth combination set 0 in Table 5.6A.1-1							
CA_2C-66A	-	2	See CA_2C Bandwidth combination set 0 in Table 5.6A.1-1						60	0
		66			Yes	Yes	Yes	Yes		
CA_2C-66A-66A		2	See CA_2C Bandwidth combination set 0 in Table 5.6A.1-1						80	0
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-71A	-	2			Yes	Yes	Yes	Yes	40	0
		71			Yes	Yes	Yes	Yes		
		2			Yes	Yes			20	1
		71			Yes	Yes				
CA_2A-2A-71A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						60	0
		71			Yes	Yes	Yes	Yes		
CA_3A-5A	CA_3A-5A	3				Yes	Yes	Yes	30	0
		5			Yes	Yes				
		3				Yes			20	1
		5			Yes	Yes				
		3			Yes	Yes	Yes	Yes	30	2
		5			Yes	Yes				
		3			Yes	Yes	Yes	Yes	30	3
		5		Yes	Yes	Yes				
		3		Yes	Yes	Yes			20	4
		5		Yes	Yes	Yes				
CA_3A-3A-5A	-	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3						50	0
		5			Yes	Yes				
CA_3C-5A	-	3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1						50	0
		5			Yes	Yes				
CA_3A-7A	CA_3A-7A	3			Yes	Yes	Yes	Yes	40	0
		7				Yes	Yes	Yes		
		3			Yes	Yes	Yes	Yes	40	1
		7			Yes	Yes	Yes	Yes		
CA_3A-3A-7A	CA_3A-7A	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3						60	0
		7			Yes	Yes	Yes	Yes		
		3	See CA_3A-3A Bandwidth Combination Set 1 in Table 5.6A.1-3						50	1
		7			Yes	Yes	Yes	Yes		
CA_3A-3A-7A-7A	CA_3A-7A	3	See CA_3A-3A Bandwidth Combination Set 0 in table 5.6A.1-3						80	0
		7	See CA_7A-7A Bandwidth Combination Set 1 in table 5.6A.1-3							
		3	See CA_3A-3A Bandwidth Combination Set 1 in table 5.6A.1-3						60	1
		7	See CA_7A-7A Bandwidth Combination Set 2 in table 5.6A.1-3							
CA_3A-3A-7C	7C	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0
		7	See CA_7C in Table 5.6A.1-1 of 36.101 Bandwidth combination set 2							

CA_3A-3A-38A	-	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3						60	0
		38			Yes	Yes	Yes	Yes		
CA_3A-3A-42D	CA_3A-42A	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3						100	0
		42	See CA_42D Bandwidth Combination Set 0 in Table 5.6A.1-1:							
CA_3A-7A-7A	CA_3A-7A	3			Yes	Yes	Yes	Yes	60	0
		7	See CA_7A-7A Bandwidth combination set 1 in table 5.6A.1-3							
		3			Yes	Yes	Yes	Yes	50	1
		7	See CA_7A-7A Bandwidth combination set 2 in table 5.6A.1-3							
CA_3A-7B	-	3			Yes	Yes	Yes	Yes	40	0
		7	See CA_7B bandwidth combination set 0 in table 5.6A.1-1							
CA_3A-7C	CA_3A-7A CA_7C	3			Yes	Yes	Yes	Yes	60	0
		7	See CA_7C Bandwidth combination set 1 in table 5.6A.1-1							
		3			Yes	Yes	Yes	Yes	60	1
		7	See CA_7C Bandwidth combination set 2 in table 5.6A.1-1							
CA_3C-7A	CA_3A-7A CA_3C	3	See CA_3C Bandwidth Combination Set 0 in table 5.6A.1-1						60	0
		7			Yes	Yes	Yes	Yes		
CA_3C-7C	CA_3A-7A, CA_3C, CA_7C	3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1						80	0
		7	See CA_7C Bandwidth Combination Set 2 in Table 5.6A.1-1							
		3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1						80	1
		7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_3A-8A	CA_3A-8A	3				Yes	Yes	Yes	30	0
		8			Yes	Yes				
		3				Yes			20	1
		8			Yes	Yes				
		3			Yes	Yes	Yes	Yes	30	2
		8		Yes	Yes	Yes				
		3			Yes	Yes	Yes	Yes	30	3
		8			Yes	Yes				
CA_3A-8B	-	3			Yes	Yes	Yes	Yes	40	0
		8	See CA_8B Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3A-3A-8A	CA_3A-8A	3	See CA_3A-3A Bandwidth Combination Set 0 in table 5.6A.1-3						50	0
		8			Yes	Yes				
		3	See CA_3A-3A Bandwidth Combination Set 1 in table 5.6A.1-3						40	1
		8			Yes	Yes				
CA_3A-3A-8B	-	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3						60	0
		8	See CA_8B Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3C-8A	CA_3A-8A, CA_3C	3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1						50	0
		8		Yes	Yes	Yes				
CA_3A-11A	CA_3A-11A	3			Yes	Yes	Yes	Yes	30	0
		11			Yes	Yes				
CA_3A-18A	CA_3A-18A	3			Yes	Yes	Yes	Yes	35	0
		18			Yes	Yes	Yes			
CA_3A-19A	CA_3A-19A	3			Yes	Yes	Yes	Yes	35	0
		19			Yes	Yes	Yes			

CA_3A-3A-19A	CA_3A-19A	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							55	0
		19			Yes	Yes	Yes				
CA_3A-20A	CA_3A-20A	3			Yes	Yes	Yes	Yes		30	0
		20			Yes	Yes					
		3			Yes	Yes	Yes	Yes		40	1
		20			Yes	Yes	Yes	Yes			
CA_3A-3A-20A	-	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							60	0
		20			Yes	Yes	Yes	Yes			
CA_3C-20A	CA_3C	3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1							60	0
		20			Yes	Yes	Yes	Yes			
CA_3A-21A	CA_3A-21A	3			Yes	Yes	Yes	Yes		35	0
		21			Yes	Yes	Yes				
CA_3A-3A-21A	CA_3A-21A	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							55	0
		21			Yes	Yes	Yes				
CA_3A-26A	CA_3A-26A	3			Yes	Yes	Yes	Yes		35	0
		26			Yes	Yes	Yes				
		3			Yes	Yes				20	1
		26			Yes	Yes					
CA_3C-26A	CA_3C	3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1							55	0
		26			Yes	Yes	Yes				
CA_3A-27A	-	3			Yes	Yes	Yes	Yes		30	0
		27			Yes	Yes					
CA_3A-28A	CA_3A-28A	3			Yes	Yes	Yes	Yes		40	0
		28			Yes	Yes	Yes	Yes			
		3		Yes	Yes	Yes	Yes	Yes		40	1
		28			Yes	Yes	Yes	Yes			
CA_3A-3A-28A	-	3	See CA_3A-3A Bandwidth combination set 0 in Table 5.6A.1-1							60	0
		28			Yes	Yes	Yes	Yes			
CA_3C-28A	CA_3C	3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1							60	0
		28			Yes	Yes	Yes	Yes			
CA_3A-31A	-	3			Yes	Yes	Yes	Yes		25	0
		31		Yes	Yes						
CA_3A-32A	-	3			Yes	Yes	Yes	Yes		40	0
		32			Yes	Yes	Yes	Yes			
CA_3C-32A	-	3	See the CA_3C Bandwidth combination Set 0 in Table 5.6A.1-1							60	0
		32			Yes	Yes	Yes	Yes			
CA_3A-38A	CA_3A-38A	3			Yes	Yes	Yes	Yes		40	0
		38			Yes	Yes	Yes	Yes			
CA_3C-38A	CA_3C	3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							60	0
		38			Yes	Yes	Yes	Yes			
CA_3A-40A	CA_3A-40A	3			Yes	Yes	Yes	Yes		40	0
		40			Yes	Yes	Yes	Yes			
		3	Yes	Yes	Yes	Yes	Yes	Yes		40	1
		40			Yes	Yes	Yes	Yes			
CA_3A-40A-40A	-	3			Yes	Yes				50	0
		40	See CA_40A-40A Bandwidth Combination Set 0 in Table 5.6A.1-3								
	CA_3A-40A	3			Yes	Yes	Yes	Yes		60	1
		40	See CA_40A-40A Bandwidth Combination Set 1 in Table 5.6A.1-3								
CA_3A-40C	CA_3A-40A	3			Yes	Yes	Yes	Yes		60	0
		40	See CA_40C Bandwidth Combination Set 1 in Table 5.6A.1-1								
CA_3A-40D	CA_3A-40A	3			Yes	Yes	Yes	Yes		80	0

		40	See CA_40D Bandwidth Combination Set 0 in Table 5.6A.1-1									
CA_3A-40E	-	3			Yes	Yes	Yes	Yes				
		40	See CA_40E Bandwidth Combination Set 0 in Table 5.6A.1-1								100	0
CA_3C-40A	-	3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1								60	0
		40			Yes	Yes	Yes	Yes				
CA_3C-40C	-	3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1								80	0
		40	See CA_40C Bandwidth Combination Set 1 in Table 5.6A.1-1									
CA_3A-41A	CA_3A-41A	3			Yes	Yes	Yes	Yes			40	0
		41			Yes	Yes	Yes	Yes				
		3		Yes	Yes	Yes	Yes	Yes			40	1
		41			Yes	Yes	Yes	Yes				
CA_3A-3A-41A	-	3			Yes	Yes	Yes	Yes			60	0
		3			Yes	Yes	Yes	Yes				
		41			Yes	Yes	Yes	Yes				
CA_3A-41C	CA_3A-41A, CA_3A-41C, CA_41C	3			Yes	Yes	Yes	Yes			60	0
		41	See CA_41C Bandwidth Combination Set 0 in Table 5.6A.1-1									
CA_3A-41D	CA_3A-41A, CA_41C	3			Yes	Yes	Yes	Yes			80	0
		41	See CA_41D Bandwidth Combination Set 0 in Table 5.6A.1-1									
CA_3C-41A	-	3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1								60	0
		41			Yes	Yes	Yes	Yes				
CA_3C-41C	-	3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1								80	0
		41	See CA_41C Bandwidth Combination Set 0 in Table 5.6A.1-1									
CA_3C-41D	-	3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1								100	0
		41	See CA_41D Bandwidth Combination Set 0 in Table 5.6A.1-1									
CA_3A-42A	CA_3A-42A	3			Yes	Yes	Yes	Yes			40	0
		42			Yes	Yes	Yes	Yes				
CA_3A-3A-42A	CA_3A-42A	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3								60	0
		42			Yes	Yes	Yes	Yes				
CA_3A-42C	CA_3A-42A, CA_42C CA_3A-42C	3			Yes	Yes	Yes	Yes			60	0
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1									
CA_3A-42D	CA_3A-42A	3			Yes	Yes	Yes	Yes			80	0
		42	See CA_42D Bandwidth Combination Set 0 in Table 5.6A.1-1									
CA_3A-3A-42C	CA_3A-42A	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3								80	0
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1									
CA_3A-42A-42A	CA_3A-42A	3			Yes	Yes	Yes	Yes			60	0
		42	See CA_42A-42A Bandwidth Combination Set 0 in Table 5.6A.1-3									
CA_3A-42A-42C	CA_3A-42A, CA_42C	3			Yes	Yes	Yes	Yes			80	0
		42	See CA_42A-42C Bandwidth Combination Set 0 in Table 5.6A.1-3									
CA_3A-42C-42C	CA_3A-42A, CA_42C	3			Yes	Yes	Yes	Yes			100	0
		42	See CA_42C-42C Bandwidth Combination Set 0 in Table 5.6A.1-3									
CA_3A-42E	CA_3A-42A	3			Yes	Yes	Yes	Yes			100	0
		42	See CA_42E Bandwidth Combination Set 0 in Table 5.6A.1-1									
CA_3A-43A	-	3			Yes	Yes	Yes				35	0

		43			Yes	Yes	Yes	Yes		
CA_3A-46A	-	3			Yes	Yes	Yes	Yes	40	0
		46						Yes		
		3		Yes	Yes	Yes	Yes	Yes	40	1
		46				Yes		Yes		
CA_3A-46C	-	3			Yes	Yes	Yes	Yes	60	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
	-	3		Yes	Yes	Yes	Yes	Yes	60	1
		46	See CA_46C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_3A-46D	-	3			Yes	Yes	Yes	Yes	80	0
		46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							
		3		Yes	Yes	Yes	Yes	Yes	80	1
		46	See CA_46D Bandwidth combination set 1 in Table 5.6A.1-1							
CA_3A-46E	-	3			Yes	Yes	Yes	Yes	100	0
		46	See CA_46E Bandwidth Combination Set 0 in Table 5.6A.1-1							
		3			Yes	Yes	Yes	Yes	100	1
		46	See CA_46E Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_3A-3A-46A		3	See CA_3A-3A Bandwidth Combination Set 0 in table 5.6A.1-3						60	0
		46						Yes		
CA_3A-3A-46C	-	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3C-46A	-	3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1						60	0
		46						Yes		
CA_3C-46C	-	3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1						80	0
		46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_3C-46D	-	3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1						100	0
		46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							
CA_3A-69A	-	3			Yes	Yes	Yes	Yes	40	0
		69			Yes	Yes	Yes	Yes		
CA_4A-5A	CA_4A-5A	4			Yes	Yes			20	0
		5			Yes	Yes				
		4			Yes	Yes	Yes	Yes	30	1
		5			Yes	Yes				
CA_4A-4A-5A	-	4	See CA_4A-4A Bandwidth Combination Set 0 in table 5.6A.1-3						50	0
		5			Yes	Yes				
CA_4A-5B	CA_5B	4			Yes	Yes	Yes	Yes	40	0
		5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_4A-4A-5B	CA_4A-5A, CA_5B	4	See CA_4A-4A Bandwidth Combination Set 0 in Table 5.6A.1-3						60	0
		5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_4A-7A	CA_4A-7A	4			Yes	Yes			30	0
		7			Yes	Yes	Yes	Yes		
		4			Yes	Yes	Yes	Yes	40	1
		7			Yes	Yes	Yes	Yes		
CA_4A-4A-7A	-	4			Yes	Yes			40	0
		4			Yes	Yes				
		7			Yes	Yes	Yes	Yes		

		4			Yes	Yes	Yes	Yes	60	1
		4			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
CA_4A-7A-7A	-	4			Yes	Yes	Yes	Yes	60	0
		7	See the CA_7A-7A Bandwidth combination set 1 in Table 5.6A.1-3							
CA_4A-7C	CA_4A-7A	4			Yes	Yes	Yes	Yes	60	0
		7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_4A-12A	CA_4A-12A	4	Yes	Yes	Yes	Yes			20	0
		12			Yes	Yes				
		4	Yes	Yes	Yes	Yes	Yes	Yes	30	1
		12			Yes	Yes				
		4			Yes	Yes	Yes	Yes	30	2
		12		Yes	Yes	Yes				
		4			Yes	Yes			20	3
		12			Yes	Yes				
		4			Yes	Yes	Yes	Yes	30	4
		12			Yes	Yes				
		4			Yes	Yes	Yes		20	5
		12			Yes					
CA_4A-4A-12A	-	4	See CA_4A-4A Bandwidth Combination Set 0 in Table 5.6A.1-3						50	0
		12			Yes	Yes				
CA_4A-12A-12A	-	4			Yes	Yes	Yes	Yes	30	0
		12	See CA_12A-12A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_4A-4A-12A-12A	-	4	See CA_4A-4A Bandwidth Combination Set 0 in Table 5.6A.1-3						50	0
		12	See CA_12A-12A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_4A-4A-12B	-	4	See CA_4A-4A Bandwidth Combination Set 0 in Table 5.6A.1-3						55	0
		12	See CA_12B Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_4A-12B	CA_4A-12A	4			Yes	Yes	Yes	Yes	35	0
		12	See CA_12B Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_4A-13A	CA_4A-13A	4			Yes	Yes	Yes	Yes	30	0
		13				Yes				
		4			Yes	Yes			20	1
		13				Yes				
CA_4A-4A-13A	-	4	See CA_4A-4A Bandwidth Combination Set 0 in Table 5.6A.1-3						50	0
		13				Yes				
CA_4A-17A	CA_4A-17A	4			Yes	Yes			20	0
		17			Yes	Yes				
CA_4A-27A	-	4			Yes	Yes	Yes	Yes	30	0
		27		Yes	Yes	Yes				
CA_4A-28A	CA_4A-28A	4			Yes	Yes	Yes	Yes	40	0
		28			Yes	Yes	Yes	Yes		
CA_4A-29A	-	4			Yes	Yes			20	0
		29		Yes	Yes	Yes				
		4			Yes	Yes			20	1
		29			Yes	Yes				
		4			Yes	Yes	Yes	Yes	30	2
		29			Yes	Yes				
CA_4A-4A-29A	-	4	See CA_4A-4A Bandwidth combination set 0 in Table 5.6A.1-3						50	0
		29			Yes	Yes				
CA_4A-30A	-	4			Yes	Yes	Yes	Yes	30	0
		30			Yes	Yes				

CA_4A-4A-30A	-	4	See CA_4A-4A Bandwidth combination set 0 in Table 5.6A.1-3								50	0
		30			Yes	Yes						
CA_4A-46A	-	4			Yes	Yes	Yes	Yes			40	0
		46						Yes				
CA_4A-46A-46A	-	4			Yes	Yes	Yes	Yes			60	0
		46	See CA_46A-46A Bandwidth combination set 0 in Table 5.6A.1-3									
CA_4A-46A-46C	-	4			Yes	Yes	Yes	Yes			80	0
		46	See CA_46A-46C Bandwidth Combination Set 0 in Table 5.6A.1-3									
CA_4A-46C	-	4			Yes	Yes	Yes	Yes			60	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1									
CA_4A-46D	-	4			Yes	Yes	Yes	Yes			80	0
		46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1									
CA_4A-46A-46D	-	4			Yes	Yes	Yes	Yes			100	0
		46	See CA_46A-46D Bandwidth combination set 0 in Table 5.6A.1-3									
CA_4A-48A	-	4			Yes	Yes	Yes	Yes			40	0
		48			Yes	Yes	Yes	Yes				
CA_4A-48C	-	4			Yes	Yes	Yes	Yes			60	0
		48	See CA_48C Bandwidth combination set 0 in Table 5.6A.1-1									
CA_4A-48D	-	4			Yes	Yes	Yes	Yes			80	0
		48	See CA_48D Bandwidth combination set 0 in Table 5.6A.1-1									
CA_4A-48E	-	4			Yes	Yes	Yes	Yes			100	0
		48	See CA_48E Bandwidth combination set 0 in Table 5.6A.1-1									
CA_4A-71A	-	4			Yes	Yes	Yes	Yes			40	0
		71			Yes	Yes	Yes	Yes				
CA_4A-4A-71A	-	4	See CA_4A-4A Bandwidth Combination Set 0 in Table 5.6A.1-3								60	0
		71			Yes	Yes	Yes	Yes				
CA_5A-7A	CA_5A-7A	5	Yes	Yes	Yes	Yes					30	0
		7				Yes	Yes	Yes				
		5			Yes	Yes					30	1
		7				Yes	Yes	Yes				
CA_5A-7A-7A	CA_5A-7A	5			Yes	Yes					50	0
		7	See CA_7A-7A Bandwidth Combination Set 3 in Table 5.6A.1-3									
CA_5A-7C	-	5			Yes	Yes					50	0
		7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1									
CA_5A-12A	CA_5A-12A	5			Yes	Yes					20	0
		12			Yes	Yes						
CA_5A-12A-12A	-	5			Yes	Yes					20	0
		12	See CA_12A-12A Bandwidth Combination Set 0 in Table 5.6A.1-3									
CA_5A-12B	-	5			Yes	Yes					25	0
		12	See CA_12B Bandwidth Combination Set 0 in Table 5.6A.1-1									
CA_5A-13A	-	5			Yes	Yes					20	0
		13				Yes						
CA_5A-17A	CA_5A-17A	5			Yes	Yes					20	0
		17			Yes	Yes						
CA_5A-25A	-	5			Yes	Yes					30	0
		25			Yes	Yes	Yes	Yes				
CA_5A-28A	-	5			Yes	Yes					30	0
		28			Yes	Yes	Yes	Yes				
CA_5A-29A	-	5			Yes	Yes					20	0

		29			Yes	Yes				
CA_5A-30A	CA_5A-30A	5			Yes	Yes			20	0
		30			Yes	Yes				
CA_5B-30A	-	5	See CA_5B Bandwidth combination set 0 in Table 5.6A.1-1						30	0
		30			Yes	Yes				
CA_5A-38A	-	5			Yes	Yes			30	0
		38			Yes	Yes	Yes	Yes		
CA_5A-40A	CA_5A-40A	5			Yes	Yes			30	0
		40			Yes	Yes	Yes	Yes		
		5		Yes	Yes	Yes			30	1
		40			Yes	Yes	Yes	Yes		
CA_5A-5A-40A	-	5	See CA_5A-5A Bandwidth Combination Set 0 in table 6.140.2-2						40	0
		40				Yes		Yes		
CA_5A-40A-40A	-	5			Yes	Yes			50	0
		40	See CA_40A-40A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_5A-40C	-	5			Yes	Yes			50	0
		40	See CA_40C Bandwidth Combination Set 1 in Table 5.6A.1-1							
		5		Yes	Yes	Yes			50	1
		40	See CA_40C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_5A-41A	-	5			Yes	Yes			30	0
		41						Yes		
CA_5A-46A	-	5			Yes	Yes			30	0
		46						Yes		
		5		Yes	Yes	Yes			30	1
		46				Yes		Yes		
CA_5A-46C	-	5			Yes	Yes			50	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
	-	5			Yes	Yes			50	1
		46	See CA_46C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_5A-46D	-	5			Yes	Yes			70	0
		46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							
		5			Yes	Yes			70	1
		46	See CA_46D Bandwidth combination set 1 in Table 5.6A.1-1							
CA_5A-46E	-	5			Yes	Yes			90	0
		46	See CA_46E of Bandwidth Combination Set 0 in Table 5.6A.1-1							
		5			Yes	Yes			90	1
		46	See CA_46E of Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_5B-46A	-	5	See CA_5B Bandwidth combination set 0 in Table 5.6A.1-1						40	0
		46						Yes		
CA_5B-46C	-	5	See CA_5B Bandwidth combination set 0 in Table 5.6A.1-1						60	0
		46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_5B-46D	-	5	See CA_5B Bandwidth combination set 0 in Table 5.6A.1-1						80	0
		46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							
CA_5B-46E	-	5	See CA_5B Bandwidth combination set 0 in Table 5.6A.1-1						100	0
		46	See CA_46E Bandwidth combination set 0 in Table 5.6A.1-1							
CA_5A-48A	-	5			Yes	Yes			30	0

		48			Yes	Yes	Yes	Yes		
CA_5A-48C	-	5			Yes	Yes			50	0
		48	See CA_48C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_5A-48D	-	5			Yes	Yes			70	0
		48	See CA_48D Bandwidth combination set 0 in the Table 5.6A.1-1							
CA_5A-66A	CA_5A-66A	5			Yes	Yes			30	0
		66			Yes	Yes	Yes	Yes		
CA_5A-5A-66A	CA_5A-66A	5	See CA_5A-5A Bandwidth combination set 0 in Table 5.6A.1-3						40	0
		66			Yes	Yes	Yes	Yes		
CA_5A-5A-66A-66A	CA_5A-66A	5	See CA_5A-5A Bandwidth Combination Set 0 in Table 5.6A.1-3						60	0
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_5A-5A-66A-66B	CA_5A-66A, CA_66B	5	See CA_5A-5A Bandwidth Combination Set 0 in Table 5.6A.1-3						60	0
		66	See CA_66A-66B Bandwidth combination set 0 in Table 5.6A.1-3							
CA_5A-5A-66A-66C	CA_5A-66A	5	See CA_5A-5A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0
		66	See CA_66A-66C Bandwidth Combination set 0 in Table 5.6A.1-3							
CA_5A-5A-66B	CA_5A-66A, CA_66B	5	See CA_5A-5A Bandwidth Combination Set 0 in Table 5.6A.1-3						40	0
		66	See CA_66B Bandwidth combination set 0 in Table 5.6A.1-1							
CA_5A-5A-66C	CA_5A-66A	5	See CA_5A-5A Bandwidth Combination Set 0 in Table 5.6A.1-3						60	0
		66	See CA_66C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_5A-5A-66D	CA_5A-66A	5	See CA_5A-5A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0
		66	See CA_66D Bandwidth combination set 0 in Table 5.6A.1-1							
CA_5A-66A-66A	CA_5A-66A	5			Yes	Yes			50	0
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_5A-66A-66C	CA_5A-66A	5			Yes	Yes			70	0
		66	See CA_66A-66C Bandwidth combination set 0 in Table 5.6A.1-3							
CA_5A-66B	CA_66B	5			Yes	Yes			30	0
		66	See CA_66B Bandwidth combination set 0 in Table 5.6A.1-1							
CA_5A-66C	-	5			Yes	Yes			50	0
		66	See CA_66C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_5A-66D		5			Yes	Yes			70	0
		66	See CA_66D Bandwidth combination set 0 in Table 5.6A.1-1							
CA_5B-66A	CA_5B	5	See CA_5B Bandwidth combination set 0 in Table 5.6A.1-1						40	0
		66			Yes	Yes	Yes	Yes		
CA_5B-66A-66A		5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1						60	0
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_5A-66A-66B	CA_66B	5			Yes	Yes			50	0
		66	See CA_66A-66B Bandwidth combination set 0 in Table 5.6A.1-3							
CA_5B-66A-66B	-	5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1						60	0
		66	See CA_66A-66B Bandwidth Combination Set 0 in Table 5.6A.1-3							

CA_5B-66A-66C	-	5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1						80	0
		66	See CA_66A-66C Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_5B-66B	CA_5B, CA_66B	5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1						40	0
		66	See CA_66B Bandwidth combination set 0 in Table 5.6A.1-1							
CA_5B-66C		5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1						60	0
		66	See CA_66C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_7A-8A	CA_7A-8A	7				Yes	Yes	Yes	30	0
		8		Yes	Yes	Yes				
		7				Yes	Yes	Yes	30	1
		8			Yes	Yes				
		7			Yes	Yes	Yes	Yes	30	2
		8			Yes	Yes				
CA_7A-7A-8A	CA_7A-8A	7	See CA_7A-7A Bandwidth Combination Set 1 in Table 5.6A.1-3						50	0
		8			Yes	Yes				
		7	See CA_7A-7A Bandwidth Combination Set 2 in Table 5.6A.1-3						40	1
		8			Yes	Yes				
CA_7A-8B	-	7				Yes	Yes	Yes	40	0
		8	See CA_8B Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_7A-7A-8B	-	7	See CA_7A-7A Bandwidth Combination Set 2 in Table 5.6A.1-3						60	0
		8	See CA_8B Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_7A-12A	-	7			Yes	Yes	Yes	Yes	30	0
		12			Yes	Yes				
CA_7A-12B	-	7			Yes	Yes	Yes	Yes	35	0
		12	See CA_12B Bandwidth combination set 0 in Table 5.6A.1-1							
CA_7A-13A	-	7			Yes	Yes	Yes	Yes	30	0
		13			Yes	Yes				
CA_7C-13A	-	7	See CA_7C Bandwidth combination set 1 in Table 5.6A.1-1						50	0
		13			Yes	Yes				
CA_7A-7A-13A	-	7	See CA_7A-7A Bandwidth combination set 1 in Table 5.6A.1-3						50	0
		13			Yes	Yes				
CA_7A-20A	CA_7A-20A	7				Yes	Yes	Yes	30	0
		20			Yes	Yes				
		7				Yes	Yes	Yes	40	1
		20			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes	40	2
		20			Yes	Yes	Yes	Yes		
CA_7A-7A-20A	-	7	See CA_7A-7A Bandwidth Combination Set 3 in Table 5.6A.1-3						60	0
		20			Yes	Yes	Yes	Yes		
CA_7C-20A	-	7	See CA_7C Bandwidth Combination Set 1 in table 5.6A.1-1						60	0
		20			Yes	Yes	Yes	Yes		
CA_7A-22A	-	7				Yes	Yes	Yes	40	0
		22			Yes	Yes	Yes	Yes		
CA_7A-25A	-	7			Yes	Yes	Yes	Yes	40	0
		25	Yes	Yes	Yes	Yes	Yes	Yes		
CA_7A-7A-25A	-	7	See CA_7A-7A Bandwidth Combination Set 1 in Table 5.6A.1-3						60	0
		25	Yes	Yes	Yes	Yes	Yes	Yes		

CA_7C-25A	-	7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1							60	0
		25	Yes	Yes	Yes	Yes	Yes	Yes			
CA_7A-25A-25A	-	7			Yes	Yes	Yes	Yes		60	0
		25	See CA_25A-25A Bandwidth Combination Set 1 in Table 5.6A.1-3								
CA_7A-7A-25A-25A	-	7	See CA_7A-7A Bandwidth Combination Set 1 in Table 5.6A.1-3							80	0
		25	See CA_25A-25A Bandwidth Combination Set 1 in Table 5.6A.1-3								
CA_7C-25A-25A	-	7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1							80	0
		25	See CA_25A-25A Bandwidth Combination Set 1 in Table 5.6A.1-3								
CA_7A-26A	CA_7A-26A	7			Yes	Yes	Yes	Yes		35	0
		26			Yes	Yes	Yes				
CA_7A-7A-26A	CA_7A-26A	7	See CA_7A-7A bandwidth combination set 3 in table 5.6A.1-3							55	0
		26			Yes	Yes	Yes				
CA_7C-26A	CA_7C	7	See CA_7C bandwidth combination set 2 in table 5.6A.1-1							55	0
		26			Yes	Yes	Yes				
CA_7A-28A	CA_7A-28A	7			Yes	Yes	Yes	Yes		35	0
		28			Yes	Yes	Yes				
		7			Yes	Yes	Yes	Yes		40	1
		28			Yes	Yes	Yes	Yes			
CA_7A-7A-28A	-	7	See CA_7A-7A Bandwidth combination set 3 in Table 5.6A.1-3							60	0
		28				Yes	Yes	Yes			
CA_7B-28A	-	7	See CA_7B bandwidth combination set 0 in table 5.6A.1-1							40	0
		28			Yes	Yes	Yes	Yes			
CA_7C-28A	CA_7A-28A CA_7C	7	See CA_7C bandwidth combination set 2 in table 5.6A.1-1							60	0
		28			Yes	Yes	Yes	Yes			
		7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1							60	1
		28			Yes	Yes	Yes	Yes			
CA_7A-29A	-	7			Yes	Yes	Yes	Yes		30	0
		29			Yes	Yes					
CA_7A-7A-29A	-	**7**	See CA_7A-7A Bandwidth combination set 1 in table 5.6A.1-3 of 36.101							50	0
		29			Yes	Yes					
CA_7C-29A	-	**7**	See CA_7C Bandwidth combination set 2 in table 5.6A.1-1 of 36.101							50	0
		29			Yes	Yes					
CA_7A-30A	-	7			Yes	Yes	Yes	Yes		30	0
		30			Yes	Yes					
CA_7A-32A	-	7				Yes	Yes	Yes		40	0
		32			Yes	Yes	Yes	Yes			
CA_7A-40A	-	7			Yes	Yes	Yes	Yes		40	0
		40			Yes	Yes	Yes	Yes			
CA_7A-40A-40A	-	7			Yes	Yes	Yes	Yes		60	0
		40	See CA_40A-40A Bandwidth Combination Set 1 in Table 5.6A.1-3								
CA_7A-40C	-	7			Yes	Yes	Yes	Yes		60	0
		40	See CA_40C Bandwidth Combination Set 1 in Table 5.6A.1-1								
CA_7A-40D	-	7			Yes	Yes	Yes	Yes		80	0
		40	See CA_40D Bandwidth combination set 0 in Table 5.6A.1-1								
CA_7A-40E	-	7			Yes	Yes	Yes	Yes		100	0
		40	See CA_40E Bandwidth combination set 0 in Table 5.6A.1-1								

CA_7A-42A	-	7			Yes	Yes	Yes	Yes	40	0
		42			Yes	Yes	Yes	Yes		
CA_7A-42A-42A	-	7			Yes	Yes	Yes	Yes	60	0
		42	See CA_42A-42A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_7A-46A	-	7			Yes	Yes	Yes	Yes	40	0
		46						Yes		
		7			Yes	Yes	Yes	Yes	40	1
		46				Yes		Yes		
CA_7A-7A-46C	-	7	See CA_7A-7A Bandwidth Combination Set 1 in Table 5.6A.1-3						80	0
		46	See CA_46C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_7A-46C	-	7			Yes	Yes	Yes	Yes	60	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
	-	7			Yes	Yes	Yes	Yes	60	1
		46	See CA_46C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_7A-46D	-	7			Yes	Yes	Yes	Yes	80	0
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							
		7			Yes	Yes	Yes	Yes	80	1
		46	See CA_46D Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_7A-46E	-	7			Yes	Yes	Yes	Yes	100	0
		46	See CA_46E Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_7A-7A-46E	-	7	See CA_7A-7A Bandwidth combination set 1 in table 5.6A.1-3 of 36.101						120	0
		46	See CA_46E Bandwidth combination set 0 in table 5.6A.1-3 of 36.101							
CA_7C-46C	-	7	See CA_7C Bandwidth Combination Set 2 in Table 5.6A.1-1						80	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_7C-46D	-	7	See CA_7C Bandwidth Combination Set 2 in Table 5.6A.1-1						100	0
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_7C-46E	-	7	See CA_7C Bandwidth Combination Set 2 in Table 5.6A.1-1						120	0
		46	See CA_46E Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_7A-7A-46A	-	7	See CA_7A-7A Bandwidth Combination Set 1 in table 5.6A.1-3						60	0
		46						Yes		
CA_7A-7A-46D	-	7	See CA_7A-7A Bandwidth Combination Set 1 in table 5.6A.1-3						100	0
		46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							
CA_7A-66A	-	7			Yes	Yes	Yes	Yes	40	0
		66			Yes	Yes	Yes	Yes		
CA_7A-7A-66A-66A	-	7	See CA_7A-7A Bandwidth combination set 1 in table 5.6A.1-3						80	0
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_7C-66A	-	7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1						60	0
		66			Yes	Yes	Yes	Yes		
CA_7C-46A	-	7	See CA_7C Bandwidth Combination set 2 in Table 5.6A.1-1						60	0
		46						Yes		
CA_7A-7A-66A	-	7	See CA_7A-7A Bandwidth combination set 1 in table 5.6A.1-3						60	0

		66			Yes	Yes	Yes	Yes		
CA_7A-66A-66A	-	7			Yes	Yes	Yes	Yes	60	0
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_7C-66A-66A	-	7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1						80	0
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_7A-71A	-	7			Yes	Yes	Yes	Yes	40	0
		71			Yes	Yes	Yes	Yes		
CA_8A-11A	-	8			Yes	Yes			20	0
		11			Yes	Yes				
CA_8A-20A	CA_8A-20A	8			Yes	Yes			20	0
		20			Yes	Yes				
		8		Yes	Yes	Yes			20	1
		20			Yes	Yes				
		8			Yes	Yes			30	2
		20				Yes	Yes	Yes		
CA_8A-27A	-	8			Yes	Yes			20	0
		27			Yes	Yes				
CA_8A-28A	CA_8A-28A	8		Yes	Yes	Yes			30	0
		28			Yes	Yes	Yes	Yes		
CA_8A-32A	-	8		Yes	Yes	Yes			30	0
		32			Yes	Yes	Yes	Yes		
CA_8A-38A	-	8			Yes	Yes			30	0
		38			Yes	Yes	Yes	Yes		
CA_8A-39A	CA_8A-39A	8	Yes	Yes	Yes	Yes			30	0
		39			Yes	Yes	Yes	Yes		
CA_8A-39C	-	8	Yes	Yes	Yes	Yes			45	0
		39	See CA_39C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_8B-39A	-	8	See CA_8B Bandwidth Combination Set 0 in Table 5.6A.1-1						40	0
		39			Yes	Yes	Yes	Yes		
CA_8B-39C	-	8	See CA_8B Bandwidth Combination Set 0 in Table 5.6A.1-1						55	0
		39	See CA_39C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_8A-40A	-	8			Yes	Yes			30	0
		40			Yes	Yes	Yes	Yes		
	-	8		Yes	Yes	Yes			30	1
		40			Yes	Yes	Yes	Yes		
CA_8A-40C	-	8			Yes	Yes			50	0
		40	See CA_40C Bandwidth combination set 1 in Table 5.6A.1-1							
CA_8A-41A	CA_8A-41A	8	Yes	Yes	Yes	Yes			30	0
		41				Yes		Yes		
		8			Yes	Yes			30	1
		41			Yes	Yes	Yes	Yes		
CA_8A-41C	-	8	Yes	Yes	Yes	Yes			50	0
		41	See CA_41C bandwidth combination set 3 in table 5.6A.1-1							
CA_8A-41D	-	8	Yes	Yes	Yes	Yes			70	0
		41	See CA_41D bandwidth combination set 0 in table 5.6A.1-1							
CA_8B-41A	-	8	See CA_8B Bandwidth combination set 0 in Table 5.6A.1-1						40	0
		41						Yes		
CA_8B-41C	-	8	See CA_8B bandwidth combination set 0 in table 5.6A.1-1						60	0
		41	See CA_41C bandwidth combination set 3 in table 5.6A.1-1							

CA_8B-41D	-	8	See CA_8B bandwidth combination set 0 in table 5.6A.1-1						80	0
		41	See CA_41D bandwidth combination set 0 in table 5.6A.1-1							
CA_8A-42A	-	8	Yes	Yes	Yes	Yes			30	0
		42			Yes	Yes	Yes	Yes		
CA_8A-42C	-	8	Yes	Yes	Yes	Yes			50	0
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_8A-46A	-	8	Yes	Yes	Yes	Yes			30	0
		46						Yes		
CA_8A-46C	-	8	Yes	Yes	Yes	Yes			50	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_8A-46D	-	8	Yes	Yes	Yes	Yes			70	0
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_8A-46E	-	8	Yes	Yes	Yes	Yes			90	0
		46	See CA_46E Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_8B-46A	-	8	See CA_8B Bandwidth Combination Set 0 in Table 5.6A.1-1						40	0
		46						Yes		
CA_8B-46C	-	8	See CA_8B bandwidth combination set 0 in table 5.6A.1-1						60	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_8B-46D	-	8	See CA_8B Bandwidth Combination Set 0 in Table 5.6A.1-1						80	0
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_11A-18A	CA_11A-18A	11			Yes	Yes			25	0
		18			Yes	Yes	Yes			
CA_11A-26A	CA_11A-26A	11			Yes	Yes			25	0
		26			Yes	Yes	Yes			
CA_11A-28A	-	11			Yes	Yes			30	0
		28			Yes	Yes	Yes	Yes		
CA_11A-41A	-	11			Yes	Yes			30	0
		41			Yes	Yes	Yes	Yes		
CA_11A-41C	-	11			Yes	Yes			50	0
		41	See CA_41C bandwidth combination set 0 in table 5.6A.1-1							
CA_11A-42A	-	11			Yes	Yes			30	0
		42			Yes	Yes	Yes	Yes		
CA_11A-42C	-	11			Yes	Yes			50	0
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_11A-46A	-	11			Yes	Yes			30	0
		46						Yes		
CA_11A-46C	-	11			Yes	Yes			50	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_11A-46D	-	11			Yes	Yes			70	0
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_11A-46E	-	11			Yes	Yes			90	0
		46	See CA_46E Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_12A-25A	-	12			Yes	Yes			30	0
		25			Yes	Yes	Yes	Yes		
CA_12A-30A	CA_12A-30A	12			Yes	Yes			20	0
		30			Yes	Yes				
CA_12A-46A	-	12			Yes	Yes			30	0
		46						Yes		

CA_12A-48A		12			Yes	Yes			30	0
		48			Yes	Yes	Yes	Yes		
CA_12A-46C	-	12			Yes	Yes			50	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_12A-46D	-	12			Yes	Yes			70	0
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_12A-46E	-	12			Yes	Yes			90	0
		46	See CA_46E Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_12A-48C	-	12			Yes	Yes			50	0
		48	See CA_48C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_12A-48D	-	12			Yes	Yes			70	0
		48	See CA_48D Bandwidth combination set 0 in the Table 5.6A.1-1							
CA_12A-48E	-	12			Yes	Yes			90	0
		48	See CA_48E Bandwidth combination set 0 in the Table 5.6A.1-1							
CA_12A-66A	CA_12A-66A	12			Yes	Yes			20	0
		66	Yes	Yes	Yes	Yes				
		12			Yes	Yes			30	1
		66	Yes	Yes	Yes	Yes	Yes	Yes		
		12		Yes	Yes	Yes			30	2
		66			Yes	Yes	Yes	Yes		
		12			Yes	Yes			20	3
		66			Yes	Yes				
		12			Yes	Yes			30	4
		66			Yes	Yes	Yes	Yes		
		12			Yes				20	5
		66			Yes	Yes	Yes			
CA_12A-66A-66A	-	12			Yes	Yes			50	0
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_12A-66C	-	12			Yes	Yes			50	0
		66	See CA_66C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_12B-66A	-	12	See CA_12B bandwidth combination set 0 in table 5.6A.1-1						35	0
		66			Yes	Yes	Yes	Yes		
CA_12B-66A-66A	-	12	See CA_12B Bandwidth Combination Set 0 in Table 5.6A.1-1						55	0
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_13A-46A	-	13			Yes	Yes			30	0
		46						Yes		
CA_13A-46A-46A	-	13			Yes	Yes			50	0
		46	See CA_46A-46A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_13A-46A-46C	-	13			Yes	Yes			70	0
		46	See CA_46A-46C Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_13A-46A-46D	-	13			Yes	Yes			90	0
		46	See CA_46A-46D Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_13A-46C	-	13			Yes	Yes			50	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_13A-46D	-	13			Yes	Yes			70	0
		46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							
CA_13A-46E	-	13			Yes	Yes			90	0

		46	See CA_46E Bandwidth combination set 0 in Table 5.6A.1-1									
CA_13A-48A	-	13			Yes	Yes			30	0		
		48			Yes	Yes	Yes	Yes				
CA_13A-48A-48A	-	13			Yes	Yes			50	0		
		48	See CA_48A-48A Bandwidth combination set 0 in Table 5.6A.1-3									
CA_13A-48A-48C	-	13			Yes	Yes			70	0		
		48	See the CA_48A-48C Bandwidth combination set 0 in the Table 5.6A.1-3									
CA_13A-48A-48D	-	13			Yes	Yes			90	0		
		48	See CA_48A-48D Bandwidth Combination Set 0 in Table 5.6A.1-3									
CA_13A-48C-48C	-	13			Yes	Yes			90	0		
		48	See CA_48C-48C Bandwidth Combination Set 0 in Table 5.6A.1-3									
CA_13A-48B	-	13			Yes	Yes			30	0		
		48	See CA_48B Bandwidth combination set 0 in Table 5.6A.1-1									
CA_13A-48C	-	13			Yes	Yes			50	0		
		48	See CA_48C Bandwidth combination set 0 in Table 5.6A.1-1									
CA_13A-48D	-	13			Yes	Yes			70	0		
		48	See the CA_48D Bandwidth combination set 0 in the Table 5.6A.1-1									
CA_13A-48E	-	13			Yes	Yes			90	0		
		48	See CA_48E Bandwidth Combination Set 0 in Table 5.6A.1-1									
CA_13A-66A	CA_13A-66A	13			Yes	Yes			30	0		
		66			Yes	Yes	Yes	Yes				
CA_13A-66A-66A	CA_13A-66A	13			Yes	Yes			50	0		
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3									
CA_13A-66A-66B	-	13			Yes	Yes			50	0		
		66	See CA_66A-66B Bandwidth combination set 0 in Table 5.6A.1-3									
CA_13A-66A-66C	-	13			Yes	Yes			70	0		
		66	See CA_66A-66C Bandwidth combination set 0 in Table 5.6A.1-3									
CA_13A-66B	CA_13A-66A	13			Yes	Yes			30	0		
		66	See CA_66B Bandwidth combination set 0 in Table 5.6A.1-1									
CA_13A-66C	CA_13A-66A	13			Yes	Yes			50	0		
		66	See CA_66C Bandwidth combination set 0 in Table 5.6A.1-1									
CA_13A-66D	-	13			Yes	Yes			70	0		
		66	See CA_66D Bandwidth combination set 0 in Table 5.6A.1-1									
CA_14A-30A	CA_14A-30A	14			Yes	Yes			20	0		
		30			Yes	Yes						
CA_14A-66A	CA_14A-66A	14			Yes	Yes			30	0		
		66			Yes	Yes	Yes	Yes				
CA_14A-66A-66A	CA_14A-66A	14			Yes	Yes			50	0		
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3									
CA_14A-66A-66A-66A	CA_14A-66A	14			Yes	Yes			70	0		
		66	See CA_66A-66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-4									
CA_18A-28A	CA_18A-28A	18			Yes	Yes	Yes		25	0		
		28			Yes	Yes						
CA_18A-41A	-	18			Yes	Yes	Yes		35	0		
		41			Yes	Yes	Yes	Yes				
CA_18A-41A	CA_18A-41A	18			Yes	Yes	Yes		35	0		
		41			Yes	Yes	Yes	Yes				

CA_18A-41C	CA_18A-41A CA_18A-41C	18			Yes	Yes	Yes		55	0
		41	See CA_41C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_18A-42A	-	18			Yes	Yes	Yes		35	0
		42			Yes	Yes	Yes	Yes		
CA_18A-42C	-	18			Yes	Yes	Yes		55	0
		42	See the CA_42C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_19A-21A	CA_19A-21A	19			Yes	Yes	Yes		30	0
		21			Yes	Yes	Yes			
CA_19A-28A	-	19			Yes	Yes	Yes		25	0
		28			Yes	Yes				
CA_19A-42A	CA_19A-42A	19			Yes	Yes	Yes		35	0
		42			Yes	Yes	Yes	Yes		
CA_19A-42C	CA_19A-42A	19			Yes	Yes	Yes		55	0
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_19A-42D	-	19			Yes	Yes	Yes		75	0
		42	See CA_42D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_19A-46A	-	19			Yes	Yes	Yes		35	0
		46						Yes		
CA_19A-46C	-	19			Yes	Yes	Yes		55	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_19A-46D	-	19			Yes	Yes	Yes		75	0
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_19A-46E	-	19			Yes	Yes	Yes		95	0
		46	See CA_46E Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_20A-28A[7]	-	20				Yes	Yes	Yes	40	0
		28			Yes	Yes	Yes	Yes		
CA_20A-31A	-	20			Yes	Yes	Yes	Yes	25	0
		31		Yes	Yes					
CA_20A-32A	-	20			Yes	Yes			30	0
		32			Yes	Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes	40	1
		32			Yes	Yes	Yes	Yes		
CA_20A-38A	-	20			Yes	Yes	Yes	Yes	40	0
		38			Yes	Yes	Yes	Yes		
CA_20A-38C	-	20			Yes	Yes	Yes	Yes	60	0
		38	See CA_38C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_20A-40A	-	20			Yes	Yes	Yes	Yes	40	0
		40			Yes	Yes	Yes	Yes		
		20			Yes	Yes	Yes		35	1
		40				Yes	Yes	Yes		
CA_20A-40A-40A	-	20			Yes	Yes	Yes		55	0
		40	See CA_40A-40A Bandwidth Combination Set 1 in Table 5.6A.1-3							
CA_20A-40C	-	20			Yes	Yes	Yes		55	0
		40	See CA_40C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_20A-40D	-	20			Yes	Yes	Yes		75	0
		40	See CA_40D Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_20A-41A	-	20			Yes	Yes	Yes	Yes	40	0
		41			Yes	Yes	Yes	Yes		
CA_20A-41C	-	20			Yes	Yes	Yes	Yes	60	0
		41	See CA_41C in Table 5.6A.1-1 of 36.101 Bandwidth combination set 1							
CA_20A-41D	-	20			Yes	Yes	Yes	Yes	80	0

		41	See CA_41D in Table 5.6A.1-1 of 36.101 Bandwidth combination set 0							
CA_20A-42A	-	20			Yes	Yes	Yes	Yes	40	0
		42			Yes	Yes	Yes	Yes		
CA_20A-42A-42A	-	20			Yes	Yes	Yes	Yes	60	0
		42	See CA_42A-42A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_20A-43A	-	20			Yes				25	0
		43			Yes	Yes	Yes	Yes		
CA_20A-67A	-	20			Yes	Yes	Yes	Yes	40	0
		67			Yes	Yes	Yes	Yes		
CA_20A-75A	-	20			Yes	Yes	Yes	Yes	40	0
		75			Yes	Yes	Yes	Yes		
CA_20A-76A	-	20			Yes	Yes	Yes	Yes	25	0
		76			Yes					
CA_21A-28A	CA_21A-28A	21			Yes	Yes	Yes		25	0
		28			Yes	Yes				
CA_21A-42A	CA_21A-42A	21			Yes	Yes	Yes		35	0
		42			Yes	Yes	Yes	Yes		
CA_21A-42C	CA_21A-42A	21			Yes	Yes	Yes		55	0
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_21A-42D	-	21			Yes	Yes	Yes		75	0
		42	See CA_42D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_21A-42E	-	21			Yes	Yes	Yes		95	0
		42	See CA_42E Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_21A-46A	-	21			Yes	Yes	Yes		35	0
		46						Yes		
CA_21A-46C	-	21			Yes	Yes	Yes		55	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_21A-46D	-	21			Yes	Yes	Yes		75	0
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_21A-46E	-	21			Yes	Yes	Yes		95	0
		46	See CA_46E Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_23A-29A	-	23			Yes	Yes	Yes	Yes	30	0
		29		Yes	Yes	Yes				
		23			Yes	Yes			20	1
		29		Yes	Yes	Yes				
CA_25A-26A	CA_25A-26A	25		Yes	Yes	Yes	Yes	Yes	35	0
		26	Yes	Yes	Yes	Yes	Yes			
		25		Yes	Yes	Yes			20	1
		26		Yes	Yes	Yes				
		25			Yes	Yes			20	2
		26			Yes	Yes				
CA_25A-25A-26A	CA_25A-26A	25	See CA_25A-25A Bandwidth Combination Set 1 in Table 5.6A.1-3						45	0
		26		Yes	Yes					
CA_25A-41A	CA_25A-41A	25			Yes	Yes	Yes	Yes	40	0
		41			Yes	Yes	Yes	Yes		
CA_25A-25A-41A	CA_25A-41A	25	See CA_25A-25A Bandwidth Combination Set 1 in Table 5.6A.1-3						60	0
		41			Yes	Yes	Yes	Yes		
CA_25A-41C	CA_25A-41A	25			Yes	Yes	Yes	Yes	60	0
		41	See CA_41C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_25A-25A-41C	CA_25A-41A	25	See CA_25A-25A Bandwidth Combination Set 1 in Table 5.6A.1-3						80	0
		41	See CA_41C Bandwidth Combination Set 0 in Table 5.6A.1-1							

CA_25A-41D	CA_25A-41A	25			Yes	Yes	Yes	Yes	80	0
		41	See CA_41D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_25A-25A-41D	CA_25A-41A	25	See CA_25A-25A Bandwidth Combination Set 1 in Table 5.6A.1-3						100	0
		41	See CA_41D bandwidth combination set 0 in table 5.6A.1-1							
CA_25A-41E	CA_25A-41A	25			Yes	Yes	Yes	Yes	100	0
		41	See CA_41E Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_25A-25A-41E	CA_25A-41A	25	See CA_25A-25A Bandwidth Combination Set 1 in Table 5.6A.1-3						120	0
		41	See CA_41E bandwidth combination set 0 in table 5.6A.1-1							
CA_25A-41F	CA_25A-41A	25			Yes	Yes	Yes	Yes	120	0
		41	See CA_41F Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_25A-25A-41F	CA_25A-41A	25	See CA_25A-25A Bandwidth Combination Set 1 in Table 5.6A.1-3						140	0
		41	See CA_41F bandwidth combination set 0 in table 5.6A.1-1							
CA_25A-46A	-	25			Yes	Yes	Yes	Yes	40	0
		46				Yes		Yes		
CA_25A-46C	-	25			Yes	Yes	Yes	Yes	60	0
		46	See CA_46C Bandwidth combination set 1 in Table 5.6A.1-1							
CA_25A-46D	-	25			Yes	Yes	Yes	Yes	80	0
		46	See CA_46D Bandwidth combination set 1 in Table 5.6A.1-1							
CA_25A-66A	-	25	Yes	Yes	Yes	Yes	Yes	Yes	40	0
		66	Yes	Yes	Yes	Yes	Yes	Yes		
CA_25A-25A-66A	-	25	See CA_25A-25A Bandwidth Combination Set 1 in Table 5.6A.1-3						60	0
		66	Yes	Yes	Yes	Yes	Yes	Yes		
CA_26A-38A	-	26			Yes	Yes	Yes		35	0
		38			Yes	Yes	Yes	Yes		
CA_26A-38C	-	26			Yes	Yes	Yes		55	0
		38	See CA_38C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_26A-41A	-	26			Yes	Yes	Yes		35	0
		41			Yes	Yes	Yes	Yes		
CA_26A-41C	-	26			Yes	Yes	Yes		55	0
		41	See CA_41C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_26A-41D	-	26			Yes	Yes	Yes		75	0
		41	See CA_41D Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_26A-41E	-	26			Yes	Yes	Yes		95	0
		41	See CA_41D Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_26A-41F	-	26			Yes	Yes	Yes		115	0
		41	See CA_41F Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_26A-46A	CA_26A-46A	26		Yes	Yes	Yes			30	0
		46						Yes		
CA_26A-48A	CA_26A-48A	26		Yes	Yes	Yes			30	0
		48			Yes	Yes	Yes	Yes		
CA_26A-48C	CA_26A-48A	26		Yes	Yes	Yes			50	0
		48	See CA_48C Bandwidth combination set 0 in the Table 5.6A.1-1							
CA_26A-48A-48A	CA_26A-48A	26		Yes	Yes	Yes			50	0
		48	See CA_48A-48A Bandwidth combination set 0 in the Table 5.6A.1-3							
CA_26A-66A	-	26			Yes	Yes	Yes		35	0

		66			Yes	Yes	Yes	Yes		
CA_28A-32A	-	28			Yes	Yes	Yes	Yes	40	0
		32			Yes	Yes	Yes	Yes		
CA_28A-38A		28			Yes	Yes	Yes	Yes	40	0
		38			Yes	Yes	Yes	Yes		
CA_28A-40A	CA_28A-40A	28			Yes	Yes	Yes	Yes	40	0
		40			Yes	Yes	Yes	Yes		
CA_28A-40A-40A	CA_28A-40A	28			Yes	Yes	Yes	Yes	60	0
		40	See CA_40A-40A Bandwidth Combination Set 1 in Table 5.6A.1-3							
CA_28A-40C	CA_28A-40A	28			Yes	Yes	Yes	Yes	60	0
		40	See CA_40C Bandwidth Combination set 1 in Table 5.6A.1-1							
CA_28A-40D	CA_28A-40A	28			Yes	Yes	Yes	Yes	80	0
		40	See CA_40D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_28A-41A	CA_28A-41A	28			Yes	Yes			30	0
		41			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes	40	1
		41			Yes	Yes	Yes	Yes		
CA_28A-41C		28			Yes	Yes			50	0
		41	See CA_41C Bandwidth Combination set 0 in Table 5.6A.1-1							
CA_28A-42A	CA_28A-42A	28			Yes	Yes	Yes	Yes	40	0
		42			Yes	Yes	Yes	Yes		
CA_28A-42C	CA_28A-42A, CA_42C	28			Yes	Yes	Yes	Yes	60	0
		42	See CA_42C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_28A-42A-42A	-	28			Yes	Yes	Yes	Yes	60	0
		42	See CA_42A-42A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_28A-42D	-	28			Yes	Yes			70	0
		42	See CA_42D Bandwidth combination set 0 in Table 5.6A.1-1							
CA_28A-42A-42C	CA_42C	28			Yes	Yes	Yes	Yes	80	0
		42	See CA_42A-42C Bandwidth combination set 0 in Table 5.6A.1-3							
CA_28A-42C-42C	CA_42C	28			Yes	Yes	Yes	Yes	100	0
		42	See CA_42C-42C Bandwidth combination set 0 in Table 5.6A.1-3							
CA_28A-46A	-	28			Yes	Yes	Yes	Yes	40	0
		46				Yes		Yes		
CA_28A-46C	-	28			Yes	Yes	Yes	Yes	60	0
		46	See CA_46C Bandwidth Combination set 1 in Table 5.6A.1-1							
CA_28A-46D	-	28			Yes	Yes	Yes	Yes	80	0
		46	See CA_46D Bandwidth combination set 1 in Table 5.6A.1-1							
CA_28A-46E	-	28			Yes	Yes	Yes	Yes	100	0
		46	See CA_46E Bandwidth Combination set 1 in Table 5.6A.1-1							
CA_28A-66A	-	28			Yes	Yes	Yes	Yes	40	0
		66			Yes	Yes	Yes	Yes		
CA_29A-30A	-	29			Yes	Yes			20	0
		30			Yes	Yes				
CA_29A-46A	-	29			Yes	Yes			30	0
		46				Yes		Yes		
CA_29A-66A	-	29			Yes	Yes			30	0
		66			Yes	Yes	Yes	Yes		
CA_29A-66C		29			Yes	Yes			50	0
		66	See CA_66C Bandwidth Combination set 0 in Table 5.6A.1-1							

CA_29A-66A-66A		29			Yes	Yes			50	0
		66	See CA_66A-66A Bandwidth Combination set 0 in Table 5.6A.1-3							
CA_29A-70A	-	29			Yes	Yes			25	0
		70			Yes	Yes	Yes			
CA_29A-70C	-	29			Yes	Yes			35	0
		70	See CA_70C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_30A-48A	CA_30A-48A	30			Yes	Yes			30	0
		48			Yes	Yes	Yes	Yes		
CA_30A-66A	CA_30A-66A	30			Yes	Yes			30	0
		66			Yes	Yes	Yes	Yes		
CA_30A-66A-66A		30			Yes	Yes			50	0
		66	See CA_66A-66A Bandwidth Combination set 0 in Table 5.6A.1-3							
CA_30A-66A-66A-66A	-	30			Yes	Yes			70	0
		66	See CA_66A-66A-66A Bandwidth Combination set 0 in Table 5.6A.1-3							
CA_32A-38A	-	32			Yes	Yes	Yes	Yes	40	0
		38			Yes	Yes	Yes	Yes		
CA_32A-42A	-	32			Yes	Yes	Yes	Yes	40	0
		42			Yes	Yes	Yes	Yes		
CA_32A-43A	-	32			Yes	Yes	Yes	Yes	40	0
		43			Yes	Yes	Yes	Yes		
CA_32A-46A	-	32			Yes	Yes	Yes	Yes	40	0
		46				Yes		Yes		
CA_32A-46C	-	32			Yes	Yes	Yes	Yes	60	0
		46	See CA_46C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_32A-46D	-	32			Yes	Yes	Yes	Yes	80	0
		46	See CA_46D Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_32A-46E	-	32			Yes	Yes	Yes	Yes	100	0
		46	See CA_46E Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_34A-39A		34			Yes	Yes	Yes		35	0
		39				Yes	Yes	Yes		
CA_34A-41A		34			Yes	Yes	Yes		35	0
		41						Yes		
CA_38A-40A	-	38				Yes		Yes	40	0
		40				Yes		Yes		
		38				Yes	Yes	Yes	40	1
		40				Yes	Yes	Yes		
CA_38A-40A-40A	-	38				Yes		Yes	60	0
		40	See CA_40A-40A Bandwidth Combination Set 0 in Table 5.6A.1-3							
		38				Yes	Yes	Yes	60	1
		40	See CA_40A-40A Bandwidth Combination Set 1 in Table 5.6A.1-3							
CA_38A-40C	-	38				Yes		Yes	60	0
		40	See CA_40C Bandwidth Combination Set 0 in Table 5.6A.1-1							
		38				Yes	Yes	Yes	60	1
		40	See CA_40C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_38A-40D	-	38				Yes	Yes	Yes	80	0
		40	See CA_40D Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_38A-66A	-	38			Yes	Yes	Yes	Yes	40	0
		66			Yes	Yes	Yes	Yes		
CA_38C-66A	-	38	See CA_38C Bandwidth Combination Set 0 in Table 5.6A.1-1						60	0

		66			Yes	Yes	Yes	Yes		
CA_39A-40A	-	39			Yes	Yes	Yes	Yes	40	0
		40			Yes	Yes	Yes	Yes		
CA_39A-40C	-	39			Yes	Yes	Yes	Yes	60	0
		40	See CA_40C Bandwidth Combination Set 0 in the Table 5.6A.1-1							
CA_39A-40D	-	39			Yes	Yes	Yes	Yes	80	0
		40	See CA_40D Bandwidth combination set 0 in Table 5.6A.1-1							
CA_39A-40E	-	39			Yes	Yes	Yes	Yes	100	0
		40	See the CA_40E Bandwidth combination set 0 in the Table 5.6A.1-1							
CA_39C-40A	-	39	See CA_39C Bandwidth combination set 0 in the Table 5.6A.1-1						55	0
		40			Yes	Yes	Yes	Yes		
CA_39C-40C	-	39	See CA_39C Bandwidth combination set 0 in Table 5.6A.1-1						75	0
		40	See CA_40C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_39C-40D	-	39	See the CA_39C Bandwidth combination set 0 in the Table 5.6A.1-1						95	0
		40	See the CA_40D Bandwidth combination set 0 in the Table 5.6A.1-1							
CA_39A-41A	CA_39A-41A	39				Yes	Yes	Yes	40	0
		41						Yes		
CA_39A-41C	CA_41C CA_39A-41A CA_39A-41C	39				Yes	Yes	Yes	60	0
		41						Yes		
		41						Yes		
CA_39A-41D	CA_41C CA_39A-41A	39				Yes	Yes	Yes	80	0
		41						Yes		
		41						Yes		
		41						Yes		
CA_39C-41A	CA_39C CA_39A-41A CA_39C-41A	39	See CA_39C Bandwidth Combination Set 0 in Table 5.6A.1-1						55	0
		41						Yes		
CA_39C-41C	CA_39C CA_41C CA_39A-41A	39	See CA_39C Bandwidth Combination Set 0 in Table 5.6A.1-1						75	0
		41						Yes		
		41						Yes		
CA_39C-41D	-	39	See CA_39C Bandwidth Combination Set 0 in Table 5.6A.1-1						95	0
		41	See CA_41D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_39A-42A	-	39			Yes	Yes	Yes	Yes	40	0
		42			Yes	Yes	Yes	Yes		
CA_39A-42C	-	39			Yes	Yes	Yes	Yes	60	0
		42	See CA_42C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_39A-42D	-	39			Yes	Yes	Yes	Yes	80	0
		42	See CA_42D Bandwidth combination set 1 in Table 5.6A.1-1							
CA_39A-42E	-	39			Yes	Yes	Yes	Yes	100	0
		42	See the CA_42E Bandwidth combination set 0 in the Table 5.6A.1-1							
CA_39C-42A	-	39	See CA_39C Bandwidth Combination Set 0 in the Table 5.6A.1-1						55	0
		42			Yes	Yes	Yes	Yes		
CA_39C-42C	-	39	See CA_39C Bandwidth combination set 0 in Table 5.6A.1-1						75	0
		42	See CA_42C Bandwidth combination set 1 in Table 5.6A.1-1							
CA_39C-42D	-	39	See the CA_39C Bandwidth combination set 0 in the Table 5.6A.1-1						95	0

		42	See the CA_42D Bandwidth combination set 1 in the Table 5.6A.1-1								
CA_39A-46A	-	39			Yes	Yes	Yes	Yes		40	0
		46						Yes			
CA_39A-46C	-	39			Yes	Yes	Yes	Yes		60	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_39A-46D	-	39			Yes	Yes	Yes	Yes		80	0
		46	See the CA_46D Bandwidth combination set 0 in Table 5.6A.1-1								
CA_39A-46E	-	39			Yes	Yes	Yes	Yes		100	0
		46	See CA_46E Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_39C-46A	-	39	See CA_39C Bandwidth Combination Set 0 in Table 5.6A.1-1							55	0
		46						Yes			
CA_39C-46C	-	39	See CA_39C Bandwidth Combination Set 0 in Table 5.6A.1-1							75	0
		46	See the CA_46C Bandwidth combination set 0 in Table 5.6A.1-1								
CA_39C-46D	-	39	See CA_39C Bandwidth Combination Set 0 in Table 5.6A.1-1							95	0
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_40A-41A	-	40			Yes	Yes	Yes	Yes		40	0
		41			Yes	Yes	Yes	Yes			
CA_40A-42A	CA_40A-42A	40				Yes	Yes	Yes		40	0
		42				Yes	Yes	Yes			
CA_40A-42C	-	40				Yes	Yes	Yes		60	0
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_40A-42A-42A	-	40			Yes	Yes	Yes	Yes		60	0
		42	See CA_42A-42A Bandwidth combination set 0 in Table 5.6A.1-3								
CA_40C-42C	-	40	See CA_40C Bandwidth combination set 1 in Table 5.6A.1-1							80	0
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_40C-42A-42A	-	40	See CA_40C Bandwidth Combination Set 0 in Table 5.6A.1-1							80	0
		42	See CA_42A-42A Bandwidth combination set 0 in Table 5.6A.1-3								
CA_40A-40A-42A	-	40	See CA_40A-40A Bandwidth Combination Set 1 in Table 5.6A.1-3							60	0
		42				Yes	Yes	Yes			
CA_40A-40A-42C	-	40	See CA_40A-40A Bandwidth Combination Set 1 in Table 5.6A.1-3							80	0
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_40A-40A-42A-42A	-	40	See CA_40A-40A Bandwidth Combination Set 1 in Table 5.6A.1-3							80	0
		42	See CA_42A-42A Bandwidth combination set 0 in Table 5.6A.1-3								
CA_40A-43A	-	40			Yes	Yes	Yes	Yes		40	0
		43			Yes	Yes	Yes	Yes			
CA_40A-46A	-	40			Yes	Yes	Yes	Yes		40	0
		46						Yes			
		40			Yes	Yes	Yes	Yes		40	1
		46				Yes		Yes			
CA_40A-46C	-	40			Yes	Yes	Yes	Yes		60	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1								

		40			Yes	Yes	Yes	Yes	60	1
		46	See CA_46C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_40A-46D	-	40			Yes	Yes	Yes	Yes	80	0
		46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							
		40			Yes	Yes	Yes	Yes	80	1
		46	See CA_46D Bandwidth combination set 1 in Table 5.6A.1-1							
CA_40A-46E	-	40			Yes	Yes	Yes	Yes	100	0
		46	See CA_46E Bandwidth combination set 0 in Table 5.6A.1-1							
		40			Yes	Yes	Yes	Yes	100	1
		46	See CA_46E Bandwidth combination set 1 in Table 5.6A.1-1							
CA_40C-42A	-	40	See CA_40C Bandwidth Combination Set 1 in Table 5.6A.1-1						60	0
		42				Yes	Yes	Yes		
CA_40C-46A	-	40	See CA_40C Bandwidth Combination Set 0 in Table 5.6A.1-1						60	0
		46						Yes		
CA_40C-46C	-	40	See CA_40C Bandwidth combination set 0 in Table 5.6A.1-1						80	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_40C-46D	-	40	See CA_40C Bandwidth combination set 0 in Table 5.6A.1-1						100	0
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_40D-46A	-	40	See CA_40D Bandwidth combination set 0 in Table 5.6A.1-1						80	0
		46						Yes		
CA_40D-46C	-	40	See CA_40D Bandwidth combination set 0 in Table 5.6A.1-1						100	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_41A[9]-42A[9]	CA_41A-42A	41				Yes	Yes	Yes	40	0
		42				Yes	Yes	Yes		
CA_41A-42C	CA_41A-42A, CA_42C, CA_41A-42C	41				Yes	Yes	Yes	60	0
		42	See CA_42C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_41A-42A-42A	-	41				Yes	Yes	Yes	60	0
		42	See CA_42A-42A Bandwidth combination set 1 in Table 5.6A.1-3							
CA_41A-42D	-	41				Yes	Yes	Yes	80	0
		42	See CA_42D Bandwidth combination set 1 in Table 5.6A.1-1							
CA_41A-42A-42C	CA_42C	41				Yes	Yes	Yes	80	0
		42	See CA_42A-42C Bandwidth combination set 1 in Table 5.6A.1-3							
CA_41A-42C-42C	CA_42C	41				Yes	Yes	Yes	100	0
		42	See CA_42C-42C Bandwidth combination set 1 in Table 5.6A.1-3							
CA_41C-42A	CA_41A-42A, CA_41C, CA_41C-42A	41	See CA_41C Bandwidth Combination Set 0 in Table 5.6A.1-1						60	0
		42				Yes	Yes	Yes		
CA_41C-42C	CA_41A-42A, CA_41C, CA_42C, CA_41C-42C	41	See CA_41C Bandwidth Combination Set 0 in Table 5.6A.1-1						80	0
		42	See CA_42C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_41C-42A-42A	-	41	See CA_41C Bandwidth Combination Set 0 in Table 5.6A.1-1						80	0

		42	See CA_42A-42A Bandwidth combination set 1 in Table 5.6A.1-3									
CA_41C-42D	-	41	See CA_41C Bandwidth Combination Set 0 in Table 5.6A.1-1								100	0
		42	See CA_42D Bandwidth Combination Set 1 in Table 5.6A.1-1									
CA_41C-42A-42C	CA_42C	41	See CA_41C Bandwidth Combination Set 0 in Table 5.6A.1-1								100	0
		42	See CA_42A-42C Bandwidth combination set 1 in Table 5.6A.1-3									
CA_41C-42C-42C	CA_42C	41	See CA_41C Bandwidth Combination Set 0 in Table 5.6A.1-1								120	0
		42	See CA_42C-42C Bandwidth combination set 1 in Table 5.6A.1-3									
CA_41D-42A	-	41	See CA_41D Bandwidth combination set 0 in Table 5.6A.1-1								80	0
		42				Yes	Yes	Yes				
CA_41D-42C	-	41	See CA_41D Bandwidth Combination Set 0 in Table 5.6A.1-1								100	0
		42	See CA_42C Bandwidth Combination Set 1 in Table 5.6A.1-1									
CA_41A-46A	-	41			Yes	Yes	Yes	Yes			40	0
		46						Yes				
CA_41A-46C	-	41			Yes	Yes	Yes	Yes			60	0
		46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1									
CA_41A-46D	-	41			Yes	Yes	Yes	Yes			80	0
		46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1									
CA_41A-46E	-	41			Yes	Yes	Yes	Yes			100	0
		46	See the CA_46E Bandwidth combination set 0 in Table 5.6A.1-1									
CA_41C-46A	-	41	See CA_41C Bandwidth Combination Set 2 in Table 5.6A.1-1								60	0
		46						Yes				
CA_41C-46C	-	41	See CA_41C Bandwidth combination set 2 in Table 5.6A.1-1								80	0
		46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1									
CA_41C-46D	-	41	See the CA_41C Bandwidth combination set 2 in Table 5.6A.1-1								100	0
		46	See the CA_46D Bandwidth combination set 0 in Table 5.6A.1-1									
CA_41D-46A	-	41	See CA_41D Bandwidth combination set 0 in Table 5.6A.1-1								80	0
		46						Yes				
CA_41D-46C	-	41	See the CA_41D Bandwidth combination set 0 in Table 5.6A.1-1								100	0
		46	See the CA_46C Bandwidth combination set 0 in Table 5.6A.1-1									
CA_41A-48A	-	41				Yes	Yes	Yes			40	0
		48			Yes	Yes	Yes	Yes				
CA_41A-48C	-	41				Yes	Yes	Yes			60	0
		48	See CA_48C Bandwidth combination set 0 in Table 5.6A.1-1									
CA_41A-48D	-	41				Yes	Yes	Yes			80	0
		48	See CA_48D Bandwidth combination set 0 in Table 5.6A.1-1									
CA_41C-48A	CA_41C	41	See the CA_41C Bandwidth combination set 2 in Table 5.6A.1-1								60	0
		48			Yes	Yes	Yes	Yes				
CA_41C-48C	CA_41C	41	See the CA_41C Bandwidth combination set 2 in Table 5.6A.1-1								80	0
		48	See the CA_48C Bandwidth combination set 0 in Table 5.6A.1-1									

CA_41C-48D	CA_41C	41	See the CA_41C Bandwidth combination set 2 in Table 5.6A.1-1							100	0
		48	See the CA_48D Bandwidth combination set 0 in Table 5.6A.1-1								
CA_41D-48A	CA_41C	41	See the CA_41D Bandwidth combination set 0 in Table 5.6A.1-1							80	0
		48			Yes	Yes	Yes	Yes			
CA_41D-48C	CA_41C	41	See the CA_41D Bandwidth combination set 0 in Table 5.6A.1-1							100	0
		48	See the CA_48C Bandwidth combination set 0 in Table 5.6A.1-1								
CA_42A-43A	-	42			Yes	Yes	Yes	Yes		40	0
		43			Yes	Yes	Yes	Yes			
CA_42A-46A	-	42			Yes	Yes	Yes	Yes		40	0
		46						Yes			
CA_46A-48A	-	46						Yes		40	0
		48			Yes	Yes	Yes	Yes			
CA_46A-48A-48A	-	46						Yes		60	0
		48	See CA_48A-48A Bandwidth combination set 0 in Table 5.6A.1-3								
CA_46A-48C	CA_48C	46						Yes		60	0
		48	See CA_48C Bandwidth combination set 0 in Table 5.6A.1-1								
CA_46C-48A	-	46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1							60	0
		48			Yes	Yes	Yes	Yes			
CA_46C-48A-48A	-	46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							80	0
		48	See CA_48A-48A Bandwidth Combination Set 0 in Table 5.6A.1-3								
CA_46A-48B	CA_48B	46						Yes		40	0
		48	See CA_48B Bandwidth combination set 0 in 36.101 Table 5.6A.1-1								
CA_46C-48C	CA_48C	46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							80	0
		48	See CA_48C Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_46C-48B	CA_48B	46	See CA_46C Bandwidth combination set 0 in 36.101 Table 5.6A.1-1							60	0
		48	See CA_48B Bandwidth combination set 0 in 36.101 Table 5.6A.1-1								
CA_46A-48D	CA_48C	46						Yes		80	0
		48	See CA_48D Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_46D-48A	-	46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							80	0
		48			Yes	Yes	Yes	Yes			
CA_46D-48B	CA_48B	46	See CA_46D Bandwidth combination set 0 in 36.101 Table 5.6A.1-1							80	0
		48	See CA_48B Bandwidth combination set 0 in 36.101 Table 5.6A.1-1								
CA_46A-46A-66A	-	46	See CA_46A-46A Bandwidth combination set 0 in Table 5.6A.1-3							60	0
		66			Yes	Yes	Yes	Yes			
CA_46A-46C-66A	-	46	See CA_46A-46C Bandwidth Combination Set 0 in Table 5.6A.1-3							80	0
		66			Yes	Yes	Yes	Yes			
CA_46A-46D-66A	-	46	See CA_46A-46D Bandwidth Combination Set 0 in Table 5.6A.1-3							100	0
		66			Yes	Yes	Yes	Yes			
CA_46A-48E	CA_48C	46						Yes		100	0
		48	See CA_48E Bandwidth combination set 0 in the Table 5.6A.1-1								
CA_46C-48D	CA_48C	46	See CA_46C Bandwidth combination set 0 in the Table 5.6A.1-1							100	0

		48	See CA_48D Bandwidth combination set 0 in the Table 5.6A.1-1								
CA_46D-48A-48A	-	46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							100	0
		48	See CA_48A-48A Bandwidth combination set 0 in Table 5.6A.1-3								
CA_46D-48C	-	46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							100	0
		48	See CA_48C Bandwidth combination set 0 in Table 5.6A.1-1								
CA_46D-48D	-	46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							120	0
		48	See CA_48D Bandwidth combination set 0 in Table 5.6A.1-1								
CA_46E-48A	-	46	See CA_46E Bandwidth combination set 0 in the Table 5.6A.1-1							100	0
		48			Yes	Yes	Yes	Yes			
CA_46E-48B	CA_48B	46	See CA_46E Bandwidth combination set 0 in 36.101 Table 5.6A.1-1							100	0
		48	See CA_48B Bandwidth combination set 0 in 36.101 Table 5.6A.1-1								
CA_46C-66A	-	46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							60	0
		66			Yes	Yes	Yes	Yes			
CA_46A-66A	-	46						Yes		40	0
		66			Yes	Yes	Yes	Yes			
CA_46A-66A-66A	-	46						Yes		60	0
		66	See the CA_66A-66A Bandwidth combination set 0 in the Table 5.6A.1-3								
CA_46C-66A-66A	-	46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							80	0
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3								
CA_46A-66C	-	46						Yes		60	0
		66	See the CA_66C Bandwidth combination set 0 in the Table 5.6A.1-1								
CA_46D-66A	-	46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							80	0
		66			Yes	Yes	Yes	Yes			
CA_46D-66A-66A	-	46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							100	0
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3								
CA_46C-48E	CA_48C	46	See the CA_46C Bandwidth combination set 0 in Table 5.6A.1-1							120	0
		48	See the CA_48E Bandwidth combination set 0 in Table 5.6A.1-1								
CA_46E-48C	-	46	See the CA_46E Bandwidth combination set 0 in Table 5.6A.1-1							120	0
		48	See the CA_48C Bandwidth combination set 0 in Table 5.6A.1-1								
CA_46A-53A	-	46						Yes		30	0
		53			Yes	Yes					
CA_46C-53A	-	46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1							50	0
		53			Yes	Yes					
CA_46D-53A	-	46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							70	0
		53			Yes	Yes					
CA_46E-53A	-	46	See CA_46E Bandwidth combination set 0 in Table 5.6A.1-1							90	0
		53			Yes	Yes					
CA_46A-46A-46A-66A	-	46	See CA_46A-46A-46A Bandwidth combination set 0 in Table 5.6A.1-1							80	0
		66			Yes	Yes	Yes	Yes			

CA_46E-66A	-	46	See CA_46E Bandwidth combination set 0 in Table 5.6A.1-1						100	0
		66			Yes	Yes	Yes	Yes		
CA_46E-66A-66A	-	46	See CA_46E Bandwidth Combination Set 0 in Table 5.6A.1-1						120	0
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_46A-70A	-	46						Yes	35	0
		70			Yes	Yes	Yes			
CA_46A-71A	-	46						Yes	40	0
		71			Yes	Yes	Yes	Yes		
CA_46C-71A	-	46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1						60	0
		71			Yes	Yes	Yes	Yes		
CA_46D-71A	-	46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1						80	0
		71			Yes	Yes	Yes	Yes		
CA_48A-66A	-	48			Yes	Yes	Yes	Yes	40	0
		66			Yes	Yes	Yes	Yes		
CA_48A-48A-66A	-	48	See CA_48A-48A Bandwidth combination set 0 in Table 5.6A.1-3						60	0
		66			Yes	Yes	Yes	Yes		
CA_48A-48C-66A	-	48	See the CA_48A-48C Bandwidth combination set 0 in the Table 5.6A.1-3						80	0
		66			Yes	Yes	Yes	Yes		
CA_48A-48C-66B	-	48	See CA_48A-48C Bandwidth combination set 0 in the Table 5.6A.1-3						80	0
		66	See CA_66B Bandwidth combination set 0 in the Table 5.6A.1-1							
CA_48A-48C-66C	-	48	See CA_48A-48C Bandwidth combination set 0 in the Table 5.6A.1-3						100	0
		66	See CA_66C Bandwidth combination set 0 in the Table 5.6A.1-1							
CA_48A-48D-66A	-	48	See CA_48A-48D Bandwidth combination set 0 in the Table 5.6A.1-3						100	0
		66			Yes	Yes	Yes	Yes		
CA_48C-48C-66A	-	48	See CA_48C-48C Bandwidth combination set 0 in the Table 5.6A.1-3						100	0
		66			Yes	Yes	Yes	Yes		
CA_48A-66A-66A	-	48			Yes	Yes	Yes	Yes	60	0
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_48A-48A-66A-66A	-	48	See CA_48A-48A Bandwidth combination set 0 in the Table 5.6A.1-3						80	0
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_48A-48A-66B	-	48	See CA_48A-48A Bandwidth combination set 0 in the Table 5.6A.1-3						60	0
		66	See CA_66B Bandwidth combination set 0 in Table 5.6A.1-1							
CA_48A-48A-66C	-	48	See CA_48A-48A Bandwidth combination set 0 in the Table 5.6A.1-3						80	0
		66	See CA_66C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_48A-53A	-	48			Yes	Yes	Yes	Yes	30	0
		53			Yes	Yes				
CA_48C-53A	-	48	See CA_48C Bandwidth combination set 0 in Table 5.6A.1-1						50	0
		53			Yes	Yes				
CA_48D-53A	-	48	See CA_48D Bandwidth combination set 0 in Table 5.6A.1-1						70	0
		53			Yes	Yes				
CA_48B-66A	-	48	See CA_48B Bandwidth combination set 0 in Table 5.6A.1-1						40	0
		66			Yes	Yes	Yes	Yes		

CA_48C-66A-66A	-	48	See CA_48C Bandwidth combination set 0 in the Table 5.6A.1-1							80	0
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3								
CA_48C-66B	-	48	See CA_48C Bandwidth combination set 0 in the Table 5.6A.1-1							60	0
		66	See CA_66B Bandwidth combination set 0 in Table 5.6A.1-1								
CA_48C-66C	-	48	See CA_48C Bandwidth combination set 0 in the Table 5.6A.1-1							80	0
		66	See CA_66C Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_48A-66B	-	48			Yes	Yes	Yes	Yes		40	0
		66	See CA_66B Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_48A-66C	-	48			Yes	Yes	Yes	Yes		60	0
		66	See CA_66C Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_48C-66A	-	48	See CA_48C Bandwidth combination set 0 in Table 5.6A.1-1							60	0
		66			Yes	Yes	Yes	Yes			
CA_48D-66A	-	48	See the CA_48D Bandwidth combination set 0 in the Table 5.6A.1-1							80	0
		66			Yes	Yes	Yes	Yes			
CA_48D-66A-66A	-	48	See the CA_48D Bandwidth combination set 0 in the Table 5.6A.1-1							100	0
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3								
CA_48E-66A-66A	-	48	See the CA_48E Bandwidth combination set 0 in the Table 5.6A.1-1							120	0
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3								
CA_48E-66A	-	48	See CA_48E Bandwidth combination set 0 in the Table 5.6A.1-1							100	0
		66			Yes	Yes	Yes	Yes			
CA_48A-71A	-	48			Yes	Yes	Yes	Yes		40	0
		71			Yes	Yes	Yes	Yes			
CA_48C-71A	-	48	See CA_48C Bandwidth combination set 0 in Table 5.6A.1-1							60	0
		71			Yes	Yes	Yes	Yes			
CA_48A-48A-71A	-	48	See CA_48A-48A Bandwidth combination set 0 in Table 5.6A.1-3							60	0
		71			Yes	Yes	Yes	Yes			
CA_66A-70A	-	66			Yes	Yes	Yes	Yes		35	0
		70			Yes	Yes	Yes				
CA_66A-66A-70A	-	66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							55	0
		70			Yes	Yes	Yes				
CA_66A-70C	-	66			Yes	Yes	Yes	Yes		45	0
		70	See CA_70C Bandwidth combination set 0 in Table 5.6A.1-1								
CA_66A-66A-70C	-	66	See the CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							65	0
		70	See the CA_70C Bandwidth combination set 0 in Table 5.6A.1-1								
CA_66C-70A	-	66	See CA_66C Bandwidth combination set 0 in Table 5.6A.1-1							55	0
		70			Yes	Yes	Yes				
CA_66C-70C	-	66	See the CA_66C Bandwidth combination set 0 in Table 5.6A.1-1							65	0
		70	See the CA_70C Bandwidth combination set 0 in Table 5.6A.1-1								
CA_66A-71A	-	66			Yes	Yes	Yes	Yes		40	0
		71			Yes	Yes	Yes	Yes			

CA_66C-71A	-	66	See CA_66C Bandwidth Combination Set 0 in Table 5.6A.1-1						60	0
		71			Yes	Yes	Yes	Yes		
CA_66A-66A-71A	-	66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3						60	0
		71			Yes	Yes	Yes	Yes		
CA_70A-71A	-	70			Yes	Yes	Yes		35	0
		71			Yes	Yes	Yes	Yes		
CA_70C-71A	-	70	See the CA_70C Bandwidth combination set 0 in Table 5.6A.1-1						45	0
		71			Yes	Yes	Yes	Yes		

NOTE 1: The CA Configuration refers to a combination of an operating band and a CA bandwidth class specified in Table 5.6A-1 (the indexing letter). Absence of a CA bandwidth class for an operating band implies support of all classes.
NOTE 2: For each band combination, all combinations of indicated bandwidths belong to the set.
NOTE 3: For the supported CC bandwidth combinations, the CC downlink and uplink bandwidths are equal.
NOTE 4: Uplink CA configurations are the configurations supported by the present release of specifications.
NOTE 5: For TDD inter-band Carrier Aggregation only non-simultaneous Rx/Tx uplink CA configurations can be supported by UE supporting corresponding DL CA configuration without simultaneous Rx/Tx.
NOTE 6: Void
NOTE 7: Power imbalance between downlink carriers on Band 20 and Band 28 is assumed to be within 6 dB.
NOTE 8: For the corresponding CA configuration, UE may not support Pcell transmissions in this E-UTRA band.
NOTE 9: 8Rx Requirements are applicable for this band configuration if UE supports 8Rx.

Table 5.6A.1-2a: E-UTRA CA configurations and bandwidth combination sets defined for inter-band CA (three bands)

E-UTRA CA configuration / Bandwidth combination set										
E-UTRA CA Configuration	**Uplink CA configurations (NOTE 5)**	**E-UTRA Bands**	**1.4 MHz**	**3 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Maximum aggregated bandwidth [MHz]**	**Bandwidth combination set**
CA_1A-3A-5A	CA_1A-3A CA_1A-5A[6] CA_3A-5A	1			Yes	Yes	Yes	Yes	50	0
		3			Yes	Yes	Yes	Yes		
		5			Yes	Yes				
		1			Yes	Yes			40	1
		3			Yes	Yes	Yes	Yes		
		5			Yes	Yes				
CA_1A-1A-3A-5A	-	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						70	0
		3			Yes	Yes	Yes	Yes		
		5			Yes	Yes				
CA_1A-1A-3C-5A	CA_1A-3A, CA_1A-5A CA_3A-5A	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						90	0
		3	See CA_3C Bandwidth combination set 0 in table 5.6A.1-1							
		5			Yes	Yes				
CA_1A-3A-3A-5A	-	1			Yes	Yes	Yes		65	0
		3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							

		5			Yes	Yes				
CA_1C-3A-5A	-	1	See CA_1C Bandwidth combination set 0 in Table 5.6A.1-1						70	0
		3			Yes	Yes	Yes	Yes		
		5			Yes	Yes				
CA_1A-3A-3A-7A-7A	CA_1A-3A, CA_1A-7A, CA_3A-7A	1			Yes	Yes	Yes	Yes	100	0
		3	See the CA_3A-3A Bandwidth combination set 0 in Table below							
		7	See the CA_7A-7A Bandwidth combination set 1 in Table below							
CA_1A-3C-5A	-	1			Yes	Yes	Yes	Yes	70	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							
		5			Yes	Yes				
CA_1A-3A-7A	CA_1A-3A CA_1A-7A CA_3A-7A	1			Yes	Yes	Yes	Yes	60	0
		3			Yes	Yes	Yes	Yes		
		7				Yes	Yes	Yes		
		1			Yes	Yes	Yes	Yes	60	1
		3			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
CA_1A-1A-3A-7A	-	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0
		3			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
CA_1A-1A-3C-7A	-	1	See the CA_1A-1A Bandwidth combination set 0 in the Table 5.6A.1-3						100	0
		3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1							
		7			Yes	Yes	Yes	Yes		
CA_1A-1A-3A-3A-7A	CA_1A-3A CA_1A-7A CA_3A-7A	1	See the CA_1A-1A Bandwidth combination set 0 in the Table 5.6A.1-3						100	0
		3	See the CA_3A-3A Bandwidth combination set 0 in the Table 5.6A.1-3							
		7			Yes	Yes	Yes	Yes		
CA_1A-3A-3A-7A	CA_1A-3A, CA_1A-7A, CA_3A-7A	1			Yes	Yes	Yes	Yes	80	0
		3	See the CA_3A-3A Bandwidth combination set 0 in the Table 5.6A.1-3							
		7			Yes	Yes	Yes	Yes		
CA_1A-1A-3A-3A-7C	CA_7C	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						120	0

		3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							
		7	See CA_7C Bandwidth combination set 2 in Table 5.6A.1-1 of 36.101							
CA_1A-3A-3A-7C	7C	1			Yes	Yes	Yes	Yes	100	0
		3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							
		7	See CA_7C Bandwidth combination set 2 in Table 5.6A.1-1							
CA_1A-3A-7A-7A	CA_1A-3A CA_1A-7A CA_3A-7A	1			Yes	Yes	Yes	Yes	80	0
		3			Yes	Yes	Yes	Yes		
		7	See CA_7A-7A Bandwidth Combination Set 3 in Table 5.6A.1-3							
		1			Yes	Yes	Yes	Yes	80	1
		3			Yes	Yes	Yes	Yes		
		7	See CA_7A-7A Bandwidth Combination Set 1 in Table 5.6A.1-3							
CA_1A-3A-7C	CA_1A-3A, CA_1A-7A, CA_3A-7A, CA_7C	1			Yes	Yes	Yes	Yes	80	0
		3				Yes	Yes	Yes		
		7	See CA_7C Bandwidth Combination Set 2 in Table 5.6A.1-1							
		1			Yes	Yes	Yes	Yes	80	1
		3			Yes	Yes	Yes	Yes		
		7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_1A-1A-3A-7C	CA_7C	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						100	0
		3			Yes	Yes	Yes	Yes		
		7	See CA_7C Bandwidth combination set 2 in Table 5.6A.1-1 of 36.101							
CA_1A-1A-3C-7A	CA_3C	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						100	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1 of 36.101							
		7			Yes	Yes	Yes	Yes		
CA_1A-1A-3C-7C	CA_3C CA_7C	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						120	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1 of 36.101							
		7	See CA_7C Bandwidth combination set 2 in Table 5.6A.1-1 of 36.101							
CA_1A-3C-7A		1			Yes	Yes	Yes	Yes	80	0

	CA_1A-3A, CA_1A-7A, CA_3A-7A, CA_3C	3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1							
		7				Yes	Yes	Yes		
		1			Yes	Yes	Yes	Yes	80	1
		3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1							
		7			Yes	Yes	Yes	Yes		
CA_1A-3C-7C	CA_1A-3A, CA_1A-7A, CA_3A-7A, CA_3C, CA_7C	1			Yes	Yes	Yes	Yes	100	0
		3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1							
		7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_1A-3A-8A	CA_1A-3A CA_1A-8A CA_3A-8A	1			Yes	Yes	Yes	Yes	50	0
		3			Yes	Yes	Yes	Yes		
		8		Yes	Yes	Yes				
		1			Yes	Yes			40	1
		3			Yes	Yes	Yes	Yes		
		8		Yes	Yes	Yes				
		1			Yes	Yes	Yes		40	2
		3			Yes	Yes	Yes			
		8		Yes	Yes	Yes				
		1			Yes	Yes	Yes	Yes	50	3
		3			Yes	Yes	Yes	Yes		
		8			Yes	Yes				
CA_1A-3A-3A-8A	CA_1A-3A CA_1A-8A CA_3A-8A	1			Yes	Yes	Yes	Yes	70	0
		3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							
		8			Yes	Yes				
CA_1A-3C-8A	CA_1A-3A CA_1A-8A CA_3A-8A CA_3C	1			Yes	Yes	Yes	Yes	70	0
		3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1							
		8		Yes	Yes	Yes				
CA_1A-3A-3A-42C	CA_1A-3A, CA_1A-42A, CA_3A-42A	1			Yes	Yes	Yes	Yes	100	0
		3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_1A-3A-11A	-	1			Yes	Yes	Yes	Yes	50	0
		3			Yes	Yes	Yes	Yes		

		11			Yes	Yes				
CA_1A-3A-18A	CA_1A-3A, CA_1A-18A[6], CA_3A-18A	1			Yes	Yes	Yes	Yes	55	0
		3			Yes	Yes	Yes	Yes		
		18			Yes	Yes	Yes			
CA_1A-3A-19A	CA_1A-3A CA_1A-19A[6] CA_3A-19A	1			Yes	Yes	Yes	Yes	55	0
		3			Yes	Yes	Yes	Yes		
		19			Yes	Yes	Yes			
CA_1A-3A-3A-19A	CA_1A-3A CA_1A-19A[6] CA_3A-19A	1			Yes	Yes	Yes	Yes	75	0
		3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							
		19			Yes	Yes	Yes			
CA_1A-3A-20A	CA_1A-3A, CA_3A-20A, CA_1A-20A	1			Yes	Yes	Yes	Yes	60	0
		3			Yes	Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
CA_1A-3A-3A-20A	-	1			Yes	Yes	Yes	Yes	80	0
		3	See CA_3A-3A Bandwidth combination set 0 in Table 5.6A.1-3							
		20			Yes	Yes	Yes	Yes		
CA_1A-3C-20A	CA_3C CA_1A-3A	1			Yes	Yes	Yes	Yes	80	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							
		20			Yes	Yes	Yes	Yes		
CA_1A-3A-21A	CA_1A-3A, CA_1A-21A, CA_3A-21A	1			Yes	Yes	Yes	Yes	55	0
		3			Yes	Yes	Yes	Yes		
		21			Yes	Yes	Yes			
CA_1A-3A-3A-21A	CA_1A-3A, CA_1A-21A, CA_3A-21A	1			Yes	Yes	Yes	Yes	75	0
		3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							
		21			Yes	Yes	Yes			
CA_1A-3A-26A	CA_1A-3A, CA_1A-26A, CA_3A-26A	1			Yes	Yes	Yes	Yes	50	0
		3			Yes	Yes	Yes	Yes		
		26			Yes	Yes				
		1			Yes	Yes	Yes	Yes	55	1
		3			Yes	Yes	Yes	Yes		

		26			Yes	Yes	Yes			
CA_1A-3C-26A	CA_3C	1			Yes	Yes	Yes	Yes	75	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							
		26			Yes	Yes	Yes			
CA_1A-3A-28A	CA_1A-3A, CA_1A-28A, CA_3A-28A[6]	1			Yes	Yes	Yes	Yes	60	0
		3			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_1A-1A-3A-28A	-	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0
		3			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_1A-1A-3A-3A-28A	-	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						100	0
		3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							
		28			Yes	Yes	Yes	Yes		
CA_1A-1A-3C-28A	CA_3C	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						100	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1 of 36.101							
		28			Yes	Yes	Yes	Yes		
CA_1A-3A-3A-28A	-	1			Yes	Yes	Yes	Yes	80	0
		3	See CA_3A-3A Bandwidth combination set 0 in Table 5.6A.1-3							
		28			Yes	Yes	Yes	Yes		
CA_1A-3C-28A	CA_3C	1			Yes	Yes	Yes	Yes	80	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							
		28			Yes	Yes	Yes	Yes		
CA_1A-1A-3C-28A	CA_1A-3A, CA_1A-28A CA_3A-28A	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						100	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							
		28			Yes	Yes	Yes	Yes		
CA_1A-3A-32A	-	1			Yes	Yes	Yes	Yes	60	0
		3			Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
		1			Yes	Yes	Yes	Yes		

CA_1A-3C-32A	-	3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1						80	0
		32			Yes	Yes	Yes	Yes		
CA_1A-3A-38A	CA_1A-3A	1			Yes	Yes	Yes	Yes	60	0
		3			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-3C-38A	CA_3C CA_1A-3A	1			Yes	Yes	Yes	Yes	80	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							
		38			Yes	Yes	Yes	Yes		
CA_1A-1A-3A-38A	-	1	See CA_1A-1A Bandwidth combination set 0 in Table 5.6A.1-3						80	0
		3			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-1A-3C-38A	-	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						100	0
		3	See CA_3C Bandwidth combination set 0 in table 5.6A.1-1							
		38			Yes	Yes	Yes	Yes		
CA_1A-3A-3A-38A	-	1			Yes	Yes	Yes	Yes	80	0
		3	See CA_3A-3A Bandwidth combination set 0 in Table 5.6A.1-3							
		38			Yes	Yes	Yes	Yes		
CA_1A-3A-40A	CA_1A-3A, CA_1A-40A, CA_3A-40A	1			Yes	Yes	Yes	Yes	60	0
		3			Yes	Yes	Yes	Yes		
		40			Yes	Yes	Yes	Yes		
CA_1A-3A-40A-40A	CA_1A-3A, CA_1A-40A, CA_3A-40A	1			Yes	Yes	Yes	Yes	80	0
		3			Yes	Yes	Yes	Yes		
		40	See CA_40A-40A Bandwidth Combination Set 1 in Table 5.6A.1-3							
CA_1A-3A-40C	CA_1A-40A CA_3A-40A	1			Yes	Yes	Yes	Yes	80	0
		3			Yes	Yes	Yes	Yes		
		40	See CA_40C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_1A-3A-40D	CA_1A-40A CA_3A-40A	1			Yes	Yes	Yes	Yes	100	0
		3			Yes	Yes	Yes	Yes		

		40	See CA_40D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_1A-3C-40A	-	1			Yes	Yes	Yes	Yes	80	0
		3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1							
		40			Yes	Yes	Yes	Yes		
CA_1A-3C-40C	-	1			Yes	Yes	Yes	Yes	100	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							
		40	See CA_40C Bandwidth combination set 1 in Table 5.6A.1-1							
CA_1A-3A-41A[9]	CA_1A-3A	1			Yes	Yes	Yes	Yes	60	0
		3			Yes	Yes	Yes	Yes		
		41			Yes	Yes	Yes	Yes		
CA_1A-3A-41C[9]	CA_1A-3A	1			Yes	Yes	Yes	Yes	80	0
		3			Yes	Yes	Yes	Yes		
		41	See CA_41C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_1A-3A-41D[9]	CA_1A-3A	1			Yes	Yes	Yes	Yes	100	0
		3			Yes	Yes	Yes	Yes		
		41	See CA_41D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_1A-3A-42A	CA_1A-3A, CA_1A-42A, CA_3A-42A	1			Yes	Yes	Yes	Yes	60	0
		3			Yes	Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		
CA_1A-3A-3A-42A	CA_1A-3A, CA_1A-42A, CA_3A-42A	1			Yes	Yes	Yes	Yes	80	0
		3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							
		42			Yes	Yes	Yes	Yes		
CA_1A-3A-42A-42A	-	1			Yes	Yes	Yes	Yes	80	0
		3			Yes	Yes	Yes	Yes		
		42	See CA_42A-42A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_1A-3A-42A-42C	-	1			Yes	Yes	Yes	Yes	100	0
		3			Yes	Yes	Yes	Yes		
		42	See CA_42A-42C Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_1A-3A-42C	CA_1A-3A, CA_1A-42A,	1			Yes	Yes	Yes	Yes	80	0
		3			Yes	Yes	Yes	Yes		

	CA_1A-42C, CA_3A-42A, CA_3A-42C CA_42C	42	See CA_42C Bandwidth combination set 0 in Table 5.6A.1-1								
CA_1A-3A-42C-42C	-	1			Yes	Yes	Yes	Yes		120	0
		3			Yes	Yes	Yes	Yes			
		42	See CA_42C-42C Bandwidth Combination Set 0 in Table 5.6A.1-3								
CA_1A-3A-42D	CA_1A-3A, CA_1A-42A, CA_3A-42A, CA_1A-42C, CA_3A-42C	1			Yes	Yes	Yes	Yes		100	0
		3			Yes	Yes	Yes	Yes			
		42	See CA_42D Bandwidth combination set 0 in Table 5.6A.1-1								
CA_1A-3A-43A	-	1			Yes	Yes	Yes			50	0
		3			Yes	Yes	Yes				
		43			Yes	Yes	Yes	Yes			
CA_1A-3A-46A	-	1			Yes	Yes	Yes	Yes		60	0
		3			Yes	Yes	Yes	Yes			
		46				Yes		Yes			
	-	1			Yes	Yes	Yes	Yes		60	1
		3			Yes	Yes	Yes	Yes			
		46						Yes			
CA_1A-3A-46C	-	1			Yes	Yes	Yes	Yes		80	0
		3			Yes	Yes	Yes	Yes			
		46	See CA_46C Bandwidth Combination Set 1 in Table 5.6A.1-1								
	-	1			Yes	Yes	Yes	Yes		80	1
		3			Yes	Yes	Yes	Yes			
		46	See CA_46C in Table 5.6A.1-1 of TS 36.101 Bandwidth Combination Set 0								
CA_1A-3A-46D	-	1			Yes	Yes	Yes	Yes		100	0
		3			Yes	Yes	Yes	Yes			
		46	See CA_46D in Table 5.6A.1-1 of TS 36.101 Bandwidth Combination Set 0								
CA_1A-3A-46E	-	1			Yes	Yes	Yes	Yes		120	0
		3			Yes	Yes	Yes	Yes			
		46	See CA_46E in Table 5.6A.1-1 of TS 36.101 Bandwidth Combination Set 0								

CA_1A-5A-40A	CA_1A-5A[6]	1			Yes	Yes	Yes	Yes	50	0
		5			Yes	Yes				
		40				Yes	Yes	Yes		
CA_1A-5A-41A[11]	-	1			Yes	Yes	Yes	Yes	50	0
		5			Yes	Yes				
		41						Yes		
CA_1A-5A-46A	CA_1A-5A[6]	1			Yes	Yes	Yes	Yes	50	0
		5			Yes	Yes				
		46						Yes		
CA_1A-1A-5A-7A	-	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						70	0
		5			Yes	Yes				
		7				Yes	Yes	Yes		
CA_1A-5A-7A	CA_1A-5A[6] CA_1A-7A CA_5A-7A	1			Yes	Yes			40	0
		5			Yes	Yes				
		7				Yes	Yes	Yes		
		1			Yes	Yes	Yes	Yes	50	1
		5			Yes	Yes				
		7				Yes	Yes	Yes		
CA_1A-5A-7A-7A	CA_1A-5A[6] CA_1A-7A CA_5A-7A	1			Yes	Yes	Yes	Yes	70	0
		5			Yes	Yes				
		7	See CA_7A-7A Bandwidth Combination Set 3 in Table 5.6A.1-3							
CA_1A-5A-28A	-	1			Yes	Yes	Yes		45	0
		5			Yes	Yes				
		28			Yes	Yes	Yes	Yes		
CA_1A-5A-46C	CA_1A-5A[6]	1			Yes	Yes	Yes	Yes	70	0
		5			Yes	Yes				
		46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_1A-5A-46D	-	1			Yes	Yes	Yes	Yes	90	0
		5			Yes	Yes				
		46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							
CA_1A-7A-8A	CA_1A-7A, CA_1A-8A CA_7A-8A	1			Yes	Yes	Yes	Yes	50	0
		7				Yes	Yes	Yes		
		8			Yes	Yes				

		1			Yes	Yes	Yes	Yes	50	1
		7			Yes	Yes	Yes	Yes		
		8			Yes	Yes				
CA_1A-7A-7A-8A	CA_1A-7A CA_1A-8A CA_7A-8A	1			Yes	Yes	Yes	Yes	70	0
		7	See CA_7A-7A Bandwidth combination set 1 in Table 5.6A.1-3							
		8			Yes	Yes				
CA_1A-7A-20A	CA_1A-7A CA_1A-20A CA_7A-20A	1			Yes	Yes	Yes	Yes	50	0
		7				Yes	Yes	Yes		
		20			Yes	Yes				
		1			Yes	Yes	Yes	Yes	60	1
		7				Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
		1			Yes	Yes	Yes	Yes	60	2
		7			Yes	Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
CA_1A-7A-7A-20A	-	1			Yes	Yes	Yes	Yes	80	0
		7	See CA_7A-7A Bandwidth Combination Set 3 in Table 5.6A.1-3							
		20			Yes	Yes	Yes	Yes		
CA_1A-7C-20A	-	1			Yes	Yes	Yes	Yes	80	0
		7	See CA_7C Bandwidth combination set 1 in Table 5.6A.1-1							
		20			Yes	Yes	Yes	Yes		
CA_1A-7A-26A	CA_1A-7A CA_1A-26A, CA_7A-26A	1			Yes	Yes	Yes	Yes	55	0
		7			Yes	Yes	Yes	Yes		
		26			Yes	Yes	Yes			
CA_1A-7A-7A-26A	CA_1A-7A CA_1A-26A, CA_7A-26A	1			Yes	Yes	Yes	Yes	75	0
		7	See CA_7A-7A Bandwidth Combination Set 3 in Table 5.6A.1-3							
		26			Yes	Yes	Yes			
CA_1A-7C-26A	CA_7C	1			Yes	Yes	Yes	Yes	75	0
		7	See CA_7C Bandwidth combination set 2 in Table 5.6A.1-1							
		26			Yes	Yes	Yes			
CA_1A-7A-28A	CA_1A-7A, CA_1A-28A, CA_7A-28A	1			Yes	Yes	Yes	Yes	55	0
		7				Yes	Yes	Yes		
		28			Yes	Yes	Yes			

		1			Yes	Yes	Yes	Yes	60	1
		7				Yes	Yes	Yes		
		28				Yes	Yes	Yes		
		1			Yes	Yes	Yes	Yes	60	2
		7				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_1A-1A-7A-28A	-	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0
		7			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_1A-1A-7C-28A	CA_7C	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						100	0
		7	See CA_7C Bandwidth combination set 2 in Table 5.6A.1-1							
		28			Yes	Yes	Yes	Yes		
CA_1A-7A-7A-28A	-	1			Yes	Yes	Yes	Yes	80	0
		7	See CA_7A-7A Bandwidth combination set 3 in Table 5.6A.1-3							
		28				Yes	Yes	Yes		
CA_1A-7C-28A	CA_1A-7A, CA_1A-28A, CA_7A-28A, CA_7C	1			Yes	Yes	Yes	Yes	80	0
		7	See CA_7C Bandwidth Combination Set 2 in Table 5.6A.1-1							
		28				Yes	Yes	Yes		
CA_1A-7A-32A	-	1			Yes	Yes	Yes	Yes	60	0
		7				Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_1A-7A-38A[16]	-	1			Yes	Yes	Yes	Yes	60	0
		7			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-1A-7A-38A[16]	-	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0
		7				Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-7A-40A	-	1			Yes	Yes	Yes	Yes	60	0
		7				Yes	Yes	Yes		
		40			Yes	Yes	Yes	Yes		
CA_1A-7A-40A-40A	-	1			Yes	Yes	Yes	Yes	80	0
		7			Yes	Yes	Yes	Yes		

		40	See CA_40A-40A Bandwidth Combination Set 1 in Table 5.6A.1-3							
CA_1A-7A-40C	-	1			Yes	Yes	Yes	Yes	80	0
		7				Yes	Yes	Yes		
		40	See CA_40C Bandwidth combination set 1 in Table 5.6A.1-1							
CA_1A-7A-40D	-	1			Yes	Yes	Yes	Yes	100	0
		7			Yes	Yes	Yes	Yes		
		40	See CA_40D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_1A-7A-42A	-	1			Yes	Yes	Yes	Yes	60	0
		7				Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		
CA_1A-7A-46A	CA_1A-7A	1			Yes	Yes	Yes	Yes	60	0
		7				Yes	Yes	Yes		
		46						Yes		
CA_1A-7A-46A	-	1			Yes	Yes	Yes	Yes	60	1
		7			Yes	Yes	Yes	Yes		
		46						Yes		
CA_1A-7A-46C	CA_1A-7A	1			Yes	Yes	Yes	Yes	80	0
		7				Yes	Yes	Yes		
		46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_1A-7A-46C	-	1			Yes	Yes	Yes	Yes	80	1
		7			Yes	Yes	Yes	Yes		
		46	See CA_46C in Table 5.6A.1-1 of TS 36.101 Bandwidth Combination Set 0							
CA_1A-7A-46D	-	1			Yes	Yes	Yes	Yes	100	0
		7				Yes	Yes	Yes		
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_1A-7A-46D	-	1			Yes	Yes	Yes	Yes	100	1
		7			Yes	Yes	Yes	Yes		
		46	See CA_46D in Table 5.6A.1-1 of TS 36.101 Bandwidth Combination Set 0							
CA_1A-7A-46E	-	1			Yes	Yes	Yes	Yes	120	0
		7			Yes	Yes	Yes	Yes		
		46	See CA_46E in Table 5.6A.1-1 of TS 36.101 Bandwidth Combination Set 0							

CA_1A-8A-11A	-	1			Yes	Yes	Yes	Yes	40	0
		8			Yes	Yes				
		11			Yes	Yes				
CA_1A-8A-20A	CA_1A-8A	1			Yes	Yes	Yes	Yes	50	0
		8			Yes	Yes				
		20			Yes	Yes	Yes	Yes		
CA_1A-8A-28A	-	1			Yes	Yes	Yes	Yes	50	0
		8		Yes	Yes	Yes				
		28			Yes	Yes	Yes	Yes		
CA_1A-8A-32A	-	1			Yes	Yes	Yes	Yes	50	0
		8	Yes	Yes	Yes	Yes				
		32			Yes	Yes	Yes	Yes		
CA_1A-8A-38A	CA_1A-8A	1			Yes	Yes	Yes	Yes	50	0
		8			Yes	Yes				
		38			Yes	Yes	Yes	Yes		
CA_1A-8A-40A	CA_1A-8A	1			Yes	Yes	Yes	Yes	50	0
		8		Yes	Yes	Yes				
		40			Yes	Yes	Yes	Yes		
CA_1A-8A-40C	-	1			Yes	Yes	Yes	Yes	70	0
		8			Yes	Yes				
		40	See CA_40C Bandwidth combination set 1 in Table 5.6A.1-1							
CA_1A-8A-41A	-	1			Yes	Yes	Yes	Yes	50	0
		8	Yes	Yes	Yes	Yes				
		41			Yes	Yes	Yes	Yes		
CA_1A-8A-42A	-	1			Yes	Yes	Yes	Yes	50	0
		8			Yes	Yes				
		42			Yes	Yes	Yes	Yes		
CA_1A-8A-42C	-	1			Yes	Yes	Yes	Yes	70	0
		8			Yes	Yes				
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_1A-11A-18A	-	1			Yes	Yes	Yes	Yes	45	0
		11			Yes	Yes				
		18			Yes	Yes	Yes			
		1			Yes	Yes	Yes	Yes	40	1
		11			Yes	Yes				

		18			Yes	Yes				
CA_1A-11A-28A	-	1			Yes	Yes	Yes	Yes	50	0
		11			Yes	Yes				
		28			Yes	Yes	Yes	Yes		
CA_1A-11A-42A	-	1			Yes	Yes	Yes	Yes	50	0
		11			Yes	Yes				
		42			Yes	Yes	Yes	Yes		
CA_1A-11A-42C	-	1			Yes	Yes	Yes	Yes	70	0
		11			Yes	Yes				
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_1A-18A-28A	CA_1A-18A[6] CA_1A-28A CA_18A-28A	1			Yes	Yes	Yes	Yes	45	0
		18			Yes	Yes	Yes			
		28			Yes	Yes				
		1			Yes	Yes	Yes	Yes	40	1
		18			Yes	Yes				
		28			Yes	Yes				
CA_1A-18A-41A	CA_1A-18A CA_1A-41A CA_18A-41A	1			Yes	Yes	Yes	Yes	55	0
		18			Yes	Yes	Yes			
		41			Yes	Yes	Yes	Yes		
CA_1A-18A-41C	CA_1A-18A CA_1A-41A CA_1A-41C CA_18A-41A CA_18A-41C CA_41C	1			Yes	Yes	Yes	Yes	75	0
		18			Yes	Yes	Yes			
		41	See CA_41C Bandwidth combination set 1 in Table 5.6A.1-1 in TS36.101							
CA_1A-18A-42A	-	1			Yes	Yes	Yes	Yes	55	0
		18			Yes	Yes	Yes			
		42			Yes	Yes	Yes	Yes		
CA_1A-18A-42C	-	1			Yes	Yes	Yes	Yes	75	0
		18			Yes	Yes	Yes			
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_1A-19A-21A	CA_1A-19A[6] CA_1A-21A CA_19A-21A	1			Yes	Yes	Yes	Yes	50	0
		19			Yes	Yes	Yes			
		21			Yes	Yes	Yes			
CA_1A-19A-28A	-	1			Yes	Yes	Yes	Yes	45	0

		19			Yes	Yes	Yes			
		28			Yes	Yes				
CA_1A-19A-42A	CA_1A-19A[6], CA_1A-42A, CA_19A-42A[6]	1			Yes	Yes	Yes	Yes	55	0
		19			Yes	Yes	Yes			
		42			Yes	Yes	Yes	Yes		
CA_1A-19A-42C	CA_1A-19A[6] CA_1A-42A CA_19A-42A[6]	1			Yes	Yes	Yes	Yes	75	0
		19			Yes	Yes	Yes			
		42	See CA_42C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_1A-20A-28A[12]	-	1			Yes	Yes	Yes	Yes	60	0
		20				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_1A-20A-32A	-	1			Yes	Yes	Yes	Yes	50	0
		20			Yes	Yes				
		32			Yes	Yes	Yes	Yes		
CA_1A-20A-38A	CA_1A-20A	1			Yes	Yes	Yes	Yes	60	0
		20			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-20A-40A	-	1			Yes	Yes	Yes	Yes	60	0
		20			Yes	Yes	Yes	Yes		
		40			Yes	Yes	Yes	Yes		
CA_1A-20A-40C	-	1			Yes	Yes	Yes	Yes	80	0
		20			Yes	Yes	Yes	Yes		
		40	See CA_40C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_1A-20A-42A	-	1			Yes	Yes	Yes	Yes	60	0
		20			Yes	Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		
CA_1A-20A-43A	-	1			Yes	Yes	Yes		40	0
		20			Yes					
		43			Yes	Yes	Yes	Yes		
CA_1A-21A-28A	CA_1A-21A, CA_1A-28A, CA_21A-28A	1			Yes	Yes	Yes	Yes	45	0
		21			Yes	Yes	Yes			
		28			Yes	Yes				
CA_1A-21A-42A	CA_1A-21A, CA_1A-42A, CA_21A-42A	1			Yes	Yes	Yes	Yes	55	0
		21			Yes	Yes	Yes			
		42			Yes	Yes	Yes	Yes		

CA_1A-21A-42C	CA_1A-21A CA_1A-42A CA_21A-42A	1			Yes	Yes	Yes	Yes	75	0
		21			Yes	Yes	Yes			
		42	See CA_42C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_1A-21A-42D	-	1			Yes	Yes	Yes	Yes	95	0
		21			Yes	Yes	Yes			
		42	See CA_42D Bandwidth combination set 0 in Table 5.6A.1-1							
CA_1A-28A-32A	-	1			Yes	Yes	Yes	Yes	60	0
		28			Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_1A-28A-38A	-	1			Yes	Yes	Yes	Yes	60	0
		28			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-28A-40A	-	1			Yes	Yes	Yes	Yes	60	0
		28			Yes	Yes	Yes	Yes		
		40			Yes	Yes	Yes	Yes		
CA_1A-28A-40A-40A	-	1			Yes	Yes	Yes	Yes	80	0
		28			Yes	Yes	Yes	Yes		
		40	See CA_40A-40A Bandwidth Combination Set 1 in Table 5.6A.1-3							
CA_1A-28A-40C	-	1			Yes	Yes	Yes	Yes	80	0
		28			Yes	Yes	Yes	Yes		
		40	See CA_40C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_1A-28A-40D	-	1			Yes	Yes	Yes	Yes	100	0
		28			Yes	Yes	Yes	Yes		
		40	See CA_40D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_1A-28A-42A	CA_1A-28A, CA_1A-42A, CA_28A-42A	1			Yes	Yes	Yes	Yes	50	0
		28			Yes	Yes				
		42			Yes	Yes	Yes	Yes		
CA_1A-28A-42C	CA_1A-28A, CA_1A-42A, CA_28A-42A	1			Yes	Yes	Yes	Yes	70	0
		28			Yes	Yes				
		42	See CA_42C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_1A-32A-38A	-	1			Yes	Yes	Yes	Yes	60	0
		32			Yes	Yes	Yes	Yes		

		38			Yes	Yes	Yes	Yes		
CA_1A-32A-42A	-	1			Yes	Yes	Yes		55	0
		32			Yes	Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		
CA_1A-32A-43A	-	1			Yes	Yes	Yes		55	0
		32			Yes	Yes	Yes	Yes		
		43			Yes	Yes	Yes	Yes		
CA_1A-40A-41A	-	1			Yes	Yes	Yes	Yes	60	0
		40			Yes	Yes	Yes	Yes		
		41			Yes	Yes	Yes	Yes		
CA_1A-41A-42A[10]	CA_1A-42A	1			Yes	Yes	Yes	Yes	60	0
		41				Yes	Yes	Yes		
		42				Yes	Yes	Yes		
CA_1A-41A-42C[10]	CA_1A-42A, CA_42C, CA_1A-42C	1			Yes	Yes	Yes	Yes	80	0
		41				Yes	Yes	Yes		
		42	See CA_42C Bandwidth combination Set 1 in Table 5.6A.1-1							
CA_1A-41C-42A[10]	CA_1A-42A	1			Yes	Yes	Yes	Yes	80	0
		41	See CA_41C Bandwidth combination Set 0 in Table 5.6A.1-1							
		42				Yes	Yes	Yes		
CA_1A-41C-42C[10]	CA_1A-42A, CA_42C, CA_1A-42C	1			Yes	Yes	Yes	Yes	100	0
		41	See CA_41C Bandwidth combination set 0 in Table 5.6A.1-1							
		42	See CA_42C Bandwidth combination set 1 in Table 5.6A.1-1							
CA_1A-42A-43A	-	1			Yes	Yes	Yes		55	0
		42			Yes	Yes	Yes	Yes		
		43			Yes	Yes	Yes	Yes		
CA_2A-4A-5A	CA_2A-4A	2			Yes	Yes	Yes	Yes	50	0
		4			Yes	Yes	Yes	Yes		
		5			Yes	Yes				
CA_2A-2A-4A-5A	CA_2A-5A CA_4A-5A	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						70	0
		4			Yes	Yes	Yes	Yes		
		5			Yes	Yes				
CA_2A-2A-12A-66A-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						90	0

		12			Yes	Yes				
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-2A-14A-66A-66A	CA_2A-14A CA_14A-66A	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3							
		14			Yes	Yes			90	0
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-4A-5B	-	2			Yes	Yes	Yes	Yes	60	0
		4			Yes	Yes	Yes	Yes		
		5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_2A-4A-7A	CA_2A-4A	2			Yes	Yes	Yes	Yes	60	0
		4			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
CA_2A-4A-7A-7A	CA_2A-4A	2			Yes	Yes	Yes	Yes	80	0
		4			Yes	Yes	Yes	Yes		
		7	See the CA_7A-7A Bandwidth combination set 1 in Table 5.6A.1-3							
CA_2A-4A-7C	-	2			Yes	Yes	Yes	Yes	80	0
		4			Yes	Yes	Yes	Yes		
		7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_2A-4A-4A-5A	-	2			Yes	Yes	Yes	Yes	70	0
		4	See CA_4A-4A Bandwidth Combination Set 0 in Table 5.6A.1-3							
		5			Yes	Yes				
CA_2A-4A-12A	CA_2A-4A CA_4A-12A	2			Yes	Yes	Yes	Yes	50	0
		4			Yes	Yes	Yes	Yes		
		12			Yes	Yes				
CA_2A-4A-12A-12A	-	2			Yes	Yes	Yes	Yes	50	0
		4			Yes	Yes	Yes	Yes		
		12	See CA_12A-12A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-4A-12B	-	2			Yes	Yes	Yes	Yes	55	0
		4			Yes	Yes	Yes	Yes		
		12	See CA_12B Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_2A-2A-4A-12A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						70	0

		4			Yes	Yes	Yes	Yes		
		12			Yes	Yes				
CA_2A-4A-4A-12A	-	2			Yes	Yes	Yes	Yes	70	0
		4	See CA_4A-4A Bandwidth Combination Set 0 in Table 5.6A.1-3							
		12			Yes	Yes				
CA_2A-4A-13A	CA_2A-13A CA_4A-13A	2			Yes	Yes	Yes	Yes	50	0
		4			Yes	Yes	Yes	Yes		
		13				Yes				
CA_2A-4A-28A	-	2			Yes	Yes	Yes	Yes	60	0
		4			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_2A-4A-29A	CA_2A-4A	2			Yes	Yes	Yes	Yes	50	0
		4			Yes	Yes	Yes	Yes		
		29			Yes	Yes				
CA_2A-4A-30A	-	2			Yes	Yes	Yes	Yes	50	0
		4			Yes	Yes	Yes	Yes		
		30			Yes	Yes				
CA_2A-4A-71A	-	2			Yes	Yes	Yes	Yes	60	0
		4			Yes	Yes	Yes	Yes		
		71			Yes	Yes	Yes	Yes		
CA_2A-2A-4A-71A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0
		4			Yes	Yes	Yes	Yes		
		71			Yes	Yes	Yes	Yes		
CA_2A-5A-7A	-	2			Yes	Yes	Yes	Yes	50	0
		5			Yes	Yes				
		7				Yes	Yes	Yes		
CA_2A-2A-5A-7A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						70	0
		5			Yes	Yes				
		7			Yes	Yes	Yes	Yes		
CA_2A-5A-7A-7A	-	2			Yes	Yes	Yes	Yes	70	0
		5			Yes	Yes				
		7	See CA_7A-7A Bandwidth Combination Set 1 in Table 5.6A.1-3							
CA_2A-5A-7C	-	2			Yes	Yes	Yes	Yes	70	0

		5			Yes	Yes				
		7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-3							
CA_2A-5A-12A	-	2			Yes	Yes	Yes	Yes	40	0
		5			Yes	Yes				
		12			Yes	Yes				
CA_2A-2A-5A-12A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						60	0
		5			Yes	Yes				
		12			Yes	Yes				
CA_2A-5A-12A-12A	-	2			Yes	Yes	Yes	Yes	40	0
		5			Yes	Yes				
		12	See CA_12A-12A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-5A-46C	-	2			Yes	Yes	Yes	Yes	70	0
		5			Yes	Yes				
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_2A-2A-5A-66A	CA_2A-5A CA_5A-66A	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						70	0
		5			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-2A-5A-66A-66A	CA_2A-5A CA_5A-66A	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						90	0
		5			Yes	Yes				
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-2A-5A-66B	CA_2A-5A CA_5A-66A	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						70	0
		5			Yes	Yes				
		66	See CA_66B Bandwidth combination set 0 in Table 5.6A.1-1							
CA_2A-2A-5A-66C	CA_2A-5A CA_5A-66A	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						90	0
		5			Yes	Yes				
		66	See CA_66C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_2A-2A-7A-12A	-	2	See CA_2A-2A Bandwidth combination set 0 in Table 5.6A.1-3						70	0
		7			Yes	Yes	Yes	Yes		
		12			Yes	Yes				

CA_2A-2A-7A-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0
		7			Yes	Yes	Yes	Yes		
		66			Yes	Yes	Yes	Yes		
CA_2A-2A-7A-66A-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						100	0
		7			Yes	Yes	Yes	Yes		
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-2A-12B-66A	-	**2**	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						75	0
		12	See CA_12B Bandwidth Combination Set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_2A-2A-13A-66A	CA_2A-13A CA_13A-66A	**2**	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						70	0
		13			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-5A-12B	-	2			Yes	Yes	Yes	Yes	45	0
		5			Yes	Yes				
		12	See CA_12B Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_2A-5A-13A	CA_2A-13A[6]	2			Yes	Yes	Yes	Yes	40	0
		5			Yes	Yes				
		13				Yes				
CA_2A-5A-28A	-	2			Yes	Yes	Yes	Yes	50	0
		5			Yes	Yes				
		28			Yes	Yes	Yes	Yes		
CA_2A-5A-29A	-	2			Yes	Yes	Yes	Yes	40	0
		5			Yes	Yes				
		29			Yes	Yes				
CA_2A-5A-30A	-	2			Yes	Yes	Yes	Yes	40	0
		5			Yes	Yes				
		30			Yes	Yes				
CA_2A-2A-5A-30A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						60	0
		5			Yes	Yes				
		30			Yes	Yes				
CA_2C-5A-30A	-	2	See CA_2C Bandwidth combination set 0 in Table 5.6A.1-1						60	0

		5			Yes	Yes				
		30			Yes	Yes				
CA_2A-5B-30A	-	2			Yes	Yes	Yes	Yes	50	0
		5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1							
		30			Yes	Yes				
CA_2C-5B-30A	-	2	See CA_2C Bandwidth combination set 0 in Table 5.6A.1-1						70	0
		5	See CA_5B Bandwidth combination set 0 in Table 5.6A.1-1							
		30			Yes	Yes				
CA_2A-5A-46A	-	2			Yes	Yes	Yes	Yes	50	0
		5			Yes	Yes				
		46						Yes		
CA_2A-5A-46D	CA_2A-5A	2			Yes	Yes	Yes	Yes	90	0
		5			Yes	Yes				
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_2A-5A-46E	-	2			Yes	Yes	Yes	Yes	110	0
		5			Yes	Yes				
		46	See CA_46E Bandwidth combination set 0 in Table 5.6A.1-1							
CA_2A-5A-48A	**CA_2A-48A** CA_5A-48A	2	Yes	Yes	Yes	Yes	Yes	Yes	50	0
		5			Yes	Yes				
		48			Yes	Yes	Yes	Yes		
CA_2A-5A-48C	**CA_2A-48A** **CA_5A-48A** CA_2A-5A	2	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	70	0
		5			**Yes**	**Yes**				
		48	See CA_48C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_2A-5A-48D	CA_2A-5A CA_5A-48A CA_2A-48A	2	Yes	Yes	Yes	Yes	Yes	Yes	90	0
		5			Yes	Yes				
		48	See CA_48D Bandwidth combination set 0 in Table 5.6A.1-1							
CA_2A-5A-66A	CA_2A-5A CA_5A-66A CA_2A-66A	2			Yes	Yes	Yes	Yes	50	0
		5			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-5A-66A-66A	CA_2A-5A CA_5A-66A	2			Yes	Yes	Yes	Yes	70	0
		5			Yes	Yes				

	CA_2A-66A	66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3								
CA_2A-5A-5A-66A	-	2			Yes	Yes	Yes	Yes		60	0
		5	See CA_5A-5A Bandwidth Combination Set 0 in Table 5.6A.1-3								
		66			Yes	Yes	Yes	Yes			
CA_2A-5A-5A-66A-66A	-	2			Yes	Yes	Yes	Yes		80	0
		5	See CA_5A-5A Bandwidth Combination Set 0 in Table 5.6A.1-3								
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3								
CA_2A-5B-66A-66A	CA_2A-5A CA_5A-66A	2			Yes	Yes	Yes	Yes		80	0
		5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1								
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3								
CA_2A-5A-66B	CA_2A-5A CA_5A-66A	2			Yes	Yes	Yes	Yes		50	0
		5			Yes	Yes					
		66	See CA_66B Bandwidth combination set 0 in Table 5.6A.1-1								
CA_2A-5A-66C	CA_2A-5A CA_5A-66A	2			Yes	Yes	Yes	Yes		70	0
		5			Yes	Yes					
		66	See CA_66C Bandwidth combination set 0 in Table 5.6A.1-1								
CA_2A-5A-66D	-	2			Yes	Yes	Yes	Yes		90	0
		5			Yes	Yes					
		66	See CA_66D Bandwidth combination set 0 in Table 5.6A.1-1								
CA_2A-5B-66A	CA_2A-5A CA_5A-66A	2			Yes	Yes	Yes	Yes		60	0
		5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1								
		66			Yes	Yes	Yes	Yes			
CA_2A-5B-66B	CA_2A-5A CA_5A-66A	2			Yes	Yes	Yes	Yes		60	0
		5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1								
		66	See CA_66B Bandwidth combination set 0 in Table 5.6A.1-1								
CA_2A-5B-66C	CA_2A-5A CA_5A-66A	2			Yes	Yes	Yes	Yes		80	0
		5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1								

		66	See CA_66C Bandwidth combination set 0 in Table 5.6A.1-1								
CA_2A-5B-66A-66A	-	2			Yes	Yes	Yes	Yes		80	0
		5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1								
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3								
CA_2A-2A-5B-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3								
		5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1								
		66			Yes	Yes	Yes	Yes		80	0
CA_2A-7A-12A	-	2			Yes	Yes	Yes	Yes		50	0
		7			Yes	Yes	Yes	Yes			
		12			Yes	Yes					
CA_2A-7A-12B	-	2			Yes	Yes	Yes	Yes		55	0
		7			Yes	Yes	Yes	Yes			
		12	See CA_12B Bandwidth combination set 0 in Table 5.6A.1-1								
CA_2A-7A-13A	-	2			Yes	Yes	Yes	Yes		50	0
		7			Yes	Yes	Yes	Yes			
		13			Yes	Yes					
CA_2A-2A-7A-13A	-	2	See CA_2A-2A Bandwidth combination set 0 in Table 5.6A.1-3								
		7			Yes	Yes	Yes	Yes		70	0
		13			Yes	Yes					
CA_2A-7C-13A	-	2			Yes	Yes	Yes	Yes		70	0
		7	See CA_7C Bandwidth combination set 1 in Table 5.6A.1-1								
		13			Yes	Yes					
CA_2A-7A-7A-13A	-	2			Yes	Yes	Yes	Yes		70	0
		7	See CA_7A-7A Bandwidth combination set 1 in Table 5.6A.1-3								
		13			Yes	Yes					
CA_2A-2A-7C-13A	-	2	See CA_2A-2A Bandwidth combination set 0 in Table 5.6A.1-3								
		7	See CA_7C Bandwidth combination set 1 in Table 5.6A.1-1								
		13			Yes	Yes				90	0
CA_2A-2A-7A-7A-13A	-	2	See CA_2A-2A Bandwidth combination set 0 in Table 5.6A.1-3							90	0

		7	See CA_7A-7A Bandwidth combination set 1 in Table 5.6A.1-3							
		13			Yes	Yes				
CA_2A-7A-26A	-	2		Yes	Yes	Yes	Yes	Yes	55	0
		7			Yes	Yes	Yes	Yes		
		26		Yes	Yes	Yes	Yes			
CA_2A-7A-28A	-	2			Yes	Yes	Yes	Yes	60	0
		7			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_2A-7C-28A	-	2			Yes	Yes	Yes	Yes	80	0
		7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1							
		28			Yes	Yes	Yes	Yes		
CA_2A-7A-29A	-	2			Yes	Yes	Yes	Yes	50	0
		7				Yes	Yes	Yes		
		29			Yes	Yes				
CA_2A-7C-29A	-	2			Yes	Yes	Yes	Yes	70	0
		7	See CA_7C Bandwidth combination set 1 in Table 5.6A.1-1							
		29			Yes	Yes				
CA_2A-7A-7A-29A	-	2			Yes	Yes	Yes	Yes	70	0
		7	See CA_7A-7A Bandwidth combination set 1 in Table 5.6A.1-3							
		29			Yes	Yes				
CA_2A-7A-30A	-	2			Yes	Yes	Yes	Yes	50	0
		7			Yes	Yes	Yes	Yes		
		30			Yes	Yes				
CA_2A-7A-38A[17]	-	2			Yes	Yes	Yes	Yes	60	0
		7			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_2A-7C-38A[17]	-	2			Yes	Yes	Yes	Yes	80	0
		7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1							
		38			Yes	Yes	Yes	Yes		
CA_2A-7A-46A	-	2			Yes	Yes	Yes	Yes	60	0
		7			Yes	Yes	Yes	Yes		
		46				Yes		Yes		
CA_2A-7A-7A-46A	-	2			Yes	Yes	Yes	Yes	80	0

		7	See CA_7A-7A Bandwidth combination set 1 in table 5.6A.1-3							
		46						Yes		
CA_2A-7A-46C	-	2			Yes	Yes	Yes	Yes	80	0
		7			Yes	Yes	Yes	Yes		
		46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_2A-7A-7A-46C	-	2			Yes	Yes	Yes	Yes	100	0
		7	See CA_7A-7A Bandwidth combination set 1 in table 5.6A.1-3							
		46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_2A-7A-46D	-	2			Yes	Yes	Yes	Yes	100	0
		7			Yes	Yes	Yes	Yes		
		46	See CA_46D Bandwidth Combination Set 0 in the Table 5.6A.1-1							
CA_2A-7A-7A-46D	-	2			Yes	Yes	Yes	Yes	120	0
		7	See CA_7A-7A Bandwidth combination set 1 in table 5.6A.1-3							
		46	See CA_46D Bandwidth Combination Set 0 in the Table 5.6A.1-1							
CA_2A-7A-46E	-	2			Yes	Yes	Yes	Yes	120	0
		7			Yes	Yes	Yes	Yes		
		46	See the CA_46E Bandwidth combination set 0 in Table 5.6A.1-1							
CA_2A-7A-7A-46E	-	2			Yes	Yes	Yes	Yes	140	0
		7	See CA_7A-7A Bandwidth combination set 1 in table 5.6A.1-3							
		46	See the CA_46E Bandwidth combination set 0 in Table 5.6A.1-1							
CA_2A-7A-66A	-	2			Yes	Yes	Yes	Yes	60	0
		7			Yes	Yes	Yes	Yes		
		66			Yes	Yes	Yes	Yes		
CA_2A-7A-7A-66A	-	2			Yes	Yes	Yes	Yes	80	0
		7	See CA_7A-7A Bandwidth combination set 1 in Table 5.6A.1-3							
		66			Yes	Yes	Yes	Yes		
CA_2A-7A-7A-66A-66A	-	2			Yes	Yes	Yes	Yes	100	0
		7	See CA_7A-7A Bandwidth combination set 1 in Table 5.6A.1-3							

		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-7C-66A	-	2			Yes	Yes	Yes	Yes	80	0
		7	See CA_7C Bandwidth combination set 1 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_2A-7C-66A-66A	-	2			Yes	Yes	Yes	Yes	100	0
		7	See CA_7C Bandwidth combination set 2 in table 5.6A.1-1							
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-7A-66A-66A	-	2			Yes	Yes	Yes	Yes	80	0
		7			Yes	Yes	Yes	Yes		
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_2A-7A-71A	-	2			Yes	Yes	Yes	Yes	60	0
		7			Yes	Yes	Yes	Yes		
		71			Yes	Yes	Yes	Yes		
CA_2A-2A-7A-71A	-	2	See CA_2A-2A Bandwidth combination set 0 in Table 5.6A.1-3						80	0
		7			Yes	Yes	Yes	Yes		
		71			Yes	Yes	Yes	Yes		
CA_2A-12A-30A	CA_2A-12A[6]	2			Yes	Yes	Yes	Yes	40	0
		12			Yes	Yes				
		30			Yes	Yes				
CA_2A-2A-12A-30A	-	2	See CA_2A-2A Bandwidth combination set 0 in Table 5.6A.1-3						60	0
		12			Yes	Yes				
		30			Yes	Yes				
CA_2C-12A-30A	-	2	See CA_2C Bandwidth combination set 0 in Table 5.6A.1-1						60	0
		12			Yes	Yes				
		30			Yes	Yes				
CA_2A-12A-66A	CA_2A-12A, CA_2A-66A CA_12A-66A	2			Yes	Yes	Yes	Yes	50	0
		12			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
		2			Yes	Yes			40	1
		12			Yes	Yes				
		66			Yes	Yes	Yes	Yes		

CA_2A-2A-12A-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3							70	0
		12			Yes	Yes					
		66			Yes	Yes	Yes	Yes			
CA_2A-12A-66A-66A	-	2			Yes	Yes	Yes	Yes		70	0
		12			Yes	Yes					
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3								
CA_2A-12A-66C	-	2			Yes	Yes	Yes	Yes		70	0
		12			Yes	Yes					
		66	See CA_66C Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_2A-12B-66A	-	2			Yes	Yes	Yes	Yes		55	0
		12	See CA_12B Bandwidth Combination Set 0 in Table 5.6A.1-1								
		66			Yes	Yes	Yes	Yes			
CA_2A-12B-66A-66A	-	2			Yes	Yes	Yes	Yes		75	0
		12	See CA_12B Bandwidth Combination Set 0 in Table 5.6A.1-1								
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3								
CA_2A-13A-46A	CA_2A-13A	2			Yes	Yes	Yes	Yes		50	0
		13			Yes	Yes					
		46						Yes			
CA_2A-13A-46C	CA_2A-13A	2			Yes	Yes	Yes	Yes		70	0
		13			Yes	Yes					
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_2A-13A-46D	CA_2A-13A	2			Yes	Yes	Yes	Yes		90	0
		13			Yes	Yes					
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_2A-13A-46E	CA_2A-13A	2			Yes	Yes	Yes	Yes		110	0
		13			Yes	Yes					
		46	See CA_46E Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_2A-13A-46A-46D	CA_2A-13A	2	Yes	Yes	Yes	Yes	Yes	Yes		110	0
		13			Yes	Yes					
		46	See CA_46A-46D Bandwidth Combination Set 0 in Table 5.6A.1-3								

CA_2A-13A-46A-46C	CA_2A-13A	2	Yes	Yes	Yes	Yes	Yes	Yes	90	0
		13			Yes	Yes				
		46	See CA_46A-46C Bandwidth Combination Set 0 in the Table 5.6A.1-3							
CA_2A-13A-46A-46A	CA_2A-13A	2	Yes	Yes	Yes	70	0	Yes	70	0
		13			Yes	Yes				
		46	See CA_46A-46A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_2A-13A-48A	CA_2A-48A CA_13A-48A	2			Yes	Yes	Yes	Yes	50	0
		13			Yes	Yes				
		48			Yes	Yes	Yes	Yes		
CA_2A-13A-48A-48A	-	2			Yes	Yes	Yes	Yes	70	0
		13			Yes	Yes				
		48	See CA_48A-48A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_2A-13A-48C	CA_2A-48A CA_13A-48A CA_2A-13A	2			Yes	Yes	Yes	Yes	70	0
		13			Yes	Yes				
		48	See CA_48C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_2A-13A-48D	CA_2A-48A CA_13A-48A	2			Yes	Yes	Yes	Yes	90	0
		13			Yes	Yes				
		48	See CA_48D Bandwidth combination set 0 in the Table 5.6A.1-1							
CA_2A-13A-48A-48C	CA_2A-13A	2			Yes	Yes	Yes	Yes	90	0
		13			Yes	Yes				
		48	See CA_48A-48C Bandwidth combination set 0 in the Table 5.6A.1-3							
CA_2A-13A-66A	CA_2A-13A CA_13A-66A CA_2A-66A	2			Yes	Yes	Yes	Yes	50	0
		13			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-13A-66D	-	2			Yes	Yes	Yes	Yes	90	0
		13			Yes	Yes				
		66	See CA_66D Bandwidth combination set 0 in Table 5.6A.1-1							
CA_2A-13A-66A-66A	CA_2A-13A CA_13A-66A CA_2A-66A	2			Yes	Yes	Yes	Yes	70	0
		13			Yes	Yes				
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
	CA_2A-13A	2			Yes	Yes	Yes	Yes	70	0

CA_2A-13A-66A-66B	CA_13A-66A	13			Yes	Yes				
		66	See CA_66A-66B Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-13A-66A-66C	CA_2A-13A CA_13A-66A	2			Yes	Yes	Yes	Yes	90	0
		13			Yes	Yes				
		66	See CA_66A-66C Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-13A-66B	CA_2A-13A CA_13A-66A	2			Yes	Yes	Yes	Yes	50	0
		13			Yes	Yes				
		66	See CA_66B Bandwidth combination set 0 in Table 5.6A.1-1							
CA_2A-13A-66C	CA_2A-13A CA_13A-66A	2			Yes	Yes	Yes	Yes	70	0
		13			Yes	Yes				
		66	See CA_66C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_2A-2A-13A-66B	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						70	0
		13			Yes	Yes				
		66	See CA_66B Bandwidth combination set 0 in Table 5.6A.1-1							
CA_2A-2A-13A-66A-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						90	0
		13			Yes	Yes				
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-14A-30A	CA_2A-14A CA_14A-30A	2			Yes	Yes	Yes	Yes	40	0
		14			Yes	Yes				
		30			Yes	Yes				
CA_2A-2A-14A-30A	CA_2A-14A CA_14A-30A	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						60	0
		14			Yes	Yes				
		30			Yes	Yes				
CA_2A-14A-66A	CA_2A-14A CA_14A-66A	2			Yes	Yes	Yes	Yes	50	0
		14			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-2A-14A-66A	CA_2A-14A CA_14A-66A	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						70	0
		14			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
	CA_2A-14A	2			Yes	Yes	Yes	Yes	70	0

CA_2A-14A-66A-66A	CA_14A-66A	14			Yes	Yes				
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_2A-14A-66A-66A-66A	CA_2A-14A CA_14A-66A	2			Yes	Yes	Yes	Yes	90	0
		14			Yes	Yes				
		66	See CA_66A-66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-4							
CA_2A-26A-66A	-	2		Yes	Yes	Yes	Yes	Yes	55	0
		26		Yes	Yes	Yes	Yes			
		66		Yes	Yes	Yes	Yes	Yes		
CA_2A-28A-66A	-	2			Yes	Yes	Yes	Yes	60	0
		28			Yes	Yes	Yes	Yes		
		66			Yes	Yes	Yes	Yes		
CA_2A-29A-30A	-	2			Yes	Yes	Yes	Yes	40	0
		29			Yes	Yes				
		30			Yes	Yes				
CA_2A-2A-29A-30A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						60	0
		29			Yes	Yes				
		30			Yes	Yes				
CA_2C-29A-30A	-	2	See CA_2C Bandwidth Combination set 0 in Table 5.6A.1-1						60	0
		29			Yes	Yes				
		30			Yes	Yes				
CA_2A-29A-66A	-	2			Yes	Yes	Yes	Yes	50	0
		29			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-2A-29A-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						70	0
		29			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-29A-66A-66A	-	2			Yes	Yes	Yes	Yes	70	0
		29			Yes	Yes				
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-2A-29A-66A-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						90	0
		29			Yes	Yes				

		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3								
CA_2A-2A-30A-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3							70	0
		30			Yes	Yes					
		66			Yes	Yes	Yes	Yes			
CA_2A-30A-66A-66A	-	2			Yes	Yes	Yes	Yes		70	0
		30			Yes	Yes					
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3								
CA_2A-30A-66A	-	2			Yes	Yes	Yes	Yes		50	0
		30			Yes	Yes					
		66			Yes	Yes	Yes	Yes			
CA_2A-46A-48A	CA_2A-48A	2			Yes	Yes	Yes	Yes		60	0
		46						Yes			
		48			Yes	Yes	Yes	Yes			
CA_2A-46A-48C	CA_2A-48A	2			Yes	Yes	Yes	Yes		80	0
		46						Yes			
		48	See the CA_48C Bandwidth combination set 0 in Table 5.6A.1-1								
CA_2A-46A-48D	-	2			Yes	Yes	Yes	Yes		100	0
		46						Yes			
		48	See CA_48D Bandwidth combination set 0 in Table 5.6A.1-1								
CA_2A-46A-48E	-	2			Yes	Yes	Yes	Yes		120	0
		46						Yes			
		48	See the CA_48E Bandwidth combination set 0 in Table 5.6A.1-1								
CA_2A-46C-48A	CA_2A-48A	2			Yes	Yes	Yes	Yes		80	0
		46	See the CA_46C Bandwidth combination set 0 in Table 5.6A.1-1								
		48			Yes	Yes	Yes	Yes			
CA_2A-46C-48C	CA_2A-48A	2			Yes	Yes	Yes	Yes		100	0
		46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1								
		48	See CA_48C Bandwidth combination set 0 in Table 5.6A.1-1								
CA_2A-46D-48A	CA_2A-48A	2			Yes	Yes	Yes	Yes		100	0
		46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1								

		48			Yes	Yes	Yes	Yes		
CA_2A-46A-66A	CA_2A-66A	2			Yes	Yes	Yes	Yes	60	0
		46						Yes		
		66			Yes	Yes	Yes	Yes		
CA_2A-46A-46A-66A	-	2			Yes	Yes	Yes	Yes	80	0
		46	See CA_46A-46A Bandwidth combination set 0 in Table 5.6A.1-3							
		66			Yes	Yes	Yes	Yes		
CA_2A-46C-48D	-	2			Yes	Yes	Yes	Yes	120	0
		46	See the CA_46C Bandwidth combination set 0 in Table 5.6A.1-1							
		48	See the CA_48D Bandwidth combination set 0 in Table 5.6A.1-1							
CA_2A-46C-48E	-	2			Yes	Yes	Yes	Yes	140	0
		46	See the CA_46C Bandwidth combination set 0 in Table 5.6A.1-1							
		48	See the CA_48E Bandwidth combination set 0 in Table 5.6A.1-1							
CA_2A-46C-66A	CA_2A-66A	2			Yes	Yes	Yes	Yes	80	0
		46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_2A-46A-66A-66A	-	2			Yes	Yes	Yes	Yes	80	0
		46						Yes		
		66	See the CA_66A-66A Bandwidth combination set 0 in the Table 5.6A.1-3							
CA_2A-46C-66A-66A	-	2			Yes	Yes	Yes	Yes	100	0
		46	See the CA_46C Bandwidth combination set 0 in the Table 5.6A.1-1							
		66	See the CA_66A-66A Bandwidth combination set 0 in the Table 5.6A.1-3							
CA_2A-46D-66A-66A	-	2			Yes	Yes	Yes	Yes	120	0
		46	See the CA_46D Bandwidth combination set 0 in the Table 5.6A.1-1							
		66	See the CA_66A-66A Bandwidth combination set 0 in the Table 5.6A.1-3							
CA_2A-46E-66A-66A	-	2			Yes	Yes	Yes	Yes	140	0
		46	See the CA_46E Bandwidth combination set 0 in the Table 5.6A.1-1							
		66	See the CA_66A-66A Bandwidth combination set 0 in the Table 5.6A.1-3							

CA_2A-46A-46C-66A	-	**2**			Yes	Yes	Yes	Yes	100	0
		46	See CA_46A-46C Bandwidth Combination Set 0 in the Table 5.6A.1-3							
		66			Yes	Yes	Yes	Yes		
CA_2A-46D-66A	CA_2A-66A	2			Yes	Yes	Yes	Yes	100	0
		46	See CA_46D Bandwidth Combination Set 0 in the Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_2A-46D-48C	CA_2A-48A	2			Yes	Yes	Yes	Yes	120	0
		46	See the CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							
		48	See the CA_48C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_2A-46E-48A	CA_2A-48A	2			Yes	Yes	Yes	Yes	120	0
		46	See the CA_46E Bandwidth combination set 0 in Table 5.6A.1-1							
		48			Yes	Yes	Yes	Yes		
CA_2A-46E-66A	CA_2A-66A	2			Yes	Yes	Yes	Yes	120	0
		46	See CA_46E Bandwidth Combination Set 0 in the Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_2A-46E-48C		2			Yes	Yes	Yes	Yes	140	0
		46	See the CA_46E Bandwidth combination set 0 in Table 5.6A.1-1							
		48	See the CA_48C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_2A-48A-66A	CA_2A-48A CA_48A-66A CA_2A-66A	2			Yes	Yes	Yes	Yes	60	0
		48			Yes	Yes	Yes	Yes		
		66			Yes	Yes	Yes	Yes		
CA_2A-48C-66A	CA_2A-48A CA_48A-66A	2			Yes	Yes	Yes	Yes	80	0
		48	See CA_48C Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_2A-48C-66A-66A	CA_48A-66A CA_2A-66A CA_2A-48A	2	Yes	Yes	Yes	Yes	Yes	Yes	100	0
		48	See CA_48C Bandwidth combination set 0 in the Table 5.6A.1-1							
		66	See CA_66A-66A Bandwidth combination set 0 in the Table 5.6A.1-3							
CA_2A-48D-66A	CA_48A-66A CA_2A-48A	2			Yes	Yes	Yes	Yes	100	0
		48	See CA_48D Bandwidth combination set 0 in the Table 5.6A.1-1							

	CA_2A-66A	66			Yes	Yes	Yes	Yes		
CA_2A-48D-66A-66A	CA_48A-66A CA_2A-66A CA_2A-48A	2	Yes	Yes	Yes	Yes	Yes	Yes	120	0
		48	See CA_48D Bandwidth combination set 0 in the Table 5.6A.1-1							
		66	See CA_66A-66A Bandwidth combination set 0 in the Table 5.6A.1-3							
CA_2A-48E-66A	CA_48A-66A CA_2A-66A CA_2A-48A	2			Yes	Yes	Yes	Yes	120	0
		48	See CA_48E Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_2A-48E-66A-66A	CA_48A-66A CA_2A-66A CA_2A-48A	2	Yes	Yes	Yes	Yes	Yes	Yes	140	0
		48	See CA_48E Bandwidth combination set 0 in the Table 5.6A.1-1							
		66	See CA_66A-66A Bandwidth combination set 0 in the Table 5.6A.1-3							
CA_2A-48A-48A-66A	-	2			Yes	Yes	Yes	Yes	80	0
		48	See CA_48A-48A Bandwidth combination set 0 in Table 5.6A.1-3							
		66			Yes	Yes	Yes	Yes		
CA_2A-48A-48C-66A	-	2			Yes	Yes	Yes	Yes	100	0
		48	See CA_48A-48C Bandwidth combination set 0 in the Table 5.6A.1-3							
		66			Yes	Yes	Yes	Yes		
CA_2A-48A-66A-66A	CA_48A-66A CA_2A-48A CA_2A-66A	2			Yes	Yes	Yes	Yes	80	0
		48			Yes	Yes	Yes	Yes		
		66	See CA_66A-66A Bandwidth combination set 0 in the Table 5.6A.1-3							
CA_2A-66A-71A	-	2			Yes	Yes	Yes	Yes	60	0
		66			Yes	Yes	Yes	Yes		
		71			Yes	Yes	Yes	Yes		
CA_2A-2A-66A-71A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0
		66			Yes	Yes	Yes	Yes		
		71			Yes	Yes	Yes	Yes		
CA_2A-66A-66A-71A	-	2			Yes	Yes	Yes	Yes	80	0
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
		71			Yes	Yes	Yes	Yes		
CA_2A-66C-71A	-	2			Yes	Yes	Yes	Yes	80	0

		66	See CA_66C Bandwidth Combination Set 0 in Table 5.6A.1-1							
		71			Yes	Yes	Yes	Yes		
CA_3A-5A-7A	CA_3A-5A, CA_3A-7A, CA_5A-7A	3				Yes	Yes	Yes	50	0
		5			Yes	Yes				
		7				Yes	Yes	Yes		
CA_3A-5A-7A	-	3			Yes	Yes	Yes	Yes	50	1
		5			Yes	Yes				
		7				Yes	Yes	Yes		
CA_3A-3A-5A-7A	-	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3						70	0
		5			Yes	Yes				
		7				Yes	Yes	Yes		
CA_3A-5A-7A-7A	CA_3A-5A, CA_3A-7A, CA_5A-7A	3				Yes	Yes	Yes	70	0
		5			Yes	Yes				
		7	See CA_7A-7A Bandwidth Combination Set 3 in Table 5.6A.1-3							
CA_3A-5A-7C	-	3			Yes	Yes	Yes	Yes	70	0
		5			Yes	Yes				
		7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_3C-5A-7A	-	3	See CA_3C Bandwidth Combination Set 1 in Table 5.6A.1-1						70	0
		5			Yes	Yes				
		7				Yes	Yes	Yes		
CA_3A-5A-28A	-	3			Yes	Yes	Yes	Yes	50	0
		5			Yes	Yes				
		28				Yes	Yes	Yes		
CA_3A-3A-5A-28A	-	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3						70	0
		5			Yes	Yes				
		28			Yes	Yes	Yes	Yes		
CA_3A-5A-40A	CA_3A-5A	3			Yes	Yes	Yes	Yes	50	0
		5			Yes	Yes				
		40				Yes	Yes	Yes		
		3		Yes	Yes	Yes			40	1
		5		Yes	Yes	Yes				
		40						Yes		

CA_3A-5A-40A-40A	-	**3**			Yes	Yes			60	0
		5			Yes	Yes				
		40	See CA_40A-40A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_3A-5A-41A	-	3			Yes	Yes	Yes	Yes	50	0
		5			Yes	Yes				
		41						Yes		
CA_3C-7A-8A	CA_3C CA_3A-8A	3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1						70	0
		7			Yes	Yes	Yes	Yes		
		8			Yes	Yes				
CA_3A-3A-7A-8A	CA_3A-7A, CA_3A-8A, CA_7A-8A	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3						70	0
		7			Yes	Yes	Yes	Yes		
		8			Yes	Yes				
		3	See CA_3A-3A Bandwidth Combination Set 1 in Table 5.6A.1-3						60	1
		7			Yes	Yes	Yes	Yes		
		8			Yes	Yes				
CA_3A-3A-7A-8B	-	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0
		7			Yes	Yes	Yes	Yes		
		8	See CA_8B Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3A-3A-7A-7A-8A	CA_3A-7A, CA_3A-8A, CA_7A-8A	3	See CA_3A-3A Bandwidth Combination Set 0 in table 5.6A.1-3						90	0
		7	See CA_7A-7A Bandwidth Combination Set 1 in table 5.6A.1-3							
		8			Yes	Yes				
		3	See CA_3A-3A Bandwidth Combination Set 1 in table 5.6A.1-3						70	1
		7	See CA_7A-7A Bandwidth Combination Set 2 in table 5.6A.1-3							
		8			Yes	Yes				
CA_3A-3A-7A-7A-8B	-	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3						100	0
		7	See CA_7A-7A Bandwidth Combination Set 1 in Table 5.6A.1-3							
		8	See CA_8B Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3A-7A-7A-8A		3			Yes	Yes	Yes	Yes	70	0

	CA_3A-7A, CA_3A-8A, CA_7A-8A	7	See CA_7A-7A Bandwidth Combination Set 1 in Table 5.6A.1-3							
		8			Yes	Yes				
		3			Yes	Yes	Yes	Yes		
		7	See CA_7A-7A Bandwidth Combination Set 2 in Table 5.6A.1-3						60	1
		8			Yes	Yes				
CA_3A-7A-7A-8B	-	3			Yes	Yes	Yes	Yes		
		7	See CA_7A-7A Bandwidth Combination Set 1 in Table 5.6A.1-3						80	0
		8	See CA_8B Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3A-7A-8A	CA_3A-7A, CA_3A-8A, CA_7A-8A	3			Yes	Yes	Yes			
		7				Yes	Yes		40	0
		8			Yes	Yes				
		3			Yes	Yes	Yes	Yes		
		7				Yes	Yes	Yes	50	1
		8			Yes	Yes				
		3			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes	50	2
		8			Yes	Yes				
CA_3A-7A-8B	-	3			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes	60	0
		8	See CA_8B Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3A-7A-20A	CA_3A-7A CA_3A-20A CA_7A-20A	3			Yes	Yes	Yes	Yes		
		7				Yes	Yes	Yes	60	0
		20			Yes	Yes	Yes	Yes		
		3			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes	60	1
		20			Yes	Yes	Yes	Yes		
CA_3A-7A-7A-20A	-	3			Yes	Yes	Yes	Yes		
		7	See CA_7A-7A Bandwidth Combination Set 3 in Table 5.6A.1-3						80	0
		20			Yes	Yes	Yes	Yes		
CA_3A-3A-7A-20A	-	3	See CA_3A-3A Bandwidth combination set 0 in Table 5.6A.1-3						80	0
		7			Yes	Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		

CA_3C-7A-20A	-	3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1						80	0
		7				Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1						80	1
		7			Yes	Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
CA_3C-7C-20A	-	3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1						100	0
		7	See CA_7C Bandwidth combination set 1 in Table 5.6A.1-1							
		20			Yes	Yes	Yes	Yes		
CA_3A-7C-20A	-	3			Yes	Yes	Yes	Yes	80	0
		7	See CA_7C Bandwidth combination set 1 in Table 5.6A.1-1							
		20			Yes	Yes	Yes	Yes		
CA_3A-7A-26A	CA_3A-7A, CA_3A-26A, CA_7A-26A	3			Yes	Yes	Yes	Yes	55	0
		7			Yes	Yes	Yes	Yes		
		26			Yes	Yes	Yes			
CA_3A-7A-7A-26A	CA_3A-7A, CA_3A-26A, CA_7A-26A	3			Yes	Yes	Yes	Yes	75	0
		7	See CA_7A-7A Bandwidth Combination Set 3 in Table 5.6A.1-3							
		26			Yes	Yes	Yes			
CA_3A-7C-26A	CA_7C	3	Yes	Yes	Yes	Yes	Yes	Yes	75	0
		7	See CA_7C Bandwidth combination set 2 in Table 5.6A.1-1							
		26			Yes	Yes	Yes			
CA_3C-7A-26A	CA_3C	3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1						75	0
		7				Yes	Yes	Yes		
		26			Yes	Yes	Yes			
CA_3C-7C-26A	CA_3C CA_7C	3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1						95	0
		7	See CA_7C Bandwidth combination set 2 in Table 5.6A.1-1							
		26			Yes	Yes	Yes			
CA_3A-7A-28A	CA_3A-7A, CA_3A-28A[6], CA_7A-28A	3			Yes	Yes	Yes	Yes	60	0
		7			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		

CA_3A-3A-7A-28A	-	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							80	0
		7			Yes	Yes	Yes	Yes			
		28			Yes	Yes	Yes	Yes			
CA_3A-3A-7C-28A	CA_7C	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							100	0
		7	See CA_7C Bandwidth Combination Set 2 in Table 5.6A.1-1								
		28			Yes	Yes	Yes	Yes			
CA_3A-7A-7A-28A	-	3			Yes	Yes	Yes	Yes		80	0
		7	See CA_7A-7A Bandwidth combination set 3 in Table 5.6A.1-3								
		28				Yes	Yes	Yes			
CA_3A-7C-28A	CA_3A-7A, CA_7C, CA_7A-28A	3				Yes	Yes	Yes		80	0
		7	See CA_7C Bandwidth Combination Set 2 in Table 5.6A.1-1								
		28				Yes	Yes	Yes			
		3				Yes	Yes	Yes		80	1
		7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1								
		28				Yes	Yes	Yes			
CA_3C-7A-28A	CA_3C	3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1							80	0
		7				Yes	Yes	Yes			
		28				Yes	Yes	Yes			
CA_3C-7C-28A	CA_3C CA_7C	3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1							100	0
		7	See CA_7C Bandwidth Combination Set 2 in Table 5.6A.1-1								
		28				Yes	Yes	Yes			
CA_3A-7A-32A	CA_3A-7A	3			Yes	Yes	Yes	Yes		60	0
		7				Yes	Yes	Yes			
		32			Yes	Yes	Yes	Yes			
CA_3C-7A-32A	-	3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							80	0
		7				Yes	Yes	Yes			
		32			Yes	Yes	Yes	Yes			
CA_3A-7A-38A[7]	-	3			Yes	Yes	Yes	Yes		60	0
		7				Yes	Yes	Yes			
		38			Yes	Yes	Yes	Yes			

CA_3A-3A-7A-38A[7]	-	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0
		7				Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_3C-7A-38A[7]	-	3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1						80	0
		7				Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_3A-7A-40A	-	3			Yes	Yes	Yes	Yes	60	0
		7			Yes	Yes	Yes	Yes		
		40			Yes	Yes	Yes	Yes		
CA_3A-7A-40A-40A	-	3			Yes	Yes	Yes	Yes	80	0
		7			Yes	Yes	Yes	Yes		
		40	See CA_40A-40A Bandwidth Combination Set 1 in Table 5.6A.1-3							
CA_3A-7A-40C	-	3			Yes	Yes	Yes	Yes	80	0
		7			Yes	Yes	Yes	Yes		
		40	See CA_40C Bandwidth combination set 1 in Table 5.6A.1-1							
CA_3A-7A-40D	-	3			Yes	Yes	Yes	Yes	100	0
		7			Yes	Yes	Yes	Yes		
		40	See CA_40D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3A-7A-42A	-	3			Yes	Yes	Yes	Yes	60	0
		7				Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		
CA_3A-7A-46A	-	3			Yes	Yes	Yes	Yes	60	0
		7			Yes	Yes	Yes	Yes		
		46						Yes		
CA_3A-7C-46A	-	3			Yes	Yes	Yes	Yes	80	0
		7	See CA_7C Bandwidth Combination Set 2 in Table 5.6A.1-1							
		46						Yes		
CA_3A-7C-46C	-	3			Yes	Yes	Yes	Yes	100	0
		7	See CA_7C Bandwidth Combination Set 2 in Table 5.6A.1-1							
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3A-7C-46D	-	3			Yes	Yes	Yes	Yes	120	0

		7	See CA_7C Bandwidth Combination Set 2 in Table 5.6A.1-1							
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3A-7C-46E	-	3			Yes	Yes	Yes	Yes	140	0
		7	See CA_7C Bandwidth Combination Set 2 in Table 5.6A.1-1							
		46	See CA_46E Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3A-7A-46C	-	3			Yes	Yes	Yes	Yes	80	0
		7			Yes	Yes	Yes	Yes		
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3A-7A-46D	-	3			Yes	Yes	Yes	Yes	100	0
		7			Yes	Yes	Yes	Yes		
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3A-7A-46E	-	3			Yes	Yes	Yes	Yes	120	0
		7			Yes	Yes	Yes	Yes		
		46	See CA_46E Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3A-8A-11A	-	3			Yes	Yes	Yes	Yes	40	0
		8			Yes	Yes				
		11			Yes	Yes				
CA_3A-8A-20A	CA_3A-8A	3			Yes	Yes	Yes	Yes	40	0
		8			Yes	Yes				
		20			Yes	Yes				
CA_3C-8A-20A	CA_3C CA_3A-8A	3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1						60	0
		8			Yes	Yes				
		20			Yes	Yes				
CA_3A-8A-28A	-	3			Yes	Yes	Yes	Yes	50	0
		8		Yes	Yes	Yes				
		28			Yes	Yes	Yes	Yes		
CA_3A-8A-32A	-	3			Yes	Yes	Yes	Yes	50	0
		8		Yes	Yes	Yes				
		32			Yes	Yes	Yes	Yes		
CA_3A-8A-38A	CA_3A-8A	3			Yes	Yes	Yes	Yes	50	0
		8			Yes	Yes				

		38			Yes	Yes	Yes	Yes		
CA_3C-8A-38A	CA_3C CA_3A-8A	3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1						70	0
		8			Yes	Yes				
		38			Yes	Yes	Yes	Yes		
CA_3A-3A-8A-38A	-	3	See CA_3A-3A Bandwidth combination set 0 in Table 5.6A.1-3						70	0
		8			Yes	Yes				
		38			Yes	Yes	Yes	Yes		
CA_3A-8A-40A	CA_3A-8A	3			Yes	Yes	Yes	Yes	50	0
		8		Yes	Yes	Yes				
		40			Yes	Yes	Yes	Yes		
CA_3A-8A-40C	-	3			Yes	Yes	Yes	Yes	70	0
		8			Yes	Yes				
		40	See CA_40C Bandwidth combination set 1 in Table 5.6A.1-1							
CA_3A-8A-41A	-	3		Yes	Yes	Yes	Yes	Yes	50	0
		8	Yes	Yes	Yes	Yes				
		41			Yes	Yes	Yes	Yes		
CA_3A-8A-42A	-	3			Yes	Yes	Yes	Yes	50	0
		8			Yes	Yes				
		42			Yes	Yes	Yes	Yes		
CA_3A-8A-42C	-	3			Yes	Yes	Yes	Yes	70	0
		8			Yes	Yes				
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3A-11A-18A	CA_3A-11A, CA_3A-18A, CA_11A-18A	3			Yes	Yes	Yes	Yes	45	0
		11			Yes	Yes				
		18			Yes	Yes	Yes			
CA_3A-11A-26A	CA_3A-11A, CA_3A-26A, CA_11A-26A	3			Yes	Yes	Yes	Yes	45	0
		11			Yes	Yes				
		26			Yes	Yes	Yes			
CA_3A-11A-28A	-	3			Yes	Yes	Yes	Yes	50	0
		11			Yes	Yes				
		28			Yes	Yes	Yes	Yes		
CA_3A-18A-42A	-	3			Yes	Yes	Yes	Yes	55	0
		18			Yes	Yes	Yes			

		42			Yes	Yes	Yes	Yes		
CA_3A-18A-42C	-	3			Yes	Yes	Yes	Yes	75	0
		18			Yes	Yes	Yes			
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3A-19A-21A	CA_3A-19A, CA_3A-21A, CA_19A-21A	3			Yes	Yes	Yes	Yes	50	0
		19			Yes	Yes	Yes			
		21			Yes	Yes	Yes			
CA_3A-3A-19A-21A	CA_3A-19A, CA_3A-21A, CA_19A-21A	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3						70	0
		19			Yes	Yes	Yes			
		21			Yes	Yes	Yes			
CA_3A-19A-42A	CA_3A-19A, CA_3A-42A, CA_19A-42A[6]	3			Yes	Yes	Yes	Yes	55	0
		19			Yes	Yes	Yes			
		42			Yes	Yes	Yes	Yes		
CA_3A-19A-42C	CA_3A-19A CA_3A-42A CA_19A-42A[6]	3			Yes	Yes	Yes	Yes	75	0
		19			Yes	Yes	Yes			
		42	See CA_42C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_3A-19A-42D	-	3			Yes	Yes	Yes	Yes	95	0
		19			Yes	Yes	Yes			
		42	See CA_42D Bandwidth combination set 0 in Table 5.6A.1-1							
CA_3A-20A-28A[12]	-	3			Yes	Yes	Yes	Yes	60	0
		20				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_3A-3A-20A-28A[12]	-	3	See CA_3A-3A Bandwidth combination set 0 in Table 5.6A.1-3						80	0
		20				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_3C-20A-28A[12]	-	3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1						80	0
		20				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_3A-20A-32A	CA_3A-20A	3			Yes	Yes	Yes	Yes	60	0
		20			Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
		3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1							

CA_3C-20A-32A	-	20			Yes	Yes	Yes	Yes	80	0
		32			Yes	Yes	Yes	Yes		
CA_3A-20A-38A	CA_3A-20A	3	Yes	Yes	Yes	Yes	Yes	Yes	60	0
		20			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_3C-20A-38A	CA_3C	3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1						80	0
		20			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_3A-20A-40A	-	3	Yes	Yes	Yes	Yes	Yes	Yes	60	0
		20			Yes	Yes	Yes	Yes		
		40			Yes	Yes	Yes	Yes		
CA_3A-20A-40C	-	3	Yes	Yes	Yes	Yes	Yes	Yes	80	0
		20			Yes	Yes	Yes	Yes		
		40	See CA_40C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_3A-20A-42A	-	3			Yes	Yes	Yes	Yes	60	0
		20			Yes	Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		
CA_3A-20A-43A	-	3			Yes	Yes	Yes		40	0
		20			Yes					
		43			Yes	Yes	Yes	Yes		
CA_3A-21A-28A	CA_3A-21A, CA_3A-28A[6], CA_21A-28A	3			Yes	Yes	Yes	Yes	45	0
		21			Yes	Yes	Yes			
		28			Yes	Yes				
CA_3A-21A-42A	CA_3A-21A, CA_3A-42A, CA_21A-42A	3			Yes	Yes	Yes	Yes	55	0
		21			Yes	Yes	Yes			
		42			Yes	Yes	Yes	Yes		
CA_3A-21A-42C	CA_3A-21A, CA_3A-42A, CA_21A-42A	3			Yes	Yes	Yes	Yes	75	0
		21			Yes	Yes	Yes			
		42	See CA_42C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_3A-21A-42D	-	3			Yes	Yes	Yes	Yes	95	0
		21			Yes	Yes	Yes			
		42	See CA_42D Bandwidth combination set 0 in Table 5.6A.1-1							
		3			Yes	Yes	Yes	Yes		

CA_3A-28A-32A	-	28			Yes	Yes	Yes	Yes	60	0
		38			Yes	Yes	Yes	Yes		
CA_3A-28A-38A	-	3			Yes	Yes	Yes	Yes	60	0
		28			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_3C-28A-38A	-	3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1						80	0
		28			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_3A-28A-40A	CA_3A-28A[6] CA_3A-40A CA_28A-40A	3			Yes	Yes	Yes	Yes	60	0
		28			Yes	Yes	Yes	Yes		
		40			Yes	Yes	Yes	Yes		
CA_3A-28A-40A-40A	CA_3A-28A[6] CA_3A-40A CA_28A-40A	3			Yes	Yes	Yes	Yes	80	0
		28			Yes	Yes	Yes	Yes		
		40	See CA_40A-40A Bandwidth Combination Set 1 in Table 5.6A.1-3							
CA_3A-28A-40C	CA_3A-28A[6]	3			Yes	Yes	Yes	Yes	80	0
		28			Yes	Yes	Yes	Yes		
		40	See CA_40C Bandwidth combination set 1 in Table 5.6A.1-1							
CA_3A-28A-40D	-	3			Yes	Yes	Yes	Yes	100	0
		28			Yes	Yes	Yes	Yes		
		40	See CA_40D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3A-28A-41A	CA_3A-41A	3			Yes	Yes	Yes	Yes	60	0
		28			Yes	Yes	Yes	Yes		
		41			Yes	Yes	Yes	Yes		
CA_3A-28A-41C	CA_3A-41A	3			Yes	Yes	Yes	Yes	80	0
		28			Yes	Yes	Yes	Yes		
		41	See CA_41C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_3A-28A-42A	CA_3A-28A[6], CA_3A-42A, CA_28A-42A	3			Yes	Yes	Yes	Yes	50	0
		28			Yes	Yes				
		42			Yes	Yes	Yes	Yes		

CA_3A-28A-42A-42A	-	3			Yes	Yes	Yes	Yes	70	0
		28			Yes	Yes				
		42	See CA_42A-42A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_3A-28A-42C	CA_3A-28A[6], CA_3A-42A, CA_28A-42A, CA_42C	3			Yes	Yes	Yes	Yes	70	0
		28			Yes	Yes				
		42	See CA_42C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_3A-28A-42A-42C	CA_42C	3			Yes	Yes	Yes	Yes	90	0
		28			Yes	Yes				
		42	See CA_42A-42C Bandwidth combination set 0 in Table 5.6A.1-3							
CA_3A-28A-42C-42C	CA_42C	3			Yes	Yes	Yes	Yes	110	0
		28			Yes	Yes				
		42	See CA_42C-42C Bandwidth combination set 0 in Table 5.6A.1-3							
CA_3A-28A-42D	-	3			Yes	Yes	Yes	Yes	90	0
		28			Yes	Yes				
		42	See CA_42D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3A-32A-42A	-	3			Yes	Yes	Yes		55	0
		32			Yes	Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		
CA_3A-32A-43A	-	3			Yes	Yes	Yes		55	0
		32			Yes	Yes	Yes	Yes		
		43			Yes	Yes	Yes	Yes		
CA_3A-32A-46A	-	3			Yes	Yes	Yes	Yes	60	0
		32			Yes	Yes	Yes	Yes		
		46						Yes		
CA_3A-32A-46C	-	3			Yes	Yes	Yes	Yes	80	0
		32			Yes	Yes	Yes	Yes		
		46	See CA_46C in Table 5.6A.1-1 of TS 36.101 Bandwidth Combination Set 0							
CA_3A-32A-46D	-	3			Yes	Yes	Yes	Yes	100	0
		32			Yes	Yes	Yes	Yes		
		46	See CA_46D in Table 5.6A.1-1 of TS 36.101 Bandwidth Combination Set 0							
CA_3A-32A-46E	-	3			Yes	Yes	Yes	Yes	120	0
		32			Yes	Yes	Yes	Yes		

		46	See CA_46E in Table 5.6A.1-1 of TS 36.101 Bandwidth Combination Set 0							
CA_3A-40A-41A	-	3	Yes	Yes	Yes	Yes	Yes	Yes	60	0
		40			Yes	Yes	Yes	Yes		
		41			Yes	Yes	Yes	Yes		
CA_3A-41A-42A	CA_3A-41A, CA_41A-42A, CA_3A-42A	3			Yes	Yes	Yes	Yes	60	0
		41				Yes	Yes	Yes		
		42				Yes	Yes	Yes		
CA_3A-41A-42A-42A	-	3			Yes	Yes	Yes	Yes	80	0
		41				Yes	Yes	Yes		
		42	See CA_42A-42A Bandwidth combination set 1 in Table 5.6A.1-3							
CA_3A-41A-42C	CA_3A-41A, CA_3A-42C, CA_3A-42A, CA_41A-42A, CA_41A-42C, CA_42C	3			Yes	Yes	Yes	Yes	80	0
		41				Yes	Yes	Yes		
		42	See CA_42C Bandwidth combination set 1 in Table 5.6A.1-1							
CA_3A-41A-42A-42C	CA_42C	3			Yes	Yes	Yes	Yes	100	0
		41				Yes	Yes	Yes		
		42	See CA_42A-42C Bandwidth combination set 1 in Table 5.6A.1-3							
CA_3A-41A-42C-42C	CA_42C	3			Yes	Yes	Yes	Yes	120	0
		41				Yes	Yes	Yes		
		42	See CA_42C-42C Bandwidth combination set 1 in Table 5.6A.1-3							
CA_3A-41C-42A	CA_3A-41A, CA_3A-41C, CA_3A-42A, CA_41A-42A, CA_41C CA_41C-42A	3			Yes	Yes	Yes	Yes	80	0
		41	See CA_41C Bandwidth combination set 0 in Table 5.6A.1-1							
		42				Yes	Yes	Yes		
CA_3A-41C-42C	CA_3A-41A, CA_3A-41C, CA_3A-42A, CA_3A-42C, CA_41A-42A, CA_41A-42C CA_41C, CA_41C-42A, CA_42C	3			Yes	Yes	Yes	Yes	100	0
		41	See CA_41C Bandwidth combination set 0 in Table 5.6A.1-1							
		42	See CA_42C Bandwidth combination set 1 in Table 5.6A.1-1							
CA_3A-42A-43A	-	3			Yes	Yes	Yes		55	0
		42			Yes	Yes	Yes	Yes		
		43			Yes	Yes	Yes	Yes		
CA_4A-5A-12A	-	4			Yes	Yes	Yes	Yes	40	0

		5			Yes	Yes				
		12			Yes	Yes				
CA_4A-5A-12A-12A	-	4			Yes	Yes	Yes	Yes	40	0
		5			Yes	Yes				
		12	See CA_12A-12A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_4A-5A-12B	-	4			Yes	Yes	Yes	Yes	45	0
		5			Yes	Yes				
		12	See CA_12B Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_4A-4A-5A-12A	-	4	See CA_4A-4A Bandwidth Combination Set 0 in Table 5.6A.1-3						60	0
		5			Yes	Yes				
		12			Yes	Yes				
CA_4A-5A-13A	CA_4A-13A[6]	4			Yes	Yes	Yes	Yes	40	0
		5			Yes	Yes				
		13				Yes				
CA_4A-5A-29A	-	4			Yes	Yes	Yes	Yes	40	0
		5			Yes	Yes				
		29			Yes	Yes				
CA_4A-5A-30A	-	4			Yes	Yes	Yes	Yes	40	0
		5			Yes	Yes				
		30			Yes	Yes				
CA_4A-4A-5A-30A	-	4	See CA_4A-4A Bandwidth Combination Set 0 in Table 5.6A.1-3						60	0
		5			Yes	Yes				
		30			Yes	Yes				
CA_4A-4A-5B-30A	-	4	See CA_4A-4A Bandwidth Combination Set 0 in Table 5.6A.1-3						70	0
		5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1							
		30			Yes	Yes				
CA_4A-5B-30A	-	4			Yes	Yes	Yes	Yes	50	0
		5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1							
		30			Yes	Yes				
CA_4A-7A-12A	-	4			Yes	Yes			40	0
		7			Yes	Yes	Yes	Yes		
		12			Yes	Yes				

		4			Yes	Yes	Yes	Yes	50	1
		7			Yes	Yes	Yes	Yes		
		12			Yes	Yes				
CA_4A-7A-28A	-	4			Yes	Yes	Yes	Yes	60	0
		7			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_4A-12A-30A	CA_4A-12A	4			Yes	Yes	Yes	Yes	40	0
		12			Yes	Yes				
		30			Yes	Yes				
CA_4A-4A-12A-30A	-	4	See CA_4A-4A Bandwidth Combination Set 0 in Table 5.6A.1-3						60	0
		12			Yes	Yes				
		30			Yes	Yes				
CA_4A-29A-30A	-	4			Yes	Yes	Yes	Yes	40	0
		29			Yes	Yes				
		30			Yes	Yes				
CA_4A-4A-29A-30A	-	4	See CA_4A-4A Bandwidth combination set 0 in Table 5.6A.1-3						60	0
		29			Yes	Yes				
		30			Yes	Yes				
CA_5A-7A-28A	-	5			Yes	Yes			50	0
		7				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_5A-7A-7A-28A	-	5	Yes	Yes	Yes	Yes			70	0
		7	See CA_7A-7A Bandwidth Combination Set 1 in Table 5.6A.1-3							
		28		Yes	Yes	Yes	Yes	Yes		
CA_5A-7C-28A	-	5			Yes	Yes			70	0
		7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1							
		28			Yes	Yes	Yes	Yes		
CA_5A-7A-46A	CA_5A-7A	5			Yes	Yes			50	0
		7				Yes	Yes	Yes		
		46						Yes		
CA_5A-7A-46C	CA_5A-7A	5			Yes	Yes			70	0
		7				Yes	Yes	Yes		
		46	See CA_46C Bandwidth combination set 0 in the Table 5.6A.1-1							

CA_5A-7A-46D	-	5			Yes	Yes			90	0
		7				Yes	Yes	Yes		
		46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							
CA_5A-7A-66A	-	5			Yes	Yes			50	0
		7				Yes	Yes	Yes		
		66			Yes	Yes	Yes	Yes		
CA_5A-7A-7A-66A	-	5			Yes	Yes			70	0
		7	See CA_7A-7A Bandwidth Combination Set 1 in Table 5.6A.1-3							
		66			Yes	Yes	Yes	Yes		
CA_5A-7A-66A-66A	-	5			Yes	Yes			70	0
		7				Yes	Yes	Yes		
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_5A-7C-66A	-	5			Yes	Yes			70	0
		7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_5A-7C-66A-66A	-	5			Yes	Yes			90	0
		7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1							
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_5A-12A-46A	-	5			Yes	Yes			40	0
		12			Yes	Yes				
		46						Yes		
CA_5A-12A-46C	-	5			Yes	Yes			60	0
		12			Yes	Yes				
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_5A-12A-46D	-	5			Yes	Yes			80	0
		12			Yes	Yes				
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_5A-12A-48A	-	5			Yes	Yes			40	0
		12			Yes	Yes				
		48			Yes	Yes	Yes	Yes		
CA_5A-12A-48C	-	5			Yes	Yes			60	0

		12			Yes	Yes				
		48	See CA_48C Bandwidth combination set 0 in the Table 5.6A.1-1							
CA_5A-12A-48D	-	5			Yes	Yes			80	0
		12			Yes	Yes				
		48	See the CA_48D Bandwidth combination set 0 in the Table 5.6A.1-1							
CA_5A-30A-66A	-	5			Yes	Yes			40	0
		30			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_5A-30A-66A-66A	-	5			Yes	Yes			60	0
		30			Yes	Yes				
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_5B-30A-66A	-	5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1						50	0
		30			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_5B-30A-66A-66A	-	5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1						70	0
		30			Yes	Yes				
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_5A-46A-66A	-	5			Yes	Yes			50	0
		46						Yes		
		66			Yes	Yes	Yes	Yes		
CA_5A-46E-66A	-	5			Yes	Yes			110	0
		46	See CA_46E Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_5A-46A-66A-66A	-	5			Yes	Yes			70	0
		46						Yes		
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_5A-46C-66A-66A	-	5			Yes	Yes			90	0
		46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1							
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							
	-	5			Yes	Yes			110	0

CA_5A-46D-66A-66A		46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_5A-46E-66A-66A	-	5			Yes	Yes			130	0
		46	See CA_46E Bandwidth combination set 0 in Table 5.6A.1-1							
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_7A-8A-20A	-	7				Yes	Yes	Yes	40	0
		8		Yes	Yes	Yes				
		20			Yes	Yes				
CA_7A-8A-32A	-	7			Yes	Yes	Yes	Yes	50	0
		8	Yes	Yes	Yes	Yes				
		32			Yes	Yes	Yes	Yes		
CA_7A-8A-38A[13]	-	7				Yes	Yes	Yes	50	0
		8			Yes	Yes				
		38			Yes	Yes	Yes	Yes		
CA_7A-8A-40A	-	7			Yes	Yes	Yes	Yes	50	0
		8			Yes	Yes				
		40			Yes	Yes	Yes	Yes		
CA_5A-12A-66A	-	5			Yes	Yes			40	0
		12			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_5A-40A-41A	-	5			Yes	Yes			50	0
		40				Yes		Yes		
		41						Yes		
CA_5A-46C-66A	-	5			Yes	Yes			70	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_5A-46D-66A	CA_5A-46A CA_5A-66A	5			Yes	Yes			90	0
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_5A-48A-66A	CA_48A-66A CA_5A-66A CA_5A-48A	5			Yes	Yes			50	0
		48			Yes	Yes	Yes	Yes		
		66			Yes	Yes	Yes	Yes		

CA_5A-48A-66A-66A	CA_48A-66A CA_5A-66A CA_5A-48A	5			Yes	Yes			70	0
		48			Yes	Yes	Yes	Yes		
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_5A-48C-66A	CA_48A-66A CA_5A-66A CA_5A-48A	5			Yes	Yes			70	0
		48	See CA_48C Bandwidth combination set 0 in Table 1.6A.1-1							
		66	Yes	Yes	Yes	Yes	Yes	Yes		
CA_5A-48C-66A-66A	CA_48A-66A CA_5A-66A CA_5A-48A	5			Yes	Yes			90	0
		48	See CA_48C Bandwidth combination set 0 in Table 5.6A.1-1							
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_5A-48D-66A	CA_48A-66A CA_5A-48A	5			Yes	Yes			90	0
		48	See CA_48D Bandwidth combination set 0 in Table 5.6A.1-1							
		66	Yes	Yes	Yes	Yes	Yes	Yes		
CA_5A-48D-66A-66A	CA_48A-66A CA_5A-66A CA_5A-48A	5			Yes	Yes			110	0
		48	See CA_48D Bandwidth combination set 0 in Table 5.6A.1-1							
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_7A-8A-28A	-	7			Yes	Yes	Yes	Yes	50	0
		8	Yes	Yes	Yes	Yes				
		28		Yes	Yes	Yes	Yes	Yes		
CA_7A-8A-40C	-	7			Yes	Yes	Yes	Yes	70	0
		8			Yes	Yes				
		40	See CA_40C Bandwidth combination set 1 in Table 5.6A.1-1							
CA_7A-12A-66A	-	7			Yes	Yes	Yes	Yes	50	0
		12			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_7A-12A-66A-66A	-	7			Yes	Yes	Yes	Yes	70	0
		12			Yes	Yes				
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_7A-12B-66A	-	7			Yes	Yes	Yes	Yes	55	0
		12	See CA_12B Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		

CA_7A-13A-66A	-	7			Yes	Yes	Yes	Yes	50	0
		13			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_7A-7A-13A-66A	-	7	See CA_7A-7A Bandwidth Combination Set 1 in Table 5.6A.1-3						70	0
		13			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_7C-13A-66A	-	7	See CA_7C Bandwidth combination set 1 in Table 5.6A.1-1						70	0
		13			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_7A-20A-28A[12]	-	7			Yes	Yes	Yes	Yes	60	0
		20				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_7A-20A-32A	CA_7A-20A	7				Yes	Yes	Yes	60	0
		20			Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_7A-20A-38A[8]	-	7				Yes	Yes	Yes	60	0
		20			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_7A-25A-66A	-	7			Yes	Yes	Yes	Yes	60	0
		25	Yes	Yes	Yes	Yes	Yes	Yes		
		66	Yes	Yes	Yes	Yes	Yes	Yes		
CA_7A-7A-25A-66A	-	7	See CA_7A-7A Bandwidth Combination Set 1 in Table 5.6A.1-3						80	0
		25	Yes	Yes	Yes	Yes	Yes	Yes		
		66	Yes	Yes	Yes	Yes	Yes	Yes		
CA_7C-25A-66A	-	7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1						80	0
		25	Yes	Yes	Yes	Yes	Yes	Yes		
		66	Yes	Yes	Yes	Yes	Yes	Yes		
CA_7A-25A-25A-66A	-	7			Yes	Yes	Yes	Yes	80	0
		25	See CA_25A-25A Bandwidth Combination Set 1 in Table 5.6A.1-3							
		66	Yes	Yes	Yes	Yes	Yes	Yes		
CA_7A-7A-25A-25A-66A	-	7	See CA_7A-7A Bandwidth Combination Set 1 in Table 5.6A.1-3						100	0
		25	See CA_25A-25A Bandwidth Combination Set 1 in Table 5.6A.1-3							

		66	Yes	Yes	Yes	Yes	Yes	Yes		
CA_7C-25A-25A-66A	-	7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1						100	0
		25	See CA_25A-25A Bandwidth Combination Set 1 in Table 5.6A.1-3							
		66	Yes	Yes	Yes	Yes	Yes	Yes		
CA_7A-26A-66A	-	7			Yes	Yes	Yes	Yes	55	0
		26		Yes	Yes	Yes	Yes			
		66		Yes	Yes	Yes	Yes	Yes		
CA_7A-28A-32A	-	7			Yes	Yes	Yes	Yes	60	0
		28		Yes	Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_7A-28A-40A	-	7			Yes	Yes	Yes	Yes	60	0
		28			Yes	Yes	Yes	Yes		
		40			Yes	Yes	Yes	Yes		
CA_7A-28A-40A-40A	-	7			Yes	Yes	Yes	Yes	80	0
		28			Yes	Yes	Yes	Yes		
		40	See CA_40A-40A Bandwidth Combination Set 1 in Table 5.6A.1-3							
CA_7A-28A-40C	-	7			Yes	Yes	Yes	Yes	80	0
		28			Yes	Yes	Yes	Yes		
		40	See CA_40C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_7A-28A-40D	-	7			Yes	Yes	Yes	Yes	100	0
		28			Yes	Yes	Yes	Yes		
		40	See CA_40D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_7A-20A-42A	-	7				Yes	Yes	Yes	60	0
		20			Yes	Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		
CA_7A-28A-38A[14]	-	7				Yes	Yes	Yes	60	0
		28			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_7A-28A-66A	-	7			Yes	Yes	Yes	Yes	60	0
		28			Yes	Yes	Yes	Yes		
		66			Yes	Yes	Yes	Yes		
CA_7C-28A-66A	-	7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1						80	0

		28			Yes	Yes	Yes	Yes		
		66			Yes	Yes	Yes	Yes		
CA_7A-29A-66A	-	7			Yes	Yes	Yes	Yes	50	0
		29			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_7A-7A-29A-66A	-	7	See CA_7A-7A Bandwidth combination set 1 in table 5.6A.1-3						70	0
		29			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_7C-29A-66A	-	7	See CA_7C Bandwidth combination set 2 in table 5.6A.1-1						70	0
		29			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_7A-30A-66A	-	7			Yes	Yes	Yes	Yes	50	0
		30			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_7A-32A-46A	-	7				Yes	Yes	Yes	60	0
		32			Yes	Yes	Yes	Yes		
		46						Yes		
CA_7A-32A-46C	-	7				Yes	Yes	Yes	80	0
		32			Yes	Yes	Yes	Yes		
		46	See CA_46C in Table 5.6A.1-1 of TS 36.101 Bandwidth Combination Set 0							
CA_7A-32A-46D	-	7				Yes	Yes	Yes	100	0
		32			Yes	Yes	Yes	Yes		
		46	See CA_46D in Table 5.6A.1-1 of TS 36.101 Bandwidth Combination Set 0							
CA_7A-32A-46E	-	7				Yes	Yes	Yes	120	0
		32			Yes	Yes	Yes	Yes		
		46	See CA_46E in Table 5.6A.1-1 of TS 36.101 Bandwidth Combination Set 0							
CA_7A-38A-66A[17]	-	7			Yes	Yes	Yes	Yes	60	0
		38			Yes	Yes	Yes	Yes		
		66			Yes	Yes	Yes	Yes		
CA_7A-38C-66A[17]	-	7			Yes	Yes	Yes	Yes	80	0
		38	See CA_38C Bandwidth Combination Set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		

CA_7A-46A-66A	-	7			Yes	Yes	Yes	Yes	60	0
		46				Yes		Yes		
		66			Yes	Yes	Yes	Yes		
CA_7A-66A-71A	-	7			Yes	Yes	Yes	Yes	60	0
		66			Yes	Yes	Yes	Yes		
		71			Yes	Yes	Yes	Yes		
CA_8A-11A-28A	-	8			Yes	Yes			40	0
		11			Yes	Yes				
		28			Yes	Yes	Yes	Yes		
CA_8A-11A-42A	-	8			Yes	Yes			40	0
		11			Yes	Yes				
		42			Yes	Yes	Yes	Yes		
CA_8A-11A-42C	-	8			Yes	Yes			60	0
		11			Yes	Yes				
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_8A-20A-28A[15]	-	8			Yes	Yes			50	0
		20				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_8A-20A-38A	-	8			Yes	Yes			50	0
		20			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_8A-20A-32A	-	8	Yes	Yes	Yes	Yes			50	0
		20			Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_8A-28A-32A	-	8	Yes	Yes	Yes	Yes			50	0
		28		Yes	Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_8A-28A-41A	-	8			Yes	Yes			50	0
		28			Yes	Yes	Yes	Yes		
		41			Yes	Yes	Yes	Yes		
CA_8A-32A-38A	-	8		Yes	Yes	Yes			50	0
		32			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_8A-39A-41A	-	8			Yes	Yes			50	0
		39				Yes	Yes	Yes		

		41						Yes		
CA_8A-40A-41A	-	8	Yes	Yes	Yes	Yes			50	0
		40			Yes	Yes	Yes	Yes		
		41			Yes	Yes	Yes	Yes		
CA_12A-30A-66A	-	12			Yes	Yes			40	0
		30			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_12A-30A-66A-66A	-	12			Yes	Yes			60	0
		30			Yes	Yes				
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_13A-46A-66A	-	13			Yes	Yes			50	0
		46						Yes		
		66			Yes	Yes	Yes	Yes		
CA_13A-46A-66A-66A	-	13			Yes	Yes			70	0
		46						Yes		
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_13A-46C-66A	-	13			Yes	Yes			70	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_13A-46C-66A-66A	-	13			Yes	Yes			90	0
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_13A-46D-66A	CA_13A-66A	13			Yes	Yes			90	0
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_13A-46D-66A-66A	-	13			Yes	Yes			110	0
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_13A-46E-66A	-	13			Yes	Yes			110	0

		46	See CA_46E Bandwidth Combination Set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_13A-48A-66A	CA_13A-48A CA_13A-66A CA_48A-66A	13			Yes	Yes			50	0
		48			Yes	Yes	Yes	Yes		
		66			Yes	Yes	Yes	Yes		
CA_13A-48A-48A-66A	CA_13A-48A CA_13A-66A CA_48A-66A	13			Yes	Yes			70	0
		48	See CA_48A-48A Bandwidth Combination Set 0 in Table 5.6A.1-3							
		66			Yes	Yes	Yes	Yes		
CA_13A-48C-66A	CA_48A-66A CA_13A-66A CA_13A-48A	13			Yes	Yes			70	0
		48	See CA_48C Bandwidth Combination Set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_13A-48C-66A-66A	CA_48A-66A CA_13A-66A CA_13A-48A	13			**Yes**	**Yes**			90	0
		48	See CA_48C Bandwidth Combination Set 0 in Table 5.6A.1-1							
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_13A-48D-66A	CA_48A-66A CA_13A-48A	13			Yes	Yes			90	0
		48	See CA_48D Bandwidth Combination Set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_13A-48D-66A-66A	CA_48A-66A CA_13A-66A CA_13A-48A	13			Yes	Yes			**110**	0
		48	See CA_48D Bandwidth Combination Set 0 in Table 5.6A.1-1							
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_13A-48D-66A	-	13			Yes	Yes			90	0
		48	See CA_48D Bandwidth Combination Set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_13A-48E-66A	-	13			Yes	Yes			110	0
		48	See CA_48E Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_13A-48A-48C-66A	-	13			Yes	Yes			90	0
		48	See CA_48A-48C Bandwidth Combination Set 0 in Table 5.6A.1-3							
		66			Yes	Yes	Yes	Yes		

CA_13A-48A-66A-66A	CA_48A-66A CA_13A-66A CA_13A-48A	13			Yes	Yes			70	0
		48			Yes	Yes	Yes	Yes		
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_13A-48A-66B	-	13			Yes	Yes			50	0
		48			Yes	Yes	Yes	Yes		
		66	See CA_66B Bandwidth combination set 0 in Table 5.6A.1-1							
CA_13A-48A-66C	-	13			Yes	Yes			70	0
		48			Yes	Yes	Yes	Yes		
		66	See CA_66C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_14A-30A-66A	CA_14A-30A CA_14A-66A	14			Yes	Yes			40	0
		30			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_14A-30A-66A-66A	CA_14A-30A CA_14A-66A	14			Yes	Yes			60	0
		30			Yes	Yes				
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_19A-21A-42A	CA_19A-21A, CA_19A-42A[6], CA_21A-42A	19			Yes	Yes	Yes		50	0
		21			Yes	Yes	Yes			
		42			Yes	Yes	Yes	Yes		
CA_19A-21A-42C	CA_19A-21A, CA_19A-42A[6], CA_21A-42A	19			Yes	Yes	Yes		70	0
		21			Yes	Yes	Yes			
		42	See CA_42C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_20A-28A-32A	-	20			Yes	Yes	Yes	Yes	60	0
		28			Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_20A-28A-38A[12]	-	20				Yes	Yes	Yes	60	0
		28			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_20A-32A-38A	-	20			Yes	Yes	Yes	Yes	60	0
		32			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_20A-32A-42A	-	20			Yes				45	0
		32			Yes	Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		

CA_20A-32A-43A	-	20			Yes				45	0
		32			Yes	Yes	Yes	Yes		
		43			Yes	Yes	Yes	Yes		
CA_20A-38A-40A		20			Yes	Yes	Yes		55	0
		38				Yes	Yes	Yes		
		40				Yes	Yes	Yes		
CA_20A-38A-40A-40A	-	20			Yes	Yes	Yes		75	0
		38				Yes	Yes	Yes		
		40	See CA_40A-40A Bandwidth Combination Set 1 in Table 5.6A.1-3							
CA_20A-38A-40C	-	20			Yes	Yes	Yes		75	0
		38				Yes	Yes	Yes		
		40	See CA_40C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_20A-38A-40D	-	20			Yes	Yes	Yes		95	0
		38				Yes	Yes	Yes		
		40	See CA_40D Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_21A-28A-42A	CA_21A-28A, CA_21A-42A, CA_28A-42A	21			Yes	Yes	Yes		45	0
		28			Yes	Yes				
		42			Yes	Yes	Yes	Yes		
CA_21A-28A-42C	CA_21A-28A, CA_21A-42A, CA_28A-42A	21			Yes	Yes	Yes		65	0
		28			Yes	Yes				
		42	See CA_42C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_25A-26A-41A	-	25		Yes	Yes	Yes	Yes	Yes	55	0
		26	Yes	Yes	Yes	Yes	Yes			
		41			Yes	Yes	Yes	Yes		
CA_25A-25A-26A-41A	-	25	See CA_25A-25A Bandwidth Combination Set 1 in Table 5.6A.1-3						65	0
		26		Yes	Yes					
		41			Yes	Yes	Yes	Yes		
CA_25A-25A-26A-41C	-	25	See CA_25A-25A Bandwidth Combination Set 1 in Table 5.6A.1-3						85	0
		26		Yes	Yes					
		41	See CA_41C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_25A-26A-41C	-	25		Yes	Yes	Yes	Yes	Yes	75	0
		26	Yes	Yes	Yes	Yes	Yes			

		41	See CA_41C Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_25A-26A-41D	-	25		Yes	Yes	Yes	Yes	Yes		95	0
		26	Yes	Yes	Yes	Yes	Yes				
		41	See CA_41D Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_25A-26A-41E	-	25		Yes	Yes	Yes	Yes	Yes		115	0
		26	Yes	Yes	Yes	Yes	Yes				
		41	See CA_41E Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_25A-26A-41F	-	25		Yes	Yes	Yes	Yes	Yes		135	0
		26	Yes	Yes	Yes	Yes	Yes				
		41	See CA_41F Bandwidth Combination Set 0 in Table 5.6A.1-1								
CA_25A-25A-26A-41D	-	25	See CA_25A-25A Bandwidth Combination Set 1 in Table 5.6A.1-3								
		26		Yes	Yes					105	0
		41	See CA_41D Bandwidth combination set 0 in Table 5.6A.1-1								
CA_25A-25A-26A-41E	-	25	See CA_25A-25A Bandwidth Combination Set 1 in Table 5.6A.1-3								
		26		Yes	Yes					125	0
		41	See CA_41E Bandwidth combination set 0 in Table 5.6A.1-1								
CA_25A-25A-26A-41F	-	25	See CA_25A-25A Bandwidth Combination Set 1 in Table 5.6A.1-3								
		26		Yes	Yes					145	0
		41	See CA_41F Bandwidth combination set 0 in Table 5.6A.1-1								
CA_28A-32A-38A	-	28			Yes	Yes				50	0
		32			Yes	Yes	Yes	Yes			
		38			Yes	Yes	Yes	Yes			
CA_28A-41A-42A	CA_41A-42A	28			Yes	Yes				50	0
		41				Yes	Yes	Yes			
		42				Yes	Yes	Yes			
CA_28A-41A-42A-42A	-	28			Yes	Yes				70	0
		41				Yes	Yes	Yes			
		42	See CA_42A-42A Bandwidth Combination Set 1 in Table 5.6A.1-3								
CA_28A-41A-42C		28			Yes	Yes				70	0

	CA_41A-42A, CA_42C	41				Yes	Yes	Yes		
		42	See CA_42C Bandwidth Combination Set 1 in Table 5.6A.1-1							
CA_28A-41A-42A-42C	CA_42C	28			Yes	Yes			90	0
		41				Yes	Yes	Yes		
		42	See CA_42A-42C Bandwidth Combination Set 1 in Table 5.6A.1-3							
CA_28A-41A-42C-42C	CA_42C	28			Yes	Yes			110	0
		41				Yes	Yes	Yes		
		42	See CA_42C-42C Bandwidth Combination Set 1 in Table 5.6A.1-3							
CA_28A-41C-42A	CA_41A-42A	28			Yes	Yes			70	0
		41	See CA_41C Bandwidth Combination Set 0 in Table 5.6A.1-1							
		42				Yes	Yes	Yes		
CA_28A-41C-42C	CA_42C	28			Yes	Yes			90	0
		41	See CA_41C Bandwidth combination set 0 in Table 5.6A.1-1							
		42	See CA_42C Bandwidth combination set 1 in Table 5.6A.1-1							
CA_29A-30A-66A	-	29			Yes	Yes			40	0
		30			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_29A-30A-66A-66A	-	29			Yes	Yes			60	0
		30			Yes	Yes				
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_29A-46A-66A	-	29			Yes	Yes			50	0
		46						Yes		
		66			Yes	Yes	Yes	Yes		
CA_29A-66A-70A	-	29			Yes	Yes			45	0
		66			Yes	Yes	Yes	Yes		
		70			Yes	Yes	Yes			
CA_29A-66A-66A-70A	-	29			Yes	Yes			65	0
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							
		70			Yes	Yes	Yes			
CA_29A-66A-70C	-	29			Yes	Yes			55	0
		66			Yes	Yes	Yes	Yes		

		70	See CA_70C Bandwidth combination set 0 in Table 5.6A.1-1								
CA_29A-66A-66A-70C	-	29			Yes	Yes			75	0	
		66	See the CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3								
		70	See the CA_70C Bandwidth combination set 0 in Table 5.6A.1-1								
CA_29A-66C-70A	-	29			Yes	Yes			65	0	
		66	See CA_66C Bandwidth combination set 0 in Table 5.6A.1-1								
		70			Yes	Yes	Yes				
CA_29A-66C-70C	-	29			Yes	Yes			75	0	
		66	See the CA_66C Bandwidth combination set 0 in Table 5.6A.1-1								
		70	See the CA_70C Bandwidth combination set 0 in Table 5.6A.1-1								
CA_32A-42A-43A	-	32			Yes	Yes	Yes	Yes	60	0	
		42			Yes	Yes	Yes	Yes			
		43			Yes	Yes	Yes	Yes			
CA_46A-48A-66A	CA_48A-66A	46						Yes	60	0	
		48			Yes	Yes	Yes	Yes			
		66			Yes	Yes	Yes	Yes			
CA_46A-48A-71A	-	46						Yes	60	0	
		48			Yes	Yes	Yes	Yes			
		71			Yes	Yes	Yes	Yes			
CA_46C-48A-48A-71A	-	46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1						100	0	
		48	See CA_48A-48A Bandwidth combination set 0 in Table 5.6A.1-3								
		71			Yes	Yes	Yes	Yes			
CA_46A-48C-66A	CA_48A-66A	46						Yes	80	0	
		48	See the CA_48C Bandwidth combination set 0 in Table 5.6A.1-1								
		66			Yes	Yes	Yes	Yes			
CA_46A-48D-66A	-	46						Yes	100	0	
		48	See the CA_48D Bandwidth combination set 0 in Table 5.6A.1-1								
		66			Yes	Yes	Yes	Yes			
CA_46A-48E-66A	-	46						Yes	120	0	

		48	See the CA_48E Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_46C-48A-66A	CA_48A-66A	46	See the CA_46C Bandwidth combination set 0 in Table 5.6A.1-1						80	0
		48			Yes	Yes	Yes	Yes		
		66			Yes	Yes	Yes	Yes		
CA_46C-48C-66A	CA_48A-66A	46	See the CA_46C Bandwidth combination set 0 in Table 5.6A.1-1						100	0
		48	See the CA_48C Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_46C-48D-66A	-	46	See the CA_46C Bandwidth combination set 0 in Table 5.6A.1-1						120	0
		48	See the CA_48D Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_46C-48E-66A	-	46	See the CA_46C Bandwidth combination set 0 in Table 5.6A.1-1						140	0
		48	See the CA_48E Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_46D-48A-66A	CA_48A-66A	46	See the CA_46D Bandwidth combination set 0 in Table 5.6A.1-1						100	0
		48			Yes	Yes	Yes	Yes		
		66			Yes	Yes	Yes	Yes		
CA_46D-48C-66A	CA_48A-66A	46	See the CA_46D Bandwidth combination set 0 in Table 5.6A.1-1						120	0
		48	See the CA_48C Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_46E-48A-66A	-	46	See the CA_46E Bandwidth combination set 0 in Table 5.6A.1-1						120	0
		48			Yes	Yes	Yes	Yes		
		66			Yes	Yes	Yes	Yes		
CA_46E-48C-66A	-	46	See the CA_46E Bandwidth combination set 0 in Table 5.6A.1-1						140	0
		48	See the CA_48C Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
	-	46						Yes	80	0

CA_46A-48A-48A-71A		48	See CA_48A-48A Bandwidth combination set 0 in Table 5.6A.1-3								
		71			Yes	Yes	Yes	Yes			
CA_46A-48C-71A	-	46						Yes	80	0	
		48	See CA_48C Bandwidth combination set 0 in Table 5.6A.1-1								
		71			Yes	Yes	Yes	Yes			
CA_46C-48A-71A	-	46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1						80	0	
		48			Yes	Yes	Yes	Yes			
		71			Yes	Yes	Yes	Yes			
CA_46C-48C-71A	-	46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1						100	0	
		48	See CA_48C Bandwidth combination set 0 in Table 5.6A.1-1								
		71			Yes	Yes	Yes	Yes			
CA_66A-70A-71A	-	66			Yes	Yes	Yes	Yes	55	0	
		70			Yes	Yes	Yes				
		71			Yes	Yes	Yes	Yes			
CA_66C-70A-71A	-	66	See the CA_66C Bandwidth combination set 0 in Table 5.6A.1-1						75	0	
		70			Yes	Yes	Yes				
		71			Yes	Yes	Yes	Yes			
CA_66A-70C-71A	-	66			Yes	Yes	Yes	Yes	65	0	
		70	See the CA_70C Bandwidth combination set 0 in Table 5.6A.1-1								
		71			Yes	Yes	Yes	Yes			
CA_66A-66A-70A-71A	-	66	See the CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3						75	0	
		70			Yes	Yes	Yes				
		71			Yes	Yes	Yes	Yes			
CA_66A-66A-70C-71A	-	**66**	See the CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3						85	0	
		70	See the CA_70C Bandwidth combination set 0 in Table 5.6A.1-1								
		71			Yes	Yes	Yes	Yes			
CA_66C-70C-71A	-	**66**	See the CA_66C Bandwidth combination set 0 in Table 5.6A.1-1						85	0	
		70	See the CA_70C Bandwidth combination set 0 in Table 5.6A.1-1								
		71				Yes	Yes	Yes			

NOTE 1: The CA Configuration refers to a combination of an operating band and a CA bandwidth class specified in Table 5.6A-1 (the indexing letter). Absence of a CA bandwidth class for an operating band implies support of all classes.
NOTE 2: For each band combination, all combinations of indicated bandwidths belong to the set.
NOTE 3: For the supported CC bandwidth combinations, the CC downlink and uplink bandwidths are equal.
NOTE 4: A terminal which supports a DL CA configuration shall support all the lower order fallback DL CA combinations and it shall support at least one bandwidth combination set for each of the constituent lower order DL combinations containing all the bandwidths specified within each specific combination set of the upper order DL combination.
NOTE 5: Uplink CA configurations are the configurations supported by the present release of specifications.
NOTE 6: If the UE supports any uplink CA configuration for corresponding downlink CA configuration it shall support this uplink CA configuration.
NOTE 7: UL carrier shall be supported in Band 3 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 8: UL carrier shall be supported in Band 20 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB
NOTE 9: UL carrier is only supported on Band 1 or Band 3 not Band 41 because the fall back mode 1UL/2DL CA_1A-41A has the limitation that UL carrier is only supported on Band 1.
NOTE 10: UL carrier is only supported on Band 1 or Band 42 not Band 41 because the fall back mode 1UL/2DL CA_1A-41A has the limitation that UL carrier is only supported on Band 1.
NOTE 11: UL carrier is only supported on Band 1 or Band 5 not Band 41 because the fall back mode 1UL/2DL CA_1A-41A has the limitation that UL carrier is only supported on Band 1.
NOTE 12: Power imbalance between downlink carriers on Band 20 and Band 28 is assumed to be within 6 dB.
NOTE 13: UL carrier shall be supported in Band 8 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 14: UL carrier shall be supported in Band 28 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 15: Power imbalance between downlink carriers on Band 20 and Band 28 is assumed to be within 6 dB.
NOTE 16: UL carrier shall be supported in Band 1 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 17: UL carrier shall be supported in Band 2 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.

Table 5.6A.1-2b: E-UTRA CA configurations and bandwidth combination sets defined for inter-band CA (four bands)

E-UTRA CA configuration / Bandwidth combination set										
E-UTRA CA Configuration	**Uplink CA configurations (NOTE 5)**	**E-UTRA Bands**	**1.4 MHz**	**3 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Maximum aggregated bandwidth [MHz]**	**Bandwidth combination set**
CA_1A-3A-5A-7A	CA_1A-3A, CA_1A-5A[6], CA_1A-7A, CA_3A-5A, CA_3A-7A, CA_5A-7A	1			Yes	Yes	Yes	Yes	70	0
		3				Yes	Yes	Yes		
		5			Yes	Yes				
		7				Yes	Yes	Yes		
		1			Yes	Yes	Yes	Yes	70	1
		3			Yes	Yes	Yes	Yes		
		5			Yes	Yes				
		7				Yes	Yes	Yes		
CA_1A-1A-3A-5A-7A	-	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						90	0
		3			Yes	Yes	Yes	Yes		
		5			Yes	Yes				
		7				Yes	Yes	Yes		
CA_1A-3A-3A-5A-7A	-	1			Yes	Yes	Yes		85	0
		3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							
		5			Yes	Yes				
		7				Yes	Yes	Yes		
CA_1A-3A-5A-7A-7A	CA_1A-3A, CA_1A-5A[6], CA_1A-7A, CA_3A-5A, CA_3A-7A, CA_5A-7A	1			Yes	Yes	Yes	Yes	90	0
		3				Yes	Yes	Yes		
		5			Yes	Yes				
		7	See CA_7A-7A Bandwidth Combination Set 3 in Table 5.6A.1-3							
CA_1A-3C-5A-7A	-	1			Yes	Yes	Yes	Yes	90	0
		3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-3							
		5			Yes	Yes				
		7				Yes	Yes	Yes		
CA_1A-3A-5A-28A	-	1			Yes	Yes	Yes		65	0
		3			Yes	Yes	Yes	Yes		
		5			Yes	Yes				
		28			Yes	Yes	Yes	Yes		
CA_1A-3A-5A-40A	CA_1A-3A, CA_1A-5A[6], CA_3A-5A	1			Yes	Yes	Yes	Yes	70	0
		3			Yes	Yes	Yes	Yes		
		5			Yes	Yes				
		40				Yes	Yes	Yes		
CA_1A-3A-5A-41A[8]	-	1			Yes	Yes	Yes	Yes	70	0
		3			Yes	Yes	Yes	Yes		
		5			Yes	Yes				
		41						Yes		
CA_1A-3A-7A-7A-26A	CA_1A-3A, CA_1A-7A, CA_1A-26A, CA_3A-7A, CA_3A-26A, CA_7A-26A	1			Yes	Yes	Yes	Yes	95	0
		3			Yes	Yes	Yes	Yes		
		7	See the CA_7A-7A Bandwidth combination set 3 in Table 5.6A.1-3							
		26			Yes	Yes	Yes			
CA_1A-3A-7A-8A	CA_1A-3A, CA_1A-7A, CA_1A-8A, CA_3A-7A, CA_3A-8A, CA_7A-8A	1			Yes	Yes	Yes	Yes	70	0
		3			Yes	Yes	Yes	Yes		
		7				Yes	Yes	Yes		
		8			Yes	Yes				
		1			Yes	Yes	Yes	Yes	70	1
		3			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
		8			Yes	Yes				
CA_1A-3C-7A-8A	CA_3C CA_1A-3A CA_1A-8A	1			Yes	Yes	Yes	Yes	90	0
		3	See the CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							

	CA_3A-8A	7			Yes	Yes	Yes	Yes		
		8			Yes	Yes				
CA_1A-3A-3A-7A-8A	CA_1A-3A, CA_1A-7A, CA_1A-8A, CA_3A-7A, CA_3A-8A, CA_7A-8A	1			Yes	Yes	Yes	Yes	90	0
		3	See the CA_3A-3A Bandwidth combination set 0 in Table 5.6A.1-3							
		7			Yes	Yes	Yes	Yes		
		8			Yes	Yes				
CA_1A-3A-7A-7A-8A	CA_1A-3A, CA_1A-7A, CA_1A-8A, CA_3A-7A, CA_3A-8A, CA_7A-8A	1			Yes	Yes	Yes	Yes	90	0
		3			Yes	Yes	Yes	Yes		
		7	See the CA_7A-7A Bandwidth combination set 1 in Table 5.6A.1-3							
		8			Yes	Yes				
CA_1A-3A-3A-7A-7A-8A	CA_1A-3A, CA_1A-7A, CA_1A-8A, CA_3A-7A, CA_3A-8A, CA_7A-8A	1			Yes	Yes	Yes	Yes	110	0
		3	See the CA_3A-3A Bandwidth combination set 0 in Table 5.6A.1-3							
		7	See the CA_7A-7A Bandwidth combination set 1 in Table 5.6A.1-3							
		8			Yes	Yes				
CA_1A-3A-7A-20A	CA_1A-3A, CA_1A-7A, CA_1A-20A, CA_3A-7A, CA_3A-20A, CA_7A-20A	1			Yes	Yes	Yes	Yes	80	0
		3			Yes	Yes	Yes	Yes		
		7				Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
		1			Yes	Yes	Yes	Yes	80	1
		3			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
CA_1A-3A-7C-20A	CA_7C	1			Yes	Yes	Yes	Yes	100	0
		3			Yes	Yes	Yes	Yes		
		7	See CA_7C Bandwidth combination set 1 in Table 5.6A.1-1							
		20			Yes	Yes	Yes	Yes		
CA_1A-3C-7A-20A	-	1			Yes	Yes	Yes	Yes	100	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							
		7			Yes	Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
CA_1A-3A-3A-7A-20A	-	1			Yes	Yes	Yes	Yes	100	0
		3	See CA_3A-3A Bandwidth combination set 0 in Table 5.6A.1-3							
		7			Yes	Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
CA_1A-3A-7A-7A-20A	-	1			Yes	Yes	Yes	Yes	100	0
		3			Yes	Yes	Yes	Yes		
		7	See CA_7A-7A Bandwidth Combination Set 3 in Table 5.6A.1-3							
		20			Yes	Yes	Yes	Yes		
CA_1A-3A-7A-26A	CA_1A-3A, CA_1A-7A, CA_1A-26A, CA_3A-7A CA_3A-26A, CA_7A-26A	1			Yes	Yes	Yes	Yes	75	0
		3			Yes	Yes	Yes	Yes		
		7				Yes	Yes	Yes		
		26			Yes	Yes	Yes			
CA_1A-3A-7C-26A	CA_7C	1			Yes	Yes	Yes	Yes	95	0
		3	Yes	Yes	Yes	Yes	Yes	Yes		
		7	See CA_7C Bandwidth combination set 1 in Table 5.6A.1-1							
		26			Yes	Yes	Yes			
CA_1A-3C-7A-26A	CA_3C	1			Yes	Yes	Yes	Yes	95	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							
		7				Yes	Yes	Yes		
		26			Yes	Yes	Yes			

CA_1A-3C-7C-26A	CA_3C CA_7C	1			Yes	Yes	Yes	Yes	115	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							
		7	See CA_7C Bandwidth combination set 1 in Table 5.6A.1-1							
		26			Yes	Yes	Yes			
CA_1A-3A-7A-28A	CA_1A-3A, CA_1A-7A, CA_1A-28A, CA_3A-7A, CA_3A-28A[6], CA_7A-28A	1			Yes	Yes	Yes	Yes	80	0
		3				Yes	Yes	Yes		
		7				Yes	Yes	Yes		
		28				Yes	Yes	Yes		
		1			Yes	Yes	Yes	Yes	80	1
		3			Yes	Yes	Yes	Yes		
		7				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_1A-3C-7A-28A	CA_3C	1			Yes	Yes	Yes	Yes	100	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							
		7				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_1A-3A-7C-28A	CA_1A-3A, CA_1A-7A, CA_1A-28A, CA_3A-7A, CA_3A-28A[6], CA_7A-28A, CA_7C	1			Yes	Yes	Yes	Yes	100	0
		3				Yes	Yes	Yes		
		7	See CA_7C Bandwidth Combination Set 2 in Table 5.6A.1-1							
		28				Yes	Yes	Yes		
CA_1A-3C-7C-28A	CA_3C CA_7C	1			Yes	Yes	Yes	Yes	120	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							
		7	See CA_7C Bandwidth Combination Set 2 in Table 5.6A.1-1							
		28			Yes	Yes	Yes	Yes		
CA_1A-1A-3A-7A-28A	-	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						100	0
		3			Yes	Yes	Yes	Yes		
		7				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_1A-1A-3A-7C-28A	CA_7C	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						120	0
		3			Yes	Yes	Yes	Yes		
		7	See CA_7C Bandwidth combination set 2 in Table 5.6A.1-1							
		28			Yes	Yes	Yes	Yes		
CA_1A-1A-3C-7A-28A	CA_3C	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						120	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							
		7				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_1A-1A-3C-7C-28A	CA_3C CA_7C	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						140	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							
		7	See CA_7C Bandwidth combination set 2 in Table 5.6A.1-1							
		28			Yes	Yes	Yes	Yes		
CA_1A-1A-3A-3A-7A-28A	-	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						120	0
		3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							
		7				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_1A-1A-3A-3A-7C-28A	CA_7C	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						140	0

		3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3						100	0
		7	See CA_7C Bandwidth combination set 2 in Table 5.6A.1-1							
		28			Yes	Yes	Yes	Yes		
CA_1A-3A-3A-7A-28A	-	1			Yes	Yes	Yes	Yes		
		3	See CA_3A-3A Bandwidth combination set 0 in Table 5.6A.1-3							
		7				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_1A-3A-3A-7C-28A	CA_7C	1			Yes	Yes	Yes	Yes	120	0
		3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							
		7	See CA_7C Bandwidth combination set 2 in Table 5.6A.1-1							
		28			Yes	Yes	Yes	Yes		
CA_1A-3A-7A-7A-28A	-	1			Yes	Yes	Yes	Yes	100	0
		3			Yes	Yes	Yes	Yes		
		7	See CA_7A-7A Bandwidth combination set 3 in Table 5.6A.1-3							
		28				Yes	Yes	Yes		
CA_1A-3A-7A-32A	-	1			Yes	Yes	Yes	Yes	80	0
		3			Yes	Yes	Yes	Yes		
		7				Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_1A-3C-7A-32A	-	1			Yes	Yes	Yes	Yes	100	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							
		7			Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_1A-3A-7A-38A[9]	CA_1A-3A	1			Yes	Yes	Yes	Yes	80	0
		3			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-3C-7A-38A[9]	-	1			Yes	Yes	Yes	Yes	100	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							
		7			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-3A-3A-7A-38A[9]	-	1			Yes	Yes	Yes	Yes	100	0
		3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							
		7			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-1A-3A-7A-38A[9]	-	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						100	0
		3			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-1A-3C-7A-38A[9]	-	1	See CA_1A-1A Bandwidth Combination Set 0 in Table 5.6A.1-3						100	0
		3	See CA_3C Bandwidth Combination Set 0 in Table 5.6A.1-1							
		7			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-3A-7A-40A	-	1			Yes	Yes	Yes	Yes	80	0
		3			Yes	Yes	Yes	Yes		
		7				Yes	Yes	Yes		
		40			Yes	Yes	Yes	Yes		
CA_1A-3A-7A-40C	-	1			Yes	Yes	Yes	Yes	100	0
		3			Yes	Yes	Yes	Yes		
		7				Yes	Yes	Yes		
		40	See CA_40C Bandwidth combination set 1 in Table 5.6A.1-1							

CA_1A-3A-7A-40A-40A	-	1			Yes	Yes	Yes	Yes	100	0
		3			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
		40	See CA_40A-40A Bandwidth Combination Set 1 in Table 5.6A.1-3							
CA_1A-3A-7A-42A	-	1			Yes	Yes	Yes	Yes	80	0
		3			Yes	Yes	Yes	Yes		
		7				Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		
CA_1A-3A-7A-46A	-	1			Yes	Yes	Yes	Yes	80	0
		3			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
		46						Yes		
CA_1A-3A-7A-46C	-	1			Yes	Yes	Yes	Yes	100	0
		3			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_1A-3A-7A-46D	-	1			Yes	Yes	Yes	Yes	120	0
		3			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_1A-3A-7A-46E	-	1			Yes	Yes	Yes	Yes	140	0
		3			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
		46	See CA_46E Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_1A-3A-8A-40A	CA_1A-3A, CA_1A-8A, CA_3A-8A	1			Yes	Yes	Yes	Yes	70	0
		3			Yes	Yes	Yes	Yes		
		8		Yes	Yes	Yes				
		40			Yes	Yes	Yes	Yes		
CA_1A-3A-8A-40C	-	1			Yes	Yes	Yes	Yes	90	0
		3			Yes	Yes	Yes	Yes		
		8		Yes	Yes	Yes				
		40	See CA_40C Bandwidth combination set 1 in Table 5.6A.1-1							
CA_1A-3A-8A-11A	-	1			Yes	Yes	Yes	Yes	60	0
		3			Yes	Yes	Yes	Yes		
		8			Yes	Yes				
		11			Yes	Yes				
CA_1A-3A-8A-20A	CA_1A-3A CA_1A-8A CA_3A-8A	1			Yes	Yes	Yes	Yes	70	0
		3			Yes	Yes	Yes	Yes		
		8			Yes	Yes				
		20			Yes	Yes	Yes	Yes		
CA_1A-3C-8A-20A	CA_3C CA_1A-3A CA_1A-8A CA_3A-8A	1			Yes	Yes	Yes	Yes	90	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							
		8			Yes	Yes				
		20			Yes	Yes	Yes	Yes		
CA_1A-3A-8A-28A	-	1			Yes	Yes	Yes	Yes	70	0
		3			Yes	Yes	Yes	Yes		
		8			Yes	Yes				
		28			Yes	Yes	Yes	Yes		
CA_1A-3A-8A-32A	-	1			Yes	Yes	Yes	Yes	70	0
		3			Yes	Yes	Yes	Yes		
		8			Yes	Yes				
		32			Yes	Yes	Yes	Yes		
CA_1A-3A-8A-38A	CA_1A-3A CA_1A-8A CA_3A-8A	1			Yes	Yes	Yes	Yes	70	0
		3			Yes	Yes	Yes	Yes		
		8			Yes	Yes				
		38			Yes	Yes	Yes	Yes		

CA_1A-3C-8A-38A	CA_3C CA_1A-3A CA_1A-8A CA_3A-8A	1			Yes	Yes	Yes	Yes	90	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							
		8			Yes	Yes				
		38			Yes	Yes	Yes	Yes		
CA_1A-3A-3A-8A-38A	-	1			Yes	Yes	Yes	Yes	90	0
		3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							
		8			Yes	Yes				
		38			Yes	Yes	Yes	Yes		
CA_1A-3A-8A-41A	-	1			Yes	Yes	Yes	Yes	70	0
		3	Yes	Yes	Yes	Yes	Yes	Yes		
		8	Yes	Yes	Yes	Yes				
		41			Yes	Yes	Yes	Yes		
CA_1A-3A-8A-42A	-	1			Yes	Yes	Yes	Yes	70	0
		3			Yes	Yes	Yes	Yes		
		8			Yes	Yes				
		42			Yes	Yes	Yes	Yes		
CA_1A-3A-8A-42C	-	1			Yes	Yes	Yes	Yes	90	0
		3			Yes	Yes	Yes	Yes		
		8			Yes	Yes				
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_1A-3A-11A-28A	-	1			Yes	Yes	Yes	Yes	70	0
		3			Yes	Yes	Yes	Yes		
		11			Yes	Yes				
		28			Yes	Yes	Yes	Yes		
CA_1A-3A-18A-42A	-	1			Yes	Yes	Yes	Yes	75	0
		3			Yes	Yes	Yes	Yes		
		18			Yes	Yes	Yes			
		42			Yes	Yes	Yes	Yes		
CA_1A-3A-18A-42C	-	1			Yes	Yes	Yes	Yes	95	0
		3			Yes	Yes	Yes	Yes		
		18			Yes	Yes	Yes			
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_1A-3A-19A-21A	CA_1A-3A, CA_1A-19A[6], CA_1A-21A, CA_3A-19A, CA_3A-21A, CA_19A-21A	1			Yes	Yes	Yes	Yes	70	0
		3			Yes	Yes	Yes	Yes		
		19			Yes	Yes	Yes			
		21			Yes	Yes	Yes			
CA_1A-3A-19A-42A	CA_1A-3A, CA_1A-19A[6], CA_1A-42A, CA_3A-19A, CA_3A-42A, CA_19A-42A[6]	1			Yes	Yes	Yes	Yes	75	0
		3			Yes	Yes	Yes	Yes		
		19			Yes	Yes	Yes			
		42			Yes	Yes	Yes	Yes		
CA_1A-3A-3A-19A-21A	CA_1A-3A CA_1A-19A[6] CA_1A-21A, CA_3A-19A CA_3A-21A CA_19A-21A	1			Yes	Yes	Yes	Yes	90	0
		3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3							
		19			Yes	Yes	Yes			
		21			Yes	Yes	Yes			
CA_1A-3A-19A-42C	CA_1A-3A, CA_1A-19A[6], CA_1A-42A, CA_3A-19A, CA_3A-42A, CA_19A-42A[6]	1			Yes	Yes	Yes	Yes	95	0
		3			Yes	Yes	Yes	Yes		
		19			Yes	Yes	Yes			
		42	See CA_42C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_1A-3A-20A-28A[7]	-	1			Yes	Yes	Yes	Yes	80	0
		3			Yes	Yes	Yes	Yes		

		20				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_1A-3A-3A-20A-28A[7]	-	1			Yes	Yes	Yes	Yes	100	0
		3	See CA_3A-3A Bandwidth combination set 0 in in Table 5.6A.1-3							
		20				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_1A-3A-20A-32A	-	1			Yes	Yes	Yes	Yes	70	0
		3			Yes	Yes	Yes	Yes		
		20				Yes				
		32			Yes	Yes	Yes	Yes		
		1			Yes	Yes	Yes		55	1
		3			Yes	Yes	Yes			
		20			Yes					
		32			Yes	Yes	Yes	Yes		
CA_1A-3C-20A-32A	-	1			Yes	Yes	Yes	Yes	100	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							
		20			Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_1A-3A-20A-38A	CA_1A-3A CA_1A-20A CA_3A-20A	1			Yes	Yes	Yes	Yes	80	0
		3	Yes	Yes	Yes	Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-3C-20A-38A	CA_3C CA_1A-3A	1			Yes	Yes	Yes	Yes	100	0
		3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1							
		20			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-3A-20A-40A	-	1			Yes	Yes	Yes	Yes	80	0
		3	Yes	Yes	Yes	Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
		40			Yes	Yes	Yes	Yes		
CA_1A-3A-20A-40C	-	1			Yes	Yes	Yes	Yes	100	0
		3	Yes	Yes	Yes	Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
		40	See CA_40C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_1A-3A-20A-42A	-	1			Yes	Yes	Yes	Yes	80	0
		3			Yes	Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		
CA_1A-3A-20A-43A	-	1			Yes	Yes	Yes		55	0
		3			Yes	Yes	Yes			
		20			Yes					
		43			Yes	Yes	Yes	Yes		
CA_1A-3A-21A-28A	CA_1A-3A, CA_1A-21A, CA_1A-28A, CA_3A-21A, CA_3A-28A[6], CA_21A-28A	1			Yes	Yes	Yes	Yes	65	0
		3			Yes	Yes	Yes	Yes		
		21			Yes	Yes	Yes			
		28			Yes	Yes				
CA_1A-3A-21A-42A	CA_1A-3A, CA_1A-21A, CA_1A-42A, CA_3A-21A, CA_3A-42A, CA_21A-42A	1			Yes	Yes	Yes	Yes	75	0
		3			Yes	Yes	Yes	Yes		
		21			Yes	Yes	Yes			
		42			Yes	Yes	Yes	Yes		
CA_1A-3A-21A-42C	CA_1A-3A, CA_1A-21A, CA_1A-42A, CA_3A-21A,	1			Yes	Yes	Yes	Yes	95	0
		3			Yes	Yes	Yes	Yes		
		21			Yes	Yes	Yes			
		42	See CA_42C Bandwidth combination set 0 in Table 5.6A.1-1							

	CA_3A-42A, CA_21A-42A									
CA_1A-3A-28A-32A	-	1			Yes	Yes	Yes	Yes	80	0
		3			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_1A-3A-28A-38A	-	1			Yes	Yes	Yes	Yes	80	0
		3			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-3A-28A-40A	-	1			Yes	Yes	Yes	Yes	80	0
		3			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
		40			Yes	Yes	Yes	Yes		
CA_1A-3A-28A-40C	-	1			Yes	Yes	Yes	Yes	100	0
		3			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
		40	See CA_40C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_1A-3A-28A-42A	CA_1A-3A, CA_1A-28A, CA_1A-42A, CA_3A-28A[6], CA_3A-42A, CA_28A-42A	1			Yes	Yes	Yes	Yes	70	0
		3			Yes	Yes	Yes	Yes		
		28			Yes	Yes				
		42			Yes	Yes	Yes	Yes		
CA_1A-3A-28A-42C	CA_1A-3A, CA_1A-28A, CA_1A-42A, CA_3A-28A[6], CA_3A-42A, CA_28A-42A	1			Yes	Yes	Yes	Yes	90	0
		3			Yes	Yes	Yes	Yes		
		28			Yes	Yes				
		42	See CA_42C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_1A-3A-32A-42A	-	1			Yes	Yes	Yes		70	0
		3			Yes	Yes	Yes			
		32			Yes	Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		
CA_1A-3A-32A-43A	-	1			Yes	Yes	Yes		70	0
		3			Yes	Yes	Yes			
		32			Yes	Yes	Yes	Yes		
		43			Yes	Yes	Yes	Yes		
CA_1A-3A-40A-41A	-	1			Yes	Yes	Yes	Yes	80	0
		3	Yes	Yes	Yes	Yes	Yes	Yes		
		40			Yes	Yes	Yes	Yes		
		41			Yes	Yes	Yes	Yes		
CA_1A-3A-41A-42A	CA_1A-3A CA_1A-42A CA_3A-42A	1			Yes	Yes	Yes	Yes	80	0
		3			Yes	Yes	Yes	Yes		
		41			Yes	Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		
CA_1A-3A-41C-42A	CA_1A-3A CA_1A-42A CA_3A-42A	1			Yes	Yes	Yes	Yes	100	0
		3			Yes	Yes	Yes	Yes		
		41	See CA_41C Bandwidth Combination Set 0 in Table 5.6A.1-1							
		42			Yes	Yes	Yes	Yes		
CA_1A-3A-41A-42C	CA_1A-3A CA_1A-42A CA_1A-42C CA_3A-42A CA_3A-42C CA_42C	1			Yes	Yes	Yes	Yes	100	0
		3			Yes	Yes	Yes	Yes		
		41			Yes	Yes	Yes	Yes		
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_1A-3A-41C-42C	CA_1A-3A, CA_1A-42A, CA_1A-42C, CA_3A-42A, CA_3A-42C CA_42C	1			Yes	Yes	Yes	Yes	120	0
		3			Yes	Yes	Yes	Yes		
		41	See CA_41C Bandwidth Combination Set 0 in Table 5.6A.1-1							
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1							

CA_1A-3A-42A-43A	-	1			Yes	Yes	Yes		70	0
		3			Yes	Yes	Yes			
		42			Yes	Yes	Yes	Yes		
		43			Yes	Yes	Yes	Yes		
CA_1A-5A-7A-28A	-	1			Yes	Yes	Yes		65	0
		5			Yes	Yes				
		7			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_1A-5A-7A-7A-28A	-	1			Yes	Yes	Yes	Yes	90	0
		5	Yes	Yes	Yes	Yes				
		7	See CA_7A-7A Bandwidth Combination Set 1 in Table 5.6A.1-3							
		28		Yes	Yes	Yes	Yes	Yes		
CA_1A-20A-32A-38A	-	1			Yes	Yes	Yes	Yes	70	0
		20			Yes	Yes				
		32			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-20A-32A-42A	-	1			Yes	Yes	Yes		60	0
		20			Yes					
		32			Yes	Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		
CA_1A-20A-32A-43A	-	1			Yes	Yes	Yes		60	0
		20			Yes					
		32			Yes	Yes	Yes	Yes		
		43			Yes	Yes	Yes	Yes		
CA_1A-7A-8A-20A	-	1			Yes	Yes	Yes	Yes	70	0
		7				Yes	Yes	Yes		
		8			Yes	Yes				
		20				Yes	Yes	Yes		
CA_1A-7A-8A-28A	-	1			Yes	Yes	Yes	Yes	70	0
		7			Yes	Yes	Yes	Yes		
		8	Yes	Yes	Yes	Yes				
		28			Yes	Yes	Yes	Yes		
CA_1A-7A-8A-32A	-	1			Yes	Yes	Yes	Yes	70	0
		7			Yes	Yes	Yes	Yes		
		8	Yes	Yes	Yes	Yes				
		32			Yes	Yes	Yes	Yes		
CA_1A-7A-8A-40A	-	1			Yes	Yes	Yes	Yes	70	0
		7				Yes	Yes	Yes		
		8			Yes	Yes				
		40			Yes	Yes	Yes	Yes		
CA_1A-5A-7A-46A	CA_1A-5A[6], CA_1A-7A, CA_5A-7A	1			Yes	Yes	Yes	Yes	70	0
		5			Yes	Yes				
		7				Yes	Yes	Yes		
		46						Yes		
CA_1A-5A-7A-46C	-	1			Yes	Yes	Yes	Yes	90	0
		5			Yes	Yes				
		7				Yes	Yes	Yes		
		46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_1A-7A-8A-38A[10]	CA_1A-8A	1			Yes	Yes	Yes	Yes	70	0
		7			Yes	Yes	Yes	Yes		
		8			Yes	Yes				
		38			Yes	Yes	Yes	Yes		
CA_1A-7A-8A-40C	-	1			Yes	Yes	Yes	Yes	90	0
		7				Yes	Yes	Yes		
		8			Yes	Yes				
		40	See CA_40C Bandwidth combination set 1 in Table 5.6A.1-1							
CA_1A-7A-20A-28A[7]	-	1			Yes	Yes	Yes	Yes	80	0
		7				Yes	Yes	Yes		
		20				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		

CA_1A-7A-20A-32A	-	1			Yes	Yes	Yes	Yes	70	0
		7				Yes	Yes	Yes		
		20			Yes	Yes				
		32			Yes	Yes	Yes	Yes		
CA_1A-7A-20A-38A[11]	CA_1A-20A	1			Yes	Yes	Yes	Yes	80	0
		7			Yes	Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-7A-20A-42A	-	1			Yes	Yes	Yes	Yes	80	0
		7				Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		
CA_1A-7A-28A-32A	-	1			Yes	Yes	Yes	Yes	80	0
		7			Yes	Yes	Yes	Yes		
		28		Yes	Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_1A-7A-28A-38A	-	1			Yes	Yes	Yes	Yes	80	0
		7			Yes	Yes	Yes	Yes		
		28		Yes	Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-7A-28A-40A	-	1			Yes	Yes	Yes	Yes	80	0
		7				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
		40			Yes	Yes	Yes	Yes		
CA_1A-7A-28A-40A-40A	-	1			Yes	Yes	Yes	Yes	100	0
		7			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
		40	See CA_40A-40A Bandwidth Combination Set 1 in Table 5.6A.1-3							
CA_1A-7A-28A-40C	-	1			Yes	Yes	Yes	Yes	100	0
		7				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
		40	See CA_40C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_1A-7A-32A-38A[13]	-	1			Yes	Yes	Yes	Yes	80	0
		7				Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-8A-11A-28A	-	1			Yes	Yes	Yes	Yes	60	0
		8			Yes	Yes				
		11			Yes	Yes				
		28			Yes	Yes	Yes	Yes		
CA_1A-8A-11A-42A	-	1			Yes	Yes	Yes	Yes	60	0
		8			Yes	Yes				
		11			Yes	Yes				
		42			Yes	Yes	Yes	Yes		
CA_1A-8A-11A-42C	-	1			Yes	Yes	Yes	Yes	80	0
		8			Yes	Yes				
		11			Yes	Yes				
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_1A-8A-20A-28A	-	1			Yes	Yes	Yes	Yes	70	0
		8			Yes	Yes				
		20				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_1A-8A-20A-32A	-	1			Yes	Yes	Yes	Yes	70	0
		8	Yes	Yes	Yes	Yes				
		20			Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_1A-8A-20A-38A	CA_1A-8A	1			Yes	Yes	Yes	Yes	70	0
		8			Yes	Yes				
		20			Yes	Yes	Yes	Yes		

		38			Yes	Yes	Yes	Yes		
CA_1A-8A-28A-32A	-	1			Yes	Yes	Yes	Yes	70	0
		8	Yes	Yes	Yes	Yes				
		28		Yes	Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_1A-8A-32A-38A	-	1			Yes	Yes	Yes	Yes	70	0
		8			Yes	Yes				
		32			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-19A-21A-42A	CA_1A-19A[6], CA_1A-21A, CA_1A-42A, CA_19A-21A, CA_19A-42A[6], CA_21A-42A	1			Yes	Yes	Yes	Yes	70	0
		19			Yes	Yes	Yes			
		21			Yes	Yes	Yes			
		42			Yes	Yes	Yes	Yes		
CA_1A-19A-21A-42C	CA_1A-19A[6], CA_1A-21A, CA_1A-42A, CA_19A-21A, CA_19A-42A[6], CA_21A-42A	1			Yes	Yes	Yes	Yes	90	0
		19			Yes	Yes	Yes			
		21			Yes	Yes	Yes			
		42	See CA_42C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_1A-20A-28A-32A	-	1			Yes	Yes	Yes	Yes	80	0
		20			Yes	Yes	Yes	Yes		
		28		Yes	Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_1A-20A-28A-38A[7]	-	1			Yes	Yes	Yes	Yes	80	0
		20				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-21A-28A-42A	CA_1A-21A, CA_1A-28A, CA_1A-42A, CA_21A-28A, CA_21A-42A, CA_28A-42A	1			Yes	Yes	Yes	Yes	65	0
		21			Yes	Yes	Yes			
		28			Yes	Yes				
		42			Yes	Yes	Yes	Yes		
CA_1A-21A-28A-42C	CA_1A-21A, CA_1A-28A, CA_1A-42A, CA_21A-28A, CA_21A-42A, CA_28A-42A	1			Yes	Yes	Yes	Yes	85	0
		21			Yes	Yes	Yes			
		28			Yes	Yes				
		42	See CA_42C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_1A-32A-42A-43A	-	1			Yes	Yes	Yes		75	0
		32			Yes	Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		
		43			Yes	Yes	Yes	Yes		
CA_2A-2A-5A-12A-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0
		5			Yes	Yes				
		12			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-2A-5A-30A-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0
		5			Yes	Yes				
		30			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-2A-7A-12A-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						90	0
		7			Yes	Yes	Yes	Yes		
		12			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-7A-12A-66A-66A	-	2			Yes	Yes	Yes	Yes	90	0
		7			Yes	Yes	Yes	Yes		
		12			Yes	Yes				

		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3								
CA_2A-2A-12A-30A-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3								
		12			Yes	Yes			80	0	
		30			Yes	Yes					
		66			Yes	Yes	Yes	Yes			
CA_2A-2A-14A-30A-66A	CA_2A-14A CA_14A-30A CA_14A-66A	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3								
		14			Yes	Yes			80	0	
		30			Yes	Yes					
		66			Yes	Yes	Yes	Yes			
CA_2A-4A-5A-12A	-	2			Yes	Yes	Yes	Yes	60	0	
		4			Yes	Yes	Yes	Yes			
		5			Yes	Yes					
		12			Yes	Yes					
CA_2A-4A-5A-29A	CA_2A-4A	2			Yes	Yes	Yes	Yes	60	0	
		4			Yes	Yes	Yes	Yes			
		5			Yes	Yes					
		29			Yes	Yes					
CA_2A-4A-5A-30A	-	2			Yes	Yes	Yes	Yes	60	0	
		4			Yes	Yes	Yes	Yes			
		5			Yes	Yes					
		30			Yes	Yes					
CA_2A-4A-5B-30A	-	2			Yes	Yes	Yes	Yes	70	0	
		4			Yes	Yes	Yes	Yes			
		5	See CA_5B Bandwidth combination set 0 in Table 5.6A.1-1								
		30			Yes	Yes					
CA_2A-4A-7A-12A	-	2			Yes	Yes	Yes	Yes	70	0	
		4			Yes	Yes	Yes	Yes			
		7			Yes	Yes	Yes	Yes			
		12			Yes	Yes					
CA_2A-4A-12A-30A	-	2			Yes	Yes	Yes	Yes	60	0	
		4			Yes	Yes	Yes	Yes			
		12			Yes	Yes					
		30			Yes	Yes					
CA_2A-4A-29A-30A	-	2			Yes	Yes	Yes	Yes	60	0	
		4			Yes	Yes	Yes	Yes			
		29			Yes	Yes					
		30			Yes	Yes					
CA_2A-5A-7A-28A	-	2			Yes	Yes	Yes	Yes	70	0	
		5			Yes	Yes					
		7				Yes	Yes	Yes			
		28			Yes	Yes	Yes	Yes			
CA_2A-5A-7A-66A	-	2			Yes	Yes	Yes	Yes	70	0	
		5			Yes	Yes					
		7			Yes	Yes	Yes	Yes			
		66			Yes	Yes	Yes	Yes			
CA_2A-2A-5A-7A-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3								
		5			Yes	Yes			90	0	
		7			Yes	Yes	Yes	Yes			
		66			Yes	Yes	Yes	Yes			
CA_2A-5A-7C-66A	-	2			Yes	Yes	Yes	Yes	90	0	
		5			Yes	Yes					
		7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1								
		66			Yes	Yes	Yes	Yes			
CA_2A-5A-7A-7A-66A	-	2			Yes	Yes	Yes	Yes	90	0	
		5			Yes	Yes					
		7	See CA_7A-7A Bandwidth Combination Set 1 in Table 5.6A.1-3								
		66			Yes	Yes	Yes	Yes			
CA_2A-5A-7A-66A-66A	-	2			Yes	Yes	Yes	Yes	90	0	
		5			Yes	Yes					

		7			Yes	Yes	Yes	Yes		
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_2A-5A-12A-66A	-	2			Yes	Yes	Yes	Yes	60	0
		5			Yes	Yes				
		12			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-5A-30A-66A	-	2			Yes	Yes	Yes	Yes	60	0
		5			Yes	Yes				
		30			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-5A-30A-66A-66A	-	2			Yes	Yes	Yes	Yes	80	0
		5			Yes	Yes				
		30			Yes	Yes				
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-5B-30A-66A	-	2			Yes	Yes	Yes	Yes	70	0
		5	See CA_5B Bandwidth Combination Set 0 in Table 5.6A.1-1							
		30			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-5A-46A-66A	-	2			Yes	Yes	Yes	Yes	70	0
		5			Yes	Yes				
		46						Yes		
		66			Yes	Yes	Yes	Yes		
CA_2A-5A-46C-66A	-	2			Yes	Yes	Yes	Yes	90	0
		5			Yes	Yes				
		46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_2A-5A-46D-66A	-	2			Yes	Yes	Yes	Yes	110	0
		5			Yes	Yes				
		46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_2A-5A-46E-66A	-	2			Yes	Yes	Yes	Yes	130	0
		5			Yes	Yes				
		46	See CA_46E Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_2A-5A-46A-66A-66A	-	2			Yes	Yes	Yes	Yes	90	0
		5			Yes	Yes				
		46						Yes		
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_2A-5A-46C-66A-66A	-	2			Yes	Yes	Yes	Yes	110	0
		5			Yes	Yes				
		46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1							
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_2A-5A-46D-66A-66A	-	2			Yes	Yes	Yes	Yes	130	0
		5			Yes	Yes				
		46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_2A-5A-48A-66A	CA_2A-66A CA_2A-48A CA_48A-66A CA_5A-66A CA_5A-48A CA_2A-5A	2	Yes	Yes	Yes	Yes	Yes	Yes	70	0
		5			Yes	Yes				
		48			Yes	Yes	Yes	Yes		
		66	Yes	Yes	Yes	Yes	Yes	Yes		
CA_2A-5A-48A-66A-66A	CA_2A-66A CA_2A-48A CA_48A-66A	2	Yes	Yes	Yes	Yes	Yes	Yes	90	0
		5			Yes	Yes				
		48			Yes	Yes	Yes	Yes		

	CA_5A-66A CA_5A-48A CA_2A-5A	66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-5A-48C-66A	CA_2A-66A CA_2A-48A CA_48A-66A CA_5A-66A CA_5A-48A CA_2A-5A	2	Yes	Yes	Yes	Yes	Yes	Yes	90	0
		5			Yes	Yes				
		48	See CA_48C Bandwidth combination set 0 in Table 5.6A1-1							
		66	Yes	Yes	Yes	Yes	Yes	Yes		
CA_2A-5A-48C-66A-66A	CA_2A-66A CA_2A-48A CA_48A-66A CA_5A-66A CA_5A-48A	2	Yes	Yes	Yes	Yes	Yes	Yes	110	0
		5			Yes	Yes				
		48	See CA_48C Bandwidth combination set 0 in Table 5.6A1-1							
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-5A-48D-66A	CA_2A-66A CA_2A-48A CA_48A-66A CA_5A-66A CA_5A-48A CA_2A-5A	2	Yes	Yes	Yes	Yes	Yes	Yes	110	0
		5			Yes	Yes				
		48	See CA_48D Bandwidth combination set 0 in Table 5.6A1-1							
		66	Yes	Yes	Yes	Yes	Yes	Yes		
CA_2A-5A-48D-66A-66A	CA_2A-66A CA_2A-48A CA_48A-66A CA_5A-66A CA_5A-48A CA_2A-5A	2	Yes	Yes	Yes	Yes	Yes	Yes	130	0
		5	Yes		Yes	Yes				
		48	See CA_48D Bandwidth combination set 0 in Table 5.6A1-1							
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-7A-12A-66A	-	2			Yes	Yes	Yes	Yes	70	0
		7			Yes	Yes	Yes	Yes		
		12			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-7A-12B-66A	-	2			Yes	Yes	Yes	Yes	75	0
		7			Yes	Yes	Yes	Yes		
		12	See CA_12B Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_2A-7A-13A-66A	-	2			Yes	Yes	Yes	Yes	70	0
		7			Yes	Yes	Yes	Yes		
		13			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-7A-7A-13A-66A	-	2			Yes	Yes	Yes	Yes	90	0
		7	See CA_7A-7A Bandwidth Combination Set 1 in Table 5.6A.1-3							
		13			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-7C-13A-66A	-	2			Yes	Yes	Yes	Yes	90	0
		7	See CA_7C Bandwidth combination set 1 in Table 5.6A.1-1							
		13			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-7A-26A-66A	-	2		Yes	Yes	Yes	Yes	Yes	75	0
		7			Yes	Yes	Yes	Yes		
		26		Yes	Yes	Yes	Yes			
		66		Yes	Yes	Yes	Yes	Yes		
CA_2A-7A-28A-66A	-	2			Yes	Yes	Yes	Yes	80	0
		7			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
		66			Yes	Yes	Yes	Yes		
CA_2A-7C-28A-66A	-	2			Yes	Yes	Yes	Yes	100	0
		7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1							
		28			Yes	Yes	Yes	Yes		
		66			Yes	Yes	Yes	Yes		
CA_2A-7A-29A-66A	-	2			Yes	Yes	Yes	Yes	70	0
		7				Yes	Yes	Yes		
		29			Yes	Yes				

		66			Yes	Yes	Yes	Yes		
CA_2A-7C-29A-66A	-	2			Yes	Yes	Yes	Yes	90	0
		7	See CA_7C Bandwidth combination set 1 in Table 5.6A.1-1							
		29			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-7A-7A-29A-66A	-	2			Yes	Yes	Yes	Yes	90	0
		7	See CA_7A-7A Bandwidth combination set 3 in Table 5.6A.1-3							
		29			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-7A-46A-66A	-	2			Yes	Yes	Yes	Yes	80	0
		7			Yes	Yes	Yes	Yes		
		46				Yes		Yes		
		66			Yes	Yes	Yes	Yes		
CA_2A-2A-7A-66A-71A	-	2	See CA_2A-2A Bandwidth combination set 3 in Table 5.6A.1-3						100	0
		7				Yes	Yes	Yes		
		66				Yes	Yes	Yes		
		71				Yes	Yes	Yes		
CA_2A-7A-66A-71A	-	2		80	0	Yes	Yes	Yes	80	0
		7				Yes	Yes	Yes		
		66				Yes	Yes	Yes		
		71				Yes	Yes	Yes		
CA_2A-12A-30A-66A	-	2			Yes	Yes	Yes	Yes	60	0
		12			Yes	Yes				
		30			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-12A-30A-66A-66A	-	2			Yes	Yes	Yes	Yes	80	0
		12			Yes	Yes				
		30			Yes	Yes				
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-13A-46A-66A	CA_2A-13A	2			Yes	Yes	Yes	Yes	70	0
		13			Yes	Yes				
		46						Yes		
		66			Yes	Yes	Yes	Yes		
CA_2A-13A-46C-66A	CA_2A-13A	2			Yes	Yes	Yes	Yes	90	0
		13			Yes	Yes				
		46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_2A-13A-46D-66A	CA_2A-13A	2			Yes	Yes	Yes	Yes	110	0
		13			Yes	Yes				
		46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_2A-13A-46A-66A-66A	-	2			Yes	Yes	Yes	Yes	90	0
		13			Yes	Yes				
		46						Yes		
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_2A-13A-46C-66A-66A	-	2			Yes	Yes	Yes	Yes	110	0
		13			Yes	Yes				
		46	See CA_46C Bandwidth combination set 0 in Table 5.6A.1-1							
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							
CA_2A-13A-46D-66A-66A	-	2			Yes	Yes	Yes	Yes	130	0
		13			Yes	Yes				
		46	See CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							
		66	See CA_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3							
	CA_2A-13A	2			Yes	Yes	Yes	Yes	70	0

CA_2A-13A-48A-66A	CA_2A-66A CA_2A-48A CA_48A-66A CA_13A-66A CA_13A-48A	13			Yes	Yes				
		48			Yes	Yes	Yes	Yes		
		66			Yes	Yes	Yes	Yes		
CA_2A-13A-48A-66A-66A	CA_2A-66A CA_2A-48A CA_48A-66A CA_13A-66A CA_13A-48A	2			Yes	Yes	Yes	Yes	90	0
		13			Yes	Yes				
		48			Yes	Yes	Yes	Yes		
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-13A-48C-66A	CA_2A-13A CA_2A-48A CA_2A-66A CA_13A-66A CA_13A-48A CA_48A-66A	2			Yes	Yes	Yes	Yes	90	0
		13			Yes	Yes				
		48	See CA_48C Bandwidth combination set 0 in the Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_2A-13A-48C-66A-66A	CA_2A-66A CA_2A-48A CA_48A-66A CA_13A-66A CA_13A-48A	2			Yes	Yes	Yes	Yes	110	0
		13			Yes	Yes				
		48	See CA_48C Bandwidth combination set 0 in the Table 5.6A.1-1							
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-13A-48D-66A	CA_2A-66A CA_2A-48A CA_48A-66A CA_13A-66A CA_13A-48A	2			Yes	Yes	Yes	Yes	110	0
		13			Yes	Yes				
		48	See CA_48D Bandwidth combination set 0 in the Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_2A-13A-48D-66A-66A	CA_2A-66A CA_2A-48A CA_48A-66A CA_13A-66A CA_13A-48A	2			Yes	Yes	Yes	Yes	130	0
		13			Yes	Yes				
		48	See CA_48D Bandwidth combination set 0 in the Table 5.6A.1-1							
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-13A-46E-66A	CA_2A-13A	2	Yes	Yes	Yes	Yes	Yes	Yes	130	0
		13			Yes	Yes				
		46	See the CA_46E Bandwidth combination set 0 in the Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_2A-13A-48A-48A-66A	CA_2A-13A CA_13A-66A	2			Yes	Yes	Yes	Yes	90	0
		13			Yes	Yes				
		48	See CA_48A-48A Bandwidth combination set 0 in the Table 5.6A.1-3							
		66			Yes	Yes	Yes	Yes		
CA_2A-14A-30A-66A	CA_2A-14A CA_14A-30A CA_14A-66A	2			Yes	Yes	Yes	Yes	60	0
		14			Yes	Yes				
		30			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-14A-30A-66A-66A	CA_2A-14A CA_14A-30A CA_14A-66A	2			Yes	Yes	Yes	Yes	80	0
		14			Yes	Yes				
		30			Yes	Yes				
		66	See CA_66A-66A Bandwidth Combination Set 0 in Table 5.6A.1-3							
CA_2A-29A-30A-66A	-	2			Yes	Yes	Yes	Yes	60	0
		29			Yes	Yes				
		30			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-2A-29A-30A-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3						80	0
		29			Yes	Yes				
		30			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-46A-48A-66A	CA_2A-48A CA_48A-66A	2			Yes	Yes	Yes	Yes	80	0
		46						Yes		
		48			Yes	Yes	Yes	Yes		
		66			Yes	Yes	Yes	Yes		
	CA_2A-48A	2			Yes	Yes	Yes	Yes	100	0

CA_2A-46A-48C-66A	CA_48A-66A	46						Yes		
		48	See the CA_48C Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_2A-46A-48D-66A	-	2			Yes	Yes	Yes	Yes	120	0
		46						Yes		
		48	See the CA_48D Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_2A-46C-48A-66A	CA_2A-48A CA_48A-66A	2			Yes	Yes	Yes	Yes	100	0
		46	See the CA_46C Bandwidth combination set 0 in Table 5.6A.1-1							
		48			Yes	Yes	Yes	Yes		
		66			Yes	Yes	Yes	Yes		
CA_2A-46C-48C-66A	CA_2A-48A CA_48A-66A	2			Yes	Yes	Yes	Yes	120	0
		46	See the CA_46C Bandwidth combination set 0 in Table 5.6A.1-1							
		48	See the CA_48C Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_2A-46C-48D-66A	-	2			Yes	Yes	Yes	Yes	140	0
		46	See the CA_46C Bandwidth combination set 0 in Table 5.6A.1-1							
		48	See the CA_48D Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_2A-46D-48A-66A	CA_2A-48A CA_48A-66A	2			Yes	Yes	Yes	Yes	120	0
		46	See the CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							
		48			Yes	Yes	Yes	Yes		
		66			Yes	Yes	Yes	Yes		
CA_2A-46D-48C-66A	CA_2A-48A CA_48A-66A	2			Yes	Yes	Yes	Yes	140	0
		46	See the CA_46D Bandwidth combination set 0 in Table 5.6A.1-1							
		48	See the CA_48C Bandwidth combination set 0 in Table 5.6A.1-1							
		66			Yes	Yes	Yes	Yes		
CA_2A-46E-48A-66A	CA_2A-48A CA_48A-66A	2			Yes	Yes	Yes	Yes	140	0
		46	See CA_46E Bandwidth combination set 0 in Table 5.6A.1-1							
		48			Yes	Yes	Yes	Yes		
		66			Yes	Yes	Yes	Yes		
CA_3A-5A-7A-28A	-	3			Yes	Yes	Yes	Yes	70	0
		5			Yes	Yes				
		7			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_3A-5A-7C-28A	-	3			Yes	Yes	Yes	Yes	90	0
		5			Yes	Yes				
		7	See CA_7C Bandwidth Combination Set 1 in Table 5.6A.1-1							
		28			Yes	Yes	Yes	Yes		
CA_3A-3A-5A-7A-28A	-	3	See CA_3A-3A Bandwidth Combination Set 0 in Table 5.6A.1-3						90	0
		5			Yes	Yes				
		7				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_3A-5A-7A-7A-28A	-	3	Yes	Yes	Yes	Yes	Yes	Yes	90	0
		5	Yes	Yes	Yes	Yes				
		7	See CA_7A-7A Bandwidth Combination Set 1 in Table 5.6A.1-3							
		28		Yes	Yes	Yes	Yes	Yes		
CA_3A-7A-8A-20A	-	3			Yes	Yes	Yes	Yes	70	0
		7				Yes	Yes	Yes		
		8			Yes	Yes				
		20			Yes	Yes	Yes	Yes		

CA_3A-7A-8A-28A	-	3	Yes	Yes	Yes	Yes	Yes	Yes	70	0
		7			Yes	Yes	Yes	Yes		
		8	Yes	Yes	Yes	Yes				
		28			Yes	Yes	Yes	Yes		
CA_3A-7A-8A-32A		3	Yes	Yes	Yes	Yes	Yes	Yes	70	0
		7			Yes	Yes	Yes	Yes		
		8	Yes	Yes	Yes	Yes				
		32			Yes	Yes	Yes	Yes		
CA_3A-7A-8A-38A[9]	CA_3A-8A	3			Yes	Yes	Yes	Yes	70	0
		7				Yes	Yes	Yes		
		8			Yes	Yes				
		38			Yes	Yes	Yes	Yes		
CA_3C-7A-8A-38A[1]	-	3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1						90	0
		7				Yes	Yes	Yes		
		8			Yes	Yes				
		38			Yes	Yes	Yes	Yes		
CA_3A-7A-8A-40A	-	3			Yes	Yes	Yes	Yes	70	0
		7				Yes	Yes	Yes		
		8			Yes	Yes				
		40			Yes	Yes	Yes	Yes		
CA_3A-7A-8A-40C	-	3			Yes	Yes	Yes	Yes	90	0
		7				Yes	Yes	Yes		
		8			Yes	Yes				
		40	See CA_40C Bandwidth combination set 1 in Table 5.6A.1-1							
CA_3A-7A-20A-28A[7]	-	3			Yes	Yes	Yes	Yes	80	0
		7				Yes	Yes	Yes		
		20				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_3C-7A-20A-28A[7]	-	3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1						100	0
		7				Yes	Yes	Yes		
		20				Yes	Yes	Yes		
		28				Yes	Yes	Yes		
CA_3A-7A-20A-32A	CA_3A-7A, CA_3A-20A, CA_7A-20A	3			Yes	Yes	Yes	Yes	80	0
		7				Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_3A-7A-20A-38A[14]	CA_3A-20A	3			Yes	Yes	Yes	Yes	80	0
		7				Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_3A-7A-20A-42A	-	3			Yes	Yes	Yes	Yes	80	0
		7				Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		
CA_3A-7A-28A-38A[9]	-	3			Yes	Yes	Yes	Yes	80	0
		7				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_3C-7A-28A-38A[9]	-	3	See CA_3C Bandwidth combination set 0 in Table 5.6A.1-1						100	0
		7				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_3A-7A-28A-40A	-	3			Yes	Yes	Yes	Yes	80	0
		7				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
		40			Yes	Yes	Yes	Yes		
CA_3A-7A-28A-40A-40A	-	3			Yes	Yes	Yes	Yes	100	0
		7			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		

		40	See CA_40A-40A Bandwidth Combination Set 1 in Table 5.6A.1-3							
CA_3A-7A-28A-40C	-	3			Yes	Yes	Yes	Yes	100	0
		7				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
		40	See CA_40C Bandwidth combination set 0 in Table 5.6A.1-1							
CA_3A-7A-32A-46A	-	3			Yes	Yes	Yes	Yes	80	0
		7				Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
		46						Yes		
CA_3A-7A-32A-46C	-	3			Yes	Yes	Yes	Yes	100	0
		7				Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
		46	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3A-7A-32A-46D	-	3			Yes	Yes	Yes	Yes	120	0
		7				Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
		46	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3A-7A-32A-46E	-	3			Yes	Yes	Yes	Yes	140	0
		7				Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
		46	See CA_46E of Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3A-8A-11A-28A	-	3			Yes	Yes	Yes	Yes	60	0
		8			Yes	Yes				
		11			Yes	Yes				
		28			Yes	Yes	Yes	Yes		
CA_3A-8A-20A-28A	-	3			Yes	Yes	Yes	Yes	70	0
		8			Yes	Yes				
		20				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_3A-8A-20A-38A	CA_3A-8A	3			Yes	Yes	Yes	Yes	70	0
		8			Yes	Yes				
		20			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_3A-8A-40A-41A	-	3	Yes	Yes	Yes	Yes	Yes	Yes	70	0
		8	Yes	Yes	Yes	Yes				
		40			Yes	Yes	Yes	Yes		
		41			Yes	Yes	Yes	Yes		
CA_3A-19A-21A-42A	-	3			Yes	Yes	Yes	Yes	70	0
		19			Yes	Yes	Yes			
		21			Yes	Yes	Yes			
		42			Yes	Yes	Yes	Yes		
CA_3A-19A-21A-42C	-	3			Yes	Yes	Yes	Yes	90	0
		19			Yes	Yes	Yes			
		21			Yes	Yes	Yes			
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3A-20A-28A-38A[7]	-	3			Yes	Yes	Yes	Yes	80	0
		20				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_3A-20A-32A-42A	-	3			Yes	Yes	Yes		60	0
		20			Yes					
		32			Yes	Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		
CA_3A-20A-32A-43A	-	3			Yes	Yes	Yes		60	0
		20			Yes					
		32			Yes	Yes	Yes	Yes		
		43			Yes	Yes	Yes	Yes		
CA_3A-21A-28A-42A	-	3			Yes	Yes	Yes	Yes	65	0
		21			Yes	Yes	Yes			

		28			Yes	Yes				
		42			Yes	Yes	Yes	Yes		
CA_3A-21A-28A-42C	-	3			Yes	Yes	Yes	Yes	85	0
		21			Yes	Yes	Yes			
		28			Yes	Yes				
		42	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1							
CA_3A-28A-41A-42A	CA_3A-41A, CA_41A-42A	3			Yes	Yes	Yes	Yes	70	0
		28			Yes	Yes				
		41				Yes	Yes	Yes		
		42				Yes	Yes	Yes		
CA_3A-28A-41A-42C	CA_42C	3			Yes	Yes	Yes	Yes	90	0
		28			Yes	Yes				
		41				Yes	Yes	Yes		
		42	See CA_42C Bandwidth combination set 1 in Table 5.6A.1-1							
CA_3A-28A-41C-42A	-	3			Yes	Yes	Yes	Yes	90	0
		28			Yes	Yes				
		41	See CA_41C Bandwidth Combination Set 0 in Table 5.6A.1-1							
		42				Yes	Yes	Yes		
CA_3A-28A-41C-42C	CA_42C	3			Yes	Yes	Yes	Yes	110	0
		28			Yes	Yes				
		41	See the CA_41C Bandwidth combination set 0 in Table 5.6A.1-1							
		42	See the CA_42C Bandwidth combination set 1 in Table 5.6A.1-1							
CA_3A-32A-42A-43A	-	3			Yes	Yes	Yes		75	0
		32			Yes	Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		
		43			Yes	Yes	Yes	Yes		
CA_7A-8A-20A-28A	-	7			Yes	Yes	Yes	Yes	70	0
		8	Yes	Yes	Yes	Yes				
		20			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_7A-8A-20A-32A	-	7			Yes	Yes	Yes	Yes	70	0
		8	Yes	Yes	Yes	Yes				
		20			Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_7A-8A-20A-38A[15]	-	7				Yes	Yes	Yes	60	0
		8			Yes	Yes				
		20			Yes	Yes				
		38			Yes	Yes	Yes	Yes		
CA_7A-8A-28A-32A	-	7			Yes	Yes	Yes	Yes	70	0
		8	Yes	Yes	Yes	Yes				
		28		Yes	Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_7A-8A-32A-38A[16]	-	7				Yes	Yes	Yes	70	0
		8			Yes	Yes				
		32			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_7A-20A-28A-32A	-	7			Yes	Yes	Yes	Yes	80	0
		20			Yes	Yes	Yes	Yes		
		28		Yes	Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_7A-20A-28A-38A[7,17]	-	7				Yes	Yes	Yes	80	0
		20				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_7A-20A-32A-38A[18]	-	7				Yes	Yes	Yes	80	0
		20			Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		

		38			Yes	Yes	Yes	Yes		
CA_7A-28A-32A-38A	-	7				Yes	Yes	Yes	80	0
		28			Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_8A-20A-28A-32A	-	8	Yes	Yes	Yes	Yes			70	0
		20			Yes	Yes	Yes	Yes		
		28		Yes	Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_8A-20A-32A-38A	-	8			Yes	Yes			70	0
		20			Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		

NOTE 1: The CA Configuration refers to a combination of an operating band and a CA bandwidth class specified in Table 5.6A-1 (the indexing letter). Absence of a CA bandwidth class for an operating band implies support of all classes.
NOTE 2: For each band combination, all combinations of indicated bandwidths belong to the set.
NOTE 3: For the supported CC bandwidth combinations, the CC downlink and uplink bandwidths are equal.
NOTE 4: A terminal which supports a DL CA configuration shall support all the lower order fallback DL CA combinations and it shall support at least one bandwidth combination set for each of the constituent lower order DL combinations containing all the bandwidths specified within each specific combination set of the upper order DL combination.
NOTE 5: Uplink CA configurations are the configurations supported by the present release of specifications.
NOTE 6: If the UE supports any uplink CA configuration for corresponding downlink CA configuration it shall support this uplink CA configuration.
NOTE 7: Power imbalance between downlink carriers on Band 20 and Band 28 is assumed to be within 6 dB.
NOTE 8: UL carrier is only supported on Band 1, Band 3 or Band 5 not Band 41 because the fall back mode 2DL/1UL CA_1A-41A has the limitation that UL carrier is only supported on Band 1.
NOTE 9: UL carrier shall be supported in Band 1, 3, 8 or 28 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 10: UL carrier shall be supported in Band 1 or 8 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 11: UL carrier shall be supported in Bands 1 and 20 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 12: UL carrier shall be supported in Bands 1 and 28 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 13: UL carrier shall be supported in Band 1 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 14: UL carrier shall be supported in Bands 3 and 20 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 15: UL carrier shall be supported in Bands 8 and 20 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 16: UL carrier shall be supported in Band 8 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 17: UL carrier shall be supported in Bands 20 and 28 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 18: UL carrier shall be supported in Band 20 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.

Table 5.6A.1-2c: E-UTRA CA configurations and bandwidth combination sets defined for inter-band CA (five bands)

E-UTRA CA configuration / Bandwidth combination set										
E-UTRA CA Configuration	**Uplink CA configurations (NOTE 5)**	**E-UTRA Bands**	**1.4 MHz**	**3 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Maximum aggregated bandwidth [MHz]**	**Bandwidth combination set**
CA_1A-3A-5A-7A-28A	-	1			Yes	Yes	Yes		85	0
		3			Yes	Yes	Yes	Yes		
		5			Yes	Yes				
		7				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		

CA_1A-3A-5A-7A-7A-28A	-	1			Yes	Yes	Yes	Yes	110	0
		3	Yes	Yes	Yes	Yes	Yes	Yes		
		5	Yes	Yes	Yes	Yes				
		7	See CA_7A-7A Bandwidth Combination Set 1 in Table 5.6A.1-3							
		28		Yes	Yes	Yes	Yes	Yes		
CA_1A-3A-7A-8A-20A	-	1			Yes	Yes	Yes	Yes	90	0
		3			Yes	Yes	Yes	Yes		
		7				Yes	Yes	Yes		
		8			Yes	Yes				
		20				Yes	Yes	Yes		
CA_1A-3A-7A-8A-28A	-	1			Yes	Yes	Yes	Yes	90	0
		3	Yes	Yes	Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
		8	Yes	Yes	Yes	Yes				
		28			Yes	Yes	Yes	Yes		
CA_1A-3A-7A-8A-32A	-	1			Yes	Yes	Yes	Yes	90	0
		3	Yes	Yes	Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
		8	Yes	Yes	Yes	Yes				
		32			Yes	Yes	Yes	Yes		
CA_1A-3A-7A-8A-38A[8]	CA_1A-3A CA_1A-8A CA_3A-8A	1			Yes	Yes	Yes	Yes	90	0
		3			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
		8			Yes	Yes				
		38			Yes	Yes	Yes	Yes		
CA_1A-3A-7A-8A-40A	-	1			Yes	Yes	Yes	Yes	90	0
		3			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
		8			Yes	Yes				
		40			Yes	Yes	Yes	Yes		
CA_1A-3A-7A-8A-40C	-	1			Yes	Yes	Yes	Yes	110	0
		3			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
		8			Yes	Yes				
		40	See CA_40C Bandwidth combination set 1 in Table 5.6A.1-1							
CA_1A-3A-7A-20A-28A[7]	-	1			Yes	Yes	Yes	Yes	100	0
		3			Yes	Yes	Yes	Yes		
		7				Yes	Yes	Yes		
		20				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_1A-3A-7A-20A-32A	-	1			Yes	Yes	Yes	Yes	100	0
		3			Yes	Yes	Yes	Yes		
		7				Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_1A-3A-7A-20A-38A[9]	CA_1A-3A CA_1A-20A CA_3A-20A	1			Yes	Yes	Yes	Yes	100	0
		3			Yes	Yes	Yes	Yes		
		7				Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-3A-7A-20A-42A	-	1			Yes	Yes	Yes	Yes	100	0
		3			Yes	Yes	Yes	Yes		
		7				Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		
CA_1A-3A-7A-28A-38A[10]	CA_1A-3A-7A-28A-38A[10]	1			Yes	Yes	Yes	Yes	100	0
		3			Yes	Yes	Yes	Yes		
		7				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		

		38			Yes	Yes	Yes	Yes		
CA_1A-3A-7A-28A-40A	-	1			Yes	Yes	Yes	Yes	100	0
		3			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
		40			Yes	Yes	Yes	Yes		
CA_1A-3A-8A-11A-28A	-	1			Yes	Yes	Yes	Yes	80	0
		3			Yes	Yes	Yes	Yes		
		8			Yes	Yes				
		11			Yes	Yes				
		28			Yes	Yes	Yes	Yes		
CA_1A-3A-8A-20A-28A	-	1			Yes	Yes	Yes	Yes	90	0
		3	Yes	Yes	Yes	Yes	Yes	Yes		
		8	Yes	Yes	Yes	Yes				
		20			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_1A-3A-8A-20A-38A	CA_1A-3A CA_1A-8A CA_3A-8A	1			Yes	Yes	Yes	Yes	90	0
		3			Yes	Yes	Yes	Yes		
		8			Yes	Yes				
		20			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-3A-20A-28A-38A[7]	-	1			Yes	Yes	Yes	Yes	100	0
		3			Yes	Yes	Yes	Yes		
		20				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-3A-20A-32A-42A	-	1			Yes	Yes	Yes		75	0
		3			Yes	Yes	Yes			
		20			Yes					
		32			Yes	Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		
CA_1A-3A-20A-32A-43A	-	1			Yes	Yes	Yes		75	0
		3			Yes	Yes	Yes			
		20			Yes					
		32			Yes	Yes	Yes	Yes		
		43			Yes	Yes	Yes	Yes		
CA_1A-3A-32A-42A-43A	-	1			Yes	Yes	Yes		90	0
		3			Yes	Yes	Yes			
		32			Yes	Yes	Yes	Yes		
		42			Yes	Yes	Yes	Yes		
		43			Yes	Yes	Yes	Yes		
CA_1A-7A-8A-20A-28A	-	1			Yes	Yes	Yes	Yes	90	0
		7			Yes	Yes	Yes	Yes		
		8	Yes	Yes	Yes	Yes				
		20			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_1A-7A-8A-20A-32A	-	1			Yes	Yes	Yes	Yes	90	0
		7			Yes	Yes	Yes	Yes		
		8	Yes	Yes	Yes	Yes				
		20			Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_1A-7A-8A-20A-38A[11]	-	1			Yes	Yes	Yes	Yes	90	0
		7				Yes	Yes	Yes		
		8			Yes	Yes				
		20				Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-7A-8A-28A-32A	-	1			Yes	Yes	Yes	Yes	90	0
		7			Yes	Yes	Yes	Yes		
		8	Yes	Yes	Yes	Yes				
		28		Yes	Yes	Yes	Yes	Yes		

		32			Yes	Yes	Yes	Yes		
CA_1A-7A-8A-32A-38A[12]	-	1			Yes	Yes	Yes	Yes	90	0
		7			Yes	Yes	Yes	Yes		
		8	Yes	Yes	Yes	Yes				
		32			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-7A-20A-28A-32A	-	1			Yes	Yes	Yes	Yes	100	0
		7			Yes	Yes	Yes	Yes		
		20			Yes	Yes	Yes	Yes		
		28		Yes	Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_1A-7A-20A-28A-38A[7,13]	-	1			Yes	Yes	Yes	Yes	100	0
		7				Yes	Yes	Yes		
		20				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-7A-20A-32A-38A[14]	-	1			Yes	Yes	Yes	Yes	90	0
		7				Yes	Yes	Yes		
		20			Yes	Yes				
		32			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-8A-20A-32A-38A	-	1			Yes	Yes	Yes	Yes	90	0
		8			Yes	Yes				
		20			Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_3A-7A-8A-20A-28A	-	3	Yes	Yes	Yes	Yes	Yes	Yes	90	0
		7			Yes	Yes	Yes	Yes		
		8	Yes	Yes	Yes	Yes				
		20			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_3A-7A-8A-20A-38A[15]	-	3			Yes	Yes	Yes	Yes	90	0
		7				Yes	Yes	Yes		
		8			Yes	Yes				
		20			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_3A-7A-20A-28A-38A[7,16]	-	3			Yes	Yes	Yes	Yes	100	0
		7				Yes	Yes	Yes		
		20				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_7A-8A-20A-28A-32A	-	7			Yes	Yes	Yes	Yes	90	0
		8	Yes	Yes	Yes	Yes				
		20			Yes	Yes	Yes	Yes		
		28		Yes	Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
CA_7A-8A-20A-32A-38A[17]	-	7			Yes	Yes	Yes	Yes	90	0
		8	Yes	Yes	Yes	Yes				
		20			Yes	Yes	Yes	Yes		
		32			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		

NOTE 1: The CA Configuration refers to a combination of an operating band and a CA bandwidth class specified in Table 5.6A-1 (the indexing letter). Absence of a CA bandwidth class for an operating band implies support of all classes.

NOTE 2: For each band combination, all combinations of indicated bandwidths belong to the set.

NOTE 3: For the supported CC bandwidth combinations, the CC downlink and uplink bandwidths are equal.

NOTE 4: A terminal which supports a DL CA configuration shall support all the lower order fallback DL CA combinations and it shall support at least one bandwidth combination set for each of the constituent lower order DL

combinations containing all the bandwidths specified within each specific combination set of the upper order DL combination.
NOTE 5: Uplink CA configurations are the configurations supported by the present release of specifications.
NOTE 6: If the UE supports uplink CA for corresponding downlink CA it shall support this uplink CA configuration.
NOTE 7: Power imbalance between downlink carriers on Band 20 and Band 28 is assumed to be within 6 dB.
NOTE 8: UL carrier shall be supported in Band 1, 3 or 8 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 9: UL carrier shall be supported in Band 1, 3 or 20 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 10: UL carrier shall be supported in Band 1, 3, 8 or 28 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 11: UL carrier shall be supported in Bands 1, 8 and 20 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 12: UL carrier shall be supported in Band 1 or 8 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 13: UL carrier shall be supported in Bands 1, 20 and 28 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 14: UL carrier shall be supported in Band 1 or 20 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 15: UL carrier shall be supported in Bands 3, 8 and 20 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 16: UL carrier shall be supported in Bands 3, 20 and 28 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 17: UL carrier shall be supported in Band 8 or 20 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.

Table 5.6A.1-2d: E-UTRA CA configurations and bandwidth combination sets defined for inter-band CA (six bands)

E-UTRA CA configuration / Bandwidth combination set										
E-UTRA CA Configuration	**Uplink CA configurations (NOTE 5)**	**E-UTRA Bands**	**1.4 MHz**	**3 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Maximum aggregated bandwidth [MHz]**	**Bandwidth combination set**
CA_1A-3A-7A-8A-20A-28A	-	1			Yes	Yes	Yes	Yes	110	0
		3	Yes	Yes	Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
		8	Yes	Yes	Yes	Yes				
		20			Yes	Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
CA_1A-3A-7A-20A-28A-38A[1,2]	-	1			Yes	Yes	Yes	Yes	120	0
		3			Yes	Yes	Yes	Yes		
		7				Yes	Yes	Yes		
		20				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-3A-7C-20A-28A-38A[1,2]	-	1			Yes	Yes	Yes	Yes	140	0
		3			Yes	Yes	Yes	Yes		
		7	See CA_7C Bandwidth combination set 1 in Table 5.6A.1-1							
		20				Yes	Yes	Yes		
		28			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		
CA_1A-7A-8A-20A-28A-32A	-	1			Yes	Yes	Yes	Yes	110	0
		7			Yes	Yes	Yes	Yes		
		8	Yes	Yes	Yes	Yes				
		20			Yes	Yes	Yes	Yes		
		28		Yes	Yes	Yes	Yes	Yes		

		32			Yes	Yes	Yes	Yes		
CA_1A-7A-8A-20A-32A-38A[3]	-	1			Yes	Yes	Yes	Yes	100	0
		7				Yes	Yes	Yes		
		8			Yes	Yes				
		20				Yes				
		32			Yes	Yes	Yes	Yes		
		38			Yes	Yes	Yes	Yes		

NOTE 1: Power imbalance between downlink carriers on Band 20 and Band 28 is assumed to be within 6 dB.
NOTE 2: UL carrier shall be supported in Bands 1, 3, 20 and 28 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.
NOTE 3: UL carrier shall be supported in Band 1, 8 or 20 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6 dB.

Table 5.6A.1-3: E-UTRA CA configurations and bandwidth combination sets defined for non-contiguous intra-band CA (with two sub-blocks)

		E-UTRA CA configuration / Bandwidth combination set						
		Component carriers in order of increasing carrier frequency						
E-UTRACA configuration	Uplink CA configurations (NOTE 1)	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Maximum aggregated bandwidth [MHz]	Bandwidth combination set
CA_1A-1A	-	5, 10, 15, 20	5, 10, 15, 20				40	0
CA_2A-2A	-	5, 10, 15, 20	5, 10, 15, 20				40	0
CA_3A-3A	-	5, 10, 15, 20	5, 10, 15, 20				40	0
		5, 10	5, 10, 15, 20				30	1
		5	3				10	2
		3, 5	5					
CA_4A-4A	CA_4A-4A	5, 10, 15, 20	5, 10, 15, 20				40	0
		5, 10	5, 10				20	1
CA_5A-5A	-	5,10	5,10				20	0
		3	5				8	1
CA_7A-7A	-	5	15				40	0
		10	10, 15					
		15	15, 20					
		20	20					
		5, 10, 15, 20	5, 10, 15, 20				40	1
		5, 10, 15, 20	5, 10				30	2
		10, 15, 20	10, 15, 20				40	3
CA_12A-12A	-	5	5				10	0

CA_23A-23A	-	5	10				15	0
CA_25A-25A	-	5, 10	5, 10				20	0
		5, 10, 15, 20	5, 10, 15, 20				40	1
CA_40A-40A	-	10, 20	10, 20				40	0
		10,15,20	10,15,20				40	1
CA_40A-40C	CA_40C	20	See CA_40C Bandwidth Combination Set 1 in Table 5.6A.1-1				60	0
		See CA_40C Bandwidth Combination Set 1 in Table 5.6A.1-1		20				
CA_40C-40C	CA_40C	See CA_40C Bandwidth Combination Set 1 in Table 5.6A.1-1		See CA_40C Bandwidth Combination Set 1 in Table 5.6A.1-1			80	0
CA_41A-41A	-	10, 15, 20	10, 15, 20				40	0
		5, 10, 15, 20	5, 10, 15, 20				40	1
CA_41A-41C	CA_41C	5, 10, 15, 20	See CA_41C Bandwidth Combination Set 1 in Table 5.6A.1-1				60	0
		See CA_41C Bandwidth Combination Set 1 in Table 5.6A.1-1		5, 10, 15, 20				
CA_41A-41D	CA_41C	5, 10, 15, 20	See CA_41D Bandwidth Combination Set 0 in Table 5.6A.1-1				80	0
		See CA_41D Bandwidth Combination Set 0 in Table 5.6A.1-1			5, 10, 15, 20			
CA_41C-41C	CA_41C	See CA_41C Bandwidth Combination Set 0 in Table 5.6A.1-1		See CA_41C Bandwidth Combination Set 0 in Table 5.6A.1-1			80	0
CA_41C-41D	CA_41C	See CA_41C Bandwidth Combination Set 0 in Table 5.6A.1-1		See CA_41D Bandwidth Combination Set 0 in Table 5.6A.1-1			100	0
		See CA_41D Bandwidth Combination Set 0 in Table 5.6A.1-1			See CA_41C Bandwidth Combination Set 0 in Table 5.6A.1-1			
CA_42A-42A	-	5, 10, 15, 20	5, 10, 15, 20				40	0
		10, 15, 20	10, 15, 20				40	1
CA_42A-42C	CA_42C	5, 10, 15, 20	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1				60	0
		See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1		5, 10, 15, 20				
		10, 15, 20	See CA_42C Bandwidth Combination Set 1 in Table 5.6A.1-1				60	1
		See CA_42C Bandwidth		10, 15, 20				

		Combination Set 1 in Table 5.6A.1-1						
CA_42A-42D	-	5, 10, 15, 20	See CA_42D Bandwidth Combination Set 0 in Table 5.6A.1-1				80	0
		See CA_42D Bandwidth Combination Set 0 in Table 5.6A.1-1			5, 10, 15, 20			
CA_42C-42C	CA_42C	See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1		See CA_42C Bandwidth Combination Set 0 in Table 5.6A.1-1			80	0
		See CA_42C Bandwidth Combination Set 1 in Table 5.6A.1-1		See CA_42C Bandwidth Combination Set 1 in Table 5.6A.1-1			80	1
CA_43A-43A	-	5, 10, 15, 20	5, 10, 15, 20				40	0
CA_46A-46A[2]	-	20	20				40	0
CA_46A-46C[2]	-	20	See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1				60	0
		See CA_46C Bandwidth Combination Set 0 in Table 5.6A.1-1		20				
CA_46A-46D[2]	-	20	See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1				80	0
		See CA_46D Bandwidth Combination Set 0 in Table 5.6A.1-1			20			
CA_48A-48A	-	5, 10, 15, 20	5, 10, 15, 20				40	0
CA_48A-48C	-	5, 10, 15, 20	See CA_48C Bandwidth Combination Set 0 in Table 5.6A.1-1				60	0
		See CA_48C Bandwidth Combination Set 0 in Table 5.6A.1-1		5, 10, 15, 20				
CA_48A-48D	-	5, 10, 15, 20	See CA_48D Bandwidth Combination Set 0 in Table 5.6A.1-1				80	0
		See CA_48D Bandwidth Combination Set 0 in Table 5.6A.1-1			5, 10, 15, 20			
CA_48C-48C	CA_48C	See CA_48C Bandwidth Combination Set 0 in Table 5.6A.1-1		See CA_48C Bandwidth Combination Set 0 in Table 5.6A.1-1			80	0
CA_48C-48D	-	See CA_48C Bandwidth Combination Set 0 in Table 5.6A.1-1		See CA_48D Bandwidth Combination Set 0 in Table 5.6A.1-1			100	0
		See CA_48D Bandwidth Combination Set 0 in Table 5.6A.1-1			See CA_48C Bandwidth Combination Set 0 in Table 5.6A.1-1			
CA_48A-48E	-	5, 10, 15, 20	See CA_48E Bandwidth Combination Set 0 in Table 5.6A.1-1				100	0
		See CA_48E Bandwidth Combination Set 0 in Table 5.6A.1-1				5, 10, 15, 20		

CA_66A-66A	-	5, 10, 15, 20	5, 10, 15, 20				40	0
CA_66A-66B	-	5, 10, 15, 20	See CA_66B Bandwidth Combination Set 0 in Table 5.6A.1-1				40	0
		See CA_66B Bandwidth Combination Set 0 in Table 5.6A.1-1		5, 10, 15, 20				
CA_66A-66C	-	5, 10, 15, 20	See CA_66C Bandwidth Combination Set 0 in Table 5.6A.1-1				60	0
		See CA_66C Bandwidth Combination Set 0 in Table 5.6A.1-1		5, 10, 15, 20				

NOTE 1: Uplink CA configurations are the configurations supported by the present release of specifications.
NOTE 2: Restricted to E-UTRA operation when inter-band carrier aggregation is configured. The downlink operating band is paired with the uplink operating band (external) of the carrier aggregation configuration that is supporting the configured Pcell.

Table 5.6A.1-4: E-UTRA CA configurations and bandwidth combination sets defined for non-contiguous intra-band CA (with three sub-blocks)

		E-UTRA CA configuration / Bandwidth combination set						
E-UTRACA configuration	Uplink CA configurations (NOTE 1)	Component carriers in order of increasing carrier frequency					Maximum aggregated bandwidth [MHz]	Bandwidth combination set
		Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]		
CA_25A-25A-25A	-	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20			60	0
CA_41A-41A-41A	-	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20			60	0
CA_41A-41A-41C	CA_41C	5, 10, 15, 20	5, 10, 15, 20	See CA_41C Bandwidth Combination Set 1 in Table 5.6A.1-1			80	0
		5, 10, 15, 20	See CA_41C Bandwidth Combination Set 1 in Table 5.6A.1-1		5, 10, 15, 20			
		See CA_41C Bandwidth Combination Set 1 in Table 5.6A.1-1		5, 10, 15, 20	5, 10, 15, 20			
CA_46A-46A-46A	-	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20			60	0
CA_48A-48A-48A	-	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20			60	0
CA_66A-66A-66A	-	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20			60	0

Table 5.6A.1-5: E-UTRA CA configurations and bandwidth combination sets defined for non-contiguous intra-band CA (with four sub-blocks)

		E-UTRA CA configuration / Bandwidth combination set						
E-UTRACA configuration	Uplink CA configurations (NOTE 1)	Component carriers in order of increasing carrier frequency					Maximum aggregated bandwidth [MHz]	Bandwidth combination set
		Channel bandwidths	Channel bandwidths	Channel bandwidths	Channel bandwidths	Channel bandwidths		

		for carrier [MHz]	for carrier [MHz]	for carrier [MHz]	for carrier [MHz]	for carrier [MHz]		
CA_48A-48A-48A-48A	-	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		80	0

5.6B Channel bandwidth for UL-MIMO

The requirements specified in subclause 5.6 are applicable to UE supporting UL-MIMO.

5.6C Channel bandwidth for Dual Connectivity

For E-UTRA DC bands specified in 5.5C, the corresponding E-UTRA CA configurations in 5.6A.1, i.e., dual uplink inter-band carrier aggregation with uplink assigned to two E-UTRA bands, are applicable to Dual Connectivity.

NOTE 1: Requirements for the dual connectivity configurations are defined in the section corresponding E-UTRA uplink CA configurations, unless otherwise specified.

NOTE 2: For TDD inter-band dual connectivity configurations, requirements are applicable only for synchronous operation.

5.6D Channel bandwidth for ProSe

5.6D.1 Channel bandwidths per operating band for ProSe

The ProSe combination of channel bandwidths and operating bands is shown in Table 5.6D.1-1 and Table 5.6D.1-2. The transmission bandwidth configuration in Table 5.6D.1-1 and Table 5.6D.1-2 shall be supported for each of the specified channel bandwidths. The same (symmetrical) channel bandwidth is specified for both the TX and RX path.

Table 5.6D.1-1 ProSe Direct Discovery channel bandwidth

E-UTRA ProSe band / ProSe channel bandwidth						
E-UTRA ProSe Band	**1.4 MHz**	**3 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
2			Yes	Yes	Yes	Yes
3			Yes	Yes	Yes	Yes
4			Yes	Yes	Yes	Yes
7			Yes	Yes	Yes	Yes
14			Yes	Yes		
20			Yes	Yes	Yes	Yes
26			Yes	Yes	Yes	
28			Yes	Yes	Yes	Yes
31			Yes			
41			Yes	Yes	Yes	Yes
68			Yes	Yes	Yes	
72			Yes			

Table 5.6D.1-2 ProSe Direct Communication channel bandwidth

E-UTRA ProSe band / ProSe channel bandwidth						
E-UTRA ProSe Band	**1.4 MHz**	**3 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
3				Yes		
7				Yes		
14				Yes		
20				Yes		
26				Yes		
28				Yes		
31			Yes			
68			Yes	Yes		

72			Yes			

5.6F Channel bandwidth for category NB1 and NB2

Channel bandwidth for Category NB1 and NB2 is 200 kHz.

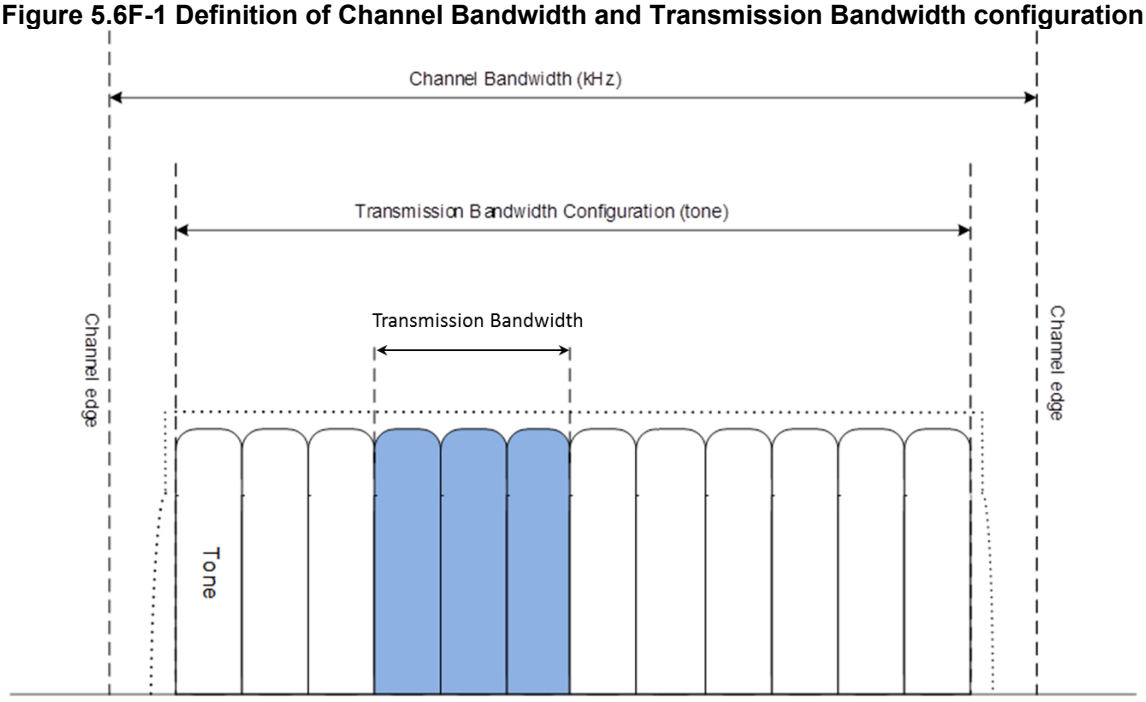
For category NB1 and NB2, requirements in present document are specified for the channel bandwidth listed in Table 5.6F-1.

Table 5.6F-1: Transmission bandwidth configuration N_{RB}, $N_{tone\ 15kHz}$ and $N_{tone\ 3.75kHz}$ in NB1 and NB2 channel bandwidth

Channel bandwidth $BW_{Channel}$ [kHz]	**200**
Transmission bandwidth configuration N_{RB}	1
Transmission bandwidth configuration $N_{tone\ 15kHz}$	12
Transmission bandwidth configuration $N_{tone\ 3.75kHz}$	48

Figure 5.6F-1 shows the relation between the Category NB1/NB2 channel bandwidth ($BW_{Channel}$) and the Category NB1 /NB2 transmission bandwidth configuration (N_{tone}). The channel edges are defined as the lowest and highest frequencies of the carrier separated by the channel bandwidth, i.e. at F_C +/- $BW_{Channel}$ /2.

Figure 5.6F-1 Definition of Channel Bandwidth and Transmission Bandwidth configuration



5.6G Channel bandwidth for V2X Communication

5.6G.1 Channel bandwidths per operating band for V2X Communication

E-UTRA V2X Communication channel bandwidths and operating band is shown in Table 5.6G.1-1. The same (symmetrical) channel bandwidth is specified for both the TX and RX path.

Table 5.6G.1-1: V2X Communication channel bandwidth

E-UTRA V2X band / V2X channel bandwidth						
E-UTRA V2X Operating Band	**1.4 MHz**	**3 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
47				Yes		Yes

For V2X inter-band con-current operation, the V2X Communication channel bandwidths for each operating band is specified in Table 5.6G.1-2.

Table 5.6G.1-2: Inter-band con-current V2X configurations and bandwidth combination sets

Inter-band con-current V2X configuration	Inter-band con-current V2X configuration for TX	E-UTRA or V2X operating Bands	1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Maximum bandwidth [MHz]	Bandwidth combination set
V2X_3A-47A	V2X_3A-47A	3	Yes	Yes	Yes	Yes	Yes	Yes	40	0
		47				Yes		Yes		
V2X_3A-47B	V2X_3A-47A, V2X_47B	3	Yes	Yes	Yes	Yes	Yes	Yes	40	0
		47	See V2X_47B Bandwidth combination set 0 in Table 5.6G.1-4							
V2X_5A-47A	V2X_5A-47A	5			Yes	Yes			30	0
		47				Yes		Yes		
V2X_5A-47B	V2X_5A-47A, V2X_47B	5	Yes	Yes	Yes	Yes	Yes	Yes	40	0
		47	See V2X_47B Bandwidth combination set 0 in Table 5.6G.1-4							
V2X_7A_47A	V2X_7A_47A	7			Yes	Yes	Yes	Yes	40	0
		47				Yes		Yes		
V2X_7A-47B	V2X_7A-47A, V2X_47B	7			Yes	Yes	Yes	Yes	40	0
		47	See V2X_47B Bandwidth combination set 0 in Table 5.6G.1-4							
V2X_8A-47A	V2X_8A-47A	8	Yes	Yes	Yes	Yes			30	0
		47				Yes		Yes		
V2X_8A-47B	V2X_8A-47A, V2X_47B	8	Yes	Yes	Yes	Yes			40	0
		47	See V2X_47B Bandwidth combination set 0 in Table 5.6G.1-4							
V2X_20A-47A	V2X_20A-47A	20			Yes	Yes	Yes	Yes	40	0
		47				Yes		Yes		
V2X_20A-47B	V2X_20A-47A, V2X_47B	20			Yes	Yes	Yes	Yes	40	0
		47	See V2X_47B Bandwidth combination set 0 in Table 5.6G.1-4							
V2X_28A-47A		28		Yes	Yes	Yes	Yes	Yes	40	0
		47				Yes		Yes		
V2X_34A-47A	V2X_34A-47A	34			Yes	Yes	Yes		35	0
		47				Yes		Yes		
V2X_34A-47B	V2X_34A-47A, V2X_47B	34			Yes	Yes	Yes		40	0
		47	See V2X_47B Bandwidth combination set 0 in Table 5.6G.1-4							
V2X_39A-47A	V2X_39A-47A	39			Yes	Yes	Yes	Yes	40	0
		47				Yes		Yes		
V2X_39A-47B	V2X_39A-47A, V2X_47B	39			Yes	Yes	Yes	Yes	40	0
		47	See V2X_47B Bandwidth combination set 0 in Table 5.6G.1-4							
V2X_39A-47C	V2X_39A-47A, V2X_47C	39			Yes	Yes	Yes	Yes	50	0
		47	See V2X_47C Bandwidth combination set 0 in Table 5.6G.1-4							
	V2X_41A-47	41			Yes	Yes	Yes	Yes	40	0

V2X_41A-47A		47				Yes		Yes		
V2X_41A-47B	V2X_41A-47A, V2X_47B	41			Yes	Yes	Yes	Yes	40	0
		47	See V2X_47B Bandwidth combination set 0 in Table 5.6G.1-4							
V2X_41A-47C	V2X_41A-47A, V2X_47C	41			Yes	Yes	Yes	Yes	50	0
		47	See V2X_47C Bandwidth combination set 0 in Table 5.6G.1-4							
V2X_71A-47A		71			Yes	Yes	Yes	Yes	40	0
		47				Yes		Yes		

V2X Bandwidth Class is specified in Table 5.6G.1-3 for V2X intra-band contiguous multi-carrier operation.

Table 5.6G.1-3: V2X bandwidth classes and corresponding nominal guard bands

V2X Bandwidth Class	Aggregated Transmission Bandwidth Configuration	Number of contiguous CC	Nominal Guard Band BW_{GB}
A	$N_{RB,agg} \le 100$	1	$0.05BW_{Channel(1)} - 0.5\Delta f_1$
B	$25 < N_{RB,agg} \le 100$	2	$0.05\ max(BW_{Channel(1)},BW_{Channel(2)}) - 0.5\Delta f_1$
C	$100 < N_{RB,agg} \le 200$	2	$0.05\ max(BW_{Channel(1)},BW_{Channel(2)}) - 0.5\Delta f_1$
C_1	$100 < N_{RB,agg} \le 200$	3	$0.05\ max(BW_{Channel(1)},BW_{Channel(2)}) - 0.5\Delta f_1$
D	$200 < N_{RB,agg} \le 300$	3	NOTE 3
E	$300 < N_{RB,agg} \le 400$	4	NOTE 3
F	$400 < N_{RB,agg} \le 500$	5	NOTE 3
I	$700 < N_{RB,agg} \le 800$	8	NOTE 3
NOTE 1: $BW_{Channel(j)}$, j = 1, 2, 3, 4 is the channel bandwidth of an E-UTRA component carrier according to Table 5.6-1 and $\Delta f_1 = \Delta f$ for the downlink with Δf the subcarrier spacing while $\Delta f_1 = 0$ for the uplink. NOTE 2: Void. NOTE 3: Applicable for later releases.			

For V2X intra-band multi-carrier operation, the V2X communication channel bandwidths for each operating band is specified in Table 5.6G.1-4.

Table 5.6G.1-4: V2X intra-band multi-carrier configurations

		V2X multi-carrier configuration / Bandwidth combination set						
V2X intra-band multi-carrier configuration	V2X intra-band multi-carrier configuration for TX	Component carriers in order of increasing carrier frequency					Maximum aggregated bandwidth [MHz]	Bandwidth combination set
		Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]		
V2X_47B	V2X_47B	10	10				20	0
V2X_47C	V2X_47C	10	20				30	0
		20	10					
V2X_47C1	V2X_47B	10	10	10			30	0

1.1.3 信道安排

UE信道间隔、信道光栅、信道编号和TX-RX频率间隔分别在TS 36.101-1 [1]中的第5.7.1、5.7.2、5.7.3和5.7.4节定义。

5.7.1 Channel spacing

The spacing between carriers will depend on the deployment scenario, the size of the frequency block available and the channel bandwidths. The nominal channel spacing between two adjacent E-UTRA carriers is defined as following:

$$\text{Nominal Channel spacing} = (BW_{Channel(1)} + BW_{Channel(2)})/2$$

where $BW_{Channel(1)}$ and $BW_{Channel(2)}$ are the channel bandwidths of the two respective E-UTRA carriers. The channel spacing can be adjusted to optimize performance in a particular deployment scenario.

5.7.2 Channel raster

The channel raster is 100 kHz for all bands, which means that the carrier centre frequency must be an integer multiple of 100 kHz.

5.7.3 Carrier frequency and EARFCN

The carrier frequency in the uplink and downlink is designated by the E-UTRA Absolute Radio Frequency Channel Number (EARFCN) in the range 0 – 262143. The relation between EARFCN and the carrier frequency in MHz for the downlink is given by the following equation, where F_{DL_low} and $N_{Offs\text{-}DL}$ are given in Table 5.7.3-1 and N_{DL} is the downlink EARFCN.

$$F_{DL} = F_{DL_low} + 0.1(N_{DL} – N_{Offs\text{-}DL})$$

The relation between EARFCN and the carrier frequency in MHz for the uplink is given by the following equation where F_{UL_low} and $N_{Offs\text{-}UL}$ are given in Table 5.7.3-1 and N_{UL} is the uplink EARFCN.

$$F_{UL} = F_{UL_low} + 0.1(N_{UL} – N_{Offs\text{-}UL})$$

Table 5.7.3-1: E-UTRA channel numbers

E-UTRA Operating Band	Downlink			Uplink		
	F_{DL_low} (MHz)	$N_{Offs\text{-}DL}$	Range of N_{DL}	F_{UL_low} (MHz)	$N_{Offs\text{-}UL}$	Range of N_{UL}
1	2 110	0	0 – 599	1 920	18000	18000 – 18599
2	1 930	600	600 – 1199	1 850	18600	18600 – 19199
3	1 805	1 200	1200 – 1949	1 710	19200	19200 – 19949
4	2 110	1 950	1950 – 2399	1 710	19950	19950 – 20399
5	869	2 400	2400 – 2649	824	20400	20400 – 20649
6	875	2 650	2650 – 2749	830	20650	20650 – 20749
7	2 620	2 750	2750 – 3449	2 500	20750	20750 – 21449
8	925	3 450	3450 – 3799	880	21450	21450 – 21799
9	1 844.9	3 800	3800 – 4149	1 749.9	21800	21800 – 22149
10	2 110	4 150	4150 – 4749	1 710	22150	22150 – 22749
11	1 475.9	4 750	4750 – 4949	1 427.9	22750	22750 – 22949
12	729	5 010	5010 – 5179	699	23010	23010 – 23179
13	746	5 180	5180 – 5279	777	23180	23180 – 23279
14	758	5 280	5280 – 5379	788	23280	23280 – 23379
…						
17	734	5 730	5730 – 5849	704	23730	23730 – 23849
18	860	5 850	5850 – 5999	815	23850	23850 – 23999
19	875	6 000	6000 – 6149	830	24000	24000 – 24149
20	791	6 150	6150 – 6449	832	24150	24150 – 24449
21	1 495.9	6 450	6450 – 6599	1 447.9	24450	24450 – 24599
22	3 510	6 600	6600 – 7399	3 410	24600	24600 – 25399
23	2 180	7 500	7500 – 7699	2 000	25500	25500 – 25699
24	1 525	7 700	7700 – 8039	1 626.5	25700	25700 – 26039
25	1 930	8 040	8040 – 8689	1 850	26040	26040 – 26689
26	859	8 690	8690 – 9039	814	26690	26690 – 27039
27	852	9 040	9040 – 9209	807	27040	27040 – 27209
28	758	9 210	9210 – 9659	703	27210	27210 – 27659
29[2]	717	9 660	9660 – 9769	N/A		
30	2 350	9 770	9770 – 9869	2305	27660	27660 – 27759
31	462.5	9 870	9870 – 9919	452.5	27760	27760 – 27809

32[2]	1 452	9 920	9920 – 10359	N/A		
33	1 900	36 000	36000 – 36199	1 900	36000	36000 – 36199
34	2 010	36 200	36200 – 36349	2 010	36200	36200 – 36349
35	1 850	36 350	36350 – 36949	1 850	36350	36350 – 36949
36	1 930	36 950	36950 – 37549	1 930	36950	36950 – 37549
37	1 910	37 550	37550 – 37749	1 910	37550	37550 – 37749
38	2 570	37 750	37750 – 38249	2 570	37750	37750 – 38249
39	1 880	38 250	38250 – 38649	1 880	38250	38250 – 38649
40	2 300	38 650	38650 – 39649	2 300	38650	38650 – 39649
41	2 496	39 650	39650 –41589	2 496	39650	39650 –41589
42	3 400	41 590	41590 – 43589	3 400	41590	41590 – 43589
43	3 600	43 590	43590 – 45589	3 600	43590	43590 – 45589
44	703	45 590	45590 – 46589	703	45590	45590 – 46589
45	1 447	46 590	46590 – 46789	1 447	46590	46590 – 46789
46	5 150	46 790	46790 – 54539	5 150	46790	46790 – 54539
47	5 855	54 540	54540 - 55239	5 855	54540	54540 – 55239
48	3 550	55 240	55240 – 56739	3 550	55240	55240 – 56739
49	3 550	56 740	56740 – 58239	3 550	56740	56740 – 58239
50	1 432	58 240	58240 - 59089	1 432	58240	58240 - 59089
51	1 427	59 090	59090 - 59139	1 427	59090	59090 - 59139
52	3 300	59 140	59140 - 60139	3 300	59140	59140 - 60139
53	2 483.5	60 140	60140 - 60254	2 483.5	60140	60140 - 60254
…						
64	Reserved					
65	2 110	65 536	65536 – 66435	1 920	131072	131072 – 131971
66[5]	2 110	66 436	66436 – 67335	1 710	131972	131972 – 132671
67[2]	738	67 336	67336 – 67535	N/A		
68	753	67 536	67536 - 67835	698	132672	132672 - 132971
69[2]	2 570	67 836	67836 - 68335	N/A		
70[6]	1 995	68 336	68336 - 68585	1 695	132972	132972 - 133121
71	617	68 586	68586 - 68935	663	133122	133122 - 133471
72	461	68 936	68936 - 68985	451	133472	133472 - 133521
73	460	68 986	68986 - 69035	450	133522	133522 - 133571
74	1 475	69 036	69036 - 69465	1 427	133572	133572 - 134001
75[2]	1 432	69 466	69466 - 70315	N/A		
76[2]	1 427	70 316	70316 - 70365	N/A		
85	728	70 366	70366 - 70545	698	134002	134002 - 134181
87	420	70 546	70546 - 70595	410	134182	134182 - 134231
88	422	70 596	70596 - 70645	412	134232	134232 - 134281
103	757	70 646	70646 – 70655	787	134282	134282 – 134291

NOTE 1: The channel numbers that designate carrier frequencies so close to the operating band edges that the carrier extends beyond the operating band edge shall not be used. This implies that the first 7, 15, 25, 50, 75 and 100 channel numbers at the lower operating band edge and the last 6, 14, 24, 49, 74 and 99 channel numbers at the upper operating band edge shall not be used for channel bandwidths of 1.4, 3, 5, 10, 15 and 20 MHz respectively.

NOTE 2: Restricted to E-UTRA operation when carrier aggregation is configured.

NOTE 3: For ProSe and V2X the corresponding UL channel number are also specified for the DL for the associated ProSe/V2X operating bands i.e. ProSe_F_{UL} = F_{UL} and ProSe_F_{DL} = F_{UL}; V2X_F_{UL} = F_{DL} and V2X_F_{DL} = F_{UL}.

NOTE 4: Requirements for uplink operations are not specified in this version of the specification.

NOTE 5: The range 2 180-2 200 MHz of the DL operating band is restricted to E-UTRA operation when carrier aggregation is configured.

NOTE 6: The range 2 010-2 020 MHz of the DL operating band is restricted to E-UTRA operation when carrier aggregation is configured and TX-RX separation is 300 MHz The range 2 005-2 020 MHz of the DL operating band is restricted to E-UTRA operation when carrier aggregation is configured and TX-RX separation is 295 MHz.

5.7.4 TX–RX frequency separation

a) The default E-UTRA TX channel (carrier centre frequency) to RX channel (carrier centre frequency) separation is specified in Table 5.7.4-1 for the TX and RX channel bandwidths defined in Table 5.6.1-1

Table 5.7.4-1: Default UE TX-RX frequency separation

E-UTRA Operating Band	TX – RX carrier centre frequency separation
1	190 MHz
2	80 MHz.
3	95 MHz.
4	400 MHz
5	45 MHz
6	45 MHz
7	120 MHz
8	45 MHz
9	95 MHz
10	400 MHz
11	48 MHz
12	30 MHz
13	-31 MHz
14	-30 MHz
17	30 MHz
18	45 MHz
19	45 MHz
20	-41 MHz
21	48 MHz
22	100 MHz
23	180 MHz
24	-101.5[1], -120.5 MHz
25	80 MHz
26	45 MHz
27	45 MHz
28	55 MHz
30	45 MHz
31	10 MHz
65	190 MHz
66	400 MHz
68	55 MHz
…	
70	295, 300 MHz[1]
71	-46 MHz
72	10 MHz
73	10 MHz
74	48 MHz
85	30 MHz
87	10 MHz
88	10 MHz
103	-30 MHz
NOTE 1: Default TX-RX carrier centre frequency separation.	

b) The use of other TX channel to RX channel carrier centre frequency separation is not precluded and is intended to form part of a later release.

CA的UE信道间隔、CA的信道光栅和CA的TX-RX频率间隔分别在TS 36.101-1 [1]中的第5.7.1A、5.7.2A和5.7.4A节定义。

5.7.1A Channel spacing for CA

For intra-band contiguous carrier aggregation with two or more component carriers, the nominal channel spacing between two adjacent E-UTRA component carriers is defined as the following unless stated otherwise:

$$\text{Nominal channel spacing} = \left\lfloor \frac{BW_{Channel(1)} + BW_{Channel(2)} - 0.1\left|BW_{Channel(1)} - BW_{Channel(2)}\right|}{0.6} \right\rfloor 0.3 \quad [\text{MHz}]$$

where $BW_{Channel(1)}$ and $BW_{Channel(2)}$ are the channel bandwidths of the two respective E-UTRA component carriers according to Table 5.6-1 with values in MHz. The channel spacing for intra-band contiguous carrier aggregation can be adjusted to any multiple of 300 kHz less than the nominal channel spacing to optimize performance in a particular deployment scenario.

For intra-band contiguous carrier aggregation with two or more component carriers in Band 46, the requirements apply for both 19.8 MHz and 20.1 MHz nominal carrier spacing between two 20 MHz component carriers, and for 15.0 MHz nominal carrier spacing between 10 MHz and 20 MHz component carriers.

For intra-band non-contiguous carrier aggregation the channel spacing between two or more E-UTRA component carriers in different sub-blocks shall be larger than the nominal channel spacing defined in this subclause.

5.7.2A Channel raster for CA

For carrier aggregation the channel raster is 100 kHz for all bands, which means that the carrier centre frequency must be an integer multiple of 100 kHz.

5.7.4A TX–RX frequency separation for CA

For intra-band contiguous carrier aggregation, the same TX-RX frequency separation as specified in Table 5.7.4-1 is applied to PCC and SCC, respectively.

NB1和NB2类别的UE信道间隔、NB1和NB2类别的信道光栅、NB1和NB2类别的信道编号以及NB1和NB2类别的TX–RX频率间隔，分别在TS 36.101-1 [1]中的第5.7.1F、5.7.2F、5.7.3F和5.7.4A节定义。

5.7.1F Channel spacing for category NB1 and NB2

Nominal channel spacing for UE category NB1 and NB2 in stand-alone mode is 200 kHz. For in-band and guard-band cases the nominal channel spacing between two adjacent category NB1 or NB2 carriers is 180 kHz.

5.7.2F Channel raster for category NB1 and NB2

Channel raster for category NB1 and NB2 in-band, guard-band and standalone operation is 100 kHz.

5.7.3F Carrier frequency and EARFCN for category NB1 and NB2

The carrier frequency of category NB1/NB2 in the downlink is designated by the E-UTRA Absolute Radio Frequency Channel Number (EARFCN) in the range 0 – 262143 and the Offset of category NB1/NB2 Channel Number to EARFCN in the range {-10,-9,-8,-7,-6,-5,-4,-3,-2,-1,-0.5,0,1,2,3,4,5,6,7,8,9} for FDD and in the range {-10,-9,-8.5,-8,-7,-6,-5,-4.5,-4,-3,-2,-1,-0.5,0,1,2,3,3.5,4,5,6,7,7.5,8,9} for TDD. The relation between EARFCN, Offset of category NB1/NB2 Channel Number to EARFCN and the carrier frequency in MHz for the downlink is given by the following equation, where F_{DL} is the downlink carrier frequency of category NB1/NB2, F_{DL_low} and $N_{Offs\text{-}DL}$ are given in table 5.7.3-1, N_{DL} is the downlink EARFCN, M_{DL} is the Offset of category NB1/NB2 Channel Number to downlink EARFCN.

$$F_{DL} = F_{DL_low} + 0.1(N_{DL} - N_{Offs\text{-}DL}) + 0.0025*(2M_{DL}+1)$$

The carrier frequency of category NB1/NB2 in the uplink is designated by the E-UTRA Absolute Radio Frequency Channel Number (EARFCN) in the range 0 –262143, and the Offset of category NB1/NB2 Channel Number to EARFCN in the range {-10,-9,-8,-7,-6,-5,-4,-3,-2,-1,0,1,2,3,4,5,6,7,8,9} for FDD and in the range {-11,-10,-9.5,-9,-8.5, -8,-7.5,-7,-6.5,-6,-5.5,-5,-4.5,-4,-3.5,-3,-2.5,-2,-1.5,-1,-0.5,0,0.5,1,1.5,2,2.5,3,3.5,4,4.5,5,5.5,6,6.5,7,7.5,8,8.5,9,9.5,10, 11} for TDD. The relation between EARFCN, Offset of category NB1/NB2 Channel Number to EARFCN and the carrier frequency in MHz for the uplink is given by the following equation, where F_{UL} is the uplink carrier frequency of category NB1/NB2, F_{UL_low} and $N_{Offs\text{-}UL}$ are given in Table 5.7.3-1, N_{UL} is the uplink EARFCN, M_{UL} is the Offset of category NB1/NB2 Channel Number to uplink EARFCN.

$$F_{UL} = F_{UL_low} + 0.1(N_{UL} – N_{Offs\text{-}UL}) + 0.0025*(2M_{UL})$$

NOTE 1: For category NB1/NB2, N_{DL} or N_{UL} is different than the value of EARFCN that corresponds to E-UTRA downlink or uplink carrier frequency for in-band and guard band operation.

NOTE 2: For FDD M_{DL} = -0.5 is not applicable for in-band and guard band operation. For TDD M_{DL} {-0.5,+3.5,-4.5,+7.5,-8.5} is not applicable for in-band and guard band operation.

NOTE 3: For the carrier including NPSS/NSSS for in-band and guard band operation, M_{DL} is selected from {-2,-1,0,1}.

NOTE 4: For the carrier including NPSS/NSSS for stand-alone operation, M_{DL} = -0.5.

5.7.4A TX–RX frequency separation for CA

For intra-band contiguous carrier aggregation, the same TX-RX frequency separation as specified in Table 5.7.4-1 is applied to PCC and SCC, respectively.

类别M1和M2的UE TX–RX频率间隔在TS 36.101-1 [1]中的第5.7.4E节定义。

5.7.4E TX–RX frequency separation for category M1 and M2

For the category M1 and M2 TX-RX frequency separation is flexible within the assigned channel bandwidth of E-UTRA carrier with the TX-RX frequency separation of the E-UTRA carriers as specified in Table 5.7.4-1.

1.1.4 无效

1.1.5 定义、符号和缩写

1.1.5.1 定义

载波聚合：两个或多个分量载波的聚合，以支持更宽的传输带宽。

载波聚合配置：CA操作频段和UE支持的CA带宽分类的组合。

信道带宽：支持具有小区上行链路或下行链路中配置的传输带宽的单个E-UTRA射频载波的射频段宽。信道带宽以MHz为单位测量，用作发射机和接收机射频要求的参考。

频段间载波聚合：不同操作频段中组成载波的载波聚合。

频段内连续载波聚合：在相同操作频段中聚合的连续载波。

频段内非连续载波聚合：在相同操作频段中聚合的非连续载波。

1.1.5.2 符号

F_{DL_low} 下行链路操作频段的最低频率

F_{DL_high} 下行链路操作频段的最高频率

F_{UL_low} 上行链路操作频段的最低频率

F_{UL_high} 上行链路操作频段的最高频率

1.1.5.3 缩略语

ACLR 相邻信道泄漏比

CA 载波聚合

DC 双连接

DL 下行链路

E-UTRA 演进的UTRA

FDD 频分双工

FR 频率范围

NR 新空中接口

NS 网络信令

FDD 时分双工

UE 用户设备

UL 上行链路

UL MIMO 上行链路多天线发射

V2X 车联网

1.2 射频频谱发射

1.2.1 带外发射

1.2.1.1 频谱发射掩模

通用E-UTRA频谱发射掩模限值在TS 36.521-1 [5]中的第6.6.2.1.5节定义。

6.6.2.1.5 Test requirements

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3.5-1 as appropriate, and the power of any UE emission shall fulfil requirements in Table.6.6.2.1.5-1 or Table.6.6.2.1.5-2, as applicable.

Table 6.6.2.1.5-1: General E-UTRA spectrum emission mask, E-UTRA bands ≤ 3GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Measurement bandwidth
0-1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30 kHz
1-2.5	-8.5	-8.5	-8.5	-8.5	-8.5	-8.5	1 MHz
2.5-2.8	-23.5						1 MHz
2.8-5							1 MHz
5-6		-23.5	-11.5	-11.5	-11.5	-11.5	1 MHz
6-10			-23.5				1 MHz
10-15				-23.5			1 MHz
15-20					-23.5		1 MHz
20-25						-23.5	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel
Note 4: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

Table 6.6.2.1.5-2: General E-UTRA spectrum emission mask, 3GHz < E-UTRA bands ≤ 4.2GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Measurement bandwidth
0-1	-8.2	-11.2	-13.2	-16.2	-18.2	-19.2	30 kHz
1-2.5	-8.2	-8.2	-8.2	-8.2	-8.2	-8.2	1 MHz
2.5-2.8	-23.2						1 MHz
2.8-5							1 MHz
5-6		-23.2	-11.2	-11.2	-11.2	-11.2	1 MHz
6-10			-23.2				1 MHz
10-15				-23.2			1 MHz
15-20					-23.2		1 MHz
20-25						-23.2	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel
Note 4: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

CA的E-UTRA频谱发射掩模限值在TS 36.521-1 [5]中的第6.6.2.1A.1.5节定义。

6.6.2.1A.1.5 Test Requirements

The measured UE mean power with the aggregated channel bandwidth as specified in clause 5.4.2A, derived in step 6, shall fulfil requirements in Table 6.2.3A.1.5-1 as appropriate,

and

the power of any UE emission shall fulfil requirements in Table.6.6.2.1A.1.5-1 or Table.6.6.2.1A.1.5-2 for Bandwidth Class C and Table.6.6.2.1A.1.5-3 or Table.6.6.2.1A.1.5-4 for Bandwidth Class B, as applicable.

Table 6.6.2.1A.1.5-1: General E-UTRA spectrum emission mask for CA Bandwidth Class C, E-UTRA bands ≤ 3GHz

<table>
<tr><th colspan="8">Spectrum emission limit [dBm]/$BW_{Channel_CA}$</th></tr>
<tr><th>Δf_{OOB} (MHz)</th><th>25RB+100RB (24.95MHz)</th><th>50RB+75RB (24.75 MHz)</th><th>50RB+100RB (29.9 MHz)</th><th>75RB+75RB (30 MHz)</th><th>75RB+100RB (34.85 MHz)</th><th>100RB+100RB (39.8 MHz)</th><th>Measurement bandwidth</th></tr>
<tr><td>± 0-1</td><td>-20.5</td><td>-20.5</td><td>-21</td><td>-21</td><td>-22</td><td>-22.5</td><td>30 kHz</td></tr>
<tr><td>± 1-5</td><td>-8.5</td><td>-8.5</td><td>-8.5</td><td>-8.5</td><td>-8.5</td><td>-8.5</td><td>1 MHz</td></tr>
<tr><td>± 5-24.75</td><td rowspan="2">-11.5</td><td>-11.5</td><td rowspan="4">-11.5</td><td rowspan="7">-11.5</td><td rowspan="8">-11.5</td><td rowspan="12">-11.5</td><td>1 MHz</td></tr>
<tr><td>± 24.75-24.95</td><td rowspan="3">-23.5</td><td>1 MHz</td></tr>
<tr><td>± 24.95-29.75</td><td rowspan="3">-23.5</td><td>1 MHz</td></tr>
<tr><td>± 29.75-29.9</td><td>1 MHz</td></tr>
<tr><td>± 29.9-29.95</td><td rowspan="4">-23.5</td><td>1 MHz</td></tr>
<tr><td>± 29.95-30</td><td></td><td></td><td>1 MHz</td></tr>
<tr><td>± 30-34.85</td><td></td><td></td><td rowspan="3">-23.5</td><td>1 MHz</td></tr>
<tr><td>± 34.85-34.9</td><td></td><td></td><td rowspan="3">-23.5</td><td>1 MHz</td></tr>
<tr><td>± 34.9-35</td><td></td><td></td><td></td><td>1 MHz</td></tr>
<tr><td>± 35-39.8</td><td></td><td></td><td></td><td></td><td>1 MHz</td></tr>
<tr><td>± 39.8-39.85</td><td></td><td></td><td></td><td></td><td></td><td>-23.5</td><td>1 MHz</td></tr>
<tr><td>± 39.85-44.8</td><td></td><td></td><td></td><td></td><td></td><td></td><td>1 MHz</td></tr>
<tr><td colspan="8">Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the aggregated channel bandwidth and below the lower edge of the aggregated channel bandwidth.</td></tr>
</table>

Table 6.6.2.1A.1.5-2: General E-UTRA spectrum emission mask for CA Bandwidth Class C, 3GHz < E-UTRA bands ≤ 4.2GHz

Spectrum emission limit [dBm]/$BW_{Channel_CA}$

Δf_{OOB} (MHz)	25RB+100RB (24.95MHz)	50RB+75RB (24.75 MHz)	50RB+100RB (29.9 MHz)	75RB+75RB (30 MHz)	75RB+100RB (34.85 MHz)	100RB+100RB (39.8 MHz)	Measurement bandwidth
± 0-1	-20.2	-20.2	-20.7	-20.7	-21.7	-22.2	30 kHz
± 1-5	-8.2	-8.2	-8.2	-8.2	-8.2	-8.2	1 MHz
± 5-24.75	-11.2	-11.2	-11.2	-11.2	-11.2	-11.2	1 MHz
± 24.75-24.95		-23.2					1 MHz
± 24.95-29.75	-23.2						1 MHz
± 29.75-29.9							1 MHz
± 29.9-29.95			-23.2				1 MHz
± 29.95-30							1 MHz
± 30-34.85				-23.2			1 MHz
± 34.85-34.9					-23.2		1 MHz
± 34.9-35							1 MHz
± 35-39.8							1 MHz
± 39.8-39.85						-23.2	1 MHz
± 39.85-44.8							1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the aggregated channel bandwidth and below the lower edge of the aggregated channel bandwidth.

Table 6.6.2.1A.1.5-3: General E-UTRA spectrum emission mask for CA Bandwidth Class B, E-UTRA bands ≤ 3GHz

Spectrum emission limit [dBm]/$BW_{Channel_CA}$					
Δf_{OOB} (MHz)	25RB+25RB (9.8MHz)	25RB+50RB (14.95 MHz)	25RB+75RB (19.8MHz)	50RB+50RB (19.9 MHz)	Measurement bandwidth
± 0-1	-16.5	-18.5	-19.5	-19.5	30 kHz
± 1-5	-8.5	-8.5	-8.5	-8.5	1 MHz
± 5-9.8	-11.5	-11.5	-11.5	-11.5	1 MHz
± 9.8-14.8	-23.5				1 MHz
± 14.8-14.95					1 MHz
± 14.95-19.80		-23.5			1 MHz
± 19.80-19.90			-23.5		1 MHz
± 19.90-19.95				-23.5	1 MHz
± 19.95-24.80					1 MHz
± 24.80-24.90					1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5MHz and -0.5MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the aggregated channel bandwidth and below the lower edge of the aggregated channel bandwidth.

Table 6.6.2.1A.1.5-4: General E-UTRA spectrum emission mask for CA Bandwidth Class B, 3GHz < E-UTRA bands ≤ 4.2GHz

Spectrum emission limit [dBm]/$BW_{Channel_CA}$					
Δf_{OOB} (MHz)	25RB+25RB (9.8MHz)	25RB+50RB (14.95 MHz)	25RB+75RB (19.8MHz)	50RB+50RB (19.9 MHz)	Measurement bandwidth

± 0-1	-16.2	-18.2	-19.2	-19.2	30 kHz
± 1-5	-8.2	-8.2	-8.2	-8.2	1 MHz
± 5-9.8	-11.2	-11.2	-11.2	-11.2	1 MHz
± 9.8-14.8	-23.2				1 MHz
± 14.8-14.95					1 MHz
± 14.95-19.80		-23.2	-23.2		1 MHz
± 19.80-19.90					1 MHz
± 19.90-19.95				-23.2	1 MHz
± 19.95-24.80					1 MHz
± 24.80-24.90					1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.

Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5MHz and -0.5 MHz, respectively.

Note 3: The measurements are to be performed above the upper edge of the aggregated channel bandwidth and below the lower edge of the aggregated channel bandwidth.

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

UL-MIMO的E-UTRA频谱发射掩模限值在TS 36.521-1[5]中的第6.6.2.1B.5节定义。

6.6.2.1B.5 Test requirements

The measured sum of mean power at each antenna connector of UE in the channel bandwidth, derived in step 3, shall fulfil requirements in clause 6.2.3B.5 as appropriate,

And the power of any UE emission at each transmit antenna connector shall fulfil requirements in Table.6.6.2.1B.5-1 or Table 6.6.2.1B.5-2 as applicable.

Table 6.6.2.1B.5-1: General E-UTRA spectrum emission mask, E UTRA bands ≤ 3GHz

Spectrum emission limit (dBm)/ Channel bandwidth							
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth**
0-1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30 kHz
1-2.5	-8.5	-8.5	-8.5	-8.5	-8.5	-8.5	1 MHz
2.5-2.8	-23.5						1 MHz
2.8-5							1 MHz
5-6		-23.5	-11.5	-11.5	-11.5	-11.5	1 MHz
6-10			-23.5				1 MHz
10-15				-23.5			1 MHz
15-20					-23.5		1 MHz
20-25						-23.5	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.

Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.

Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel

Note 4: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

Table 6.6.2.1B.5-2: General E-UTRA spectrum emission mask, 3GHz < E UTRA bands ≤ 4.2GHz

Spectrum emission limit (dBm)/ Channel bandwidth

Δf_{OOB} (MHz)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Measurement bandwidth
0-1	-8.2	-11.2	-13.2	-16.2	-18.2	-19.2	30 kHz
1-2.5	-8.2	-8.2	-8.2	-8.2	-8.2	-8.2	1 MHz
2.5-2.8	-23.2						1 MHz
2.8-5							1 MHz
5-6		-23.2	-11.2	-11.2	-11.2	-11.2	1 MHz
6-10			-23.2				1 MHz
10-15				-23.2			1 MHz
15-20					-23.2		1 MHz
20-25						-23.2	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.

Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.

Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel

Note 4: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

UE类别0的E-UTRA频谱发射掩模限值在TS 36.521-1 [5]中的第6.6.2.1E.5节定义。

6.6.2.1E.5 Test requirements

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3E.5-1 as appropriate, and the power of any UE emission shall fulfil requirements in Table 6.6.2.1E.5-1 or Table.6.6.2.1E.5-2, as applicable.

Table 6.6.2.1E.5-1: General E-UTRA spectrum emission mask, E-UTRA bands ≤ 3GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Measurement bandwidth
0-1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30 kHz
1-2.5	-8.5	-8.5	-8.5	-8.5	-8.5	-8.5	1 MHz
2.5-2.8	-23.5						1 MHz
2.8-5							1 MHz
5-6		-23.5	-11.5	-11.5	-11.5	-11.5	1 MHz
6-10			-23.5				1 MHz
10-15				-23.5			1 MHz
15-20					-23.5		1 MHz
20-25						-23.5	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.

Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5MHz and -0.5MHz, respectively.

Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel

Note 4: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

Table 6.6.2.1E.5-2: General E-UTRA spectrum emission mask, 3GHz < E-UTRA bands ≤ 4.2GHz

	Spectrum emission limit (dBm)/ Channel bandwidth

Δf_{OOB} (MHz)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Measurement bandwidth
0-1	-8.2	-11.2	-13.2	-16.2	-18.2	-19.2	30 kHz
1-2.5	-8.2	-8.2	-8.2	-8.2	-8.2	-8.2	1 MHz
2.5-2.8	-23.2						1 MHz
2.8-5							1 MHz
5-6		-23.2	-11.2	-11.2	-11.2	-11.2	1 MHz
6-10			-23.2				1 MHz
10-15				-23.2			1 MHz
15-20					-23.2		1 MHz
20-25						-23.2	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel
Note 4: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

UE类别M1的E-UTRA频谱发射掩模限值在TS 36.521-1 [5]中的第6.6.2.1EA.5节定义。

6.6.2.1EA.5 Test requirements

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Tables 6.2.3EA.5-1 to 6.2.3EA.5-7a as appropriate, and the power of any UE emission shall fulfil requirements in Table.6.6.2.1EA.5-1, as applicable.

Table 6.6.2.1EA.5-1: General E-UTRA spectrum emission mask

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Measurement bandwidth
0-1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30 kHz
1-2.5	-8.5	-8.5	-8.5	-8.5	-8.5	-8.5	1 MHz
2.5-2.8	-23.5						1 MHz
2.8-5							1 MHz
5-6		-23.5	-11.5	-11.5	-11.5	-11.5	1 MHz
6-10			-23.5				1 MHz
10-15				-23.5			1 MHz
15-20					-23.5		1 MHz
20-25						-23.5	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel
Note 4: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the

measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

UE 1bis的E-UTRA频谱发射掩模限值在TS 36.521-1 [5]中的第6.6.2.1EB.5节定义。

6.6.2.1EB.5 Test requirements

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3EB.5-1 as appropriate, and the power of any UE emission shall fulfil requirements in Table.6.6.2.1EB.5-1 or Table.6.6.2.1EB.5-2, as applicable.

Table 6.6.2.1EB.5-1: General E-UTRA spectrum emission mask, E-UTRA bands ≤ 3GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Measurement bandwidth
0-1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30 kHz
1-2.5	-8.5	-8.5	-8.5	-8.5	-8.5	-8.5	1 MHz
2.5-2.8	-23.5						1 MHz
2.8-5							1 MHz
5-6		-23.5	-11.5	-11.5	-11.5	-11.5	1 MHz
6-10			-23.5				1 MHz
10-15				-23.5			1 MHz
15-20					-23.5		1 MHz
20-25						-23.5	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel
Note 4: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

Table 6.6.2.1EB.5-2: General E-UTRA spectrum emission mask, 3GHz < E-UTRA bands ≤ 4.2GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Measurement bandwidth
0-1	-8.2	-11.2	-13.2	-16.2	-18.2	-19.2	30 kHz
1-2.5	-8.2	-8.2	-8.2	-8.2	-8.2	-8.2	1 MHz
2.5-2.8	-23.2						1 MHz
2.8-5							1 MHz
5-6		-23.2	-11.2	-11.2	-11.2	-11.2	1 MHz
6-10			-23.2				1 MHz
10-15				-23.2			1 MHz
15-20					-23.2		1 MHz
20-25						-23.2	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel
Note 4: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the

measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

UE M2的E-UTRA频谱发射掩模限值在TS 36.521-1 [5]中的第6.6.2.1EC.5节定义。

6.6.2.1EC.5 Test requirements

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Tables 6.2.3EC.5-1 to 6.2.3EC.5-3 as appropriate, and the power of any UE emission shall fulfil requirements in Table.6.6.2.1EC.5-1, as applicable.

Table 6.6.2.1EC.5-1: General E-UTRA spectrum emission mask

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth**
0-1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30 kHz
1-2.5	-8.5	-8.5	-8.5	-8.5	-8.5	-8.5	1 MHz
2.5-2.8	-23.5						1 MHz
2.8-5							1 MHz
5-6		-23.5	-11.5	-11.5	-11.5	-11.5	1 MHz
6-10			-23.5				1 MHz
10-15				-23.5			1 MHz
15-20					-23.5		1 MHz
20-25						-23.5	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.

Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.

Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel

Note 4: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth

V2X的E-UTRA频谱发射掩模限值在TS 36.521-1 [5]中的第6.6.2.1G.1.5节定义。

6.6.2.1G.1.5 Test requirements

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3G.1.1.5-1as appropriate, and the power of any UE emission shall fulfil requirements in Table 6.6.2.1G.1.5-1.

Table 6.6.2.1G.1.5-1: General E-UTRA spectrum emission mask, E-UTRA bands ≥ 5GHz

Spectrum emission limit (dBm)/ Channel bandwidth			
Δf_{OOB} (MHz)	**10 MHz**	**20 MHz**	**Measurement bandwidth**
± 0-1	-16	-19	30 kHz
± 1-2.5	-8	-8	1 MHz
± 2.5-2.8	-8	-8	1 MHz
± 2.8-5	-8	-8	1 MHz
± 5-6	-12	-11	1 MHz
± 6-10	-12	-11	1 MHz
± 10-15	-23	-11	1 MHz
± 15-20		-11	1 MHz
± 20-25		-23	1 MHz
Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.			
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.			
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel			

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

V2X通信/侧链路与E-UTRA上行链路传输同步的E-UTRA频谱发射掩模限值在TS 36.521-1 [5]中的第6.6.2.1G.2.5节定义。

6.6.2.1G.2.5 Test requirements

The measured UE mean power in the channel bandwidth, derived in step 3 and step 4 shall fulfil requirements in Table 6.2.3G.1.3.5-1, and the power of any UE emission shall fulfil requirements in Table 6.6.2.1G.1.5-1~ Table 6.6.2.1G.2.5-3.

Table 6.6.2.1G.2.5-1: General E-UTRA spectrum emission mask, E-UTRA bands ≤ 3GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth**
0-1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30 kHz
1-2.5	-8.5						1 MHz
2.5-2.8	-23.5	-8.5	-8.5	-8.5	-8.5	-8.5	1 MHz
2.8-5							1 MHz
5-6		-23.5	-11.5	-11.5	-11.5	-11.5	1 MHz
6-10			-23.5				1 MHz
10-15				-23.5			1 MHz
15-20					-23.5		1 MHz
20-25						-23.5	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel
Note 4: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

Table 6.6.2.1G.2.5-2: General E-UTRA spectrum emission mask, 3GHz < E-UTRA bands ≤ 4.2GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth**
0-1	-8.2	-11.2	-13.2	-16.2	-18.2	-19.2	30 kHz
1-2.5	-8.2	-8.2	-8.2	-8.2	-8.2	-8.2	1 MHz
2.5-2.8	-23.2						1 MHz
2.8-5							1 MHz
5-6		-23.2	-11.2	-11.2	-11.2	-11.2	1 MHz
6-10			-23.2				1 MHz
10-15				-23.2			1 MHz
15-20					-23.2		1 MHz
20-25						-23.2	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel
Note 4: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

Table 6.6.2.1G.2.5-3: General E-UTRA V2X spectrum emission mask, E-UTRA bands ≥ 5GHz

Spectrum emission limit (dBm)/ Channel bandwidth			
Δf_{OOB} (MHz)	**10 MHz**	**20 MHz**	**Measurement bandwidth**
± 0-1	-16	-19	30 kHz
± 1-2.5	-8	-8	1 MHz
± 2.5-2.8	-8	-8	1 MHz
± 2.8-5	-8	-8	1 MHz
± 5-6	-12	-11	1 MHz
± 6-10	-12	-11	1 MHz
± 10-15	-23	-11	1 MHz
± 15-20		-11	1 MHz
± 20-25		-23	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

用于V2X通信/带内连续MCC操作的E-UTRA频谱发射掩模限值在TS 36.521-1 [5]中的第6.6.2.1G.3.5节定义。

6.6.2.1G.3.5 Test Requirement

The power of any UE emission shall fulfil requirements in Table 6.6.2.1G.3.5-1 Bandwidth Class B.

Table 6.6.2.1G.3.5-1: General E-UTRA spectrum emission mask for CA Bandwidth Class B, E-UTRA bands > 5 GHz

Spectrum emission limit [dBm]/$BW_{Channel_CA}$		
Δf_{OOB} (MHz)	50RB+50RB (19.9 MHz)	Measurement bandwidth
± 0-1	19	30 kHz
± 1-5	8	1 MHz
± 5-14.95	11	1 MHz
± 14.95-19.90	11	1 MHz
± 19.90-19.95	23	1 MHz
± 19.95-24.90	23	1 MHz

子时隙/时隙TTI的E-UTRA频谱发射掩模限值在TS 36.521-1 [5]中的第6.6.2.1_s.5节定义。

6.6.2.1_s.5 Test requirements

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3_s.5-1 as appropriate, and the power of any UE emission shall fulfil requirements in Table.6.6.2.1_s.5-1 or Table.6.6.2.1_s.5-2, as applicable.

Table 6.6.2.1_s.5-1: General E-UTRA spectrum emission mask, E-UTRA bands ≤ 3GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Measurement bandwidth
0-1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30 kHz
1-2.5	-8.5	-8.5	-8.5	-8.5	-8.5	-8.5	1 MHz
2.5-2.8	-23.5						1 MHz
2.8-5							1 MHz
5-6		-23.5	-11.5	-11.5	-11.5	-11.5	1 MHz
6-10			-23.5				1 MHz
10-15				-23.5			1 MHz
15-20					-23.5		1 MHz
20-25						-23.5	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.

Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.

Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel

Note 4: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

Table 6.6.2.1_s.5-2: General E-UTRA spectrum emission mask, 3 GHz < E-UTRA bands ≤ 4.2 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth**
0-1	-8.2	-11.2	-13.2	-16.2	-18.2	-19.2	30 kHz
1-2.5	-8.2	-8.2	-8.2	-8.2	-8.2	-8.2	1 MHz
2.5-2.8	-23.2						1 MHz
2.8-5							1 MHz
5-6		-23.2	-11.2	-11.2	-11.2	-11.2	1 MHz
6-10			-23.2				1 MHz
10-15				-23.2			1 MHz
15-20					-23.2		1 MHz
20-25						-23.2	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.

Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.

Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel

Note 4: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

1.2.1.2 附加频谱发射掩模

网络会通过信令方式指示附加频谱发射要求，以表明UE在特定部署场景下应满足额外要求；该信息作为小区切换消息或广播消息的一部分进行传送。

不同网络信令标签的附加频谱发射要求在TS 36.521-1 [5]中的第6.6.2.2.5节定义。

6.6.2.2.5 Test requirements

6.6.2.2.5.1 Test requirements (network signalled value "NS_03", “NS_11”, “NS_20” and “NS_21”)

When "NS_03" or “NS_11” or “NS_20” or “NS_21” is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-1, 6.2.4.5-2, 6.2.4.5-11, 6.2.4.5-20 and 6.2.4.5-21 as appropriate,

and

- the power of any UE emission shall fulfil requirements in Table 6.6.2.2.5.1-1 or 6.6.2.2.5.1-2, as applicable.

Table 6.6.2.2.5.1-1: Additional requirements (network signalled value "NS_03", “NS_11”, “NS_20” and “NS_21”), E-UTRA bands ≤ 3GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth**
0-1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30 kHz
1-2.5	-11.5	-11.5	-11.5	-11.5	-11.5	-11.5	1 MHz
2.5-2.8	-23.5						1 MHz
2.8-5							1 MHz
5-6		-23.5					1 MHz
6-10			-23.5				1 MHz
10-15				-23.5			1 MHz
15-20					-23.5		1 MHz
20-25						-23.5	1 MHz
Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.							
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.							
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel							
Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_03 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.							
Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.							

Table 6.6.2.2.5.1-2: Additional requirements (network signalled value "NS_03", “NS_11”, “NS_20” and “NS_21”), 3 GHz < E-UTRA bands ≤ 4.2 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth**
0-1	-8.2	-11.2	-13.2	-16.2	-18.2	-19.2	30 kHz
1-2.5	-11.2	-11.2	-11.2	-11.2	-11.2	-11.2	1 MHz
2.5-2.8	-23.2						1 MHz
2.8-5							1 MHz
5-6		-23.2					1 MHz
6-10			-23.2				1 MHz
10-15				-23.2			1 MHz
15-20					-23.2		1 MHz
20-25						-23.2	1 MHz
Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.							
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.							
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel							
Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_03 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.							
Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.							

NOTE: (only for emission measurement) As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

不同网络信令标签的UL 64-QAM附加频谱发射要求在TS 36.521-1 [5]中的第6.6.2.2_1.5节定义。

6.6.2.2_1.5 Test requirements

Same test requirements as in clause 6.6.2.2.5

不同网络信令标签的UL 256-QAM附加频谱发射要求在TS 36.521-1 [5] 中的第6.6.2.2.5节。

不同网络信令标签的PUSCH跳频附加频谱发射要求在TS 36.521-1 [5]中的第6.6.2.2_3.5节定义。

6.6.2.2_3.5 Test requirements

- the measured UE mean power in the channel bandwidth, derived in step 3 and 4, shall fulfil requirements in Table 6.2.4_3.5-1 and 6.2.4_3.5-2 as appropriate,

and

- the power of any UE emission shall fulfil requirements in Table 6.6.2.2_3.5-1 to 6.6.2.2_3.5-6, as applicable.

Table 6.6.2.2_3.5-1: Additional requirements (network signalled value "NS_03", “NS_11”, “NS_20” and “NS_21”), E-UTRA bands ≤ 3 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth**
0-1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30 kHz
1-2.5	-11.5	-11.5	-11.5	-11.5	-11.5	-11.5	1 MHz
2.5-2.8	-23.5						1 MHz
2.8-5							1 MHz
5-6		-23.5					1 MHz
6-10			-23.5				1 MHz
10-15				-23.5			1 MHz
15-20					-23.5		1 MHz
20-25						-23.5	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel
Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_03 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.
Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

Table 6.6.2.2_3.5-2: Additional requirements (network signalled value "NS_03", "NS_11", "NS_20" and "NS_21"), 3 GHz < E-UTRA bands ≤ 4.2 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Measurement bandwidth
0-1	-8.2	-11.2	-13.2	-16.2	-18.2	-19.2	30 kHz
1-2.5	-11.2	-11.2	-11.2	-11.2	-11.2	-11.2	1 MHz
2.5-2.8	-23.2						1 MHz
2.8-5							1 MHz
5-6		-23.2					1 MHz
6-10			-23.2				1 MHz
10-15				-23.2			1 MHz
15-20					-23.2		1 MHz
20-25						-23.2	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5MHz and -0.5MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_03 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.
Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: (only for emission measurement) As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

Table 6.6.2.2_3.5-3: Additional requirements (network signalled value "NS_04"), E-UTRA bands ≤ 3 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Measurement bandwidth
0-1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30 kHz
1-2.5	-11.5	-11.5	-11.5	-11.5	-11.5	-11.5	1 MHz
2.5-2.8	-23.5						1 MHz
2.8-5							1 MHz
5-6		-23.5	-23.5	-23.5	-23.5	-23.5	1 MHz
6-10							1 MHz
10-15							1 MHz
15-20							1 MHz
20-25							1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_04 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.
Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

Table 6.6.2.2_3.5-4: Additional requirements (network signalled value "NS_04"), 3GHz < E-UTRA bands ≤ 4.2 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth

Δf_{OOB} (MHz)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Measurement bandwidth
0-1	-8.2	-11.2	-13.2	-16.2	-18.2	-19.2	30 kHz
1-2.5	-11.2	-11.2	-11.2	-11.2	-11.2	-11.2	1 MHz
2.5-2.8	-23.2						1 MHz
2.8-5							1 MHz
5-6		-23.2	-23.2	-23.2	-23.2	-23.2	1 MHz
6-10							1 MHz
10-15							1 MHz
15-20							1 MHz
20-25							1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.

Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.

Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.

Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_04 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.

Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: (only for emission measurement) As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

Table 6.6.2.2_3.5-5: Additional requirements (network signalled value "NS_06" or "NS_07"), E-UTRA bands ≤ 3 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth				
Δf_{OOB} (MHz)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	Measurement bandwidth
0-0.1	-11.5	-11.5	-13.5	-16.5	30 kHz
0.1-1	-11.5	-11.5	-11.5	-11.5	100 kHz
1-2.5	-11.5	-11.5	-11.5	-11.5	1 MHz
2.5-2.8	-23.5				1 MHz
2.8-5					1 MHz
5-6		-23.5			1 MHz
6-10			-23.5		1 MHz
10-15				-23.5	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.085 MHz. The first and last measurement position with a 100 kHz filter is at ΔfOOB equals to 0.15 MHz and 0.95 MHz.

Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.

Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel

Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_06 and NS_07 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.

Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

Table 6.6.2.2_3.5-6: Additional requirements (network signalled value "NS_06" or "NS_07"), 3GHz < E-UTRA bands ≤ 4.2 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth				
Δf_{OOB} (MHz)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	Measurement bandwidth
0-0.1	-11.2	-11.2	-13.2	-16.2	30 kHz

0.1-1	-11.2	-11.2	-11.2	-11.2	100 kHz
1-2.5	-11.2	-11.2	-11.2	-11.2	1 MHz
2.5-2.8	-23.2				1 MHz
2.8-5					1 MHz
5-6		-23.2			1 MHz
6-10			-23.2		1 MHz
10-15				-23.2	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.085 MHz. The first and last measurement position with a 100 kHz filter is at ΔfOOB equals to 0.15 MHz and 0.95 MHz.

Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5MHz and -0.5MHz, respectively.

Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.

Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_06 and NS_07 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.

Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: (only for emission measurement) As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

不同网络信令标签的CA附加频谱发射要求在TS 36.521-1 [5]中的第6.6.2.2A.1.5节定义。

6.6.2.2A.1.5 Test Requirements

6.6.2.2A.1.5.1 Test requirement for CA (network signalled value "CA_NS_04")

When "CA_NS_04" is indicated in the cell

- the measured UE mean power with the aggregated channel bandwidth as specified in clause 5.4.2A, derived in step 6 , shall fulfil requirements in Table 6.2.4A.1.5-4 as appropriate,

and

- the power of any UE emission shall not exceed the levels specified in Table 6.6.2.2A.1.5.1-1.

Table 6.6.2.2A.1.5.1-1: Additional requirements

Spectrum emission limit [dBm]/$BW_{Channel_CA}$							
Δf_{OOB} (MHz)	**50+75RB (24.75 MHz)**	**25+100RB (24.95 MHz)**	**50+100RB (29.9 MHz)**	**75+75RB (30 MHz)**	**75+100RB (34.85 MHz)**	**100+100RB (39.8 MHz)**	**Measurement bandwidth**
± 0-1	-22	-22	-22.5	-23	-23.5	-24	30 kHz
± 1-5	-10	-10	-10	-10	-10	-10	1 MHz
± 5-22.95	-13	-13	-13	-13	-13	-13	1 MHz
± 22.95-23.25	-13	-25	-13	-13	-13	-13	1 MHz
±23.25-27.9	-25	-25	-13	-13	-13	-13	1 MHz

± 27.9-28.5	-25	-25	-25	-13	-13	-13	1 MHz
± 28.5-29.75	-25	-25	-25	-25	-13	-13	1 MHz
± 29.75-29.95		-25	-25	-25	-13	-13	1 MHz
± 29.95-32.85			-25	-25	-13	-13	1 MHz
± 32.85-34.9			-25	-25	-25	-13	1 MHz
± 34.9-35				-25	-25	-13	1 MHz
± 35-37.8					-25	-13	1 MHz
± 37.8-39.85					-25	-25	1 MHz
± 39.85-44.8						-25	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5MHz and -0.5MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: Above SEM requirement applies to bands corresponding to network signalling value CA_NS_04 as defined in TS 36.101 [2] subclause 6.6.2.2A Table 6.2.2.2A-1.

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

不同网络信令标签的UL-MIMO附加频谱发射要求在TS 36.521-1 [5]中的第6.6.2.2.5节定义。

不同网络信令标签的UE类别0附加频谱发射要求在TS 36.521-1 [5]中的第6.6.2.2E.5节定义。

6.6.2.2E.5 Test requirements

6.6.2.2E.5.1 Test requirements (network signalled value "NS_03"")

When "NS_03" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-1 and 6.2.4.5-2 as appropriate,

and

- the power of any UE emission shall fulfil requirements in Table 6.6.2.2E.5.1-1 or 6.6.2.2E.5.1-2, as applicable.

Table 6.6.2.2E.5.1-1: Additional requirements (network signalled value "NS_03"), E-UTRA bands ≤ 3GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
ΔfOOB (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth**
0-1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30 kHz
1-2.5	-11.5	-11.5	-11.5	-11.5	-11.5	-11.5	1 MHz
2.5-2.8	-23.5						1 MHz
2.8-5							1 MHz
5-6		-23.5					1 MHz
6-10			-23.5				1 MHz
10-15				-23.5			1 MHz
15-20					-23.5		1 MHz
20-25						-23.5	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.

Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_03 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.
Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

Table 6.6.2.2E.5.1-2: Additional requirements (network signalled value "NS_03"), 3GHz < E-UTRA bands ≤ 4.2 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Measurement bandwidth
0-1	-8.2	-11.2	-13.2	-16.2	-18.2	-19.2	30 kHz
1-2.5	-11.2	-11.2	-11.2	-11.2	-11.2	-11.2	1 MHz
2.5-2.8	-23.2						1 MHz
2.8-5							1 MHz
5-6		-23.2					1 MHz
6-10			-23.2				1 MHz
10-15				-23.2			1 MHz
15-20					-23.2		1 MHz
20-25						-23.2	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5MHz and -0.5MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_03 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.
Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: (only for emission measurement) As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

6.6.2.2E.5.2 Test requirements (network signalled value "NS_04")

When "NS_04" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-3 as appropriate,

and

- the power of any UE emission shall fulfil requirements in Table 6.6.2.2E.5.2-1 or Table.6.6.2.2E.5.2-2, as applicable.

Table 6.6.2.2E.5.2-1: Additional requirements (network signalled value "NS_04"), E-UTRA bands ≤ 3 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Measurement bandwidth
0-1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30 kHz
1-2.5	-11.5	-11.5	-11.5	-11.5	-11.5	-11.5	1 MHz
2.5-2.8	-23.5						1 MHz
2.8-5							1 MHz
5-6		-23.5	-23.5	-23.5	-23.5	-23.5	1 MHz

6-10							1 MHz
10-15							1 MHz
15-20							1 MHz
20-25							1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_04 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.
Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

Table 6.6.2.2E.5.2-2: Additional requirements (network signalled value "NS_04"), 3GHz < E-UTRA bands ≤ 4.2GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth**
0-1	-8.2	-11.2	-13.2	-16.2	-18.2	-19.2	30 kHz
1-2.5	-11.2						1 MHz
2.5-2.8	-23.2	-11.2	-11.2	-11.2	-11.2	-11.2	1 MHz
2.8-5							1 MHz
5-6		-23.2					1 MHz
6-10			-23.2	-23.2	-23.2	-23.2	1 MHz
10-15							1 MHz
15-20							1 MHz
20-25							1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_04 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.
Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: (only for emission measurement) As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

Test requirements (network signalled value "NS_06" or "NS_07")

When "NS_06" or "NS_07" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-5, 6.2.4.5-6 and 6.2.4.5-7 as appropriate l,

and

- the power of any UE emission shall fulfil requirements in Table 6.6.2.2E.5.3-1 or Table.6.6.2.2E.5.3-2, as applicable.

Table 6.6.2.2E.5.3-1: Additional requirements (network signalled value "NS_06" or "NS_07"), E-UTRA bands ≤ 3 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth				
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**Measurement bandwidth**

0-0.1	-11.5	-11.5	-13.5	-16.5	30 kHz
0.1-1	-11.5	-11.5	-11.5	-11.5	100 kHz
1-2.5	-11.5	-11.5	-11.5	-11.5	1 MHz
2.5-2.8	-23.5				1 MHz
2.8-5					1 MHz
5-6		-23.5			1 MHz
6-10			-23.5		1 MHz
10-15				-23.5	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.085 MHz. The first and last measurement position with a 100 kHz filter is at ΔfOOB equals to 0.15 MHz and 0.95 MHz.

Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.

Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.

Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_06 and NS_07 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.

Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

Table 6.6.2.2E.5.3-2: Additional requirements (network signalled value "NS_06" or "NS_07"), 3GHz < E-UTRA bands ≤ 4.2 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth				
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**Measurement bandwidth**
0-0.1	-11.2	-11.2	-13.2	-16.2	30 kHz
0.1-1	-11.2	-11.2	-11.2	-11.2	100 kHz
1-2.5	-11.2	-11.2	-11.2	-11.2	1 MHz
2.5-2.8	-23.2				1 MHz
2.8-5					1 MHz
5-6		-23.2			1 MHz
6-10			-23.2		1 MHz
10-15				-23.2	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.085 MHz. The first and last measurement position with a 100 kHz filter is at ΔfOOB equals to 0.15 MHz and 0.95 MHz.

Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5MHz and -0.5MHz, respectively.

Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.

Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_06 and NS_07 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.

Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: (only for emission measurement) As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

不同网络信令标签的UE类别M1附加频谱发射要求在TS 36.521-1 [5]中的第6.6.2.2EA.5节定义。

6.6.2.2EA.5 Test requirements

6.6.2.2EA.5.1 Test requirements (network signalled value "NS_03"")

When "NS_03" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4EA.5-1 and 6.2.4EA.5-2 as appropriate,

and

- the power of any UE emission shall fulfil requirements in Table 6.6.2.2EA.5.1-1, as applicable.

Table 6.6.2.2EA.5.1-1: Additional requirements (network signalled value "NS_03")

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth**
0-1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30 kHz
1-2.5	-11.5	-11.5	-11.5	-11.5	-11.5	-11.5	1 MHz
2.5-2.8	-23.5						1 MHz
2.8-5							1 MHz
5-6		-23.5					1 MHz
6-10			-23.5				1 MHz
10-15				-23.5			1 MHz
15-20					-23.5		1 MHz
20-25						-23.5	1 MHz
Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.							
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.							
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.							
Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_03 as defined in TS 36.101 [2] subclause 6.2.4 E Table 6.2.4 E -1.							
Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.							

NOTE: (only for emission measurement) As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

6.6.2.2EA.5.2 Test requirements (network signalled value "NS_04")

When "NS_04" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4EA.5-3 as appropriate,

and

- the power of any UE emission shall fulfil requirements in Table 6.6.2.2EA.5.2-1, as applicable.

Table 6.6.2.2EA.5.2-1: Additional requirements (network signalled value "NS_04")

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth**

0-1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30 kHz
1-2.5	-11.5	-11.5	-11.5	-11.5	-11.5	-11.5	1 MHz
2.5-2.8	-23.5						1 MHz
2.8-5							1 MHz
5-6		-23.5	-23.5	-23.5	-23.5	-23.5	1 MHz
6-10							1 MHz
10-15							1 MHz
15-20							1 MHz
20-25							1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_04 as defined in TS 36.101 [2] subclause 6.2.4 E Table 6.2.4 E -1.
Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: (only for emission measurement) As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

Test requirements (network signalled value "NS_06" or "NS_07")

When "NS_06" or "NS_07" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4EA.5-5, 6.2.4EA.5-6 and 6.2.4EA.5-7 as appropriate ,

and

- the power of any UE emission shall fulfil requirements in Table 6.6.2.2EA.5.3-1, as applicable.

Table 6.6.2.2EA.5.3-1: Additional requirements (network signalled value "NS_06" or "NS_07")

	Spectrum emission limit (dBm)/ Channel bandwidth				
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**Measurement bandwidth**
0-0.1	-11.5	-11.5	-13.5	-16.5	30 kHz
0.1-1	-11.5	-11.5	-11.5	-11.5	100 kHz
1-2.5	-11.5	-11.5	-11.5	-11.5	1 MHz
2.5-2.8	-23.5				1 MHz
2.8-5					1 MHz
5-6		-23.5			1 MHz
6-10			-23.5		1 MHz
10-15				-23.5	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.085 MHz. The first and last measurement position with a 100 kHz filter is at ΔfOOB equals to 0.15 MHz and 0.95 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_06 and NS_07 as defined in TS 36.101 [2] subclause 6.2.4 E Table 6.2.4 E -1.
Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: (only for emission measurement) As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

不同网络信令标签的UE 1bis附加频谱发射要求在TS 36.521-1 [5]中的第6.6.2.2EB.5节定义。

6.6.2.2EB.5 Test requirements

6.6.2.2EB.5.1 Test requirements (network signalled value "NS_03"")

When "NS_03" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-1 and 6.2.4.5-2 as appropriate,

and

- the power of any UE emission shall fulfil requirements in Table 6.6.2.2EB.5.1-1 or 6.6.2.2EB.5.1-2, as applicable.

Table 6.6.2.2EB.5.1-1: Additional requirements (network signalled value "NS_03"), E-UTRA bands ≤ 3 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth**
0-1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30 kHz
1-2.5	-11.5	-11.5	-11.5	-11.5	-11.5	-11.5	1 MHz
2.5-2.8	-23.5						1 MHz
2.8-5							1 MHz
5-6		-23.5					1 MHz
6-10			-23.5				1 MHz
10-15				-23.5			1 MHz
15-20					-23.5		1 MHz
20-25						-23.5	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_03 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.
Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

Table 6.6.2.2EB.5.1-2: Additional requirements (network signalled value "NS_03"), 3GHz < E-UTRA bands ≤ 4.2 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth**
0-1	-8.2	-11.2	-13.2	-16.2	-18.2	-19.2	30 kHz
1-2.5	-11.2	-11.2	-11.2	-11.2	-11.2	-11.2	1 MHz
2.5-2.8	-23.2						1 MHz
2.8-5							1 MHz
5-6		-23.2					1 MHz

6-10			-23.2				1 MHz
10-15				-23.2			1 MHz
15-20					-23.2		1 MHz
20-25						-23.2	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_03 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.
Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: (only for emission measurement) As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

6.6.2.2EB.5.2 Test requirements (network signalled value "NS_04")

When "NS_04" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-3 as appropriate,

and

- the power of any UE emission shall fulfil requirements in Table 6.6.2.2EB.5.2-1 or Table.6.6.2.2EB.5.2-2, as applicable.

Table 6.6.2.2EB.5.2-1: Additional requirements (network signalled value "NS_04"), E-UTRA bands ≤ 3 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth**
0-1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30 kHz
1-2.5	-11.5	-11.5	-11.5	-11.5	-11.5	-11.5	1 MHz
2.5-2.8	-23.5						1 MHz
2.8-5							1 MHz
5-6		-23.5	-23.5	-23.5	-23.5	-23.5	1 MHz
6-10							1 MHz
10-15							1 MHz
15-20							1 MHz
20-25							1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_04 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.
Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

Table 6.6.2.2EB.5.2-2: Additional requirements (network signalled value "NS_04"), 3GHz < E-UTRA bands ≤ 4.2 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth**

0-1	-8.2	-11.2	-13.2	-16.2	-18.2	-19.2	30 kHz
1-2.5	-11.2	-11.2	-11.2	-11.2	-11.2	-11.2	1 MHz
2.5-2.8	-23.2						1 MHz
2.8-5							1 MHz
5-6		-23.2	-23.2	-23.2	-23.2	-23.2	1 MHz
6-10							1 MHz
10-15							1 MHz
15-20							1 MHz
20-25							1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_04 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.
Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: (only for emission measurement) As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

Test requirements (network signalled value "NS_06" or "NS_07")

When "NS_06" or "NS_07" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-5, 6.2.4.5-6 and 6.2.4.5-7 as appropriate l,

and

- the power of any UE emission shall fulfil requirements in Table 6.6.2.2EB.5.3-1 or Table.6.6.2.2EB.5.3-2, as applicable.

Table 6.6.2.2EB.5.3-1: Additional requirements (network signalled value "NS_06" or "NS_07"), E-UTRA bands ≤ 3GHz

	Spectrum emission limit (dBm)/ Channel bandwidth				
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**Measurement bandwidth**
0-0.1	-11.5	-11.5	-13.5	-16.5	30 kHz
0.1-1	-11.5	-11.5	-11.5	-11.5	100 kHz
1-2.5	-11.5	-11.5	-11.5	-11.5	1 MHz
2.5-2.8	-23.5				1 MHz
2.8-5					1 MHz
5-6		-23.5			1 MHz
6-10			-23.5		1 MHz
10-15				-23.5	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.085 MHz. The first and last measurement position with a 100 kHz filter is at ΔfOOB equals to 0.15 MHz and 0.95 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_06 and NS_07 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.

Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

Table 6.6.2.2EB.5.3-2: Additional requirements (network signalled value "NS_06" or "NS_07"), 3 GHz < E-UTRA bands ≤ 4.2 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth				
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**Measurement bandwidth**
0-0.1	-11.2	-11.2	-13.2	-16.2	30 kHz
0.1-1	-11.2	-11.2	-11.2	-11.2	100 kHz
1-2.5	-11.2	-11.2	-11.2	-11.2	1 MHz
2.5-2.8	-23.2				1 MHz
2.8-5					1 MHz
5-6		-23.2			1 MHz
6-10			-23.2		1 MHz
10-15				-23.2	1 MHz
Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.085 MHz. The first and last measurement position with a 100 kHz filter is at ΔfOOB equals to 0.15 MHz and 0.95 MHz. Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively. Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel. Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_06 and NS_07 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1. Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.					

NOTE: (only for emission measurement) As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

不同网络信令标签的UE类别M2附加频谱发射要求在TS 36.521-1 [5]中的第6.6.2.2EC.5节定义。

6.6.2.2EC.5 Test requirements

6.6.2.2EC.5.1 Test requirements (network signalled value "NS_03")

When "NS_03" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4EC.5-1 as appropriate,

and

- the power of any UE emission shall fulfil requirements in Table 6.6.2.2EC.5.1-1, as applicable.

Table 6.6.2.2EC.5.1-1: Additional requirements (network signalled value "NS_03")

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth**
0-1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30 kHz
1-2.5	-11.5	-11.5	-11.5	-11.5	-11.5	-11.5	1 MHz
2.5-2.8	-23.5						1 MHz
2.8-5							1 MHz
5-6		-23.5					1 MHz
6-10			-23.5				1 MHz
10-15				-23.5			1 MHz
15-20					-23.5		1 MHz
20-25						-23.5	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5MHz and -0.5MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel
Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_03 as defined in TS 36.101 [2] subclause 6.2.4E Table 6.2.4E-2.
Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: (only for emission measurement) As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

6.6.2.2EC.5.2 Test requirements (network signalled value "NS_04")

When "NS_04" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4EC.5-2 as appropriate,

and

- the power of any UE emission shall fulfil requirements in Table 6.6.2.2EC.5.2-1, as applicable.

Table 6.6.2.2EC.5.2-1: Additional requirements (network signalled value "NS_04")

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth**
0-1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30 kHz
1-2.5	-11.5	-11.5	-11.5	-11.5	-11.5	-11.5	1 MHz
2.5-2.8	-23.5						1 MHz
2.8-5							1 MHz
5-6		-23.5	-23.5	-23.5	-23.5	-23.5	1 MHz
6-10							1 MHz
10-15							1 MHz
15-20							1 MHz
20-25							1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_04 as defined in TS 36.101 [2] subclause 6.2.4E Table 6.2.4E-2.
Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: (only for emission measurement) As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

6.6.2.2EC.5.3 Test requirements (network signalled value "NS_06" or "NS_07")

When "NS_06" or "NS_07" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4EC.5-4A, 6.2.4EC.5-4B and 6.2.4EC.5-5 as appropriate,

and

- the power of any UE emission shall fulfil requirements in Table 6.6.2.2EC.5.3-1, as applicable.

Table 6.6.2.2EC.5.3-1: Additional requirements (network signalled value "NS_06" or "NS_07")

	Spectrum emission limit (dBm)/ Channel bandwidth				
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**Measurement bandwidth**
0-0.1	-11.5	-11.5	-13.5	-16.5	30 kHz
0.1-1	-11.5	-11.5	-11.5	-11.5	100 kHz
1-2.5	-11.5	-11.5	-11.5	-11.5	1 MHz
2.5-2.8	-23.5				1 MHz
2.8-5					1 MHz
5-6		-23.5			1 MHz
6-10			-23.5		1 MHz
10-15				-23.5	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.085 MHz. The first and last measurement position with a 100 kHz filter is at ΔfOOB equals to 0.15 MHz and 0.95 MHz.

Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.

Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.

Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_06 and NS_07 as defined in TS 36.101 [2] subclause 6.2.4E Table 6.2.4E-2.

Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: (only for emission measurement) As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

6.6.2.2EC.5.4 Test requirements (network signalled value "NS_35")

When "NS_35" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4EC.5-16 as appropriate,

and

- the power of any UE emission shall fulfil requirements in Table 6.6.2.2EC.5.4-1, as applicable.

Table 6.6.2.2EC.5.4-1: Additional requirements (network signalled value "NS_35")

	Spectrum emission limit (dBm)/ Channel bandwidth				
Δf_{OOB} (MHz)	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth (unless otherwise stated)**
± 0-0.1	-13.5	-16.5	-18.5	-19.5	30 kHz
± 0.1-6	-11.5	-11.5	-11.5	-11.5	100 kHz
± 6-10	-23.5[5]	-11.5	-11.5	-11.5	100 kHz
± 10-15		-23.5[5]	-11.5	-11.5	100 kHz
± 15-20			-23.5[5]	-11.5	100 kHz
± 20-25				-23.5	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.085 MHz. The first and last measurement position with a 100 kHz filter is at ΔfOOB equals to 0.15 MHz and 0.95 MHz.

Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.

Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.

Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_35 as defined in TS 36.101 [2] subclause 6.2.4E Table 6.2.4E-2.

Note 5: The measurement bandwidth shall be 1 MHz

不同网络信令标签的UE类别V2X附加频谱发射要求在TS 36.521-1 [5]中的第6.6.2.2G.1.5节定义。

6.6.2.2G.1.5 Test requirements

When "NS_33" or "NS_34" is indicated in the cell,

- the measured UE mean power in the channel bandwidth, derived in step 2, shall fulfil the requirements described in subclass 6.2.4G.1.5;

And

- The power of any UE emission shall fulfil requirements in Table 6.6.2.2G.1.5-1 as applicable.

The power of any V2X UE emission shall not exceed the levels specified in Table 6.6.2.2G.1.3-1.

Table 6.6.2.2G.1.5-1: Additional requirements for 10MHz channel bandwidth

Spectrum emission limit (dBm)/ Channel bandwidth		
Δf_{OOB} (MHz)	**10 MHz**	**Measurement bandwidth**
± 0-0.5	$[-13 - 12(\|\Delta fOOB\|/_{MHz})]$ +2	100 kHz
± 0.5-5	$[-19 - \frac{16}{9}(\|\Delta fOOB\|/_{MHz} - 0.5)]$+2	100 kHz
± 5-10	$[-27 - 2(\|\Delta fOOB\|/_{MHz} - 5.0)]$+2	100 kHz

针对支持V2X通信或侧链路通信与E-UTRA上行发射同时进行的UE类别，不同网络信令标签所对应的附加频谱发射要求在TS 36.521-1 [5]中的第6.6.2.2G.2.5节定义。

6.6.2.2G.2.5 Test requirements

When "NS_33" or "NS_34" is indicated in the cell,

- the measured UE mean power in the channel bandwidth, derived in step 4, shall fulfil the requirements described in subclause 6.2.4G.1.5 for Power Class 3 or Power Class 2 UEs;

And

- The power of any UE emission shall fulfil requirements in Table 6.6.2.2G.2.5-1, 6.6.2.2G.2.5-2 or 6.6.2.2G.2.5-3 as applicable.

The E-UTRA uplink emission derived in step 5 shall fulfil requirements in Table 6.6.2.2G.2.5-1 or Table 6.6.2.2G.2.5-1 as applicable.

Table 6.6.2.2G.2.5-1: General E-UTRA spectrum emission mask, E-UTRA bands ≤ 3GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Measurement bandwidth
0-1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30 kHz
1-2.5	-8.5	-8.5	-8.5	-8.5	-8.5	-8.5	1 MHz
2.5-2.8	-23.5						1 MHz
2.8-5							1 MHz
5-6		-23.5	-11.5	-11.5	-11.5	-11.5	1 MHz
6-10			-23.5				1 MHz
10-15				-23.5			1 MHz
15-20					-23.5		1 MHz
20-25						-23.5	1 MHz
Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.							
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.							
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.							
Note 4: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.							

Table 6.6.2.2G.2.5-2: General E-UTRA spectrum emission mask, 3 GHz < E-UTRA bands ≤ 4.2 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Measurement bandwidth
0-1	-8.2	-11.2	-13.2	-16.2	-18.2	-19.2	30 kHz
1-2.5	-8.2	-8.2	-8.2	-8.2	-8.2	-8.2	1 MHz
2.5-2.8	-23.2						1 MHz
2.8-5							1 MHz
5-6		-23.2	-11.2	-11.2	-11.2	-11.2	1 MHz
6-10			-23.2				1 MHz
10-15				-23.2			1 MHz
15-20					-23.2		1 MHz
20-25						-23.2	1 MHz
Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.							
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.							
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.							
Note 4: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.							

The power of any V2X sidelink emission derived in step 6 shall not exceed the levels specified in Table 6.6.2.2G.2.5-3.

Table 6.6.2.2G.2.5-3: Additional requirements for 10 MHz channel bandwidth

Spectrum emission limit (dBm)/ Channel bandwidth		
Δf_{OOB} (MHz)	10 MHz	**Measurement bandwidth**
± 0-0.5	$[-13 - 12(\lvert\Delta fOOB\rvert / MHz)] + 2$	100 kHz
± 0.5-5	$[-19 - \frac{16}{9}(\lvert\Delta fOOB\rvert / MHz - 0.5)] + 2$	100 kHz
± 5-10	$[-27 - 2(\lvert\Delta fOOB\rvert / MHz - 5.0)] + 2$	100 kHz

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

用于不同网络信令标签的UE子时隙/时隙TTI附加频谱发射要求，在TS 36.521-1 [5]中的第6.6.2.2_s.5节定义。

6.6.2.2_s.5 Test requirements

6.6.2.2_s.5.1 Test requirements (network signalled value "NS_03", “NS_11”, “NS_20” and “NS_21”)

When "NS_03" or “NS_11” or “NS_20” or “NS_21” is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-1, 6.2.4.5-2 ,6.2.4.5-11, 6.2.4.5-20 and 6.2.4.5-21 as appropriate,

and

- the power of any UE emission shall fulfil requirements in Table 6.6.2.2_s.5.1-1 or 6.6.2.2_s.5.1-2, as applicable.

Table 6.6.2.2_s.5.1-1: Additional requirements (network signalled value "NS_03", “NS_11”, “NS_20” and “NS_21”), E-UTRA bands ≤ 3 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth**
0-1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30 kHz
1-2.5	-11.5	-11.5	-11.5	-11.5	-11.5	-11.5	1 MHz
2.5-2.8	-23.5						1 MHz
2.8-5							1 MHz
5-6		-23.5					1 MHz
6-10			-23.5				1 MHz
10-15				-23.5			1 MHz
15-20					-23.5		1 MHz
20-25						-23.5	1 MHz
Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz. Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively. Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.							

Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_03 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.
Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

Table 6.6.2.2_s.5.1-2: Additional requirements (network signalled value "NS_03", "NS_11", "NS_20" and "NS_21"), 3 GHz < E-UTRA bands ≤ 4.2 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Measurement bandwidth
0-1	-8.2	-11.2	-13.2	-16.2	-18.2	-19.2	30 kHz
1-2.5	-11.2	-11.2	-11.2	-11.2	-11.2	-11.2	1 MHz
2.5-2.8	-23.2						1 MHz
2.8-5							1 MHz
5-6		-23.2					1 MHz
6-10			-23.2				1 MHz
10-15				-23.2			1 MHz
15-20					-23.2		1 MHz
20-25						-23.2	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_03 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.
Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: (only for emission measurement) As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

6.6.2.2_s.5.2 Test requirements (network signalled value "NS_04")

When "NS_04" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-3,

and

- the power of any UE emission shall fulfil requirements in Table 6.6.2.2_s.5.2-1.

Table 6.6.2.2_s.5.2-1: Additional requirements (network signalled value "NS_04")

	Spectrum emission limit (dBm)/ Channel bandwidth				
Δf_{OOB} (MHz)	5 MHz	10 MHz	15 MHz	20 MHz	Measurement bandwidth
± 0-1	-13.5	-16.5	-18.5	-19.5	30 kHz
± 1-2.5	-8.5	--8.5	-8.5	-8.5	1 MHz
± 2.5-2.8					1 MHz
± 2.8-5					1 MHz
± 5-6	-11.5	-11.5	-11.5	-11.5	1 MHz
± 6-9	-23.5				1 MHz
± 9-10		-23.5			1 MHz
± 10-13.5					1 MHz
± 13.5-15			-23.5		1 MHz
± 15-18					1 MHz

± 18-20				-23.5	1 MHz
± 20-25					1 MHz

NOTE: (only for emission measurement) As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

6.6.2.2_s.5.3 Test requirements (network signalled value "NS_06" or "NS_07")

When "NS_06" or "NS_07" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-5, 6.2.4.5-6 and 6.2.4.5-7,

and

- the power of any UE emission shall fulfil requirements in Table 6.6.2.2_s.5.3-1 or Table.6.6.2.2_s.5.3-2, as applicable.

Table 6.6.2.2_s.5.3-1: Additional requirements (network signalled value "NS_06" or "NS_07"), E-UTRA bands ≤ 3 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth				
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**Measurement bandwidth**
0-0.1	-11.5	-11.5	-13.5	-16.5	30 kHz
0.1-1	-11.5	-11.5	-11.5	-11.5	100 kHz
1-2.5	-11.5	-11.5	-11.5	-11.5	1 MHz
2.5-2.8	-23.5				1 MHz
2.8-5					1 MHz
5-6		-23.5			1 MHz
6-10			-23.5		1 MHz
10-15				-23.5	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.085 MHz. The first and last measurement position with a 100 kHz filter is at ΔfOOB equals to 0.15 MHz and 0.95 MHz.

Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.

Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.

Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_06 and NS_07 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1.

Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

Table 6.6.2.2_s.5.3-2: Additional requirements (network signalled value "NS_06" or "NS_07"), 3 GHz < E-UTRA bands ≤ 4.2 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth

Δf_{OOB} (MHz)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	Measurement bandwidth
0-0.1	-11.2	-11.2	-13.2	-16.2	30 kHz
0.1-1	-11.2	-11.2	-11.2	-11.2	100 kHz
1-2.5	-11.2	-11.2	-11.2	-11.2	1 MHz
2.5-2.8	-23.2				1 MHz
2.8-5					1 MHz
5-6		-23.2			1 MHz
6-10			-23.2		1 MHz
10-15				-23.2	1 MHz
Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.085 MHz. The first and last measurement position with a 100 kHz filter is at ΔfOOB equals to 0.15 MHz and 0.95 MHz. Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively. Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel. Note 4: Above SEM requirement applies to bands corresponding to network signalling value NS_06 and NS_07 as defined in TS 36.101 [2] subclause 6.2.4 Table 6.2.4-1. Note 5: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.					

NOTE: (only for emission measurement) As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

6.6.2.2_s.5.4 Test requirements (network signalled value "NS_27")

When "NS_27" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-27,

and

- the power of any UE emission shall fulfil requirements in Table 6.6.2.2_s.5.4-1, as applicable.

Table 6.6.2.2_s.5.4-1: Additional requirements (network signalled value "NS_27")

	Spectrum emission limit (dBm)/ Channel bandwidth				
Δf_{OOB} (MHz)	5 MHz	10 MHz	15 MHz	20 MHz	Measurement bandwidth
± 0-1	-11.2	-11.2	-11.2	-11.2	Note 1
± 1-10	-11.2	-11.2	-11.2	-11.2	1 MHz
± 10-15		-23.2	-23.2	-23.2	1 MHz
± 15-20			-23.2	-23.2	1 MHz
± 20-25				-23.2	1 MHz
Note 1: The measurement bandwidth is 1% of the applicable E-UTRA channel bandwidth.					

6.6.2.2_s.5.5 Test requirements (network signalled value "NS_35")

When "NS_35" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-28,

and

- the power of any UE emission shall fulfil requirements in Table 6.6.2.2_s.5.5-1, as applicable.

Table 6.6.2.2_s.5.5-1: Additional requirements (network signalled value "NS_35")

Δf_{OOB} (MHz)	5 MHz	10 MHz	15 MHz	20 MHz	Measurement bandwidth (unless otherwise stated)
± 0-0.1	-13.5	-16.5	-18.5	-19.5	30 kHz
± 0.1-6	-11.5	-11.5	-11.5	-11.5	100 kHz
± 6-10	-23.5[1]	-11.5	-11.5	-11.5	100 kHz
± 10-15		-23.5[1]	-11.5	-11.5	100 kHz
± 15-20			-23.5[1]	-11.5	100 kHz
± 20-25				-23.5	1 MHz
Note 1: The measurement bandwidth shall be 1 MHz					

1.2.1.3 相邻信道泄漏比

相邻信道泄漏比（ACLR）是以指配信道频率为中心的滤波平均功率与以相邻信道频率为中心的滤波平均功率之比。

TS 36.521-1 [5]中定义了E-UTRA和UTRA ACLR要求。参见第6.6.2.3.5.1节。

6.6.2.3.5.1 Test requirements E-UTRA

- The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3.5-1 as appropriate,

and

- if the measured adjacent channel power is greater than –50 dBm then the measured E-UTRA$_{ACLR}$, derived in step 7, shall be higher than the limits in table 6.6.2.3.5.1-1.

Table 6.6.2.3.5.1-1: E-UTRA UE ACLR

	Channel bandwidth / E-UTRA$_{ACLR1}$ / measurement bandwidth					
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz
E-UTRA$_{ACLR1}$	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UE channel	+1.4 MHz or -1.4 MHz	+3 MHz or -3 MHz	+5 MHz or -5 MHz	+10 MHz or -10 MHz	+15 MHz or -15 MHz	+20 MHz or -20 MHz

Test requirements UTRA

If the measured UTRA channel power is greater than –50 dBm then the measured UTRA$_{ACLR1}$, UTRA$_{ACLR2}$, derived in step 8, shall be higher than the limits in table 6.6.2.3.5.2-1.

Table 6.6.2.3.5.2-1: UTRA UE ACLR

	Channel bandwidth / UTRA$_{ACLR1/2}$ / measurement bandwidth					
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz
UTRA$_{ACLR1}$	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB

Adjacent channel centre frequency offset (in MHz)	0.7+BW_{UTRA}/2 / -0.7-BW_{UTRA}/2	1.5+BW_{UTRA}/2 / -1.5-BW_{UTRA}/2	2.5+BW_{UTRA}/2 / -2.5-BW_{UTRA}/2	5+BW_{UTRA}/2 / -5-BW_{UTRA}/2	7.5+BW_{UTRA}/2 / -7.5-BW_{UTRA}/2	10+BW_{UTRA}/2 / -10-BW_{UTRA}/2
$UTRA_{ACLR2}$	-	-	35.2 dB	35.2 dB	35.2 dB	35.2 dB
Adjacent channel centre frequency offset (in MHz)	-	-	2.5+3*BW_{UTRA}/2 / -2.5-3*BW_{UTRA}/2	5+3*BW_{UTRA}/2 / -5-3*BW_{UTRA}/2	7.5+3*BW_{UTRA}/2 / -7.5-3*BW_{UTRA}/2	10+3*BW_{UTRA}/2 / -10-3*BW_{UTRA}/2
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UTRA 5 MHz channel Measurement bandwidth[1]	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz
UTRA 1.6 MHz channel measurement bandwidth[2]	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz
Note 1: Applicable for E-UTRA FDD co-existence with UTRA FDD in paired spectrum. Note 2: Applicable for E-UTRA TDD co-existence with UTRA TDD in unpaired spectrum. Note 3: BW_{UTRA} for UTRA FDD is 5 MHz and for UTRA TDD is 1.6 MHz.						

HPUE ACLR要求在TS 36.521-1 [5]中定义。参见第6.6.2.3_1.5节。

6.6.2.3_1.5 Test requirement

6.6.2.3_1.5.1 Test requirements E-UTRA

- The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3_1.5-1 as appropriate,

and

- if the measured adjacent channel power is greater than –50 dBm then the measured $E\text{-}UTRA_{ACLR}$, derived in step 6, shall be higher than the limits in table 6.6.2.3_1.4.1-1 for Power Class1 UE and in table 6.6.2.3_1.4.1-2 for Power Class 2 UE.

Table 6.6.2.3_1.4.1-1: E-UTRA UE ACLR for Power Class 1

	Channel bandwidth / $E\text{-}UTRA_{ACLR1}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
$E\text{-}UTRA_{ACLR1}$	N/A	N/A	36.2 dB	36.2 dB	N/A	N/A
E-UTRA channel Measurement bandwidth	N/A	N/A	4.5 MHz	9.0 MHz	N/A	N/A
UE channel	N/A	N/A	+5 MHz or -5 MHz	+10 MHz or -10 MHz	N/A	N/A

Table 6.6.2.3_1.4.1-2: E-UTRA UE ACLR for Power Class 2

	Channel bandwidth / E-UTRA$_{ACLR1}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
E-UTRA$_{ACLR1}$	N/A	N/A	30.2 dB	30.2 dB	30.2 dB	30.2 dB
E-UTRA channel Measurement bandwidth	N/A	N/A	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UE channel	N/A	N/A	+5 MHz or -5 MHz	+10 MHz or -10 MHz	+15 MHz or -15 MHz	+20 MHz or -20 MHz

多集群PUSCH ACLR要求在TS 36.521-1 [5]中定义。参见第6.6.2.3_2.5节。

6.6.2.3_2.5 Test requirement

6.6.2.3_2.5.1 Test requirements E-UTRA

- The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3_2.5-1 as appropriate,

and

- if the measured adjacent channel power is greater than –50 dBm then the measured E-UTRA$_{ACLR}$, derived in step 7, shall be higher than the limits in table 6.6.2.3_2.5.1-1.

Table 6.6.2.3_2.5.1-1: E-UTRA UE ACLR

	Channel bandwidth / E-UTRA$_{ACLR1}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
E-UTRA$_{ACLR1}$	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UE channel	+1.4 MHz or -1.4 MHz	+3 MHz or -3 MHz	+5 MHz or -5 MHz	+10 MHz or -10 MHz	+15 MHz or -15 MHz	+20 MHz or -20 MHz

6.6.2.3_2.5.2 Test requirements UTRA

If the measured UTRA channel power is greater than –50dBm then the measured UTRA$_{ACLR1}$, UTRA$_{ACLR2}$, derived in step 8, shall be higher than the limits in table 6.6.2.3_2.5.2-1.

Table 6.6.2.3_2.5.2-1: UTRA UE ACLR

	Channel bandwidth / UTRA$_{ACLR1/2}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
UTRA$_{ACLR1}$	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB
Adjacent channel centre frequency offset (in MHz)	0.7+BW$_{UTRA}$/2 / -0.7-BW$_{UTRA}$/2	1.5+BW$_{UTRA}$/2 / -1.5-BW$_{UTRA}$/2	2.5+BW$_{UTRA}$/2 / -2.5-BW$_{UTRA}$/2	5+BW$_{UTRA}$/2 / -5-BW$_{UTRA}$/2	7.5+BW$_{UTRA}$/2 / -7.5-BW$_{UTRA}$/2	10+BW$_{UTRA}$/2 / -10-BW$_{UTRA}$/2
UTRA$_{ACLR2}$	-	-	35.2 dB	35.2 dB	35.2 dB	35.2 dB
Adjacent channel centre frequency	-	-	2.5+3*BW$_{UTRA}$/2 / -2.5-3*BW$_{UTRA}$/2	5+3*BW$_{UTRA}$/2 / -5-3*BW$_{UTRA}$/2	7.5+3*BW$_{UTRA}$/2 / -7.5-3*BW$_{UTRA}$/2	10+3*BW$_{UTRA}$/2 / -10-3*BW$_{UTRA}$/2

offset (in MHz)						
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UTRA 5MHz channel Measurement bandwidth[1]	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz
UTRA 1.6MHz channel measurement bandwidth[2]	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz
Note 1: Applicable for E-UTRA FDD co-existence with UTRA FDD in paired spectrum. Note 2: Applicable for E-UTRA TDD co-existence with UTRA TDD in unpaired spectrum. Note 3: BW_{UTRA} for UTRA FDD is 5MHz and for UTRA TDD is 1.6 MHz.						

UL 64-QAM ACLR要求在TS 36.521-1 [5]中定义。参见第6.6.2.3_3.5节。

6.6.2.3_3.5 Test requirement

6.6.2.3_3.5.1 Test requirements E-UTRA

- The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3_1.5-1 as appropriate, and
- if the measured adjacent channel power is greater than –50 dBm then the measured E-$UTRA_{ACLR}$, derived in step 7, shall be higher than the limits in table 6.6.2.3_3.5.1-1.

Table 6.6.2.3_3.5.1-1: E-UTRA UE ACLR

	Channel bandwidth / E-$UTRA_{ACLR1}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
E-$UTRA_{ACLR1}$	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UE channel	+1.4 MHz or -1.4 MHz	+3 MHz or -3 MHz	+5 MHz or -5 MHz	+10 MHz or -10 MHz	+15 MHz or -15 MHz	+20 MHz or -20 MHz

6.6.2.3_3.5.2 Test requirements UTRA

If the measured UTRA channel power is greater than –50dBm then the measured $UTRA_{ACLR1}$, $UTRA_{ACLR2}$, derived in step 8, shall be higher than the limits in table 6.6.2.3_3.5.2-1.

Table 6.6.2.3_3.5.2-1: UTRA UE ACLR

	Channel bandwidth / $UTRA_{ACLR1/2}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
$UTRA_{ACLR1}$	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB
Adjacent channel centre frequency	0.7+BW_{UTRA}/2 / -0.7-BW_{UTRA}/2	1.5+BW_{UTRA}/2 / -1.5-BW_{UTRA}/2	2.5+BW_{UTRA}/2 / -2.5-BW_{UTRA}/2	5+BW_{UTRA}/2 / -5-BW_{UTRA}/2	7.5+BW_{UTRA}/2 / -7.5-BW_{UTRA}/2	10+BW_{UTRA}/2 / -10-BW_{UTRA}/2

offset (in MHz)						
$UTRA_{ACLR2}$	-	-	35.2 dB	35.2 dB	35.2 dB	35.2 dB
Adjacent channel centre frequency offset (in MHz)	-	-	2.5+3*BW_{UTRA}/2 / -2.5-3*BW_{UTRA}/2	5+3*BW_{UTRA}/2 / -5-3*BW_{UTRA}/2	7.5+3*BW_{UTRA}/2 / -7.5-3*BW_{UTRA}/2	10+3*BW_{UTRA}/2 / -10-3*BW_{UTRA}/2
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UTRA 5MHz channel Measurement bandwidth[1]	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz
UTRA 1.6MHz channel measurement bandwidth[2]	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz
Note 1: Applicable for E-UTRA FDD co-existence with UTRA FDD in paired spectrum. Note 2: Applicable for E-UTRA TDD co-existence with UTRA TDD in unpaired spectrum. Note 3: BW_{UTRA} for UTRA FDD is 5MHz and for UTRA TDD is 1.6 MHz.						

具有UL 64-QAM ACLR要求的多集群PUSCH在TS 36.521-1 [5]中定义。参见第6.6.2.3_4.5节。

6.6.2.3_4.5 Test requirement

Same test requirements as in clause 6.6.2.3_2.5 with following exception:

- Instead of Table 6.2.3_2.5-1 → use Table 6.2.3_4.5-1

Table 6.2.3_4.5-1: UE Power Class test requirements for Multi-Cluster PUSCH with UL 64QAM

Configuration ID	EUTRA band	Class 1 (dBm)	Tol. (dB)	Class 2 (dBm)	Tol. (dB)	Class 3 (dBm)	Tol. (dB)
1	31, 51,72					23	+2.7 / -12.7
2	31, 51, 72					23	+2.7 / -7.7
3	31, 51, 72					23	+2.7 / -7.7
4	5, 6, 8, 11, 12, 13, 14, 17, 24, 27, 30					23	+2.7 / -12.7
5	5, 6, 8, 11, 12, 13, 14, 17, 27, 30					23	+2.7 / -7.7
5	24					23	+2.7 / [1,2] -7.7
6	11, 12, 13, 14, 17, 27, 30					23	+2.7 / -7.7
6	24					23	+2.7 / [1,2] -7.7
7	18, 19, 21, 26, 34, 68					23	+2.7 / -11.7
8	18, 19, 21, 26, 34, 68					23	+2.7 / -7.7

9	18, 19, 21, 26, 34, 68					23	+2.7 / -7.7
10	1, 2, 3, 4, 7, 9, 10, 20, 23, 25, 28, 33, 35, 36, 37, 38, 39, 40, 41, 44, 45, 50, 65, 66, 70, 71					23	+2.7 / -13.2
10	22, 42, 43, 48					23	+2.7 / -13.5
11	1, 2, 3, 4, 7, 9, 10, 20, 23, 25, 28,33, 35, 36, 37, 38, 39, 40, 41, 44, 45, 50, 65, 66, 70, 71					23	+2.7 / -7.7
11	22, 42, 43, 48					23	+2.7 / -8.0
12	1, 2, 3, 4, 7, 9, 10, 20, 23, 25, 28,33, 35, 36, 37, 38, 39, 40, 41, 44, 45, 50, 65, 66, 70, 71					23	+2.7 / -7.7
12	22, 42, 43, 48					23	+2.7 / -8.0
Note 1: For transmission bandwidths (Figure 5.4.2-1) confined within FUL_low and FUL_low + 4 MHz or FUL_high – 4 MHz and FUL_high, the maximum output power requirement is relaxed by reducing the lower tolerance limit by 1.5 dB. Note 2: For the UE maximum output power modified by MPR, the power limits specified in Table 6.2.5.3-1 apply							

UL 256-QAM ACLR要求在TS 36.521-1 [5]中定义。参见第6.6.2.3_5.5节。

6.6.2.3_5.5 Test requirement

6.6.2.3_5.5.1 Test requirements E-UTRA

- The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3_5.5-1 as appropriate, and
- if the measured adjacent channel power is greater than –50 dBm then the measured E-UTRA$_{ACLR}$, derived in step 7, shall be higher than the limits in table 6.6.2.3_5.5.1-1.

Table 6.6.2.3_5.5.1-1: E-UTRA UE ACLR

	Channel bandwidth / E-UTRA$_{ACLR1}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
E-UTRA$_{ACLR1}$	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UE channel	+1.4 MHz or -1.4 MHz	+3 MHz or -3 MHz	+5 MHz or -5 MHz	+10 MHz or -10 MHz	+15 MHz or -15 MHz	+20 MHz or -20 MHz

6.6.2.3_5.5.2 Test requirements UTRA

If the measured UTRA channel power is greater than –50dBm then the measured $UTRA_{ACLR1}$, $UTRA_{ACLR2}$, derived in step 8, shall be higher than the limits in table 6.6.2.3_5.5.2-1.

Table 6.6.2.3_5.5.2-1: UTRA UE ACLR

	Channel bandwidth / $UTRA_{ACLR1/2}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
$UTRA_{ACLR1}$	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB
Adjacent channel centre frequency offset (in MHz)	0.7+BW_{UTRA}/2 / -0.7-BW_{UTRA}/2	1.5+BW_{UTRA}/2 / -1.5-BW_{UTRA}/2	2.5+BW_{UTRA}/2 / -2.5-BW_{UTRA}/2	5+BW_{UTRA}/2 / -5-BW_{UTRA}/2	7.5+BW_{UTRA}/2 / -7.5-BW_{UTRA}/2	10+BW_{UTRA}/2 / -10-BW_{UTRA}/2
$UTRA_{ACLR2}$	-	-	35.2 dB	35.2 dB	35.2 dB	35.2 dB
Adjacent channel centre frequency offset (in MHz)	-	-	2.5+3*BW_{UTRA}/2 / -2.5-3*BW_{UTRA}/2	5+3*BW_{UTRA}/2 / -5-3*BW_{UTRA}/2	7.5+3*BW_{UTRA}/2 / -7.5-3*BW_{UTRA}/2	10+3*BW_{UTRA}/2 / -10-3*BW_{UTRA}/2
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UTRA 5MHz channel Measurement bandwidth[1]	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz
UTRA 1.6MHz channel measurement bandwidth[2]	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz

Note 1: Applicable for E-UTRA FDD co-existence with UTRA FDD in paired spectrum.
Note 2: Applicable for E-UTRA TDD co-existence with UTRA TDD in unpaired spectrum.
Note 3: BW_{UTRA} for UTRA FDD is 5MHz and for UTRA TDD is 1.6 MHz.

具有UL 256-QAM ACLR要求的多集群PUSCH在TS 36.521-1 [5]中定义。参见第6.6.2.3_6.5节。

6.6.2.3_6.5 Test requirement

Same test requirements as in clause 6.6.2.3_2.5 with following exception:

- Instead of Table 6.2.3_2.5-1 → use Table 6.2.3_6.5-1

Table 6.2.3_6.5-1: UE Power Class test requirements for Multi-Cluster PUSCH with UL 256QAM

Configuration ID	EUTRA band	Class 1 (dBm)	Tol. (dB)	Class 2 (dBm)	Tol. (dB)	Class 3 (dBm)	Tol. (dB)
1	31, 51, 72, 73					23	+2,7 / -12,7
2	31, 51, 72, 73					23	+2,7 / -11,2
3	31, 51, 72, 73					23	+2,7 / -11,2

4	5, 6, 8, 11, 12, 13, 14, 17, 24, 27, 30					23	+2,7 / -12,7
5	5, 6, 8, 11, 12, 13, 14, 17, 24, 27, 30					23	+2,7 / -11,2
6	5, 6, 8, 11, 12, 13, 14, 17, 24, 27, 30					23	+2,7 / -11,2
7	18, 19, 21, 26, 34, 68					23	+2,7 / -11,7
8	18, 19, 21, 26, 34, 68					23	+2,7 / -11,2
9	18, 19, 21, 26, 34, 68					23	+2,7 / -11,2
10	1, 2, 3, 4, 7, 9, 10, 20, 23, 25, 28, 33, 35, 36, 37, 38, 39, 40, 41, 44, 45, 50, 65, 66, 70, 71, 74					23	+2,7 / -13,2
	22, 42, 43, 48					23	+3,0 / -13,5
11	1, 2, 3, 4, 7, 9, 10, 20, 23, 25, 28, 33, 35, 36, 37, 38, 39, 40, 41, 44, 45, 50, 65, 66, 70, 71, 74					23	+2,7 / -11,2
	22, 42, 43, 48					23	+3,0 / -11,5
12	1, 2, 3, 4, 7, 9, 10, 20, 23, 25, 28, 33, 35, 36, 37, 38, 39, 40, 41, 44, 45, 50, 65, 66, 70, 71, 74					23	+2,7 / -11,2
	22, 42, 43, 48					23	+3,0 / -11,5

CA ACLR要求在TS 36.521-1 [5]中定义。参见第6.6.2.3A.1.5节。

6.6.2.3A.1.5 Test Requirements

6.6.2.3A.1.5.1 Test requirements of UTRA for CA

If the measured UTRA channel power is greater than –50dBm then the measured $UTRA_{ACLR1}$ and $UTRA_{ACLR2}$, derived in step 11, shall be higher than the limits in table 6.6.2.3A.1.5.1-1.

Table 6.6.2.3A.1.5.1-1: UTRA UE ACLR for CA

	CA bandwidth class / $UTRA_{ACLR1/2}$ / measurement bandwidth
	CA bandwidth class B and C
$UTRA_{ACLR1}$	32.2 dB

Adjacent channel centre frequency offset (in MHz)	+ $BW_{Channel_CA}$ /2 + BW_{UTRA}/2 / - $BW_{Channel_CA}$ / 2 - BW_{UTRA}/2
$UTRA_{ACLR2}$	35.2 dB
Adjacent channel centre frequency offset (in MHz)	+ $BW_{Channel_CA}$ /2 + 3*BW_{UTRA}/2 / - $BW_{Channel_CA}$ /2 – 3*BW_{UTRA}/2
CA E-UTRA channel Measurement bandwidth	$BW_{Channel_CA}$ - 2* BW_{GB}
UTRA 5MHz channel Measurement bandwidth (Note 1)	3.84 MHz
UTRA 1.6MHz channel measurement bandwidth (Note 2)	1.28 MHz
Note 1: Applicable for E-UTRA FDD co-existence with UTRA FDD in paired spectrum. Note 2: Applicable for E-UTRA TDD co-existence with UTRA TDD in unpaired spectrum.	

6.6.2.3A.1.5.2 Test requirements of CA E-UTRA

- The measured UE mean power in the channel bandwidth as specified in clause 5.4.2A, derived in step 6, shall fulfil requirements in Table 6.2.3A.1.5-1 as appropriate,

and

- if the measured adjacent channel power is greater than –50 dBm then the measured CA E-$UTRA_{ACLR}$, derived in step 10, shall be higher than the limits in table 6.6.2.3A.1.5.2-1.

Table 6.6.2.3A.1.5.2-1: CA E-UTRA ACLR

	CA bandwidth class / CA E-$UTRA_{ACLR}$ / Measurement bandwidth
	CA bandwidth class B and C
CA E-$UTRA_{ACLR}$	29.2 dB
CA E-UTRA channel Measurement bandwidth	$BW_{Channel_CA}$ - 2* BW_{GB}
Adjacent channel centre frequency offset (in MHz)	+ $BW_{Channel_CA}$ / - $BW_{Channel_CA}$

用于UL 64-QAM ACLR要求的CA（带内连续DL CA和UL CA）在TS 36.521-1 [5]中定义。参见第6.6.2.3A.1_1.5节。

6.6.2.3A.1_1.5 Test requirement

Same test requirement as defined in clause 6.6.2.3A.1.5 with following exceptions:

- Instead of Table 6.2.3A.1.5-1 → use Table 6.2.3A.1_1.5-1.

Table 6.2.3A.1_1.5-1: CA UE Power Class test requirements, E UTRA bands ≤ 3 GHz

Configuration ID	Class 1 (dBm)	Tol. (dB)	Class 2 (dBm)	Tol. (dB)	Class 3 (dBm)	Tol. (dB)
1					23	+2.7/-4.7
2					23	+2.7/-6.2
3					23	+2.7/-6.2
4					23	+2.7/-4.7
5					23	+2.7/-6.2
6					23	+2.7/-6.2
7					23	+2.7/-4.7

8					23	+2.7/-6.2
9					23	+2.7/-6.2
10					23	+2.7/-4.7
11					23	+2.7/-6.2
12					23	+2.7/-6.2
13					23	+2.7/-4.7
14					23	+2.7/-6.2
15					23	+2.7/-6.2
16					23	+2.7/-4.7
17					23	+2.7/-6.2
18					23	+2.7/-6.2
19					23	+2.7/-4.7
20					23	+2.7/-6.2
21					23	+2.7/-6.2
22					23	+2.7/-4.7
23					23	+2.7/-6.2
24					23	+2.7/-6.2
NOTE 1: Lower limit is assuming ΔTC,c and ΔTIB,c are zero. If non-zero, PCMAX,c will decrease and T(PCMAX_L,c) may be higher resulting in different test requirements according to Table 6.2.5A.1.3-1.						

用于UL 256-QAM ACLR要求的CA（带内连续DL CA和UL CA）在TS 36.521-1 [5]中定义。参见第6.6.2.3A.1_2.5节。

6.6.2.3A.1_2.5 Test requirement

Same test requirement as defined in clause 6.6.2.3A.1.5 with following exception:

- Instead of Table 6.2.3A.1.5-1 → use Table 6.2.3A.1_2.5-1.

Table 6.2.3A.1_2.5-1: CA UE Power Class test requirements, E UTRA bands ≤ 3 GHz

Configuration ID	Class 1 (dBm)	Tol. (dB)	Class 2 (dBm)	Tol. (dB)	Class 3 (dBm)	Tol. (dB)
1					23	+2.7/-9.7
2					23	+2.7/-9.7
3					23	+2.7/-9.7
4					23	+2.7/-9.7
5					23	+2.7/-9.7
6					23	+2.7/-9.7
7					23	+2.7/-9.7
8					23	+2.7/-9.7
9					23	+2.7/-9.7
10					23	+2.7/-9.7
11					23	+2.7/-9.7
12					23	+2.7/-9.7
13					23	+2.7/-9.7
14					23	+2.7/-9.7
15					23	+2.7/-9.7
16					23	+2.7/-9.7
17					23	+2.7/-9.7
18					23	+2.7/-9.7
NOTE 1: Lower limit is assuming ΔTIB,c is zero. If non-zero, PCMAX,c will decrease and T(PCMAX_L,c) may be higher resulting in different test requirements according to Table 6.2.5A.1.3-1.						

用于HPUE ACLR要求的CA（带内连续DL CA和UL CA）在TS 36.521-1 [5]中定义。参见第6.6.2.3A.1_3.5节。

6.6.2.3A.1_3.5 Test Requirements

6.6.2.3A.1_3.5.1 Test requirements of UTRA for CA

If the measured UTRA channel power is greater than –50 dBm then the measured $UTRA_{ACLR1}$ and $UTRA_{ACLR2}$, derived in step 11, shall be higher than the limits in Table 6.6.2.3A.1.5.1-1.

Table 6.6.2.3A.1.5.1-1: UTRA UE ACLR for CA

	CA bandwidth class / $UTRA_{ACLR1/2}$ / measurement bandwidth
	CA bandwidth class B and C
$UTRA_{ACLR1}$	32.2 dB
Adjacent channel centre frequency offset (in MHz)	+ $BW_{Channel_CA}$ /2 + BW_{UTRA}/2 / - $BW_{Channel_CA}$ / 2 - BW_{UTRA}/2
$UTRA_{ACLR2}$	35.2 dB
Adjacent channel centre frequency offset (in MHz)	+ $BW_{Channel_CA}$ /2 + 3*BW_{UTRA}/2 / - $BW_{Channel_CA}$ /2 – 3*BW_{UTRA}/2
CA E-UTRA channel Measurement bandwidth	$BW_{Channel_CA}$ - 2* BW_{GB}
UTRA 5MHz channel Measurement bandwidth (Note 1)	3.84 MHz
UTRA 1.6MHz channel measurement bandwidth (Note 2)	1.28 MHz
Note 1: Applicable for E-UTRA FDD co-existence with UTRA FDD in paired spectrum. Note 2: Applicable for E-UTRA TDD co-existence with UTRA TDD in unpaired spectrum.	

6.6.2.3A.1_3.5.2 Test requirements of CA E-UTRA

- The measured UE mean power in the channel bandwidth as specified in clause 5.4.2A, derived in step 6, shall fulfil requirements in Table 6.2.3A.1.5-1 as appropriate,

and

- if the measured adjacent channel power is greater than –50 dBm then the measured CA $E\text{-}UTRA_{ACLR}$, derived in step 10, shall be higher than the limits in table 6.6.2.3A.1.5.2-1.

Table 6.6.2.3A.1_3.5.2-1: CA E-UTRA ACLR

	CA bandwidth class / CA $E\text{-}UTRA_{ACLR}$ / Measurement bandwidth
	CA bandwidth class B and C
CA $E\text{-}UTRA_{ACLR}$	29.2 dB
CA E-UTRA channel Measurement bandwidth	$BW_{Channel_CA}$ - 2* BW_{GB}
Adjacent channel centre frequency offset (in MHz)	+ $BW_{Channel_CA}$ / - $BW_{Channel_CA}$

CA（带内DL CA和UL-CA）ACLR要求在TS 36.521-1 [5]中定义。参见第6.6.2.3A.2.5节。

6.6.2.3A.2.5 Test Requirements

6.6.2.3A.2.5.1 Test requirements of UTRA for CA

If the measured UTRA channel power is greater than –50 dBm then the measured $UTRA_{ACLR1}$ and $UTRA_{ACLR2}$, derived in step 11, shall be higher than the limits in Table 6.6.2.3A.2.5.1-1.

Table 6.6.2.3A.2.5.1-1: UTRA UE ACLR for CA

	Channel bandwidth / $UTRA_{ACLR1/2}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
$UTRA_{ACLR1}$	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB
Adjacent channel centre frequency offset (in MHz)	0.7+BW_{UTRA}/2 / -0.7-BW_{UTRA}/2	1.5+BW_{UTRA}/2 / -1.5-BW_{UTRA}/2	2.5+BW_{UTRA}/2 / -2.5-BW_{UTRA}/2	5+BW_{UTRA}/2 / -5-BW_{UTRA}/2	7.5+BW_{UTRA}/2 / -7.5-BW_{UTRA}/2	10+BW_{UTRA}/2 / -10-BW_{UTRA}/2
$UTRA_{ACLR2}$	-	-	35.2 dB	35.2 dB	35.2 dB	35.2 dB
Adjacent channel centre frequency offset (in MHz)	-	-	2.5+3*BW_{UTRA}/2 / -2.5-3*BW_{UTRA}/2	5+3*BW_{UTRA}/2 / -5-3*BW_{UTRA}/2	7.5+3*BW_{UTRA}/2 / -7.5-3*BW_{UTRA}/2	10+3*BW_{UTRA}/2 / -10-3*BW_{UTRA}/2
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UTRA 5MHz channel Measurement bandwidth[1]	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz
UTRA 1.6MHz channel measurement bandwidth[2]	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz
Note 1: Applicable for E-UTRA FDD co-existence with UTRA FDD in paired spectrum. Note 2: Applicable for E-UTRA TDD co-existence with UTRA TDD in unpaired spectrum. Note 3: BW_{UTRA} for UTRA FDD is 5MHz and for UTRA TDD is 1.6 MHz.						

6.6.2.3A.2.5.2 Test requirements of CA E-UTRA

- The measured UE mean power in the channel bandwidth as specified in clause 5.4.2A, derived in step 6, shall fulfil requirements in Table 6.2.3A.2.5-1 as appropriate,

and

- if the measured adjacent channel power is greater than –50 dBm then the measured CA $E\text{-}UTRA_{ACLR}$, derived in step 10, shall be higher than the limits in table 6.6.2.3A.2.5.2-1.

Table 6.6.2.3A.2.5.2-1: CA E-UTRA ACLR

	Channel bandwidth / $E\text{-}UTRA_{ACLR1}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
$E\text{-}UTRA_{ACLR1}$	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz

UE channel	+1.4 MHz or -1.4 MHz	+3 MHz or -3 MHz	+5 MHz or -5 MHz	+10 MHz or -10 MHz	+15 MHz or -15 MHz	+20 MHz or -20 MHz

6.6.2.3A.2.5.3 Test requirements of E-UTRA (network signalled value “NS_29”)

When "NS_29" is indicated in the cell, the UE emission shall meet the additional requirements specified in Table 6.6.2.3A.2.5.3-1 for E-UTRA channels assigned within the frequency ranges 5 150-5 350 MHz and 5 470-5 725 MHz.

- The measured UE mean power in the channel bandwidth as specified in clause 5.4.2A, derived in step 6, shall fulfil requirements in Table 6.2.3A.2.5-1 as appropriate,

and

- if the measured adjacent channel power is greater than –50 dBm then the measured CA E-UTRA$_{ACLR2}$, derived in step 10, shall be higher than the limits in table 6.6.2.3A.2.5.3-1.

Table 6.6.2.3A.2.5.3-1: Additional E-UTRA$_{ACLR}$ requirement

	Channel bandwidth / E-UTRA$_{ACLR2}$ / Measurement bandwidth
	20 MHz
E-UTRA$_{ACLR2}$	38.7 dBc
E-UTRA channel Measurement bandwidth	NOTE 1
Adjacent channel centre frequency offset [MHz]	+40 / -40
NOTE 1: 18 MHz for E-UTRA channels assigned within 5 150-5 350 MHz; 19 MHz for E-UTRA channels assigned within 5 470-5 725 MHz.	

用于UL 64-QAM ACLR要求的CA（带内DL CA和UL CA）在TS 36.521-1 [5]中定义。参见第6.6.2.3A.2_1.5节。

6.6.2.3A.2_1.5 Test Requirements

Same test requirements as in clause 6.6.2.3A.2.5.

用于UL 256-QAM ACLR要求的CA（带内DL CA和UL CA）在TS 36.521-1 [5]中定义。参见第6.6.2.3A.3_1.5节。

6.6.2.3A.3_1.5 Test Requirements

Same test requirements as in clause 6.6.2.3A.3.5.

CA（带内非连续DL CA和UL CA）ACLR要求在TS 36.521-1 [5]中定义。参见第6.6.2.3A.3.5节。

6.6.2.3A.3.5 Test Requirements

6.6.2.3A.3.5.1 Test requirements E-UTRA

- The measured UE mean power, derived in step 6, shall fulfil requirements in Table 6.2.3A.3.5-1 as appropriate,

and

- if the measured adjacent channel power is greater than –50 dBm then the measured E-UTRA$_{ACLR}$, derived in step 13 and 14, shall be higher than the limits in table 6.6.2.3A.3.5.1-1.

Table 6.6.2.3A.3.5.1-1: E-UTRA UE ACLR

	Channel bandwidth / E-UTRA$_{ACLR1}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
E-UTRA$_{ACLR1}$	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UE channel	+1.4 MHz or -1.4 MHz	+3 MHz or -3 MHz	+5 MHz or -5 MHz	+10 MHz or -10 MHz	+15 MHz or -15 MHz	+20 MHz or -20 MHz

6.6.2.3A.3.5.2 Test requirements UTRA

If the measured UTRA channel power is greater than –50dBm then the measured UTRA$_{ACLR1}$, UTRA$_{ACLR2}$, derived in steps 15 and 16, shall be higher than the limits in table 6.6.2.3A.3.5.2-1.

Table 6.6.2.3A.3.5.2-1: UTRA UE ACLR

	Channel bandwidth / UTRA$_{ACLR1/2}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
UTRA$_{ACLR1}$	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB
Adjacent channel centre frequency offset (in MHz)	0.7+BW$_{UTRA}$/2 / -0.7-BW$_{UTRA}$/2	1.5+BW$_{UTRA}$/2 / -1.5-BW$_{UTRA}$/2	2.5+BW$_{UTRA}$/2 / -2.5-BW$_{UTRA}$/2	5+BW$_{UTRA}$/2 / -5-BW$_{UTRA}$/2	7.5+BW$_{UTRA}$/2 / -7.5-BW$_{UTRA}$/2	10+BW$_{UTRA}$/2 / -10-BW$_{UTRA}$/2
UTRA$_{ACLR2}$	-	-	35.2 dB	35.2 dB	35.2 dB	35.2 dB
Adjacent channel centre frequency offset (in MHz)	-	-	2.5+3*BW$_{UTRA}$/2 / -2.5-3*BW$_{UTRA}$/2	5+3*BW$_{UTRA}$/2 / -5-3*BW$_{UTRA}$/2	7.5+3*BW$_{UTRA}$/2 / -7.5-3*BW$_{UTRA}$/2	10+3*BW$_{UTRA}$/2 / -10-3*BW$_{UTRA}$/2
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UTRA 5MHz channel Measurement bandwidth[1]	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz
UTRA 1.6MHz channel measurement bandwidth[2]	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz

Note 1: Applicable for E-UTRA FDD co-existence with UTRA FDD in paired spectrum.
Note 2: Applicable for E-UTRA TDD co-existence with UTRA TDD in unpaired spectrum.
Note 3: BW$_{UTRA}$ for UTRA FDD is 5MHz and for UTRA TDD is 1.6 MHz.

用于UL 64-QAM ACLR要求的CA（带内非连续DL CA和UL CA）在TS 36.521-1 [5]中定义。参见第6.6.2.3A.3_1.5节。

6.6.2.3A.3_1.5 Test Requirements

Same test requirements as in clause 6.6.2.3A.3.5.

用于UL 256-QAM ACLR要求的CA（带内非连续DL CA和UL CA）在TS 36.521-1 [5]中定义。参见第6.6.2.3A.3_2.5节。

6.6.2.3A.3_2.5 Test Requirements

Same as in clause 6.6.2.3A.3_1.5.

CA（3UL CA）ACLR要求在TS 36.521-1 [5]中定义。参见第6.6.2.3A.4.5节。

6.6.2.3A.4.5 Test Requirements

6.6.2.3A.4.5.1 Test requirements of UTRA for CA

If the measured UTRA channel power is greater than –50 dBm then the measured $UTRA_{ACLR1}$ and $UTRA_{ACLR2}$, derived in steps 8d), 9d) 10h) and 10i), shall be higher than the limits in Table 6.6.2.3A.4.5.1-1.

Table 6.6.2.3A.4.5.1-1: UTRA UE ACLR for CA

	CA bandwidth class / $UTRA_{ACLR1/2}$ / measurement bandwidth
	CA bandwidth class D
$UTRA_{ACLR1}$	32.2 dB
Adjacent channel centre frequency offset (in MHz)	+ $BW_{Channel_CA}$ /2 + BW_{UTRA}/2 / - $BW_{Channel_CA}$ / 2 - BW_{UTRA}/2
$UTRA_{ACLR2}$	35.2 dB
Adjacent channel centre frequency offset (in MHz)	+ $BW_{Channel_CA}$ /2 + 3*BW_{UTRA}/2 / - $BW_{Channel_CA}$ /2 – 3*BW_{UTRA}/2
CA E-UTRA channel Measurement bandwidth	$BW_{Channel_CA}$ - 2* BW_{GB}
UTRA 5MHz channel Measurement bandwidth (Note 1)	3.84 MHz
UTRA 1.6MHz channel measurement bandwidth (Note 2)	1.28 MHz
Note 1: Applicable for E-UTRA FDD co-existence with UTRA FDD in paired spectrum. Note 2: Applicable for E-UTRA TDD co-existence with UTRA TDD in unpaired spectrum.	

6.6.2.3A.4.5.2 Test requirements of CA E-UTRA

- The measured UE mean power in the channel bandwidth as specified in clause 5.4.2A, derived in step 6, shall fulfil requirements in Table 6.2.3A.1.5-1 for intra-band non-contiguous CA, 6.2.3A.2.5-1 for inter-band CA and 6.2.3A.3.5-1 for intra-band non-contiguous CA as appropriate,

and

- if the measured adjacent channel power is greater than –50 dBm then the measured CA E-UTRA$_{ACLR}$, derived in steps 8c), 9c) 10f)and 10g), shall be higher than the limits in Table 6.6.2.3A.4.5.2-1.

Table 6.6.2.3A.4.5.2-1: CA E-UTRA ACLR

	CA bandwidth class / CA E-UTRA$_{ACLR}$ / Measurement bandwidth
	CA bandwidth class D
CA E-UTRA$_{ACLR}$	29.2 dB
CA E-UTRA channel Measurement bandwidth	$BW_{Channel_CA}$ - 2* BW_{GB}
Adjacent channel centre frequency offset (in MHz)	+ $BW_{Channel_CA}$ / - $BW_{Channel_CA}$

CA（4UL CA）ACLR要求在TS 36.521-1 [5]中定义。参见第6.6.2.3A.5.5节。

6.6.2.3A.5.5 Test Requirements

6.6.2.3A.5.5.1 Test requirements of UTRA for CA

If the measured UTRA channel power is greater than –50 dBm then the measured UTRA$_{ACLR1}$ and UTRA$_{ACLR2}$, derived in step 11, shall be higher than the limits in Table 6.6.2.3A.5.5.1-1.

Table 6.6.2.3A.5.5.1-1: UTRA UE ACLR for CA

	CA bandwidth class / UTRA$_{ACLR1/2}$ / measurement bandwidth
	CA bandwidth class D
UTRA$_{ACLR1}$	32.2 dB
Adjacent channel centre frequency offset (in MHz)	+ $BW_{Channel_CA}$ /2 + BW_{UTRA}/2 / - $BW_{Channel_CA}$ / 2 - BW_{UTRA}/2
UTRA$_{ACLR2}$	35.2 dB
Adjacent channel centre frequency offset (in MHz)	+ $BW_{Channel_CA}$ /2 + 3*BW_{UTRA}/2 / - $BW_{Channel_CA}$ /2 – 3*BW_{UTRA}/2
CA E-UTRA channel Measurement bandwidth	$BW_{Channel_CA}$ - 2* BW_{GB}
UTRA 5MHz channel Measurement bandwidth (Note 1)	3.84 MHz
UTRA 1.6MHz channel measurement bandwidth (Note 2)	1.28 MHz
Note 1: Applicable for E-UTRA FDD co-existence with UTRA FDD in paired spectrum. Note 2: Applicable for E-UTRA TDD co-existence with UTRA TDD in unpaired spectrum.	

6.6.2.3A.5.5.2 Test requirements of CA E-UTRA

The measured UE mean power in the channel bandwidth as specified in clause 5.4.2A, derived in step 6, shall fulfil requirements in Table 6.2.3A.5.5-1 and if the measured adjacent channel power is greater than –50 dBm then the measured CA E-UTRA$_{ACLR}$, derived in step 10 shall be higher than the limits in Table 6.6.2.3A.5.5.2-1.

Table 6.6.2.3A.5.5.2-1: CA E-UTRA ACLR

	CA bandwidth class / CA E-UTRA$_{ACLR}$ / Measurement bandwidth
	CA bandwidth class D
CA E-UTRA$_{ACLR}$	29.2 dB

CA E-UTRA channel Measurement bandwidth	$BW_{Channel_CA}$ - 2* BW_{GB}
Adjacent channel centre frequency offset (in MHz)	+ $BW_{Channel_CA}$ / - $BW_{Channel_CA}$

UL-MIMO ACLR要求在TS 36.521-1 [5]中定义。参见第6.6.2.3B.5节。

6.6.2.3B.5 Test requirement

6.6.2.3B.5.1 Test requirements E-UTRA

- The measured sum of mean power at each transmit antenna connector for UE in the channel bandwidth, derived in step 3, shall fulfil requirements in clause 6.2.3B.5 as appropriate,

and

- The requirements apply to each transmit antenna connector.
- if the measured adjacent channel power is greater than –50 dBm then the measured E-UTRAACLR, derived in step 7, shall be higher than the limits in Table 6.6.2.3B.5.1-1.

Table 6.6.2.3B.5.1-1: E-UTRA UE ACLR

	Channel bandwidth / $E\text{-}UTRA_{ACLR1}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
$E\text{-}UTRA_{ACLR1}$	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UE channel	+1.4 MHz or -1.4 MHz	+3 MHz or -3 MHz	+5 MHz or -5 MHz	+10 MHz or -10 MHz	+15 MHz or -15 MHz	+20 MHz or -20 MHz

6.6.2.3B.5.2 Test requirements UTRA

The requirements apply to each transmit antenna connector.

If the measured UTRA channel power is greater than –50dBm then the measured $UTRA_{ACLR1}$, $UTRA_{ACLR2}$, derived in step 8, shall be higher than the limits in Table 6.6.2.3B.5.2-1.

Table 6.6.2.3B.5.2-1: UTRA UE ACLR

	Channel bandwidth / $E\text{-}UTRA_{ACLR1/2}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
$UTRA_{ACLR1}$	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB
Adjacent channel centre frequency offset (in MHz)	0.7+BW_{UTRA}/2 / -0.7-BW_{UTRA}/2	1.5+BW_{UTRA}/2 / -1.5-BW_{UTRA}/2	2.5+BW_{UTRA}/2 / -2.5-BW_{UTRA}/2	5+BW_{UTRA}/2 / -5-BW_{UTRA}/2	7.5+BW_{UTRA}/2 / -7.5-BW_{UTRA}/2	10+BW_{UTRA}/2 / -10-BW_{UTRA}/2
$UTRA_{ACLR2}$	-	-	35.2 dB	35.2 dB	35.2 dB	35.2 dB
Adjacent channel centre frequency offset (in MHz)	-	-	2.5+3*BW_{UTRA}/2 / -2.5-3*BW_{UTRA}/2	5+3*BW_{UTRA}/2 / -5-3*BW_{UTRA}/2	7.5+3*BW_{UTRA}/2 / -7.5-3*BW_{UTRA}/2	10+3*BW_{UTRA}/2 / -10-3*BW_{UTRA}/2

E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UTRA 5MHz channel Measurement bandwidth[1]	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz
UTRA 1.6MHz channel measurement bandwidth[2]	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz
Note 1: Applicable for E-UTRA FDD co-existence with UTRA FDD in paired spectrum. Note 2: Applicable for E-UTRA TDD co-existence with UTRA TDD in unpaired spectrum. Note 3: BW_{UTRA} for UTRA FDD is 5MHz and for UTRA TDD is 1.6 MHz.						

UE类别0 ACLR的要求在TS 36.521-1 [5]中定义。参见第6.6.2.3E.5节。

6.6.2.3E.5 Test requirement

6.6.2.3E.5.1 Test requirements E-UTRA

- The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3E.5-1 as appropriate,

and

- if the measured adjacent channel power is greater than –50 dBm then the measured E-$UTRA_{ACLR}$, derived in step 7, shall be higher than the limits in Table 6.6.2.3E.5.1-1.

Table 6.6.2.3E.5.1-1: E-UTRA UE ACLR

	Channel bandwidth / E-$UTRA_{ACLR1}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
E-$UTRA_{ACLR1}$	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UE channel	+1.4 MHz or -1.4 MHz	+3 MHz or -3 MHz	+5 MHz or -5 MHz	+10 MHz or -10 MHz	+15 MHz or -15 MHz	+20 MHz or -20 MHz

Test requirements UTRA

If the measured UTRA channel power is greater than –50 dBm then the measured $UTRA_{ACLR1}$, $UTRA_{ACLR2}$, derived in step 8, shall be higher than the limits in Table 6.6.2.3E.5.2-1.

Table 6.6.2.3E.5.2-1: UTRA UE ACLR

	Channel bandwidth / $UTRA_{ACLR1/2}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
$UTRA_{ACLR1}$	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB
Adjacent channel centre frequency	0.7+BW_{UTRA}/2 / -0.7-BW_{UTRA}/2	1.5+BW_{UTRA}/2 / -1.5-BW_{UTRA}/2	2.5+BW_{UTRA}/2 / -2.5-BW_{UTRA}/2	5+BW_{UTRA}/2 / -5-BW_{UTRA}/2	7.5+BW_{UTRA}/2 / -7.5-BW_{UTRA}/2	10+BW_{UTRA}/2 / -10-BW_{UTRA}/2

offset (in MHz)						
$UTRA_{ACLR2}$	-	-	35.2 dB	35.2 dB	35.2 dB	35.2 dB
Adjacent channel centre frequency offset (in MHz)	-	-	2.5+3*BW_{UTRA}/2 / -2.5-3*BW_{UTRA}/2	5+3*BW_{UTRA}/2 / -5-3*BW_{UTRA}/2	7.5+3*BW_{UTRA}/2 / -7.5-3*BW_{UTRA}/2	10+3*BW_{UTRA}/2 / -10-3*BW_{UTRA}/2
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UTRA 5MHz channel Measurement bandwidth[1]	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz
UTRA 1.6MHz channel measurement bandwidth[2]	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz
Note 1: Applicable for E-UTRA FDD co-existence with UTRA FDD in paired spectrum. Note 2: Applicable for E-UTRA TDD co-existence with UTRA TDD in unpaired spectrum. Note 3: BW_{UTRA} for UTRA FDD is 5MHz and for UTRA TDD is 1.6 MHz.						

在UE类别M1 ACLR要求在TS 36.521-1 [5]中定义。参见第6.6.2.3EA.5节。

6.6.2.3EA.5 Test requirement

6.6.2.3EA.5.1 Test requirements E-UTRA

- The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3EA.5-1 to 6.2.3EA.5-7, as appropriate,

and

- if the measured adjacent channel power is greater than –50 dBm then the measured E-$UTRA_{ACLR}$, derived in step 7, shall be higher than the limits in Table 6.6.2.3EA.5.1-1.

Table 6.6.2.3EA.5.1-1: E-UTRA UE ACLR

	Channel bandwidth / E-$UTRA_{ACLR1}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
E-$UTRA_{ACLR1}$	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UE channel	+1.4 MHz or -1.4 MHz	+3 MHz or -3 MHz	+5MHz or -5MHz	+10MHz or -10MHz	+15MHz or -15MHz	+20MHz or -20MHz

6.6.2.3EA.5.2 Test requirements UTRA

If the measured UTRA channel power is greater than –50 dBm then the measured $UTRA_{ACLR1}$, $UTRA_{ACLR2}$, derived in step 8, shall be higher than the limits in Table 6.6.2.3EA.5.2-1.

Table 6.6.2.3EA.5.2-1: UTRA UE ACLR

	Channel bandwidth / $UTRA_{ACLR1/2}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
$UTRA_{ACLR1}$	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB
Adjacent channel centre frequency offset (in MHz)	0.7+BW_{UTRA}/2 / -0.7-BW_{UTRA}/2	1.5+BW_{UTRA}/2 / -1.5-BW_{UTRA}/2	2.5+BW_{UTRA}/2 / -2.5-BW_{UTRA}/2	5+BW_{UTRA}/2 / -5-BW_{UTRA}/2	7.5+BW_{UTRA}/2 / -7.5-BW_{UTRA}/2	10+BW_{UTRA}/2 / -10-BW_{UTRA}/2
$UTRA_{ACLR2}$	-	-	35.2 dB	35.2 dB	35.2 dB	35.2 dB
Adjacent channel centre frequency offset (in MHz)	-	-	2.5+3*BW_{UTRA}/2 / -2.5-3*BW_{UTRA}/2	5+3*BW_{UTRA}/2 / -5-3*BW_{UTRA}/2	7.5+3*BW_{UTRA}/2 / -7.5-3*BW_{UTRA}/2	10+3*BW_{UTRA}/2 / -10-3*BW_{UTRA}/2
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UTRA 5MHz channel Measurement bandwidth[1]	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz
UTRA 1.6MHz channel measurement bandwidth[2]	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz
Note 1: Applicable for E-UTRA FDD co-existence with UTRA FDD in paired spectrum. Note 2: Applicable for E-UTRA TDD co-existence with UTRA TDD in unpaired spectrum. Note 3: BW_{UTRA} for UTRA FDD is 5MHz and for UTRA TDD is 1.6 MHz.						

UE类别1bis ACLR要求在TS 36.521-1 [5]中定义。参见第6.6.2.3EB.5节。

6.6.2.3EB.5 Test requirement

6.6.2.3EB.5.1 Test requirements E-UTRA

- The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3EB.5-1 as appropriate,

and

- if the measured adjacent channel power is greater than –50 dBm then the measured E-$UTRA_{ACLR}$, derived in step 7, shall be higher than the limits in Table 6.6.2.3EB.5.1-1.

Table 6.6.2.3EB.5.1-1: E-UTRA UE ACLR

	Channel bandwidth / E-$UTRA_{ACLR1}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
E-$UTRA_{ACLR1}$	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UE channel	+1.4 MHz or -1.4 MHz	+3 MHz or -3 MHz	+5 MHz or -5 MHz	+10 MHz or -10 MHz	+15 MHz or -15 MHz	+20 MHz or -20 MHz

6.6.2.3EB.5.2 Test requirements UTRA

If the measured UTRA channel power is greater than –50 dBm then the measured $UTRA_{ACLR1}$, $UTRA_{ACLR2}$, derived in step 8, shall be higher than the limits in Table 6.6.2.3EB.5.2-1.

Table 6.6.2.3EB.5.2-1: UTRA UE ACLR

	Channel bandwidth / $UTRA_{ACLR1/2}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
$UTRA_{ACLR1}$	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB
Adjacent channel centre frequency offset (in MHz)	0.7+BW_{UTRA}/2 / -0.7-BW_{UTRA}/2	1.5+BW_{UTRA}/2 / -1.5-BW_{UTRA}/2	2.5+BW_{UTRA}/2 / -2.5-BW_{UTRA}/2	5+BW_{UTRA}/2 / -5-BW_{UTRA}/2	7.5+BW_{UTRA}/2 / -7.5-BW_{UTRA}/2	10+BW_{UTRA}/2 / -10-BW_{UTRA}/2
$UTRA_{ACLR2}$	-	-	35.2 dB	35.2 dB	35.2 dB	35.2 dB
Adjacent channel centre frequency offset (in MHz)	-	-	2.5+3*BW_{UTRA}/2 / -2.5-3*BW_{UTRA}/2	5+3*BW_{UTRA}/2 / -5-3*BW_{UTRA}/2	7.5+3*BW_{UTRA}/2 / -7.5-3*BW_{UTRA}/2	10+3*BW_{UTRA}/2 / -10-3*BW_{UTRA}/2
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UTRA 5MHz channel Measurement bandwidth[1]	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz
UTRA 1.6MHz channel measurement bandwidth[2]	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz

Note 1: Applicable for E-UTRA FDD co-existence with UTRA FDD in paired spectrum.
Note 2: Applicable for E-UTRA TDD co-existence with UTRA TDD in unpaired spectrum.
Note 3: BW_{UTRA} for UTRA FDD is 5MHz and for UTRA TDD is 1.6 MHz.

UE类别M2 ACLR要求在TS 36.521-1 [5]中定义。参见第6.6.2.3EC.5节。

6.6.2.3EC.5 Test requirement

6.6.2.3EC.5.1 Test requirements E-UTRA

- The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3EC.5-1, 6.2.3EC.5-2 and 6.2.3EC.5-3 as appropriate,

and

- if the measured adjacent channel power is greater than –50 dBm then the measured $E\text{-}UTRA_{ACLR}$, derived in step 7, shall be higher than the limits in Table 6.6.2.3EC.5.1-1.

Table 6.6.2.3EC.5.1-1: E-UTRA UE ACLR

	Channel bandwidth / $E\text{-}UTRA_{ACLR1}$ / measurement bandwidth

	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz
E-UTRA$_{ACLR1}$	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UE channel	+1.4 MHz or -1.4 MHz	+3 MHz or -3 MHz	+5 MHz or -5 MHz	+10 MHz or -10 MHz	+15 MHz or -15 MHz	+20 MHz or -20 MHz

6.6.2.3EC.5.2 Test requirements UTRA

If the measured UTRA channel power is greater than –50 dBm then the measured UTRA$_{ACLR1}$, UTRA$_{ACLR2}$, derived in step 8, shall be higher than the limits in Table 6.6.2.3EC.5.2-1.

Table 6.6.2.3EC.5.2-1: UTRA UE ACLR

	Channel bandwidth / UTRA$_{ACLR1/2}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
UTRA$_{ACLR1}$	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB
Adjacent channel centre frequency offset (in MHz)	0.7+BW$_{UTRA}$/2 / -0.7-BW$_{UTRA}$/2	1.5+BW$_{UTRA}$/2 / -1.5-BW$_{UTRA}$/2	2.5+BW$_{UTRA}$/2 / -2.5-BW$_{UTRA}$/2	5+BW$_{UTRA}$/2 / -5-BW$_{UTRA}$/2	7.5+BW$_{UTRA}$/2 / -7.5-BW$_{UTRA}$/2	10+BW$_{UTRA}$/2 / -10-BW$_{UTRA}$/2
UTRA$_{ACLR2}$	-	-	35.2 dB	35.2 dB	35.2 dB	35.2 dB
Adjacent channel centre frequency offset (in MHz)	-	-	2.5+3*BW$_{UTRA}$/2 / -2.5-3*BW$_{UTRA}$/2	5+3*BW$_{UTRA}$/2 / -5-3*BW$_{UTRA}$/2	7.5+3*BW$_{UTRA}$/2 / -7.5-3*BW$_{UTRA}$/2	10+3*BW$_{UTRA}$/2 / -10-3*BW$_{UTRA}$/2
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UTRA 5MHz channel Measurement bandwidth[1]	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz
UTRA 1.6MHz channel measurement bandwidth[2]	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz
Note 1: Applicable for E-UTRA FDD co-existence with UTRA FDD in paired spectrum. Note 2: Applicable for E-UTRA TDD co-existence with UTRA TDD in unpaired spectrum. Note 3: BW$_{UTRA}$ for UTRA FDD is 5MHz and for UTRA TDD is 1.6 MHz.						

UE类别NB1和NB2 ACLR要求在在TS 36.521-1 [5]中定义。参见第6.6.2.3F.5节。

6.6.2.3F.5 Test requirement

- The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3F.5-1 as appropriate,

and

- if the measured adjacent channel power is greater than –50 dBm then the measured GSM_{ACLR} derived in step 7 and $UTRA_{ACLR}$ derived in step 8 shall be higher than the limits in Table 6.6.2.3F.5-1.

Table 6.6.2.3F.5-1: Category NB1 and UE ACLR Test requirements

	GSM_{ACLR}	**$UTRA_{ACLR}$**
ACLR	19.2 dB	36.2 dB
Adjacent channel centre frequency offset from category NB1 or NB2 Channel edge	±200 kHz	±2.5 MHz
Adjacent channel measurement bandwidth	180 kHz	3.84 MHz
Measurement filter	Rectangular	RRC-filter α=0.22
Category NB1 and NB2 channel measurement bandwidth	180 kHz	180 kHz
Category NB1 and NB2 channel Measurement filter	Rectangular	Rectangular

NB1和NB2/功率等级6 ACLR要求在TS 36.521-1 [5]中定义。参见第6.6.2.3FA.5节。

6.6.2.3FA.5 Test requirement

- The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3FA.5-1 as appropriate,

and

- if the measured adjacent channel power is greater than –50 dBm then the measured GSM_{ACLR} derived in step 7 and $UTRA_{ACLR}$ derived in step 8 shall be higher than the limits in Table 6.6.2.3FA.5-1.

Table 6.6.2.3FA.5-1: Category NB1 and UE ACLR Test requirements

	GSMACLR	**UTRAACLR**
ACLR	19.2 dB	36.2 dB
Adjacent channel centre frequency offset from category NB1 or NB2 Channel edge	±200 kHz	±2.5 MHz
Adjacent channel measurement bandwidth	180 kHz	3.84 MHz

Measurement filter	Rectangular	RRC-filter α=0.22
Category NB1 and NB2 channel measurement bandwidth	180 kHz	180 kHz
Category NB1 and NB2 channel Measurement filter	Rectangular	Rectangular

V2X通信ACLR要求在TS 36.521-1 [5]中定义。参见第6.6.2.3G.1.5节。

6.6.2.3G.1.5 Test requirements

- The measured UE mean power in the channel bandwidth, derived in step 2, shall fulfil requirements in subclause 6.2.3G.1 for power class 3 UE, and shall meet the requirements described in subclass 6.2.3G.2 for power class 2 UE as appropriate,

and

- if the measured adjacent channel power is greater than –50 dBm then the measured E-UTRA$_{ACLR}$, derived in step 6, shall be higher than the limits in Table 6.6.2.3.5.1-1.

Table6.6.2.3G.1.5-1: E-UTRA UE ACLR for power class 3 UE

	Channel bandwidth / E-UTRA$_{ACLR1}$ / measurement bandwidth	
	10 MHz	**20 MHz**
E-UTRA$_{ACLR1}$	29.2 dB	29.2 dB
E-UTRA channel Measurement bandwidth	9.0 MHz	18 MHz
UE channel	+10 MHz or -10 MHz	+20 MHz or -20 MHz

Table6.6.2.3G.1.5-2: E-UTRA UE ACLR for power class 2 UE

	Channel bandwidth / E-UTRA$_{ACLR1}$ / measurement bandwidth	
	10 MHz	**20 MHz**
E-UTRA$_{ACLR1}$	30.2 dB	30.2 dB
E-UTRA channel Measurement bandwidth	9.0 MHz	18 MHz
UE channel	+10 MHz or -10 MHz	+20 MHz or -20 MHz

V2X通信/同时E-UTRA V2X侧链路和E-UTRA上行链路传输ACLR要求，在TS 36.521-1 [5]中定义。参见第6.6.2.3G.2.5节。

6.6.2.3G.2.5 Test requirements

- The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in subclause 6.2.3G.1.3.5 for power class 3 UE as appropriate,

and

- if the measured adjacent channel power is greater than –50 dBm then the measured E-UTRA$_{ACLR}$, derived in step 6, shall be higher than the limits in Table 6.6.2.3G.2.5-1 and 6.6.2.3G.2.5-2.

Table 6.6.2.3G.2.5-1: E-UTRA UE ACLR for power class 3 UE

	Channel bandwidth / E-UTRA$_{ACLR1}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
E-UTRA$_{ACLR1}$	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UE channel	+1.4 MHz or -1.4 MHz	+3 MHz or -3 MHz	+5 MHz or -5 MHz	+10 MHz or -10 MHz	+15 MHz or -15 MHz	+20 MHz or -20 MHz

Table 6.6.2.3G.2.5-2: E-UTRA UE ACLR for power class 2 UE

	Channel bandwidth / E-UTRA$_{ACLR1}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
E-UTRA$_{ACLR1}$	30.2 dB	30.2 dB	30.2 dB	30.2 dB	30.2 dB	30.2 dB
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UE channel	+1.4 MHz or -1.4 MHz	+3 MHz or -3 MHz	+5 MHz or -5 MHz	+10 MHz or -10 MHz	+15 MHz or -15 MHz	+20 MHz or -20 MHz

V2X通信/带内连续多载波操作ACLR要求在TS 36.521-1 [5]中定义。参见第6.6.2.3G.3.5节。

6.6.2.3G.3.5 Test requirements

- The measured UE mean power in the channel bandwidth, derived in step 2, shall fulfil requirements in subclause 6.2.3G.1.4.5 for power class 3 UE as appropriate,

and

- if the measured adjacent channel power is greater than –50 dBm then the measured E-UTRA$_{ACLR}$, derived in step 5, shall be higher than the limits in Table 6.6.2.3G.3.5-1.

Table 6.6.2.3G.3.5-1: V2X UE ACLR for intra-band multi carrier operation

	CA bandwidth class / CA E-UTRA$_{ACLR}$ / Measurement bandwidth
	CA bandwidth class B and C
CA E-UTRA$_{ACLR}$	29.2 dB
CA E-UTRA channel Measurement bandwidth	$BW_{Channel_CA}$ - 2* BW_{GB}
Adjacent channel centre frequency offset (in MHz)	+ $BW_{Channel_CA}$ / - $BW_{Channel_CA}$

子时隙/时隙TTI ACLR要求在TS 36.521-1 [5]中定义。参见第6.6.2.3_s.5节。

6.6.2.3_s.5 Test requirement

6.6.2.3_s.5.1 Test requirements E-UTRA

- The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3.5-1 as appropriate,

and

- if the measured adjacent channel power is greater than –50 dBm then the measured E-UTRA$_{ACLR}$, derived in step 7, shall be higher than the limits in Table 6.6.2.3_s.5.1-1.

Table 6.6.2.3_s.5.1-1: E-UTRA UE ACLR

	Channel bandwidth / E-UTRA$_{ACLR1}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
E-UTRA$_{ACLR1}$	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB	29.2 dB
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UE channel	+1.4 MHz or -1.4 MHz	+3 MHz or -3 MHz	+5 MHz or -5 MHz	+10 MHz or -10 MHz	+15 MHz or -15 MHz	+20 MHz or -20 MHz

6.6.2.3_s.5.2 Test requirements UTRA

If the measured UTRA channel power is greater than –50 dBm then the measured UTRA$_{ACLR1}$, UTRA$_{ACLR2}$, derived in step 8, shall be higher than the limits in Table 6.6.2.3_s.5.2-1.

Table 6.6.2.3_s.5.2-1: UTRA UE ACLR

	Channel bandwidth / UTRA$_{ACLR1/2}$ / measurement bandwidth					
	1.4 MHz	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**
UTRA$_{ACLR1}$	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB	32.2 dB
Adjacent channel centre frequency offset (in MHz)	0.7+BW$_{UTRA}$/2 / -0.7-BW$_{UTRA}$/2	1.5+BW$_{UTRA}$/2 / -1.5-BW$_{UTRA}$/2	2.5+BW$_{UTRA}$/2 / -2.5-BW$_{UTRA}$/2	5+BW$_{UTRA}$/2 / -5-BW$_{UTRA}$/2	7.5+BW$_{UTRA}$/2 / -7.5-BW$_{UTRA}$/2	10+BW$_{UTRA}$/2 / -10-BW$_{UTRA}$/2
UTRA$_{ACLR2}$	-	-	35.2 dB	35.2 dB	35.2 dB	35.2 dB
Adjacent channel centre frequency offset (in MHz)	-	-	2.5+3*BW$_{UTRA}$/2 / -2.5-3*BW$_{UTRA}$/2	5+3*BW$_{UTRA}$/2 / -5-3*BW$_{UTRA}$/2	7.5+3*BW$_{UTRA}$/2 / -7.5-3*BW$_{UTRA}$/2	10+3*BW$_{UTRA}$/2 / -10-3*BW$_{UTRA}$/2
E-UTRA channel Measurement bandwidth	1.08 MHz	2.7 MHz	4.5 MHz	9.0 MHz	13.5 MHz	18 MHz
UTRA 5MHz channel Measurement bandwidth[1]	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz	3.84 MHz
UTRA 1.6MHz channel	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz	1.28 MHz

measurement bandwidth[2]						
Note 1: Applicable for E-UTRA FDD co-existence with UTRA FDD in paired spectrum. Note 2: Applicable for E-UTRA TDD co-existence with UTRA TDD in unpaired spectrum. Note 3: BW_{UTRA} for UTRA FDD is 5MHz and for UTRA TDD is 1.6 MHz.						

1.2.2 发射机杂散发射

杂散发射是由无用发射机效应引起的发射，如谐波发射、寄生发射、互调产物和变频产物，但带外发射除外（除非另有说明）。杂散发射限值是根据ITU-RSM.329建议书[9]的一般要求和NR操作频段要求规定的，用于解决UE共存问题。

为提高测量精确度、敏感度和效率，分辨带宽可以小于测量带宽。当分辨带宽小于测量带宽时，结果应在测量带宽上进行积分处理，以获得测量带宽的等效噪声带宽。

1.2.2.1 杂散发射要求

通用E-UTRA杂散发射限值在TS 36.521-1 [5]中的第6.6.3.1.5节定义。

6.6.3.1.5 Test requirement

This clause specifies the requirements for the specified E-UTRA band for Transmitter Spurious emissions requirement with frequency range as indicated in Table 6.6.3.1.5-1.

The measured average power of spurious emission, derived in step 3, shall not exceed the described value in Table 6.6.3.1.5-1.

The spurious emission limits apply for the frequency ranges that are more than Δf_{OOB} (MHz) from the edge of the channel bandwidth shown in Table 6.6.3.1.3-1.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.6.3.1.5-1: General spurious emissions test requirements

Frequency Range	Maximum Level	Measurement Bandwidth	Notes
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	
12.75 GHz ≤ f < 5th harmonic of the upper frequency edge of the UL operating band in GHz	–30 dBm	1 MHz	Note 1
Note 1: Applies for Band 22, Band 42 and Band 43			

多集群PUSCH杂散发射限值在TS 36.521-1 [5]中的第6.6.3.1_1.5节定义。

6.6.3.1_1.5 Test requirement

This clause specifies the requirements for the specified E-UTRA band for Transmitter Spurious emissions requirement with frequency range as indicated in Table 6.6.3.1_1.5-1.

The measured average power of spurious emission, derived in step 3, shall not exceed the described value in Table 6.6.3.1_1.5-1.

The spurious emission limits apply for the frequency ranges that are more than Δf_{OOB} (MHz) from the edge of the channel bandwidth shown in Table 6.6.3.1_1.5-1.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.6.3.1_1.5-1: General spurious emissions test requirements

Frequency Range	Maximum Level	Measurement Bandwidth	Notes
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	
12.75 GHz ≤ f < 5th harmonic of the upper frequency edge of the UL operating band in GHz	–30 dBm	1 MHz	Note 1
Note 1: Applies for Band 22, Band 42 and Band 43			

CA（带内连续DL CA和UL CA）杂散发射限值在TS 36.521-1 [5]中的第6.6.3.1A.1.5节定义。

6.6.3.1A.1.5 Test Requirements

This clause specifies the requirements for the specified E-UTRA band for Transmitter Spurious emissions requirement with frequency range as indicated in Table 6.6.3.1A.1.5-1.

For frequencies Δf_{OOB} greater than F_{OOB} as specified in Table 6.6.3.1A.0-1the measured average power of spurious emission, derived in step 6, shall not exceed the described value in Table 6.6.3.1A.1.5-1.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.6.3.1A.1.5-1: Spurious emissions limits

Frequency Range	Maximum Level	Measurement Bandwidth	Notes
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	

12.75 GHz ≤ f < 5th harmonic of the upper frequency edge of the UL operating band in GHz	–30 dBm	1 MHz	Note 1
12.75 GHz < f < 26 GHz	–30 dBm	1 MHz	Note 2
Note1: Applies for Band 22, Band 42, Band 43 and Band 48. Note 2: Applies for Band 46 and Band 47.			

CA（带内DL CA和UL CA）杂散发射限值在TS 36.521-1 [5]中的第6.6.3.1A.2.5节定义。

6.6.3.1A.2.5 Test requirement

This clause specifies the requirements for the specified E-UTRA band for Transmitter Spurious emissions requirement with frequency range as indicated in Table 6.6.3.1A.2.5-1.

For frequencies Δf_{OOB} greater than F_{OOB} as specified in Table 6.6.3.1A.0-1the measured average power of spurious emission, derived in step 6, shall not exceed the described value in Table 6.6.3.1A.2.5-1.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.6.3.1A.2.5-1: Spurious emissions limits

Frequency Range	Maximum Level	Measurement Bandwidth	Notes
Test requirements for CA_1A-3A Configuration			
135 MHz ≤ f ≤ 270 MHz	–36 dBm	100 kHz	
1 440 MHz ≤ f ≤ 1 650 MHz 2 055 MHz ≤ f ≤ 2 250 MHz 3 630 MHz ≤ f ≤ 3 765 MHz 5 340 MHz ≤ f ≤ 5 745 MHz	–30 dBm	1 MHz	
Test requirements for CA_1A-5A Configuration			
222 MHz ≤ f ≤ 332 MHz	–36 dBm	100 kHz	
1 071 MHz ≤ f ≤ 1 156 MHz 2 744 MHz ≤ f ≤ 2 829 MHz 2 991 MHz ≤ f ≤ 3 136 MHz 3 568 MHz ≤ f ≤ 3 678 MHz 4 664 MHz ≤ f ≤ 4 809 MHz	–30 dBm	1 MHz	
Test requirements for CA_1A-7A Configuration			
520 MHz ≤ f ≤ 650 MHz	–36 dBm	100 kHz	
1 270 MHz ≤ f ≤ 1 460 MHz 3 020 MHz ≤ f ≤ 3 220 MHz 4 420 MHz ≤ f ≤ 4 550 MHz 6 340 MHz ≤ f ≤ 6 530 MHz 6 920 MHz ≤ f ≤ 7 120 MHz	–30 dBm	1 MHz	
Test requirements for CA_1A-8A Configuration			
90 MHz ≤ f ≤ 220 MHz	–36 dBm	100 kHz	
1 005 MHz ≤ f ≤ 1 100 MHz 2 800 MHz ≤ f ≤ 2 895 MHz 2 925 MHz ≤ f ≤ 3 080 MHz 3 680 MHz ≤ f ≤ 3 810 MHz 4 720 MHz ≤ f ≤ 4 875 MHz	–30 dBm	1 MHz	
Test requirements for CA_1A-18A Configuration			
260 MHz ≤ f ≤ 350 MHz	–36 dBm	100 kHz	

	1 090 MHz ≤ f ≤ 1 165 MHz 2 735 MHz ≤ f ≤ 2 810 MHz 3 010 MHz ≤ f ≤ 3 145 MHz 3 550 MHz ≤ f ≤ 3 640 MHz 4 655 MHz ≤ f ≤ 4 790 MHz	–30 dBm	1 MHz	
	Test requirements for CA_1A-19A Configuration			
	230 MHz ≤ f ≤ 320 MHz	–36 dBm	100 kHz	
	1 075 MHz ≤ f ≤ 1 150 MHz 2 750 MHz ≤ f ≤ 2 825 MHz 2 995 MHz ≤ f ≤ 3 130 MHz 3 580 MHz ≤ f ≤ 3 670 MHz 4 670 MHz ≤ f ≤ 4 805 MHz	–30 dBm	1 MHz	
	Test requirements for CA_1A-21A Configuration			
	457.1 MHz ≤ f ≤ 532.1 MHz 915.8 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
	1 000 MHz ≤ f ≤ 1 005.8 MHz 2 377.1 MHz ≤ f ≤ 2 512.1 MHz 3 367.9 MHz ≤ f ≤ 3 442.9 MHz 4 515.8 MHz ≤ f ≤ 4 905.8 MHz 5 287.9 MHz ≤ f ≤ 5 422.9 MHz	–30 dBm	1 MHz	
	Test requirements for CA_1A-26A Configuration			
	222 MHz ≤ f ≤ 352 MHz	–36 dBm	100 kHz	
	1 071 MHz ≤ f ≤ 1 166 MHz 2 734 MHz ≤ f ≤ 2 829 MHz 2 991 MHz ≤ f ≤ 3 146 MHz 3 548 MHz ≤ f ≤ 3 678 MHz 4 654 MHz ≤ f ≤ 4 809 MHz	–30 dBm	1 MHz	
	Test requirements for CA_1A-28A Configuration			
	424 MHz ≤ f ≤ 574 MHz	–36 dBm	100 kHz	
	1 172 MHz ≤ f ≤ 1 277 MHz 2 623 MHz ≤ f ≤ 2 728 MHz 3 092 MHz ≤ f ≤ 3 257 MHz 3 326 MHz ≤ f ≤ 3 476 MHz 4 543 MHz ≤ f ≤ 4 708 MHz	–30 dBm	1 MHz	
	Test requirements for CA_1A-42A Configuration			
	240 MHz ≤ f ≤ 560 MHz	–36 dBm	100 kHz	
	1 420 MHz ≤ f ≤ 1 680 MHz 4 820 MHz ≤ f ≤ 5 280 MHz 5 320 MHz ≤ f ≤ 5 580 MHz 7 240 MHz ≤ f ≤ 7 560 MHz 8 720 MHz ≤ f ≤ 9 180 MHz	–30 dBm	1 MHz	
	Test requirements for CA_2A-4A Configuration			
	95 MHz ≤ f ≤ 200 MHz	–36 dBm	100 kHz	
	1 510 MHz ≤ f ≤ 1 660 MHz 1 945 MHz ≤ f ≤ 2 110 MHz 3 560 MHz ≤ f ≤ 3 665 MHz 5 270 MHz ≤ f ≤ 5 575 MHz	–30 dBm	1 MHz	
	Test requirements for CA_2A-5A Configuration			
	152 MHz ≤ f ≤ 262 MHz	–36 dBm	100 kHz	
	1 001 MHz ≤ f ≤ 1 086 MHz 2 674 MHz ≤ f ≤ 2 759 MHz 2 851 MHz ≤ f ≤ 2 996 MHz 3 498 MHz ≤ f ≤ 3 608 MHz 4 524 MHz ≤ f ≤ 4 669 MHz	–30 dBm	1 MHz	
	Test requirements for CA_2A-7A Configuration			
	590 MHz ≤ f ≤ 720 MHz	–36 dBm	100 kHz	
	1 130 MHz ≤ f ≤ 1 320 MHz 3 090 MHz ≤ f ≤ 3 290 MHz 4 350 MHz ≤ f ≤ 4 480 MHz	–30 dBm	1 MHz	

	6 200 MHz ≤ f ≤ 6 390 MHz 6 850 MHz ≤ f ≤ 7 050 MHz				
	Test requirements for CA_2A-12A Configuration				
	418 MHz ≤ f ≤ 512 MHz	–36 dBm	100 kHz		
	1 134 MHz ≤ f ≤ 1 211 MHz 2 549 MHz ≤ f ≤ 2 626 MHz 2 984 MHz ≤ f ≤ 3 121 MHz 3 248 MHz ≤ f ≤ 3 342 MHz 4 399 MHz ≤ f ≤ 4 536 MHz	–30 dBm	1 MHz		
	Test requirements for CA_2A-13A Configuration				
	276 MHz ≤ f ≤ 356 MHz	–36 dBm	100 kHz		
	1 063 MHz ≤ f ≤ 1 133 MHz 2 627 MHz ≤ f ≤ 2 697 MHz 2 913 MHz ≤ f ≤ 3 043 MHz 3 404 MHz ≤ f ≤ 3 484 MHz 4 477 MHz ≤ f ≤ 4 607 MHz	–30 dBm	1 MHz		
	Test requirements for CA_2A-30A Configuration				
	395 MHz ≤ f ≤ 465 MHz	–36 dBm	100 kHz		
	1 385 MHz ≤ f ≤ 1 515 MHz 2 700 MHz ≤ f ≤ 2 780 MHz 4 155 MHz ≤ f ≤ 4 225 MHz 6 005 MHz ≤ f ≤ 6 135 MHz 6 460 MHz ≤ f ≤ 6 540 MHz	–30 dBm	1 MHz		
	Test requirements for CA_2A-46A Configuration				
	1330 MHz ≤ f ≤ 2225 MHz 3240 MHz ≤ f ≤ 4075 MHz 7000 MHz ≤ f ≤ 7835 MHz 8390 MHz ≤ f ≤ 10000 MHz 12150 MHz ≤ f ≤ 13760 MHz	–30 dBm	1 MHz		
	Test requirements for CA_2A-66A Configuration				
	70 MHz ≤ f ≤ 200 MHz	–36 dBm	100 kHz		
	1 510 MHz ≤ f ≤ 1 710 MHz 1 920 MHz ≤ f ≤ 2 110 MHz 3 560 MHz ≤ f ≤ 3 690 MHz 5 270 MHz ≤ f ≤ 5 600 MHz	–30 dBm	1 MHz		
	Test requirements for CA_3A-5A Configuration				
	12 MHz ≤ f < 30 MHz	–36 dBm	10 kHz		
	30 MHz ≤ f ≤ 137 MHz 861 MHz ≤ f ≤ 961 MHz	–36 dBm	100 kHz		
	2 534 MHz ≤ f ≤ 2 746 MHz 3 358 MHz ≤ f ≤ 3 483 MHz 4 244 MHz ≤ f ≤ 4 419 MHz	–30 dBm	1 MHz		
	Test requirements for CA_3A-7A Configuration				
	715 MHz ≤ f < 1000 MHz	–36 dBm	100 kHz		
	1 000 MHz ≤ f ≤ 1 070 MHz 3 215 MHz ≤ f ≤ 3 430 MHz 4 210 MHz ≤ f ≤ 4 355 MHz 5 920 MHz ≤ f ≤ 6 140 MHz 6 710 MHz ≤ f ≤ 6 925 MHz	–30 dBm	1 MHz		
	Test requirements for CA_3A-8A Configuration				
	25 MHz ≤ f < 30 MHz	–36 dBm	10 kHz		
	30 MHz ≤ f ≤ 120 MHz 795 MHz ≤ f ≤ 905 MHz	–36 dBm	100 kHz		
	2 505 MHz ≤ f ≤ 2 700 MHz 3 470 MHz ≤ f ≤ 3 615 MHz 4 300 MHz ≤ f ≤ 4 485 MHz	–30 dBm	1 MHz		
	Test requirements for CA_3A-18A Configuration				
	50 MHz ≤ f ≤ 155 MHz 880 MHz ≤ f ≤ 970 MHz	–36 dBm	100 kHz		
	2 525 MHz ≤ f ≤ 2 755 MHz 3 340 MHz ≤ f ≤ 3 445 MHz 4 235 MHz ≤ f ≤ 4 400 MHz	–30 dBm	1 MHz		
	Test requirements for CA_3A-19A Configuration				
	20 MHz ≤ f < 30 MHz	–36 dBm	10 kHz		

30 MHz ≤ f ≤ 125 MHz 865 MHz ≤ f ≤ 955 MHz	–36 dBm	100 kHz		
2 540 MHz ≤ f ≤ 2 740 MHz 3 370 MHz ≤ f ≤ 3 475 MHz 4 250 MHz ≤ f ≤ 4 415 MHz	–30 dBm	1 MHz		
Test requirements for CA_3A-20A Configuration				
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz		
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz		
30 MHz ≤ f ≤ 121 MHz 848 MHz ≤ f ≤ 953 MHz	–36 dBm	100 kHz		
2 542 MHz ≤ f ≤ 2 738 MHz 3 374 MHz ≤ f ≤ 3 509 MHz 4 252 MHz ≤ f ≤ 4 432 MHz	–30 dBm	1 MHz		
Test requirements for CA_3A-26A Configuration				
12 MHz ≤ f < 30 MHz	–36 dBm	10 kHz		
30 MHz ≤ f ≤ 157 MHz	–36 dBm	100 kHz		
861 MHz ≤ f ≤ 971 MHz	–36 dBm	100 kHz		
2 524 MHz ≤ f ≤ 2 756 MHz 3 338 MHz ≤ f ≤ 3 483 MHz 4 234 MHz ≤ f ≤ 4 419 MHz	–30 dBm	1 MHz		
Test requirements for CA_3A-28A Configuration				
214 MHz ≤ f ≤ 379 MHz 962 MHz ≤ f ≤ 1000 MHz	–36 dBm	100 kHz		
1 000 MHz ≤ f ≤ 1 082 MHz 2 413 MHz ≤ f ≤ 2 533 MHz 2 672 MHz ≤ f ≤ 2 867 MHz 3 116 MHz ≤ f ≤ 3 281 MHz 4 123 MHz ≤ f ≤ 4 318 MHz	–30 dBm	1 MHz		
Test requirements for CA_3A-41A Configuration				
711 MHz ≤ f < 1000 MHz	–36 dBm	100 kHz		
1 000 MHz ≤ f ≤ 1 074 MHz 3 207 MHz ≤ f ≤ 3 670 MHz 4 206 MHz ≤ f ≤ 4 475 MHz 5 916 MHz ≤ f ≤ 6 260 MHz 6 702 MHz ≤ f ≤ 7 165 MHz	–30 dBm	1 MHz		
Test requirements for CA_3A-42A Configuration				
170 MHz ≤ f ≤ 180 MHz	–36 dBm	100 kHz		
1615 MHz ≤ f ≤ 1 890 MHz 5 015 MHz ≤ f ≤ 5 490 MHz 6 820 MHz ≤ f ≤ 7 170 MHz 8 510 MHz ≤ f ≤ 8 985 MHz	–30 dBm	1 MHz		
Test requirements for CA_4A-5A Configuration				
12 MHz ≤ f < 30 MHz	–36 dBm	10 kHz		
30 MHz ≤ f ≤ 107 MHz 861 MHz ≤ f ≤ 931 MHz	–36 dBm	100 kHz		
2 534 MHz ≤ f ≤ 2 686 MHz 3 358 MHz ≤ f ≤ 3 453 MHz 4 244 MHz ≤ f ≤ 4 359 MHz	–30 dBm	1 MHz		
Test requirements for CA_4A-7A Configuration				
745 MHz ≤ f ≤ 1 000 MHz	–36 dBm	100 kHz		
1 000 MHz ≤ f ≤ 1 010 MHz 3 245 MHz ≤ f ≤ 3 430 MHz 4 210 MHz ≤ f ≤ 4 325 MHz 5 920 MHz ≤ f ≤ 6 080 MHz 6 710 MHz ≤ f ≤ 6 895 MHz	–30 dBm	1 MHz		
Test requirements for CA_4A-12A Configuration				
278 MHz ≤ f ≤ 357 MHz 994 MHz ≤ f < 1000 MHz	–36 dBm	100 kHz		
1 000 MHz ≤ f ≤ 1 056 MHz 2 409 MHz ≤ f ≤ 2 471 MHz 2 704 MHz ≤ f ≤ 2 811 MHz	–30 dBm	1 MHz		

	3 108 MHz ≤ f ≤ 3 187 MHz 4 119 MHz ≤ f ≤ 4 226 MHz			
	Test requirements for CA_4A-13A Configuration			
	136 MHz ≤ f ≤ 201 MHz 923 MHz ≤ f ≤ 978 MHz	–36 dBm	100 kHz	
	2 487 MHz ≤ f ≤ 2 542 MHz 2 633 MHz ≤ f ≤ 2 733 MHz 3 264 MHz ≤ f ≤ 3 329 MHz 4 197 MHz ≤ f ≤ 4 297 MHz	–30 dBm	1 MHz	
	Test requirements for CA_4A-17A Configuration			
	278 MHz ≤ f ≤ 347 MHz 994 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
	1 000 MHz ≤ f ≤ 1 056 MHz 2 414 MHz ≤ f ≤ 2 471 MHz 2 704 MHz ≤ f ≤ 2 806 MHz 3 118 MHz ≤ f ≤ 3 187 MHz 4 124 MHz ≤ f ≤ 4 226 MHz	–30 dBm	1 MHz	
	Test requirements for CA_5A-7A Configuration			
	802 MHz ≤ f ≤ 922 MHz	–36 dBm	100 kHz	
	1 651 MHz ≤ f ≤ 1 746 MHz 3 324 MHz ≤ f ≤ 3 419 MHz 4 148 MHz ≤ f ≤ 4 316 MHz 5 824 MHz ≤ f ≤ 5 989 MHz	–30 dBm	1 MHz	
	Test requirements for CA_5A-12A Configuration			
	108 MHz ≤ f ≤ 150 MHz 549 MHz ≤ f ≤ 608 MHz 932 MHz ≤ f ≤ 999 MHz	–36 dBm	100 kHz	
	1 523 MHz ≤ f ≤ 1 565 MHz 2 222 MHz ≤ f ≤ 2 281 MHz 2 347 MHz ≤ f ≤ 2 414 MHz	–30 dBm	1 MHz	
	Test requirements for CA_5A-17A Configuration			
	108 MHz ≤ f ≤ 145 MHz 559 MHz ≤ f ≤ 608 MHz 932 MHz ≤ f ≤ 99e4 MHz	–36 dBm	100 kHz	
	1 528 MHz ≤ f ≤ 1 565 MHz 2 232 MHz ≤ f ≤ 2 281 MHz 2 352 MHz ≤ f ≤ 2 414 MHz	–30 dBm	1 MHz	
	Test requirements for CA_5A-30A Configuration			
	607 MHz ≤ f ≤ 667 MHz	–36 dBm	100 kHz	
	1 456 MHz ≤ f ≤ 1 491 MHz 3 129 MHz ≤ f ≤ 3 164 MHz 3 761 MHz ≤ f ≤ 3 806 MHz 3 953 MHz ≤ f ≤ 4 013 MHz 5 434 MHz ≤ f ≤ 5 479 MHz	–30 dBm	1 MHz	
	Test requirements for CA_5A-66A Configuration			
	12 MHz ≤ f < 30 MHz	–36 dBm	10 kHz	
	30 MHz ≤ f ≤ 132 MHz 861 MHz ≤ f ≤ 956 MHz	–36 dBm	100 kHz	
	2 534 MHz ≤ f ≤ 2 736 MHz 3 358 MHz ≤ f ≤ 3 478 MHz 4 244 MHz ≤ f ≤ 4 409 MHz	–30 dBm	1 MHz	
	Test requirements for CA_7A-20A Configuration			
	776 MHz ≤ f ≤ 906 MHz	–36 dBm	100 kHz	
	1 638 MHz ≤ f ≤ 1 738 MHz 3 332 MHz ≤ f ≤ 3 432 MHz 4 138 MHz ≤ f ≤ 4 308 MHz 5 832 MHz ≤ f ≤ 6 002 MHz	–30 dBm	1 MHz	
	Test requirements for CA_7A-28A Configuration			
	1 004 MHz ≤ f ≤ 1 164 MHz 1 752 MHz ≤ f ≤ 1 867 MHz 3 203 MHz ≤ f ≤ 3 318 MHz 3 906 MHz ≤ f ≤ 4 066 MHz	–30 dBm	1 MHz	

4 252 MHz ≤ f ≤ 4 437 MHz 5 703 MHz ≤ f ≤ 5 888 MHz			
Test requirements for CA_11A-18A Configuration			
182.1 MHz ≤ f ≤ 232.1 MHz 597.9 MHz ≤ f ≤ 632.9 MHz	–36 dBm	100 kHz	
2 025.8 MHz ≤ f ≤ 2 080.8 MHz 2 242.9 MHz ≤ f ≤ 2 277.9 MHz 3 057.9 MHz ≤ f ≤ 3 107.9 MHz 3 670.8 MHz ≤ f ≤ 3 725.8 MHz	–30 dBm	1 MHz	
Test requirements for CA_12A-30A Configuration			
873 MHz ≤ f ≤ 917 MHz	–36 dBm	100 kHz	
1 589 MHz ≤ f ≤ 1 616 MHz 3 004 MHz ≤ f ≤ 3 031 MHz 3 703 MHz ≤ f ≤ 3 747 MHz 3 894 MHz ≤ f ≤ 3 931 MHz 5 009 MHz ≤ f ≤ 5 046 MHz	–30 dBm	1 MHz	
Test requirements for CA_18A-28A Configuration			
82 MHz ≤ f ≤ 127 MHz 576 MHz ≤ f ≤ 651 MHz 897 MHz ≤ f ≤ 957 MHz	–36 dBm	100 kHz	
1 518 MHz ≤ f ≤ 1 563 MHz 2 221 MHz ≤ f ≤ 2 296 MHz 2 333 MHz ≤ f ≤ 2 393 MHz	–30 dBm	1 MHz	
Test requirements for CA_19A-21A Configuration			
197.1 MHz ≤ f ≤ 242.1 MHz 602.9 MHz ≤ f ≤ 632.9 MHz	–36 dBm	100 kHz	
2 050.8 MHz ≤ f ≤ 2 095.8 MHz 2 277.9 MHz ≤ f ≤ 2 307.9 MHz 3 107.9 MHz ≤ f ≤ 3 152.9 MHz 3 725.8 MHz ≤ f ≤ 3 770.8 MHz	–30 dBm	1 MHz	
Test requirements for CA_26A-46A Configuration			
3 542 MHz ≤ f ≤ 4 297 MHz 4 301 MHz ≤ f ≤ 5 111 MHz 5 964 MHz ≤ f ≤ 6 774 MHz 6 778 MHz ≤ f ≤ 7 623 MHz 9 541 MHz ≤ f ≤ 11 036 MHz 11 114 MHz ≤ f ≤ 12 699 MHz	–30 dBm	1 MHz	
Test requirements for CA_39A-41A Configuration			
576 MHz ≤ f ≤ 810 MHz	–36 dBm	100 kHz	
1 070 MHz ≤ f ≤ 1 344 MHz 3 072 MHz ≤ f ≤ 3 500 MHz 4 376 MHz ≤ f ≤ 4 610 MHz 6 256 MHz ≤ f ≤ 6 530 MHz 6 872 MHz ≤ f ≤ 7 300 MHz	–30 dBm	1 MHz	
Test requirements for CA_41A-42A Configuration			
710 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 000 MHz ≤ f ≤ 1 104 MHz 1 392 MHz ≤ f ≤ 1 980 MHz 4 110 MHz ≤ f ≤ 4 704 MHz 5 896 MHz ≤ f ≤ 6 290 MHz 8 392 MHz ≤ f ≤ 8 980 MHz 9 296 MHz ≤ f ≤ 9 890 MHz	–30 dBm	1 MHz	

CA（带内不连续DL CA和UL CA）杂散发射限值在TS 36.521-1 [5]中的第6.6.3.1A.3.5节定义。

6.6.3.1A.3.5 Test Requirements

This clause specifies the requirements for the specified E-UTRA band for Transmitter Spurious emissions requirement with frequency range as indicated in Table 6.6.3.1A.3.5-1.

For frequencies Δf_{OOB} greater than F_{OOB} as specified in Table 6.6.3.1A.0-1the measured average power of spurious emission, derived in step 6, shall not exceed the described value in Table 6.6.3.1A.3.5-1.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.6.3.1A.3.5-1: Spurious emissions limits

Frequency Range	Maximum Level	Measurement Bandwidth	Notes
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	

CA（3UL CA）杂散发射限值在TS 36.521-1 [5]中的第6.6.3.1A.4.1.5节定义。

6.6.3.1A.4.1.5 Test Requirements

This clause specifies the requirements for the specified E-UTRA band for Transmitter Spurious emissions requirement with frequency range as indicated in Table 6.6.3.1A.4.1.5-1.

For frequencies Δf_{OOB} greater than F_{OOB} as specified in Table 6.6.3.1A.0-1the measured average power of spurious emission, derived in step 6, shall not exceed the described value in Table 6.6.3.1A.4.1.5-1.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.6.3.1A.4.1.5-1: Spurious emissions limits

Frequency Range	Maximum Level	Measurement Bandwidth	Notes
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	
12.75 GHz ≤ f < 5th harmonic of the upper frequency edge of the UL operating band in GHz	–30 dBm	1 MHz	

CA（带内3DL CA和3UL CA）杂散发射限值在TS 36.521-1 [5]中的第6.6.3.1A.4.2.5节定义。

6.6.3.1A.4.2.5 Test Requirements

This clause specifies the requirements for the specified E-UTRA band for Transmitter Spurious emissions requirement with frequency range as indicated in Table 6.6.3.1A.4.2.5-1.

For frequencies Δf_{OOB} greater than F_{OOB} as specified in Table 6.6.3.1A.0-1the measured average power of spurious emission, derived in step 6, shall not exceed the described value in Table 6.6.3.1A.4.2.5-1.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.6.3.1A.4.2.5-1: Spurious emissions limits

Frequency Range	Maximum Level	Measurement Bandwidth	Notes
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	
12.75 GHz ≤ f < 5th harmonic of the upper frequency edge of the UL operating band in GHz	–30 dBm	1 MHz	

CA（3UL CA）（带内非连续3DL CA和3UL CA）杂散发射限值在TS 36.521-1 [5]中的第6.6.3.1A.4.3.5节定义。

6.6.3.1A.4.3.5 Test requirement

This clause specifies the requirements for the specified E-UTRA band for Transmitter Spurious emissions requirement with frequency range as indicated in Table 6.6.3.1A.4.3.5-1.

For frequencies Δf_{OOB} greater than F_{OOB} as specified in Table 6.6.3.1A.0-1the measured average power of spurious emission, derived in step 6, shall not exceed the described value in Table 6.6.3.1A.4.3.5-1.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.6.3.1A.4.3.5-1: Spurious emissions limits

Frequency Range	Maximum Level	Measurement Bandwidth	Notes
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	

CA（4UL CA）杂散发射限值在TS 36.521-1 [5]中的第6.6.3.1A.5.5节定义。

6.6.3.1A.5.5 Test Requirements

This clause specifies the requirements for the specified E-UTRA band for Transmitter Spurious emissions requirement with frequency range as indicated in Table 6.6.3.1A.5.5-1.

For frequencies Δf_{OOB} greater than F_{OOB} as specified in Table 6.6.3.1A.0-1 the measured average power of spurious emission, derived in step 6, shall not exceed the described value in Table 6.6.3.1A.5.5-1.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.6.3.1A.5.5-1: Spurious emissions limits

Frequency Range	Maximum Level	Measurement Bandwidth	Notes
Test requirements for CA_41C-42C Configuration			
710 MHz ≤ f ≤ 1 000 MHz	–36 dBm	100 kHz	
1 000 MHz ≤ f ≤ 1 104 MHz 1 392 MHz ≤ f ≤ 1 980 MHz 4 110 MHz ≤ f ≤ 4 704 MHz 5 896 MHz ≤ f ≤ 6 290 MHz 8 392 MHz ≤ f ≤ 8 980 MHz 9 296 MHz ≤ f ≤ 9 890 MHz	–30 dBm	1 MHz	

1.2.2.2 UE共存的杂散发射

UE的共存要求因不同版本而异。

Rel-16前的一般共存要求可在TS 36.521-1 [5]中找到。参见第6.6.3.2.5节。

6.6.3.2.5 Test requirement

Test requirements for Spurious Emissions UE Co-existence are the same as the minimum requirements and are not repeated in this section.

The measured average power of spurious emission, derived in step 3, shall not exceed the described value in Tables 6.6.3.2.3-1 to 6.6.3.2.3-1G according to the following rule:

The requirements for the UE are release specific and can be found in Tables 6.6.3.2.3-1 to 6.6.3.2.3-1G. If the UE support a band, which is not defined in the table corresponding UE's release, the requirements for this band are taken from the table of earliest release where requirements for this band are defined. This has been described in following Table 6.6.3.2.5-1.

Table 6.6.3.2.5-1: UE Requirements according to UE E-UTRA release and supported E-UTRA band

Band	UE Requirements per release								
	Rel-8	Rel-9	Rel-10	Rel-11	Rel-12	Rel-13	Rel-14	Rel-15	Rel-16
1	Table 6.6.3.2.3-1	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H

2	Table 6.6.3.2.3-1	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
3	Table 6.6.3.2.3-1	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
4	Table 6.6.3.2.3-1	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
5	Table 6.6.3.2.3-1	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
6	Table 6.6.3.2.3-1	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
7	Table 6.6.3.2.3-1	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
8	Table 6.6.3.2.3-1	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
9	Table 6.6.3.2.3-1	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
10	Table 6.6.3.2.3-1	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
11	Table 6.6.3.2.3-1	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
12	Table 6.6.3.2.3-1	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
13	Table 6.6.3.2.3-1	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
14	Table 6.6.3.2.3-1	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
…									
17	Table 6.6.3.2.3-1	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
18	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
19	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
20	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
21	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
22	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
23	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
24	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
25	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H

26	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
27	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
28	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
30	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
31	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
…									
33	Table 6.6.3.2.3-1	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
34	Table 6.6.3.2.3-1	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
35									
36									
37									
38	Table 6.6.3.2.3-1	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
39	Table 6.6.3.2.3-1	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
40	Table 6.6.3.2.3-1	Table 6.6.3.2.3-1A	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
41	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
42	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
43	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
44	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
45	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
…									
48	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
…..									
53	Table 6.6.3.2.3-1H	Table 6.6.3.2.3-1H	Table 6.6.3.2.3-1H	Table 6.6.3.2.3-1H	Table 6.6.3.2.3-1H	Table 6.6.3.2.3-1H	Table 6.6.3.2.3-1H	Table 6.6.3.2.3-1H	Table 6.6.3.2.3-1H
…									
65	N/A [1]	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
66	N/A [2]	N/A [2]	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
…									

68	N/A [1]	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
…									
71	N/A [1]	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
72	N/A [1]	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
…..									
74	N/A [1]	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
87	N/A [1]	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
88	N/A [1]	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
72	N/A [1]	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
74	N/A [1]	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H
85	N/A [1]	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1H

Note 1: Operating band with number > 64 requires Rel-9 signalling (refer to TS 36.307 Ch. 3A.1 [16]) and tests can only be done from Rel-9 and onwards.

Note 2: Asymmetric operating band is release independent from release 10 (refer to TS 36.307 Ch. 3A.1 [16]) and tests can only be done from Rel-10 and onwards.

Note 3: Protected bands with Note 38 in Table 6.6.3.2.3-1E are tested in 6.6.3EA.2 or 6.6.3F.2.

NOTE 1: The frequency range applicable with network signalled values of NS_05, NS_08, NS_09, NS_15,NS_16, NS_27, NS_36, NS_45 are covered in 6.6.3.3 Additional Spurious Emissions.

NOTE 2: The following is applied to Note2 in Table 6.6.3.2.3-1, Table 6.6.3.2.3-1A, Table 6.6.3.2.3-1B, Table 6.6.3.2.3-1C and Table 6.6.3.2.3-1E. For frequency with 2nd, 3rd or 4th harmonic spurious emissions, the measurements are covered in 6.6.3.1.

NOTE 2: The restriction on the maximum uplink transmission to 54 RB in Notes 14 and 15 of Table 6.6.3.2.5-1 is intended for conformance testing and may be applied to network operation to facilitate coexistence when the aggressor and victim bands are deployed in the same geographical area. The applicable spurious emission requirement of −15.5 dBm/5 MHz is a least restrictive technical condition for FDD/TDD coexistence and may have to be revised in the future.

CA（带内连续DL CA和UL CA）的共存要求可在TS 36.521-1中找到 [5]。参见第6.6.3.2A.1.5节。

6.6.3.2A.1.5 Test requirement

Test requirements for Spurious Emissions UE Co-existence are the same as the minimum requirements and are not repeated in this section.

The measured average power of spurious emission, derived in step 6, shall not exceed the described value in Tables 6.6.3.2A.1.5-1.

The requirements for the UE are release specific and can be found in Tables 6.6.3.2A.0-2a to 6.6.3.2A.0-2f. If the UE support a band, which is not defined in the table corresponding UE's release, the requirements for this band are taken from the table of earliest release where requirements for this band are defined. This has been described in following Table 6.6.3.2A.1.5-1.

Table 6.6.3.2A.1.5-1: UE Requirements according to UE E-UTRA release and supported E-UTRA CA configuration

E-UTRA CA Configuration	UE Requirements per release					
	Rel-10	Rel-11	Rel-12	Rel-13	Rel-14	Rel-15
CA_1C	Table 6.6.3.2A.0-2a	Table 6.6.3.2A.0-2b	Table 6.6.3.2A.0-2c	Table 6.6.3.2A.0-2d	Table 6.6.3.2A.0-2d	Table 6.6.3.2A.0-2f
CA_3C	Table 6.6.3.2A.0-2c	Table 6.6.3.2A.0-2c	Table 6.6.3.2A.0-2c	Table 6.6.3.2A.0-2d	Table 6.6.3.2A.0-2d	Table 6.6.3.2A.0-2f
CA_7C	Table 6.6.3.2A.0-2b	Table 6.6.3.2A.0-2b	Table 6.6.3.2A.0-2c	Table 6.6.3.2A.0-2d	Table 6.6.3.2A.0-2d	Table 6.6.3.2A.0-2f
CA_8B	Table 6.6.3.2A.0-2d	Table 6.6.3.2A.0-2d	Table 6.6.3.2A.0-2d	Table 6.6.3.2A.0-2d	Table 6.6.3.2A.0-2d	Table 6.6.3.2A.0-2f
CA_38C	Table 6.6.3.2A.0-2b	Table 6.6.3.2A.0-2b	Table 6.6.3.2A.0-2c	Table 6.6.3.2A.0-2d	Table 6.6.3.2A.0-2d	Table 6.6.3.2A.0-2f
CA_39C	Table 6.6.3.2A.0-2c	Table 6.6.3.2A.0-2c	Table 6.6.3.2A.0-2c	Table 6.6.3.2A.0-2d	Table 6.6.3.2A.0-2d	Table 6.6.3.2A.0-2f
CA_40C	Table 6.6.3.2A.0-2a	Table 6.6.3.2A.0-2b	Table 6.6.3.2A.0-2c	Table 6.6.3.2A.0-2d	Table 6.6.3.2A.0-2d	Table 6.6.3.2A.0-2f
CA_41C	Table 6.6.3.2A.0-2b	Table 6.6.3.2A.0-2b	Table 6.6.3.2A.0-2c	Table 6.6.3.2A.0-2d	Table 6.6.3.2A.0-2e	Table 6.6.3.2A.0-2f
CA_42C	Table 6.6.3.2A.0-2c	Table 6.6.3.2A.0-2c	Table 6.6.3.2A.0-2c	Table 6.6.3.2A.0-2d	Table 6.6.3.2A.0-2d	Table 6.6.3.2A.0-2f

CA（带内、DL、CA和UL CA）的共存要求可在TS 36.521-1 [5]中找到。第6.6.3.2A.2.5节。

6.6.3.2A.2.5 Test requirement

The measured average power of spurious emission, derived in step 6, shall not exceed the described value in Tables 6.6.3.2A.2.5-1 to 6.6.3.2A.2.5-4 according to the following rule:

The requirements for the UE are release specific and can be found in Tables 6.6.3.2A.2.5-1 to 6.6.3.2A.2.5-5. If the UE supports a CA configuration, which is not defined in the table corresponding to UE's release, the requirements for this CA configuration are taken from the table of earliest release where requirements for this CA Configuration are defined. This has been described in following Table 6.6.3.2A.2.5-0.

Table 6.6.3.2A.2.5-0: UE Requirements according to UE E-UTRA release and supported E-UTRA CA Configuration

E-UTRA CA Configuration	UE Requirements per release				
	Rel-11	Rel-12	Rel-13	Rel-14	Rel-15
CA_1A-3A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_1A-5A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_1A-7A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_1A-8A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_1A-18A	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_1A-19A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_1A-21A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_1A-26A	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_1A-28A	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_1A-42A	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_2A-4A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_2A-5A	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_2A-7A	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_2A-12A	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_2A-13A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.25-3	Table 6.6.3.2A.25-4
CA_3A-5A	Table 6.6.3.2A.25-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.25-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_3A-7A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_3A-8A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_3A-18A	Table 6.6.3.2A.2.5-4	Table 6.6.3.2A.2.5-4	Table 6.6.3.2A.2.5-4	Table 6.6.3.2A.2.5-4	Table 6.6.3.2A.2.5-4
CA_3A-19A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_3A-20A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_3A-21A	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3
CA_3A-26A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_3A-28A	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_3A-42A	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3
CA_4A-5A	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_4A-7A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_4A-12A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_4A-13A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_4A-17A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_5A-7A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4

CA_5A-12A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_5A-17A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_7A-20A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_7A-28A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_8A-41A	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3
CA_11A-18A	6.6.3.2A.2.5-4	6.6.3.2A.2.5-4	6.6.3.2A.2.5-4	6.6.3.2A.2.5-4	6.6.3.2A.2.5-4
CA_18A-28A	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA_19A-21A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA 19A-42A	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3
CA 21A-42A	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3
CA 39A-41A	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-1	Table 6.6.3.2A.2.5-2	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-4
CA 41A-42A	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3	Table 6.6.3.2A.2.5-3

Table 6.6.3.2A.2.5-1: Requirements for dual-uplink inter-band carrier aggregation for Rel-11 and Rel-12

E-UTRA CA Configuration	Spurious emission						
	Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	Note
CA_1A-3A	E-UTRA Band 1, 32, 43	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 21	F_{DL_low}	-	F_{DL_high}	-50	1	10
CA_1A-5A	E-UTRA Band 22, 42, 43	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-7A	E-UTRA Band 32	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-8A	E-UTRA band43	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_1A-19A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-21A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	
	Frequency range	945	-	960	-50	1	
CA_2A-4A	E-UTRA Band 4, 10, 22, 24	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 2, 25	F_{DL_low}	-	F_{DL_high}	-50	1	3
	E-UTRA Band 42, 43	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_2A-13A	E-UTRA Band 41, 42	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_3A-5A	E-UTRA Band 5, 7, 8, 38, 42	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 26	859	-	869	-27	1	
CA_3A-7A	E-UTRA Band 5,8, 20, 26, 27, 28, 44	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_3A-8A	E-UTRA Band 20, 28, 38, 44	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 7, 22, 41, 42, 43	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	860	-	890	-40	1	3,11,17
CA_3A-19A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	945	-	960	-50	1	
	Frequency range	2595	-	2645	-50	1	
CA_3A-20A	E-UTRA Band 7, 8	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 38, 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_3A-26A	E-UTRA Band 5, 7, 26	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 41, 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	945	-	960	-50	1	
CA_4A-7A	E-UTRA Band 5, 12, 13, 14, 17, 26, 27, 28	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2

CA_4A-12A	No requirement						
CA_4A-13A	E-UTRA Band 7, 41	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_4A-17A	No requirement						
CA_5A-7A	E-UTRA Band 5, 28, 42	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 26	859	-	869	-27	1	
CA_5A-12A	E-UTRA Band 24, 30	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_5A-17A	E-UTRA Band 24, 30	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_7A-20A	E-UTRA Band 28	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 20	F_{DL_low}	-	F_{DL_high}	-50	1	3
	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_7A-28A	E-UTRA Band 3	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_19A-21A	No requirement						
CA_39A-41A	E-UTRA Band 42, 44	F_{DL_low}	-	F_{DL_high}	-50	1	

NOTE 1: F_{DL_low} and F_{DL_high} refer to each E-UTRA frequency band specified in Table 5.2-1

NOTE 2: As exceptions, measurements with a level up to the applicable requirements defined in Table 6.6.3.1.3-2 are permitted for each assigned E-UTRA carrier used in the measurement due to 2nd, 3rd, 4th or 5th harmonic spurious emissions. An exception is allowed if there is at least one individual RB within the transmission bandwidth (see Figure 5.4.2-1) for which the 2nd, 3rd or 4th harmonic totally or partially overlaps the measurement bandwidth (MBW).

NOTE 3: These requirements also apply for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1.3-1 and Table 6.6.3.1A.0-1 from the edge of the aggregated channel bandwidth.

NOTE 4-9: Void.

NOTE10: This requirement applies for 5, 10, 15 and 20 MHz E-UTRA channel bandwidth allocated within 1 744.9 MHz and 1 784.9 MHz.

NOTE 11: This requirement is applicable only for the following cases:
- for carriers of 5 MHz channel bandwidth when carrier centre frequency (F_c) is within the range 902.5 MHz ≤ F_c < 907.5 MHz with an uplink transmission bandwidth less than or equal to 20 RB
- for carriers of 5 MHz channel bandwidth when carrier centre frequency (F_c) is within the range 907.5 MHz ≤ F_c ≤ 912.5 MHz without any restriction on uplink transmission bandwidth.
- for carriers of 10 MHz channel bandwidth when carrier centre frequency (F_c) is F_c = 910 MHz with an uplink transmission bandwidth less than or equal to 32 RB with RB_{start} > 3.

NOTE 12: Void.

NOTE13: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.

NOTE 14: This requirement is applicable for any channel bandwidths within the range 2 500-2 570 MHz with the following restriction: for carriers of 15 MHz bandwidth when carrier centre frequency is within the range 2 560.5-2 562.5 MHz and for carriers of 20 MHz bandwidth when carrier centre frequency is within the range 2 552-2 560 MHz the requirement is applicable only for an uplink transmission bandwidth less than or equal to 54 RB.

NOTE 15: Void.

NOTE 16: Void.

NOTE 17: This requirement is applicable only when Band 3 transmission frequency is less than or equal to 1 765 MHz.

NOTE 18-20: Void.

Table 6.6.3.2A.2.5-2: Requirements for dual-uplink inter-band carrier aggregation for Rel-13

E-UTRA CA Configuration	Spurious emission						
	Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	Note
CA_1A-3A	E-UTRA Band 1, 32, 43, 65	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 21	F_{DL_low}	-	F_{DL_high}	-50	1	10
CA_1A-5A	E-UTRA Band 22, 42, 43	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-7A	E-UTRA Band 32	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-8A	E-UTRA band43	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_1A-18A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-19A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-21A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	
	Frequency range	945	-	960	-50	1	
CA_1A-26A	E-UTRA Band 22, 42, 43	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-28A	E-UTRA Band 7, 31, 41	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2

	Frequency range	470	-	694	-42	8	3, 22
	Frequency range	470	-	710	-26.2	6	23
CA_1A-42A	E-UTRA Band 11, 21, 31, 32	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_2A-4A	E-UTRA Band 4, 10, 22, 24, 66	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 2, 25	F_{DL_low}	-	F_{DL_high}	-50	1	3
	E-UTRA Band 42, 43	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_2A-5A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 41, 43	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_2A-12A	E-UTRA Band 41	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_2A-13A	E-UTRA Band 41, 42	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_3A-5A	E-UTRA Band 5, 7, 8, 38, 42	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 26	859	-	869	-27	1	
CA_3A-7A	E-UTRA Band 5, 8, 20, 26, 27, 28, 44, 67	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_3A-8A	E-UTRA Band 20, 28, 38, 44	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 7, 22, 41, 42, 43	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	860	-	890	-40	1	3,11,17
CA_3A-19A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	945	-	960	-50	1	
	Frequency range	2595	-	2645	-50	1	
CA_3A-20A	E-UTRA Band 7, 8	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 38, 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_3A-26A	E-UTRA Band 5, 7, 26	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 41, 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	945	-	960	-50	1	
CA_4A-5A	E-UTRA Band 5,7	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 26	859	-	869	-27	1	
	E-UTRA band 41, 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_4A-7A	E-UTRA Band 5, 12, 13, 14, 17, 26, 27, 28	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_4A-12A	No requirement						
CA_4A-13A	E-UTRA Band 7, 41	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_4A-17A	No requirement						
CA_5A-7A	E-UTRA Band 5, 28, 42	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 26	859	-	869	-27	1	
CA_5A-12A	E-UTRA Band 24, 30	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_5A-17A	E-UTRA Band 24, 30	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_7A-20A	E-UTRA Band 28	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 20	F_{DL_low}	-	F_{DL_high}	-50	1	3
	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_7A-28A	E-UTRA Band 3	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_18A-28A	Frequency range	470	-	710	-26.2	6	23
CA_19A-21A	No requirement						
CA_39A-41A	E-UTRA Band 42, 44	F_{DL_low}	-	F_{DL_high}	-50	1	

NOTE 1: F_{DL_low} and F_{DL_high} refer to each E-UTRA frequency band specified in Table 5.2-1

NOTE 2: As exceptions, measurements with a level up to the applicable requirements defined in Table 6.6.3.1.3-2 are permitted for each assigned E-UTRA carrier used in the measurement due to 2nd, 3rd, 4th or 5th harmonic spurious emissions. An exception is allowed if there is at least one individual RB within the transmission bandwidth (see Figure 5.4.2-1) for which the 2nd, 3rd or 4th harmonic totally or partially overlaps the measurement bandwidth (MBW).

NOTE 3: These requirements also apply for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1.3-1 and Table 6.6.3.1A.0-1 from the edge of the aggregated channel bandwidth.

NOTE 4-9: Void.

NOTE10: This requirement applies for 5, 10, 15 and 20 MHz E-UTRA channel bandwidth allocated within 1 744.9 MHz and 1 784.9 MHz.

NOTE 11: This requirement is applicable only for the following cases:
- for carriers of 5 MHz channel bandwidth when carrier centre frequency (F_c) is within the range 902.5 MHz ≤ F_c < 907.5 MHz with an uplink transmission bandwidth less than or equal to 20 RB
- for carriers of 5 MHz channel bandwidth when carrier centre frequency (F_c) is within the range 907.5 MHz ≤ F_c ≤ 912.5 MHz without any restriction on uplink transmission bandwidth.

- for carriers of 10 MHz channel bandwidth when carrier centre frequency (F_c) is F_c = 910 MHz with an uplink transmission bandwidth less than or equal to 32 RB with RB_{start} > 3.

NOTE 12: Void.

NOTE13: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.

NOTE 14: This requirement is applicable for any channel bandwidths within the range 2500 - 2570 MHz with the following restriction: for carriers of 15 MHz bandwidth when carrier centre frequency is within the range 2 560.5-2 562.5 MHz and for carriers of 20 MHz bandwidth when carrier centre frequency is within the range 2 552-2 560 MHz the requirement is applicable only for an uplink transmission bandwidth less than or equal to 54 RB.

NOTE 15-21: Void.

NOTE 22: This requirement is applicable in the case of a 10 MHz E-UTRA carrier confined within 703 MHz and 733 MHz, otherwise the requirement of –25 dBm with a measurement bandwidth of 8 MHz applies.

NOTE 23: This requirement is applicable for 5 and 10 MHz E-UTRA channel bandwidth allocated within 718-728 MHz. For carriers of 10 MHz bandwidth, this requirement applies for an uplink transmission bandwidth less than or equal to 30 RB with RBstart > 1 and RBstart<48.

Table 6.6.3.2A.2.5-3: Requirements for dual-uplink inter-band carrier aggregation for Rel-14

E-UTRA CA Configuration	Spurious emission						
	Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
CA_1A-3A	E-UTRA Band 1, 32, 43, 65	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 21	F_{DL_low}	-	F_{DL_high}	-50	1	10
CA_1A-5A	E-UTRA Band 22, 42, 43	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-7A	E-UTRA Band 32	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-8A	E-UTRA band 43	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_1A-18A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-19A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-21A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	
	Frequency range	945	-	960	-50	1	
CA_1A-26A	E-UTRA Band 22, 42, 43	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-28A	E-UTRA Band 7, 31, 41	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	470	-	694	-42	8	3, 22
	Frequency range	470	-	710	-26.2	6	23
CA_1A-42A	E-UTRA Band 11, 21, 31, 32	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_2A-4A	E-UTRA Band 4, 10, 22, 24, 66, 70	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 2, 25	F_{DL_low}	-	F_{DL_high}	-50	1	3
	E-UTRA Band 42, 43	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_2A-5A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 41, 43	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_2A-7A	E-UTRA Band 29	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_2A-12A	E-UTRA Band 41	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_2A-13A	E-UTRA Band 41, 42	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_3A-5A	E-UTRA Band 5, 7, 8, 38, 42	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 26	859	-	869	-27	1	
CA_3A-7A	E-UTRA Band 5, 8, 20, 26, 27, 28, 44, 67	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_3A-8A	E-UTRA Band 20, 28, 38, 44	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 7, 22, 41, 42, 43	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	860	-	890	-40	1	3,11,17
CA_3A-19A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	945	-	960	-50	1	
	Frequency range	2595	-	2645	-50	1	
CA_3A-20A	E-UTRA Band 7, 8	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 38, 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_3A-26A	E-UTRA Band 5, 7, 26	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 41, 42	F_{DL_low}	-	F_{DL_high}	-50	1	2

	Frequency range	945	-	960	-50	1	
CA_3A-28A	E-UTRA Band 1, 22, 42, 43, 65	F_{DL_low}	-	F_{DL_high}	-50	1	2
	E-UTRA Band 1	F_{DL_low}	-	F_{DL_high}	-50	1	5, 6
	E-UTRA band 3	F_{DL_low}	-	F_{DL_high}	-50	1	3
	E-UTRA Band 5, 7, 8, 11, 18, 19, 20, 21, 26, 27, 31, 34, 38, 40, 41	F_{DL_low}	-	F_{DL_high}	-50	1	
	Frequency range	1884.5	-	1915.7	-41	0.3	
	Frequency range	470	-	710	-26.2	6	23
CA_3A-41A	E-UTRA Band 5, 8, 20, 26, 27, 28, 44, 67	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 18, 19	F_{DL_low}	-	F_{DL_high}	-50	1	18
CA_4A-5A	E-UTRA Band 5, 7	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 26	859	-	869	-27	1	
	E-UTRA band 41, 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_4A-7A	E-UTRA Band 5, 12, 13, 14, 17, 26, 27, 28	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_4A-12A	No requirement						
CA_4A-13A	E-UTRA Band 7, 41	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_4A-17A	No requirement						
CA_5A-7A	E-UTRA Band 5, 28, 42	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 26	859	-	869	-27	1	
CA_5A-12A	E-UTRA Band 24, 30	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_5A-17A	E-UTRA Band 24, 30	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_7A-20A	E-UTRA Band 28	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 20	F_{DL_low}	-	F_{DL_high}	-50	1	3
	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_7A-28A	E-UTRA Band 3	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_18A-28A	Frequency range	470	-	710	-26.2	6	23
CA_19A-21A	No requirement						
CA_39A-41A	E-UTRA Band 42, 44	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_41A-42A	E-UTRA Band 3, 5, 8, 26, 28, 33, 39, 44	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 9, 11, 18, 19, 21	F_{DL_low}	-	F_{DL_high}	-50	1	18
	Frequency range	1839.9	-	1879.9	-50	1	18
	Frequency range	1884.5	-	1915.7	-41	0.3	4, 18

NOTE 1: F_{DL_low} and F_{DL_high} refer to each E-UTRA frequency band specified in Table 5.5-1

NOTE 2: As exceptions, measurements with a level up to the applicable requirements defined in Table 6.6.3.1-2 are permitted for each assigned E-UTRA carrier used in the measurement due to 2nd, 3rd, 4th or 5th harmonic spurious emissions. In case the exceptions are allowed due to spreading of the harmonic emission the exception is also allowed for the first 1 MHz frequency range immediately outside the harmonic emission on both sides of the harmonic emission. This results in an overall exception interval centred at the harmonic emission of (2 MHz + N x L_{CRB} x 180 kHz), where N is 2, 3 or 4 for the 2nd, 3rd or 4th harmonic respectively. The exception is allowed if the measurement bandwidth (MBW) totally or partially overlaps the overall exception interval.

NOTE 3: These requirements also apply for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1-1 and Table 6.6.3.1A-1 from the edge of the aggregated channel bandwidth.

NOTE 4: Applicable when co-existence with PHS system operating in 1 884.5-1 915.7 MHz.

NOTE 5-9: Void.

NOTE10: This requirement applies for 5, 10, 15 and 20 MHz E-UTRA channel bandwidth allocated within 1 744.9 MHz and 1 784.9 MHz.

NOTE 11: This requirement is applicable only for the following cases:
- for carriers of 5 MHz channel bandwidth when carrier centre frequency (F_c) is within the range 902.5 MHz ≤ F_c < 907.5 MHz with an uplink transmission bandwidth less than or equal to 20 RB
- for carriers of 5 MHz channel bandwidth when carrier centre frequency (F_c) is within the range 907.5 MHz ≤ F_c ≤ 912.5 MHz without any restriction on uplink transmission bandwidth.
- for carriers of 10 MHz channel bandwidth when carrier centre frequency (F_c) is F_c = 910 MHz with an uplink transmission bandwidth less than or equal to 32 RB with RB_{start} > 3.

NOTE 12-16: Void.

NOTE 17: This requirement is applicable only when Band 3 transmission frequency is less than or equal to 1 765 MHz.

NOTE 18: This requirement applies when the E-UTRA carrier is confined within 2 545-2 575 MHz or 2 595-2 645 MHz and the channel bandwidth is 10 or 20 MHz.

NOTE 19-21: Void

NOTE 22: This requirement is applicable in the case of a 10 MHz E-UTRA carrier confined within 703 MHz and 733 MHz, otherwise the requirement of –25 dBm with a measurement bandwidth of 8 MHz applies.
NOTE 23: This requirement is applicable for 5 and 10 MHz E-UTRA channel bandwidth allocated within 718-728 MHz. For carriers of 10 MHz bandwidth, this requirement applies for an uplink transmission bandwidth less than or equal to 30 RB with RBstart > 1 and RBstart<48.

Table 6.6.3.2A.2.5-4: Requirements for dual-uplink inter-band carrier aggregation for Rel-15

E-UTRA CA Configuration	Spurious emission						
	Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
CA_1A-3A	E-UTRA Band 1, 32, 43, 50, 65, 74, 75	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 21	F_{DL_low}	-	F_{DL_high}	-50	1	10
CA_1A-5A	E-UTRA Band 22, 42, 43	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-7A	E-UTRA Band 32, 50, 51, 75, 76	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-8A	E-UTRA band 43	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_1A-18A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-19A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-21A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	
	Frequency range	945	-	960	-50	1	
CA_1A-26A	E-UTRA Band 22, 42, 43	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-28A	E-UTRA Band 7, 31, 41, 72, 73	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	470	-	694	-42	8	3, 22
	Frequency range	470	-	710	-26.2	6	23
CA_1A-42A	E-UTRA Band 11, 21, 31, 32, 50, 51, 72, 73, 74, 75, 76	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_2A-4A	E-UTRA Band 4, 10, 22, 24, 50, 66, 70, 74	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 2, 25	F_{DL_low}	-	F_{DL_high}	-50	1	3
	E-UTRA Band 42, 43	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_2A-5A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 41, 43	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_2A-7A	E-UTRA Band 29	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_2A-12A	E-UTRA Band 41	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_2A-13A	E-UTRA Band 41, 42	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_3A-5A	E-UTRA Band 5, 7, 8, 38, 42	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 26	859	-	869	-27	1	
CA_3A-7A	E-UTRA Band 5, 8, 20, 26, 27, 28, 44, 67	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_3A-8A	E-UTRA Band 20, 28, 38, 44	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 7, 22, 41, 42, 43	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	860	-	890	-40	1	3,11,17
CA_3A-19A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	945	-	960	-50	1	
	Frequency range	2595	-	2645	-50	1	
CA_3A-20A	E-UTRA Band 7, 8	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 38, 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_3A-26A	E-UTRA Band 5, 7, 26	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 41, 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	945	-	960	-50	1	
CA_3A-28A	E-UTRA Band 1, 11, 18, 19, 21, 22, 42, 43, 50, 51, 52, 65, 74, 75, 76	F_{DL_low}	-	F_{DL_high}	-50	1	2
	E-UTRA Band 1	F_{DL_low}	-	F_{DL_high}	-50	1	5, 6
	E-UTRA band 3	F_{DL_low}	-	F_{DL_high}	-50	1	3
	E-UTRA Band 5, 7, 8, 20, 26, 27, 31, 34, 38, 40, 41, 72, 73	F_{DL_low}	-	F_{DL_high}	-50	1	
	Frequency range	1884.5	-	1915.7	-41	0.3	
	Frequency range	470	-	710	-26.2	6	23

CA_3A-41A	E-UTRA Band 5, 8, 20, 26, 27, 28, 44, 67	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 18, 19	F_{DL_low}	-	F_{DL_high}	-50	1	18
CA_4A-5A	E-UTRA Band 5, 7	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 26	859	-	869	-27	1	
	E-UTRA band 41, 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_4A-7A	E-UTRA Band 5, 12, 13, 14, 17, 26, 27, 28	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_4A-12A	No requirement						
CA_4A-13A	E-UTRA Band 7, 41	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_4A-17A	No requirement						
CA_5A-7A	E-UTRA Band 5, 28, 42	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 26	859	-	869	-27	1	
CA_5A-12A	E-UTRA Band 24, 30	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_5A-17A	E-UTRA Band 24, 30	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_7A-20A	E-UTRA Band 28	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 20	F_{DL_low}	-	F_{DL_high}	-50	1	3
	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_7A-28A	E-UTRA Band 3	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_11A-18A	E-UTRA Band 1, 3, 11, 18, 19, 21, 28, 34, 42, 65	F_{DL_low}	-	F_{DL_high}	-50	1	
	Frequency range	860	-	890	-40	1	3
	Frequency range	1884.5	-	1915.7	-41	0.3	4
	Frequency range	2545	-	2575	-50	1	
	Frequency range	2595	-	2645	-50	1	
	Frequency range	945	-	960	-50	1	
CA_18A-28A	Frequency range	470	-	710	-26.2	6	23
CA_19A-21A	No requirement						
CA_39A-41A	E-UTRA Band 42, 44	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_41A-42A	E-UTRA Band 3, 5, 8, 26, 28, 33, 39, 44, 50, 51, 74	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 9, 11, 18, 19, 21	F_{DL_low}	-	F_{DL_high}	-50	1	18
	Frequency range	1839.9	-	1879.9	-50	1	18
	Frequency range	1884.5	-	1915.7	-41	0.3	4, 18

NOTE 1: F_{DL_low} and F_{DL_high} refer to each E-UTRA frequency band specified in Table 5.5-1

NOTE 2: As exceptions, measurements with a level up to the applicable requirements defined in Table 6.6.3.1-2 are permitted for each assigned E-UTRA carrier used in the measurement due to 2nd, 3rd, 4th or 5th harmonic spurious emissions. In case the exceptions are allowed due to spreading of the harmonic emission the exception is also allowed for the first 1 MHz frequency range immediately outside the harmonic emission on both sides of the harmonic emission. This results in an overall exception interval centred at the harmonic emission of (2 MHz + N x L_{CRB} x 180 kHz), where N is 2, 3 or 4 for the 2nd, 3rd or 4th harmonic respectively. The exception is allowed if the measurement bandwidth (MBW) totally or partially overlaps the overall exception interval.

NOTE 3: These requirements also apply for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1-1 and Table 6.6.3.1A-1 from the edge of the aggregated channel bandwidth.

NOTE 4: Applicable when co-existence with PHS system operating in 1 884.5-1 915.7 MHz.

NOTE 5-9: Void.

NOTE10: This requirement applies for 5, 10, 15 and 20 MHz E-UTRA channel bandwidth allocated within 1 744.9 MHz and 1 784.9 MHz.

NOTE 11: This requirement is applicable only for the following cases:
- for carriers of 5 MHz channel bandwidth when carrier centre frequency (F_c) is within the range 902.5 MHz ≤ F_c < 907.5 MHz with an uplink transmission bandwidth less than or equal to 20 RB
- for carriers of 5 MHz channel bandwidth when carrier centre frequency (F_c) is within the range 907.5 MHz ≤ F_c ≤ 912.5 MHz without any restriction on uplink transmission bandwidth.
- for carriers of 10 MHz channel bandwidth when carrier centre frequency (F_c) is F_c = 910 MHz with an uplink transmission bandwidth less than or equal to 32 RB with RB_{start} > 3.

NOTE 12-16: Void.

NOTE 17: This requirement is applicable only when Band 3 transmission frequency is less than or equal to 1 765 MHz.

NOTE 18: This requirement applies when the E-UTRA carrier is confined within 2 545-2 575 MHz or 2 595-2 645 MHz and the channel bandwidth is 10 or 20 MHz.

NOTE 19-21: Void.

NOTE 22: This requirement is applicable in the case of a 10 MHz E-UTRA carrier confined within 703 MHz and 733 MHz, otherwise the requirement of –25 dBm with a measurement bandwidth of 8 MHz applies.

NOTE 23: This requirement is applicable for 5 and 10 MHz E-UTRA channel bandwidth allocated within 718-728 MHz. For carriers of 10 MHz bandwidth, this requirement applies for an uplink transmission bandwidth less than or equal to 30 RB with RBstart > 1 and RBstart<48.
NOTE 24-25: Void.

Table 6.6.3.2A.2.5-5: Requirements for dual-uplink inter-band carrier aggregation for Rel-16

E-UTRA CA Configuration	Spurious emission						
	Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
CA_1A-3A	E-UTRA Band 1, 32, 43, 50, 65, 74, 75	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 21	F_{DL_low}	-	F_{DL_high}	-50	1	10
CA_1A-5A	E-UTRA Band 22, 42, 43	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-7A	E-UTRA Band 32, 50, 51, 75, 76	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-8A	E-UTRA band 43	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_1A-18A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-19A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-21A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	
	Frequency range	945	-	960	-50	1	
CA_1A-26A	E-UTRA Band 22, 42, 43	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_1A-28A	E-UTRA Band 7, 31, 41, 72, 73	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	470	-	694	-42	8	3, 22
	Frequency range	470	-	710	-26.2	6	23
CA_1A-42A	E-UTRA Band 11, 21, 31, 32, 50, 51, 72, 73, 74, 75, 76	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_2A-4A	E-UTRA Band 4, 10, 22, 24, 50, 66, 70, 74	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 2, 25	F_{DL_low}	-	F_{DL_high}	-50	1	3
	E-UTRA Band 42, 43	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_2A-5A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 41, 43	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_2A-7A	E-UTRA Band 29	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_2A-12A	E-UTRA Band 41, 53	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_2A-13A	E-UTRA Band 41, 42	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_3A-5A	E-UTRA Band 5, 7, 8, 38, 42	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 26	859	-	869	-27	1	
CA_3A-7A	E-UTRA Band 5, 8, 20, 26, 27, 28, 44, 67	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_3A-8A	E-UTRA Band 20, 28, 38, 44	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 7, 22, 41, 42, 43	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	860	-	890	-40	1	3,11,17
CA_3A-19A	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	945	-	960	-50	1	
	Frequency range	2595	-	2645	-50	1	
CA_3A-20A	E-UTRA Band 7, 8	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 38, 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_3A-26A	E-UTRA Band 5, 7, 26	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 41, 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	945	-	960	-50	1	
CA_3A-28A	E-UTRA Band 1, 11, 18, 19, 21, 22, 42, 43, 50, 51, 52, 65, 74, 75, 76	F_{DL_low}	-	F_{DL_high}	-50	1	2
	E-UTRA Band 1	F_{DL_low}	-	F_{DL_high}	-50	1	5, 6
	E-UTRA band 3	F_{DL_low}	-	F_{DL_high}	-50	1	3
	E-UTRA Band 5, 7, 8, 20, 26, 27, 31, 34, 38, 40, 41, 72, 73	F_{DL_low}	-	F_{DL_high}	-50	1	
	Frequency range	1884.5	-	1915.7	-41	0.3	
	Frequency range	470	-	710	-26.2	6	23

CA_3A-41A	E-UTRA Band 5, 8, 20, 26, 27, 28, 44, 67	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 18, 19	F_{DL_low}	-	F_{DL_high}	-50	1	18
CA_4A-5A	E-UTRA Band 5, 7	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 26	859	-	869	-27	1	
	E-UTRA band 41, 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_4A-7A	E-UTRA Band 5, 12, 13, 14, 17, 26, 27, 28	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_4A-12A	No requirement						
CA_4A-13A	E-UTRA Band 7, 41, 53	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_4A-17A	No requirement						
CA_5A-7A	E-UTRA Band 5, 28, 42	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA band 26	859	-	869	-27	1	
CA_5A-12A	E-UTRA Band 24, 30	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_5A-17A	E-UTRA Band 24, 30	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_7A-20A	E-UTRA Band 28	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 20	F_{DL_low}	-	F_{DL_high}	-50	1	3
	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	-50	1	2
CA_7A-28A	E-UTRA Band 3	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_11A-18A	E-UTRA Band 1, 3, 11, 18, 19, 21, 28, 34, 42, 65	F_{DL_low}	-	F_{DL_high}	-50	1	
	Frequency range	860	-	890	-40	1	3
	Frequency range	1884.5	-	1915.7	-41	0.3	4
	Frequency range	2545	-	2575	-50	1	
	Frequency range	2595	-	2645	-50	1	
	Frequency range	945	-	960	-50	1	
CA_18A-28A	Frequency range	470	-	710	-26.2	6	23
CA_19A-21A	No requirement						
CA_39A-41A	E-UTRA Band 42, 44	F_{DL_low}	-	F_{DL_high}	-50	1	
CA_41A-42A	E-UTRA Band 3, 5, 8, 26, 28, 33, 39, 44, 50, 51, 74	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 9, 11, 18, 19, 21	F_{DL_low}	-	F_{DL_high}	-50	1	18
	Frequency range	1839.9	-	1879.9	-50	1	18
	Frequency range	1884.5	-	1915.7	-41	0.3	4, 18

NOTE 1: F_{DL_low} and F_{DL_high} refer to each E-UTRA frequency band specified in Table 5.5-1

NOTE 2: As exceptions, measurements with a level up to the applicable requirements defined in Table 6.6.3.1-2 are permitted for each assigned E-UTRA carrier used in the measurement due to 2nd, 3rd, 4th or 5th harmonic spurious emissions. In case the exceptions are allowed due to spreading of the harmonic emission the exception is also allowed for the first 1 MHz frequency range immediately outside the harmonic emission on both sides of the harmonic emission. This results in an overall exception interval centred at the harmonic emission of (2 MHz + N x L_{CRB} x 180 kHz), where N is 2, 3 or 4 for the 2nd, 3rd or 4th harmonic respectively. The exception is allowed if the measurement bandwidth (MBW) totally or partially overlaps the overall exception interval.

NOTE 3: These requirements also apply for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1-1 and Table 6.6.3.1A-1 from the edge of the aggregated channel bandwidth.

NOTE 4: Applicable when co-existence with PHS system operating in 1 884.5-1 915.7 MHz.

NOTE 5-9: Void.

NOTE10: This requirement applies for 5, 10, 15 and 20 MHz E-UTRA channel bandwidth allocated within 1 744.9MHz and 1 784.9MHz.

NOTE 11: This requirement is applicable only for the following cases:
- for carriers of 5 MHz channel bandwidth when carrier centre frequency (F_c) is within the range 902.5 MHz ≤ F_c < 907.5 MHz with an uplink transmission bandwidth less than or equal to 20 RB
- for carriers of 5 MHz channel bandwidth when carrier centre frequency (F_c) is within the range 907.5 MHz ≤ F_c ≤ 912.5 MHz without any restriction on uplink transmission bandwidth.
- for carriers of 10 MHz channel bandwidth when carrier centre frequency (F_c) is F_c = 910 MHz with an uplink transmission bandwidth less than or equal to 32 RB with RB_{start} > 3.

NOTE 12-16: Void.

NOTE 17: This requirement is applicable only when Band 3 transmission frequency is less than or equal to 1 765 MHz.

NOTE 18: This requirement applies when the E-UTRA carrier is confined within 2 545-2 575MHz or 2 595-2 645MHz and the channel bandwidth is 10 or 20 MHz.

NOTE 19-21: Void.

NOTE 22: This requirement is applicable in the case of a 10 MHz E-UTRA carrier confined within 703 MHz and 733 MHz, otherwise the requirement of –25 dBm with a measurement bandwidth of 8 MHz applies.

NOTE 23: This requirement is applicable for 5 and 10 MHz E-UTRA channel bandwidth allocated within 718-728MHz. For carriers of 10 MHz bandwidth, this requirement applies for an uplink transmission bandwidth less than or equal to 30 RB with RBstart > 1 and RBstart<48.
NOTE 24-25: Void.

CA（带内非连续DL CA和UL CA）的共存要求可在TS 36.521-1 [5]中找到。第6.6.3.2A.3.5节。

6.6.3.2A.3.5 Test requirement

Test requirements for Spurious Emissions UE Co-existence are the same as the minimum requirements and are not repeated in this section.

The measured average power of spurious emission, derived in step 6, shall not exceed the described value in Table 6.6.3.2A.3.5-1.

The requirements for the UE are release specific and can be found in Table 6.6.3.2A.0-3. If the UE supports a band, which is not defined in the table corresponding UE's release, the requirements for this band are taken from the Table of earliest release where requirements for this band are defined. This has been described in following Table 6.6.3.2A.3.5-1.

Table 6.6.3.2A.3.5-1: UE Requirements according to UE E-UTRA release and supported E-UTRA CA configuration

E-UTRA CA Configuration	UE Requirements per release
	Rel-12
CA_4A-4A	Table 6.6.3.2A.0-3

CA（3UL CA）的共存要求可在TS 36.521-1 [5]中找到。参见第6.6.3.2A.4.5节。

6.6.3.2A.4.5 Test requirement

Test requirements for Spurious Emissions UE Co-existence are the same as the minimum requirements and are not repeated in this section.

The measured average power of spurious emission, derived in step 6, shall not exceed the described value in Tables 6.6.3.2A.4.5-1.

The requirements for the UE are release specific and can be found in Tables 6.6.3.2A.0-2a to 6.6.3.2A.0-2f for intra-band contiguous carrier aggregation and Tables 6.6.3.2A.0-1a to 6.6.3.2A.0-1e for inter-band carrier aggregation. If the UE support a band, which is not defined in the table corresponding UE's release, the requirements for this band are taken from the table of earliest release where requirements for this band are defined. This has been described in following Table 6.6.3.2A.4.5-1.

Table 6.6.3.2A.4.5-1: UE Requirements according to UE E-UTRA release and supported E-UTRA CA configuration

E-UTRA CA Configuration	UE Requirements per release				
	Rel-13	Rel-14	Rel-15	Rel-16	
CA_40D	N/A	Table 6.6.3.2A.0-2e	Table 6.6.3.2A.0-2f		

CA_39A-41C	Table 6.6.3.2A.0-1b	Table 6.6.3.2A.0-1c	Table 6.6.3.2A.0-1d	Table 6.6.3.2A.0-1e	
CA_39C-41A	Table 6.6.3.2A.0-1b	Table 6.6.3.2A.0-1c	Table 6.6.3.2A.0-1d	Table 6.6.3.2A.0-1e	

CA（4UL CA）的共存要求可以在TS 36.521-1 [5]中找到。参见第6.6.3.2A.5.5节。

6.6.3.2A.5.5 Test requirement

The measured average power of spurious emission, derived in step 6, shall not exceed the described value in Tables 6.6.3.2A.5.5-1.

Table 6.6.3.2A.5.5-1: Requirements for dual-uplink inter-band carrier aggregation

E-UTRA CA Configuration	Spurious emission						
	Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	Note
CA_41C-42C	E-UTRA Band 3, 5, 8, 26, 28, 33, 39, 44, 45, 50, 51, 74	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 9, 11, 18, 19, 21	F_{DL_low}	-	F_{DL_high}	-50	1	3
	NR Band n79				-50	1	2

NOTE 1: F_{DL_low} and F_{DL_high} refer to each E-UTRA frequency band specified in Table 5.5-1

NOTE 2: As exceptions, measurements with a level up to the applicable requirements defined in Table 6.6.3.1-2 are permitted for each assigned E-UTRA carrier used in the measurement due to 2nd, 3rd, 4th or 5th harmonic spurious emissions. In case the exceptions are allowed due to spreading of the harmonic emission the exception is also allowed for the first 1 MHz frequency range immediately outside the harmonic emission on both sides of the harmonic emission. This results in an overall exception interval centred at the harmonic emission of (2 MHz + N x L_{CRB} x 180 kHz), where N is 2, 3 or 4 for the 2nd, 3rd or 4th harmonic respectively. The exception is allowed if the measurement bandwidth (MBW) totally or partially overlaps the overall exception interval.

NOTE 3: This requirement applies when the E-UTRA carrier is confined within 2 545-2 575 MHz or 2 595-2 645 MHz and the channel bandwidth is 10 or 20 MHz.

1.2.2.3 附加杂散发射

上述要求以附加频谱发射要求的形式规定。网络通过信令机制通知附加杂散发射要求，用于指示UE在特定网络部署场景中需满足额外的发射限制。该信息作为小区切换消息或系统广播消息的一部分进行传输。

TS 36.521-1 [5]的表6.6.3.3.5.1-1定义了网络信令标签“NS_04”的附加杂散发射要求。

Table 6.6.3.3.5.1-1: Additional requirements

Frequency band	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5, 10, 15, 20 MHz	
2 490.5 MHz ≤ f < 2495 MHz	–13	1 MHz
9 kHz < f < 2 490.5 MHz	–25	1 MHz

TS 36.521-1 [5]的第6.6.3.3.5.2节定义了网络信令标签“NS_05”的附加杂散发射要求。

6.6.3.3.5.2 Test requirement (network signalled value "NS_05")

When "NS_05" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-4 as appropriate,

and

the measured average power of spurious emission, derived in step 2, shall not exceed the described requirements for the corresponding Release as defined in Table 6.6.3.3.5.2-0. This requirement also applies for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.2-0: Applicable requirements per UE release

UE Release	Rel-10 and earlier	Rel-11 (number 1 bit in modifiedMPRbehavior=0)	Rel-11 (number 1 bit in modifiedMPRbehavior=1)	Rel-12 and later
ID	1	2	3	4
Applicable Requirements	Table 6.6.3.3.5.2-1 & 6.6.3.3.5.2-2	Table 6.6.3.3.5.2-1 & 6.6.3.3.5.2-2	Table 6.6.3.3.5.2-3	Table 6.6.3.3.5.2-3

Table 6.6.3.3.5.2-1: Additional test requirements (PHS) (Rel-11 and earlier)

Frequency band (MHz)	**Channel bandwidth / Spectrum emission limit (dBm)**				**Measurement bandwidth**
	5 MHz	**10 MHz**	**15 MHz**	**20 MHz**	
1 884.5 ≤ f ≤1 915.7[*1]	–41	–41	–41	–41	300 KHz
Note 1: Applicable when the lower edge of the assigned E-UTRA UL channel bandwidth frequency is larger than or equal to the upper edge of PHS band (1 915.7 MHz) + 4 MHz + the Channel BW assigned, where Channel BW is as defined in sub-clause 5.4.2. Additional restrictions apply for operations below this point.					

The requirements in Table 6.6.3.3.5.2-1 apply with the additional restrictions specified in Table 6.6.3.3.5.2-2 when the lower edge of the assigned E-UTRA UL channel bandwidth frequency is less than the upper edge of PHS band (1 915.7 MHz) + 4 MHz + the channel BW assigned.

Table 6.6.3.3.5.2-2: RB restrictions for additional requirement (PHS)

15 MHz channel bandwidth with f_c = 1932.5 MHz			
RB_{start}	0-7	8-66	67-74
L_{CRB}	N/A	≤ MIN(30, 67 – RB_{start})	N/A
20 MHz channel bandwidth with f_c = 1930 MHz			
RB_{start}	0-23	24-75	76-99
L_{CRB}	N/A	≤ MIN(24, 76 – RB_{start})	N/A

Table 6.6.3.3.5.2-3: Additional test requirements (PHS) (Rel-12 and onwards)

Frequency band (MHz)	**Channel bandwidth / Spectrum emission limit (dBm)**				**Measurement bandwidth**
	5 MHz	**10 MHz**	**15 MHz**	**20 MHz**	
1 884.5 ≤ f ≤1 915.7	–41	–41	–41	–41	300 KHz

TS 36.521-1 [5]的表6.6.3.3.5.3-1定义了网络信令标签“NS_07”的附加杂散发射要求。

Table 6.6.3.3.5.3-1: Additional requirements (network signalled value "NS_07")

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	10 MHz	
769 ≤ f ≤ 775	–55.5	6.25 kHz
Note: The emissions measurement shall be sufficiently power averaged to ensure a standard deviation < 0.5 dB		

TS 36.521-1 [5]的表6.6.3.3.5.4-1定义了网络信令标签“NS_08”的附加杂散发射要求。

Table 6.6.3.3.5.4-1: Additional requirements (network signalled value "NS_08")

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)			Measurement bandwidth
	5 MHz	10 MHz	15 MHz	
860 ≤ f ≤ 895	–40	–40	–40	1 MHz

TS 36.521-1 [5]的表6.6.3.3.5.5-1定义了网络信令标签“NS_09”的附加杂散发射要求。

Table 6.6.3.3.5.5-1: Additional requirements (network signalled value "NS_09")

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)			Measurement bandwidth
	5MHz	10MHz	15MHz	
1475.9 ≤ f ≤ 1510.9	-35	-35	-35	1 MHz

TS 36.521-1 [5]的表6.6.3.3.5.6-1定义了网络信令标签“NS_11”的附加杂散发射要求。

Table 6.6.3.3.5.6-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	Note
	1.4, 3, 5, 10, 15, 20 MHz		
E-UTRA Band 2	–50	1 MHz	
1 998 ≤ f ≤ 1 999	–21	1 MHz	
1 997 ≤ f < 1 998	–27	1 MHz	
1 996 ≤ f < 1 997	–32	1 MHz	
1 995 ≤ f < 1 996	–37	1 MHz	
1 990 ≤ f < 1 995	–40	1 MHz	

TS 36.521-1 [5]的表6.6.3.3.5.7-1定义了网络信令标签“NS_12”的附加杂散发射要求。

Table 6.6.3.3.5.7-1: Additional requirements

Frequency band (MHz)	Channel bandwidth/ Spectrum emission limit (dBm)	Measurement bandwidth
	1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz	
806 ≤ f ≤ 813.5	–42	6.25 kHz
NOTE 1: The requirement applies for E-UTRA carriers with lower channel edge at or above 814.2 MHz. NOTE 2: The emissions measurement shall be sufficiently power averaged to ensure a standard deviation < 0.5 dB.		

TS 36.521-1 [5]的表6.6.3.3.5.8-1定义了网络信令标签“NS_13”的附加杂散发射要求。

Table 6.6.3.3.5.8-1: Additional requirements

Frequency band (MHz)	Channel bandwidth/ Spectrum emission limit (dBm)	Measurement bandwidth
	1.4, 3, 5 MHz	
806 ≤ f ≤ 816	–42	6.25 kHz
NOTE 1: The requirement applies for E-UTRA carriers with lower channel edge at or above 819 MHz. NOTE 2: The emissions measurement shall be sufficiently power averaged to ensure a standard deviation < 0.5 dB.		

TS 36.521-1 [5]的表6.6.3.3.5.9-1定义了网络信令标签“NS_14”的附加杂散发射要求。

Table 6.6.3.3.5.9-1: Additional requirements

Frequency band (MHz)	Channel bandwidth/ Spectrum emission limit (dBm)	Measurement bandwidth
	10 MHz, 15 MHz	
806 ≤ f ≤ 816	–42	6.25 kHz
NOTE 1: The requirement applies for E-UTRA carriers with lower channel edge at or above 824 MHz. NOTE 2: The emissions measurement shall be sufficiently power averaged to ensure a standard deviation < 0.5 dB.		

TS 36.521-1 [5]的表6.6.3.3.5.10-1定义了网络信令标签“NS_15”的附加杂散发射要求。

Table 6.6.3.3.5.10-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	Note
	1.4, 3, 5, 10, 15 MHz		
851 ≤ f ≤ 859	–53	6.25 kHz	

TS 36.521-1 [5]的表6.6.3.3.5.11-1定义了网络信令标签“NS_16”的附加杂散发射要求。

Table 6.6.3.3.5.11-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	Note
	1.4, 3, 5, 10 MHz		
790 ≤ f ≤ 803	–32	1 MHz	

TS 36.521-1 [5]的表6.6.3.3.5.12-1定义了网络信令标签“NS_17”的附加杂散发射要求。

Table 6.6.3.3.5.12-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	Note
	5, 10 MHz		
470 ≤ f ≤ 710	–26.2	6 MHz	1
Note 1: Applicable when the assigned E-UTRA carrier is confined within 718 MHz and 748 MHz and when the channel bandwidth used is 5 or 10 MHz.			

TS 36.521-1 [5]的表6.6.3.3.5.13-1定义了网络信令标签“NS_18”的附加杂散发射要求。

Table 6.6.3.3.5.13-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	Note
	5, 10, 15, 20 MHz		
692 ≤ f ≤ 698	–26.2	6 MHz	

TS 36.521-1 [5]的表6.6.3.3.5.14-1定义了网络信令标签“NS_19”的附加杂散发射要求。

Table 6.6.3.3.5.14-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	Note
	3, 5, 10, 15, 20 MHz		
662 ≤ f ≤ 694	–25	8 MHz	

TS 36.521-1 [5]的表6.6.3.3.5.15-1定义了网络信令标签“NS_20”的附加杂散发射要求。

Table 6.6.3.3.5.15-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	Note
	5, 10, 15, 20 MHz		
1 990 ≤ f < 1 999	–40	1 MHz	
1 999 ≤ f ≤ 2 000	–40	Note 1	
Note 1: The measurement bandwidth is 1% of the applicable E-UTRA channel bandwidth (5.4.2.1-1).			

TS 36.521-1 [5]的表6.6.3.3.5.16-1定义了网络信令标签“NS_21”的附加杂散发射要求。

Table 6.6.3.3.5.16-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5, 10 MHz	
2 200 ≤ f < 2 288	–40	1 MHz
2 288 ≤ f < 2 292	–37	1 MHz
2 292 ≤ f < 2 296	–31	1 MHz
2 296 ≤ f < 2 300	–25	1 MHz
2 320 ≤ f < 2 324	–25	1 MHz
2 324 ≤ f < 2 328	–31	1 MHz
2 328 ≤ f < 2 332	–37	1 MHz
2 332 ≤ f ≤ 2 395	–40	1 MHz

TS 36.521-1 [5]的表6.6.3.3.5.17-1定义了网络信令标签“NS_22”的附加杂散发射要求。

Table 6.6.3.3.5.17-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	MBW
	5, 10, 15, 20 MHz	
3 400 ≤ f ≤ 3 800	–23 (NOTE 1, NOTE 3)	5 MHz
	–40 (NOTE 2)	1 MHz
NOTE 1: This requirement applies within an offset between 5 MHz and 25 MHz from the lower and from the upper edge of the channel bandwidth, whenever these frequencies overlap with the specified frequency band. NOTE 2: This requirement applies from 3400 MHz to 25 MHz below the lower E-UTRA channel edge and from 25 MHz above the upper E-UTRA channel edge to 3 800 MHz. NOTE 3: This emission limit might imply risk of harmful interference to UE(s) operating in the protected operating band		

TS 36.521-1 [5]的表6.6.3.3.5.18-1定义了网络信令标签“NS_23”的附加杂散发射要求。

Table 6.6.3.3.5.18-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	MBW
	5, 10, 15, 20 MHz	
3 400 ≤ f ≤ 3 800	–23 (NOTE 1, NOTE 4)	5 MHz
	–40 (NOTE 2)	1 MHz

NOTE 1: This requirement applies within an offset between 5 MHz + $F_{offset_NS_23}$ and 25 MHz + $F_{offset_NS_23}$ from the lower and from the upper edges of the channel bandwidth, whenever these frequencies overlap with the specified frequency band.

NOTE 2: This requirement applies from 3 400 MHz to 25 MHz + $F_{offset_NS_23}$ below the lower E-UTRA channel edge and from 25 MHz + Foffset$_{NS_23}$ above the upper E-UTRA channel edge to 3 800 MHz.

NOTE 3: $F_{offset_NS_23}$ is: 0 MHz for 5 MHz channel BW, 5 MHz for 10 MHz channel BW, 9 MHz for 15 MHz channel BW and 12 MHz for 20 MHz channel BW.

NOTE 4: This emission limit might imply risk of harmful interference to UE(s) operating in the protected operating band.

TS 36.521-1 [5]的表6.6.3.3.5.19-1定义了网络信令标签“NS_24”的附加杂散发射要求。

Table 6.6.3.3.5.19-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5 MHz, 10 MHz, 15 MHz, 20 MHz	
Band 34	–50	MHz

Note 1: This requirement applies at a frequency offset equal or larger than 5 MHz from the upper edge of the channel bandwidth, whenever these frequencies overlap with the specified frequency band.

TS 36.521-1 [5]的表6.6.3.3.5.20-1定义了网络信令标签“NS_25”的附加杂散发射要求。

Table 6.6.3.3.5.20-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5 MHz, 10 MHz, 15 MHz, 20 MHz	
Band 34	–40	MHz

Note 1: This requirement applies at a frequency offset equal or larger than 5 MHz from the upper edge of the channel bandwidth, whenever these frequencies overlap with the specified frequency band.

TS 36.521-1 [5]的表6.6.3.3.5.21-1定义了网络信令标签“NS_27”的附加杂散发射要求。

Table 6.6.3.3.5.21-1: Additional requirements

Frequency band	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5, 10, 15, 20 MHz	
9 kHz ≤ f ≤ 3 530 MHz	–40	1 MHz

TS 36.521-1 [5]的表6.6.3.3.5.22-1定义了网络信令标签“NS_36”的附加杂散发射要求。

Table 6.6.3.3.5.22-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5 MHz, 10 MHz and 15 MHz	
470 ≤ f ≤ 694	–42	8 MHz

TS 36.521-1 [5]的表6.6.3.3.5.23-1定义了网络信令标签“NS_38”的附加杂散发射要求。

Table 6.6.3.3.5.23-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz	
1 400 ≤ f ≤ 1 427	–32	27 MHz
NOTE 1: This requirement shall be verified with UE transmission power of 15 dBm.		

TS 36.521-1 [5]的表6.6.3.3.5.24-1定义了网络信令标签“NS_39”的附加杂散发射要求。

Table 6.6.3.3.5.24-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz	
1 475 ≤ f ≤ 1 488	–28	1 MHz

TS 36.521-1 [5]中的第6.6.3.3.5.25节定义了网络信令标签“NS_45”的附加杂散发射要求。

6.6.3.3.5.25 Test requirement (network signalled value “NS_45”)

When "NS 45" is indicated in the cell:

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.25-1 & Table 6.6.3.3.5.25-2. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.25-1: Additional requirements

Table 6.6.3.3.5.25-1: Additional requirements for 1.4,3 and 5 MHz channel bandwidths

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	1.4 MHz, 3 MHz, 5 MHz	
0.009 < f ≤ 2 477.5	–25	1 MHz
2 477.5 < f ≤ 2 478.5	–13	1 MHz
2 478.5< f ≤ 2 483.5	–10	1 MHz
2 495 ≤ f < 2 501	–13	1 MHz
2 501 ≤ f ≤ 5th harmonic of the upper frequency edge of the UL operating band	–25	1 MHz

Table 6.6.3.3.5.25-2: Additional requirements for 10 MHz channel bandwidths

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	10 MHz	
0.009 < f ≤ 2 473.5	–25	1 MHz
2 473.5 < f ≤ 2 478.5	–13	1 MHz
2 478.5< f ≤ 2 483.5	–10	1 MHz
2 495 ≤ f < 2 505	–13	1 MHz
2 505 ≤ f ≤ 5th harmonic of the upper frequency edge of the UL operating band	–25	1 MHz

TS 36.521-1 [5]的表6.6.3.3.5.26-1定义了网络信令标签“NS_44”的附加杂散发射要求。

Table 6.6.3.3.5.26-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	NOTE
	5, 10, 15, 20		
2 620-2 645	–15.5	5 MHz	1
2 645-2 690	–40	1 MHz	1
Note 1: The E-UTRA carrier with channel bandwidth is confined within 2 570 MHz and 2 615 MHz.			

TS 36.521-1 [5]的表6.6.3.3.5.27-1定义了网络信令标签“NS_56”的附加杂散发射要求。

Table 6.6.3.3.5.27-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit[1] (dBm)	Measurement bandwidth	NOTE
	5 MHz, 10 MHz		
1 541 ≤ f ≤ 1 559	-102	2 kHz	Averaged over any 2 millisecond active transmission interval
1 559≤ f ≤ 1 608	-85	700 Hz	
1 608≤ f ≤ 1 610	-85 +5/2 (f-1608)	700 Hz	
1 610≤ f ≤ 1 625	-80+ 66/15 (f-1610)	700 Hz	
1 541 ≤ f ≤ 1 608	-75	1 MHz	Averaged over any 2 millisecond active transmission interval
1 608≤ f ≤ 1 610	-75 + 5/2 (f-1608)	1 MHz	
1 610≤ f ≤ 1 627.5	-70+ 57/17.5 (f-1610)	1 MHz	
1 627.5	-37	4 kHz	
1 638.5 ≤f ≤ 1 645.5	-28	4 kHz	
1 657.5 ≤f ≤ 1 660.5	-28	4 kHz	
NOTE 1: The EIRP requirement in regulation is converted to conducted requirement using a 0 dBi antenna.			

1.2.2.4 UL 64-QAM的附加杂散发射

UL 64-QAM的附加杂散发射要求在TS 36.521-1 [5]中的第6.6.3.3_1.5节定义。

6.6.3.3_1.5 Test requirement

Same test requirement as in clause 6.6.3.3.5.

6.6.3.3.5 Test requirement

This clause specifies the requirements for the specified E-UTRA band for an additional spectrum emission requirement with protected bands as indicated from Table 6.6.3.3.5.1-1 to table 6.6.3.3.5.25-2.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

6.6.3.3.5.1 Test requirement (network signalled value “NS_04”)

When "NS 04" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-3 or 6.2.4_1.5-2 as appropriate, and
- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.1-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.1-1: Additional requirements

Frequency band	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5, 10, 15, 20 MHz	
2 490.5 MHz ≤ f < 2 495 MHz	–13	1 MHz
9 kHz < f < 2490.5 MHz	-25	1 MHz

6.6.3.3.5.2 Test requirement (network signalled value "NS_05")

When "NS_05" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-4 as appropriate,

and

the measured average power of spurious emission, derived in step 2, shall not exceed the described requirements for the corresponding Release as defined in Table 6.6.3.3.5.2-0. This requirement also applies for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.2-0: Applicable requirements per UE release

UE Release	Rel-10 and earlier	Rel-11 (number 1 bit in modifiedMPRbehavior=0)	Rel-11 (number 1 bit in modifiedMPRbehavior=1)	Rel-12 and later
ID	1	2	3	4
Applicable Requirements	Table 6.6.3.3.5.2-1 & 6.6.3.3.5.2-2	Table 6.6.3.3.5.2-1 & 6.6.3.3.5.2-2	Table 6.6.3.3.5.2-3	Table 6.6.3.3.5.2-3

Table 6.6.3.3.5.2-1: Additional test requirements (PHS) (Rel-11 and earlier)

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)				Measurement bandwidth
	5 MHz	10 MHz	15 MHz	20 MHz	
1 884.5 ≤ f ≤1 915.7[*1]	–41	–41	–41	–41	300 KHz

Note 1:	Applicable when the lower edge of the assigned E-UTRA UL channel bandwidth frequency is larger than or equal to the upper edge of PHS band (1 915.7 MHz) + 4 MHz + the Channel BW assigned, where Channel BW is as defined in sub-clause 5.4.2. Additional restrictions apply for operations below this point.

The requirements in Table 6.6.3.3.5.2-1 apply with the additional restrictions specified in Table 6.6.3.3.5.2-2 when the lower edge of the assigned E-UTRA UL channel bandwidth frequency is less than the upper edge of PHS band (1915.7 MHz) + 4 MHz + the channel BW assigned.

Table 6.6.3.3.5.2-2: RB restrictions for additional requirement (PHS)

15 MHz channel bandwidth with f_c = 1932.5 MHz			
RB_{start}	0-7	8-66	67-74
L_{CRB}	N/A	≤ MIN(30, 67 – RB_{start})	N/A
20 MHz channel bandwidth with f_c = 1930 MHz			
RB_{start}	0-23	24-75	76-99
L_{CRB}	N/A	≤ MIN(24, 76 – RB_{start})	N/A

Table 6.6.3.3.5.2-3: Additional test requirements (PHS) (Rel-12 and onwards)

Frequency band (MHz)	**Channel bandwidth / Spectrum emission limit (dBm)**				**Measurement bandwidth**
	5 MHz	**10 MHz**	**15 MHz**	**20 MHz**	
1 884.5 ≤ f ≤1 915.7	–41	–41	–41	–41	300 KHz

6.6.3.3.5.3 Test requirement (network signalled value "NS_07")

When "NS_07" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-7 as appropriate,

and

- the measured average power of spurious emission, derived in step 4, shall not exceed the described value in Table 6.6.3.3.5.3-1. These requirements also apply for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.3-1: Additional requirements (network signalled value "NS_07")

Frequency band (MHz)	**Channel bandwidth / Spectrum emission limit (dBm)**	**Measurement bandwidth**
	10 MHz	
769 ≤ f ≤ 775	–55.5	6.25 kHz
Note: The emissions measurement shall be sufficiently power averaged to ensure a standard deviation < 0.5 dB		

6.6.3.3.5.4 Test requirement (network signalled value "NS_08")

When "NS_08" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-8 as appropriate,

and

the measured average power of spurious emission, derived in step 4, shall not exceed the described value in Table 6.6.3.3.5.4-1. This requirement also applies for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.4-1: Additional requirements (network signalled value "NS_08")

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)			Measurement bandwidth
	5 MHz	10 MHz	15 MHz	
860 ≤ f ≤ 895	–40	–40	–40	1 MHz

6.6.3.3.5.5 Test requirement (network signalled value "NS_09")

When "NS_09" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-9 as appropriate,

and

- the measured average power of spurious emission, derived in step 4, shall not exceed the described value in table 6.6.3.3.5.5-1. This requirement also applies for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.5-1: Additional requirements (network signalled value "NS_09")

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)			Measurement bandwidth
	5 MHz	10 MHz	15 MHz	
1 475.9 ≤ f ≤ 1 510.9	-35	-35	-35	1 MHz

NOTE 1: To improve measurement accuracy, A-MPR values for NS_09 specified in Table 6.2.4.3-1 in sub-clause 6.2.4 are derived based on 100 kHz RBW.

6.6.3.3.5.6 Test requirement (network signalled value "NS_11")

When "NS 11" is indicated in the cell:

the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-11 as appropriate,

and

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.6-1. This requirement also applies for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.6-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	Note
	1.4, 3, 5, 10, 15, 20 MHz		
E-UTRA Band 2	–50	1 MHz	
1 998 ≤ f ≤ 1 999	–21	1 MHz	
1 997 ≤ f < 1 998	–27	1 MHz	
1 996 ≤ f < 1 997	–32	1 MHz	
1 995 ≤ f < 1 996	–37	1 MHz	
1 990 ≤ f < 1 995	–40	1 MHz	

6.6.3.3.5.7 Test requirement (network signalled value "NS_12")

When "NS 12" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-12 as appropriate,

and

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.7-1. This requirement also applies for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.7-1: Additional requirements

Frequency band (MHz)	Channel bandwidth/ Spectrum emission limit (dBm)	Measurement bandwidth
	1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz	
806 ≤ f ≤ 813.5	-42	6.25 kHz
NOTE 1: The requirement applies for E-UTRA carriers with lower channel edge at or above 814.2 MHz. NOTE 2: The emissions measurement shall be sufficiently power averaged to ensure a standard deviation < 0.5 dB.		

6.6.3.3.5.8 Test requirement (network signalled value "NS_13")

When "NS 13" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-13 as appropriate,

and

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.8-1. This requirement also applies for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.8-1: Additional requirements

Frequency band (MHz)	Channel bandwidth/ Spectrum emission limit (dBm)	Measurement bandwidth
	1.4, 3, 5 MHz	
806 ≤ f ≤ 816	–42	6.25 kHz
NOTE 1: The requirement applies for E-UTRA carriers with lower channel edge at or above 819 MHz. NOTE 2: The emissions measurement shall be sufficiently power averaged to ensure a standard deviation < 0.5 dB.		

6.6.3.3.5.9 Test requirement (network signalled value "NS_14")

When "NS 14" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-14 as appropriate,

and

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.9-1. This requirement also applies for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.9-1: Additional requirements

Frequency band (MHz)	Channel bandwidth/ Spectrum emission limit (dBm)	Measurement bandwidth

	10 MHz, 15 MHz	
806 ≤ f ≤ 816	–42	6.25 kHz
NOTE 1: The requirement applies for E-UTRA carriers with lower channel edge at or above 824 MHz. NOTE 2: The emissions measurement shall be sufficiently power averaged to ensure a standard deviation < 0.5 dB.		

6.6.3.3.5.10 Test requirement (network signalled value "NS_15")

When "NS 15" is indicated in the cell:

the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-15 as appropriate,

and

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.10-1. This requirement also applies for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.10-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	Note
	1.4, 3, 5, 10, 15 MHz		
851 ≤ f ≤ 859	–53	6.25 kHz	

6.6.3.3.5.11 Test requirement (network signalled value "NS_16")

When "NS 16" is indicated in the cell:

the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-16 as appropriate,

and

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.11-1. This requirement also applies for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.11-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	Note
	1.4, 3, 5, 10 MHz		
790 ≤ f ≤ 803	–32	1 MHz	

6.6.3.3.5.12 Test requirement (network signalled value "NS_17")

When "NS 17" is indicated in the cell:

the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-17 as appropriate,

and

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.12-1. This requirement also applies for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.12-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	Note
	5, 10 MHz		
470 ≤ f ≤ 710	–26.2	6 MHz	1
Note 1: Applicable when the assigned E-UTRA carrier is confined within 718 MHz and 748 MHz and when the channel bandwidth used is 5 or 10 MHz.			

6.6.3.3.5.13 Test requirement (network signalled value "NS_18")

When "NS 18" is indicated in the cell:

the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-18 as appropriate,

and

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.13-1. This requirement also applies for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.13-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	Note
	5, 10, 15, 20 MHz		
692 ≤ f ≤ 698	–26.2	6 MHz	

6.6.3.3.5.14 Test requirement (network signalled value "NS_19")

When "NS 19" is indicated in the cell:

the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-19 as appropriate,

and

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.14-1. This requirement also applies for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.14-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	Note
	3, 5, 10, 15, 20 MHz		
662 ≤ f ≤ 694	–25	8 MHz	

6.6.3.3.5.15 Test requirement (network signalled value "NS_20")

When "NS 20" is indicated in the cell:

the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-20 as appropriate,

and

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.15-1. This requirement also applies for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.15-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	Note
	5, 10, 15, 20 MHz		
1 990 ≤ f < 1 999	–40	1 MHz	
1 999 ≤ f ≤ 2 000	–40	Note 1	
Note 1: The measurement bandwidth is 1% of the applicable E-UTRA channel bandwidth (5.4.2.1-1).			

6.6.3.3.5.16 Test requirement (network signalled value “NS_21”)

When “NS_21” is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-21 as appropriate, and

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.16-1. These requirements also apply for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1.3-1 and Table 6.6.3.1A-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.16-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5, 10 MHz	
2 200 ≤ f < 2 288	–40	1 MHz
2 288 ≤ f < 2 292	–37	1 MHz
2 292 ≤ f < 2 296	–31	1 MHz
2 296 ≤ f < 2 300	–25	1 MHz
2 320 ≤ f < 2 324	–25	1 MHz
2 324 ≤ f < 2 328	–31	1 MHz
2 328 ≤ f < 2 332	–37	1 MHz
2 332 ≤ f ≤ 2 395	–40	1 MHz

6.6.3.3.5.17 Test requirement (network signalled value “NS_22”)

When "NS 22" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-22 as appropriate, and

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.17-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.17-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	MBW
	5, 10, 15, 20 MHz	
3 400 ≤ f ≤ 3 800	–23 (NOTE 1, NOTE 3)	5 MHz
	–40 (NOTE 2)	1 MHz
NOTE 1: This requirement applies within an offset between 5 MHz and 25 MHz from the lower and from the upper edge of the channel bandwidth, whenever these frequencies overlap with the specified frequency band. NOTE 2: This requirement applies from 3 400 MHz to 25 MHz below the lower E-UTRA channel edge and from 25 MHz above the upper E-UTRA channel edge to 3 800 MHz. NOTE 3: This emission limit might imply risk of harmful interference to UE(s) operating in the protected operating band		

6.6.3.3.5.18 Test requirement (network signalled value “NS_23”)

When "NS 23" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-23 as appropriate, and

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.18-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.18-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	MBW
	5, 10, 15, 20 MHz	
3 400 ≤ f ≤ 3 800	–23 (NOTE 1, NOTE 4)	5 MHz
	–40 (NOTE 2)	1 MHz
NOTE 1: This requirement applies within an offset between 5 MHz + $F_{offset_NS_23}$ and 25 MHz + $F_{offset_NS_23}$ from the lower and from the upper edges of the channel bandwidth, whenever these frequencies overlap with the specified frequency band.		
NOTE 2: This requirement applies from 3 400 MHz to 25 MHz + $F_{offset_NS_23}$ below the lower E-UTRA channel edge and from 25 MHz + Foffset$_{NS_23}$ above the upper E-UTRA channel edge to 3 800 MHz.		
NOTE 3: $F_{offset_NS_23}$ is: 0 MHz for 5 MHz channel BW, 5 MHz for 10 MHz channel BW, 9 MHz for 15 MHz channel BW and 12 MHz for 20 MHz channel BW.		
NOTE 4: This emission limit might imply risk of harmful interference to UE(s) operating in the protected operating band.		

6.6.3.3.5.19 Test requirement (network signalled value “NS_24”)

When "NS 24" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-24 as appropriate, and

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.19-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.19-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5 MHz, 10 MHz, 15 MHz, 20 MHz	
Band 34	–50	MHz
Note 1: This requirement applies at a frequency offset equal or larger than 5 MHz from the upper edge of the channel bandwidth, whenever these frequencies overlap with the specified frequency band.		

6.6.3.3.5.20 Test requirement (network signalled value “NS_25”)

When "NS 25" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-25 as appropriate, and

  - the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.20-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.20-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5 MHz, 10 MHz, 15 MHz, 20 MHz	
Band 34	–40	MHz
Note 1: This requirement applies at a frequency offset equal or larger than 5 MHz from the upper edge of the channel bandwidth, whenever these frequencies overlap with the specified frequency band.		

6.6.3.3.5.21 Test requirement (network signalled value “NS_27”)

When "NS 27" is indicated in the cell:

the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-27 as appropriate,

and

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.21-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.21-1: Additional requirements

Frequency band	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5, 10, 15, 20 MHz	
9 kHz ≤ f ≤ 3 530 MHz	–40	1 MHz

6.6.3.3.5.22 Test requirement (network signalled value “NS_36”)

When "NS 36" is indicated in the cell:

the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-29 as appropriate,

and

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.22-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.22-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5 MHz, 10 MHz and 15 MHz	
470 ≤ f ≤ 694	–42	8 MHz

6.6.3.3.5.23 Test requirement (network signalled value “NS_38”)

When "NS 38" is indicated in the cell:

the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-29 as appropriate,

and

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.23-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.23-1: Additional requirements

Frequency band	Channel bandwidth /	

(MHz)	Spectrum emission limit (dBm)	Measurement bandwidth
	1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz	
1 400 ≤ f ≤ 1 427	–32	27 MHz
NOTE 1: This requirement shall be verified with UE transmission power of 15 dBm.		

6.6.3.3.5.24 Test requirement (network signalled value “NS_39”)

When "NS 39" is indicated in the cell:

the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-29 as appropriate,

and

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.24-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.24-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz	
1 475 ≤ f ≤ 1 488	–28	1 MHz

6.6.3.3.5.25 Test requirement (network signalled value “NS_45”)

When "NS 45" is indicated in the cell:

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.25-1 & Table 6.6.3.3.5.25-2. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.25-1: Additional requirements

Table 6.6.3.3.5.25-1: Additional requirements for 1.4,3 and 5 MHz channel bandwidths

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	1.4 MHz, 3 MHz, 5 MHz	
0.009 < f ≤ 2 477.5	–25	1 MHz
2 477.5 < f ≤ 2 478.5	–13	1 MHz
2 478.5< f ≤ 2 483.5	–10	1 MHz
2 495 ≤ f < 2 501	–13	1 MHz
2 501 ≤ f ≤ 5th harmonic of the upper frequency edge of the UL operating band	–25	1 MHz

Table 6.6.3.3.5.25-2: Additional requirements for 10 MHz channel bandwidths

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	10 MHz	
0.009 < f ≤ 2 473.5	–25	1 MHz
2 473.5 < f ≤ 2 478.5	–13	1 MHz
2 478.5< f ≤ 2 483.5	–10	1 MHz
2 495 ≤ f < 2 505	–13	1 MHz

2 505 ≤ f ≤ 5th harmonic of the upper frequency edge of the UL operating band	–25	1 MHz

6.6.3.3.5.26 Test requirement (network signalled value “NS_44”)

When "NS 44" is indicated in the cell:

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.26-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.26-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	NOTE
	5, 10, 15, 20		
2 620-2 645	–15.5	5 MHz	1
2 645-2 690	–40	1 MHz	1
Note 1: The E-UTRA carrier with channel bandwidth is confined within 2 570 MHz and 2 615 MHz.			

6.6.3.3.5.27 Test requirement (network signalled value “NS_56”)

When "NS 56" is indicated in the cell:

- the power of any UE emission shall not exceed the levels specified in Table 6.6.3.3.5.27-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3.5.27-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit[1] (dBm)	Measurement bandwidth	NOTE
	5 MHz, 10MHz		
1 541 ≤ f ≤ 1 559	-102	2 kHz	Averaged over any 2 millisecond active transmission interval
1 559≤ f ≤ 1 608	-85	700 Hz	
1 608≤ f ≤ 1 610	-85 +5/2 (f-1608)	700 Hz	
1 610≤ f ≤ 1 625	-80+ 66/15 (f-1610)	700 Hz	
1 541 ≤ f ≤ 1 608	-75	1 MHz	Averaged over any 2 millisecond active transmission interval
1 608≤ f ≤ 1 610	-75 + 5/2 (f-1608)	1 MHz	
1 610≤ f ≤ 1 627.5	-70+ 57/17.5 (f-1610)	1 MHz	
1 627.5	-37	4 kHz	
1 638.5 ≤f ≤ 1 645.5	-28	4 kHz	
1 657.5 ≤f ≤ 1 660.5	-28	4 kHz	
NOTE 1: The EIRP requirement in regulation is converted to conducted requirement using a 0 dBi antenna.			

1.2.2.5 UL 256-QAM的附加杂散发射

UL 256-QAM的附加杂散发射要求在TS 36.521-1 [5]中的第6.6.3.3_2.5节定义。

6.6.3.3_2.5 Test requirement

Same test requirement as in clause 6.6.3.3.5.

1.2.2.6 CA的附加杂散发射

CA（带内连续DL CA和UL CA）的附加杂散发射要求在TS 36.521-1 [5]中的第6.6.3.3A.1.5节定义。

6.6.3.3A.1.5 Test requirement

This clause specifies the requirements for the specified E-UTRA band for an additional spectrum emission for CA requirement with protected bands as indicated from Table 6.6.3.3A.1.5.1-1 to Table 6.6.3.3A.1.5.6-1.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

6.6.3.3A.1.5.1 Test requirement for CA (network signalled value "CA_NS_01")

When "CA_NS_01" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4A.1.5-1 as appropriate,

and

the measured average power of spurious emission, derived in step 2, shall not exceed the described value in Table 6.6.3.3A.1.5.1-1. This requirement also applies for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1A.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3A.1.5.1-1: Additional requirements (PHS) for CA

Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	Note
E-UTRA band 34	F_{DL_low}	-	F_{DL_high}	–50	1	
Frequency range	1884.5	-	1915.7	–41	0.3	1
Note 1: Applicable when the aggregated channel bandwidth is confined within frequency range 1 940-1 980 MHz.						

6.6.3.3A.1.5.2 Test requirement for CA (network signalled value “CA_NS_02")

When “CA_NS_02” is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4A.1.5-2 as appropriate,

and

the measured average power of spurious emission, derived in step 2, shall not exceed the described value in Table 6.6.3.3A.1.5.2-1. This requirement also applies for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1A.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3A.1.5.2-1: Additional requirements for CA

Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)
E-UTRA band 34	F_{DL_low}	-	F_{DL_high}	-50	1
Frequency range	1 900	-	1 915	-15.5	5
Frequency range	1 915	-	1 920	+1.6	5

6.6.3.3A.1.5.3 Test requirement for CA (network signalled value “CA_NS_03")

When “CA_NS_03” is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4A.1.5-3 as appropriate,

and

the measured average power of spurious emission, derived in step 2, shall not exceed the described value in Table 6.6.3.3A.1.5.3-1. This requirement also applies for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1A.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3A.1.5.3-1: Additional requirement for CA

Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)
E-UTRA band 34	F_{DL_low}	-	F_{DL_high}	–50	1
Frequency range	1 880	-	1 895	–40	1
Frequency range	1 895	-	1 915	–15.5	5
Frequency range	1 915	-	1 920	+1.6	5

6.6.3.3A.1.5.4 Test requirement for CA (network signalled value “CA_NS_05")

When “CA_NS_05” is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4A.1.5-5 as appropriate,

and

the measured average power of spurious emission, derived in step 2, shall not exceed the described value in Table 6.6.3.3A.1.5.4-1. This requirement also applies for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1A.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3A.1.5.4-1: Additional requirement for CA

Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)
Frequency range	2 620	-	2 645	–15.5	5
Frequency range	2 645	-	2 690	–40	1

6.6.3.3A.1.5.5 Test requirement for CA (network signalled value “CA_NS_06")

When “CA_NS_06” is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4A.1.5-6 as appropriate,

and

the measured average power of spurious emission, derived in step 2, shall not exceed the described value in Table 6.6.3.3A.1.5.5-1. This requirement also applies for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1A.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3A.1.5.5-1: Additional requirements

Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)
Frequency range	2 570	-	2 575	+1.6	5
Frequency range	2 575	-	2 595	–15.5	5
Frequency range	2 595	-	2 620	–40	1

6.6.3.3A.1.5.6 Test requirement for CA (network signalled value “CA_NS_07")

When “CA_NS_07” is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4A.1.5-7 as appropriate,

and

the measured average power of spurious emission, derived in step 2, shall not exceed the described value in Table 6.6.3.3A.1.5.6-1. This requirement also applies for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1A.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3A.1.5.6-1: Additional requirement for CA

Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
Frequency range	1 805	-	1 855	–40	1	1
Frequency range	1 855	-	1 880	–15.5	5	1, 2, 3
NOTE 1: This requirement is applicable for carriers with aggregated channel bandwidths confined in 1885-1920 MHz NOTE 2: The requirement also applies for the frequency ranges that are less than FOOB (MHz) in Table 6.6.3.1.3-1 and Table 6.6.3.1A.0-1 from the edge of the channel bandwidth. NOTE 3: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.						

6.6.3.3A.1.5.7 Test requirement for CA (network signalled value “CA_NS_08")

Not available

6.6.3.3A.1.5.8 Test requirement for CA (network signalled value “CA_NS_04")

When “CA_NS_04” is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4A.1.5-4 as appropriate,

and

the measured average power of spurious emission, derived in step 2, shall not exceed the described value in Table 6.6.3.3A.1.5.8-1. This requirement also applies for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1A.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3.3A.1.5.8-1: Additional requirement for CA

Frequency band	Spectrum emission limit (dBm)	Measurement bandwidth
2 490.5 MHz ≤ f < 2 495 MHz	–13	1 MHz
9 kHz < f < 2490.5 MHz	–25	1 MHz

UL 64-QAM的CA（带内连续DL CA和UL CA）的附加杂散发射要求在TS 36.521-1 [5]中的第6.2.4A.1_1.5节定义。

6.2.4A.1_1.5 Test requirements

The maximum output power, derived in step 3 shall be within the range prescribed by the nominal maximum output power and tolerance in the applicable table from Table 6.2.4A.1_1.5-1 to Table 6.2.4A.1_1.5-7. For uplink QPSK or 16-QAM, the allowed maximum output power reduction is specified in Table 6.2.4A.1_1.3-1 and clause 6.2.3A.1 does not apply, i.e. carrier aggregation MPR = 0. For uplink 64-QAM, the applied maximum output power reduction is obtained by taking the maximum value of MPR requirements specified in Table 6.2.3A.1_1.3-1 and A-MPR requirements specified in Table 6.2.4A.1_1.3-1. For the UE maximum output power modified by MPR specified in Table 6.2.3A.1_1.3-1 or A-MPR specified in Table 6.2.4A.1_1.3-1, the power limits specified in Table 6.2.5A.1.3-1 apply.

Table 6.2.4A.1_1.5-1: Test requirement (network signalled value "CA_NS_01")

Configuration ID	Class 1 (dBm)	Tol. (dB)	Class 2 (dBm)	Tol. (dB)	Class 3 (dBm)	Tol. (dB)
1					23	+2.7 / -17.7
2					23	+2.7 / -11.7
3					23	+2.7 / -9.7
4					23	+2.7 / -4.7
5					23	+2.7 / -11.7
6					23	+2.7 / -24.7
7					23	+2.7 / -18.7
8					23	+2.7 / -18.7
9					23	+2.7 / -11.7
10					23	+2.7 / -9.7
11					23	+2.7 / -6.2
12					23	+2.7 / -24.7
Note 1: Lower limit is assuming $\Delta T_{IB,c}$ is zero. If non-zero, $P_{CMAX,c}$ will decrease and $T(P_{CMAX_L,c})$ may be higher resulting in different test requirements according to Table 6.2.5A.1.3-1.						

Table 6.2.4A.1_1.5-2: Test requirement (network signalled value "CA_NS_02")

Configuration ID	Class 1 (dBm)	Tol. (dB)	Class 2 (dBm)	Tol. (dB)	Class 3 (dBm)	Tol. (dB)
1					23	+2.7 / -4.7
2					23	+2.7 / -6.2
3					23	+2.7 / -9.7
4					23	+2.7 / -11.7
5					23	+2.7 / -4.7

6					23	+2.7 / -4.7
7					23	+2.7 / -24.7
8					23	+2.7 / -8.2
9					23	+2.7 / -6.2
10					23	+2.7 / -6.2
11					23	+2.7 / -11.7
12					23	+2.7 / -15.7
13					23	+2.7 / -4.7
14					23	+2.7 / -24.7
Note 1: Lower limit is assuming $\Delta T_{IB,c}$ is zero. If non-zero, $P_{CMAX,c}$ will decrease and $T(P_{CMAX_L,c})$ may be higher resulting in different test requirements according to Table 6.2.5A.1.3-1.						

Table 6.2.4A.1_1.5-3: Test requirement (network signalled value "CA_NS_03")

Configuration ID	Class 1 (dBm)	Tol. (dB)	Class 2 (dBm)	Tol. (dB)	Class 3 (dBm)	Tol. (dB)
1					23	+2.7 / -15.7
2					23	+2.7 / -8.2
3					23	+2.7 / -6.2
4					23	+2.7 / -9.7
5					23	+2.7 / -13.7
6					23	+2.7 / -11.7
7					23	+2.7 / -4.7
8					23	+2.7 / -25.2
9					23	+2.7 / -15.7
10					23	+2.7 / -11.7
11					23	+2.7 / -4.7
12					23	+2.7 / -8.2
13					23	+2.7 / -12.7
14					23	+2.7 / -15.7
15					23	+2.7 / -4.7
16					23	+2.7 / -25.2
Note 1: Lower limit is assuming $\Delta T_{IB,c}$ is zero. If non-zero, $P_{CMAX,c}$ will decrease and $T(P_{CMAX_L,c})$ may be higher resulting in different test requirements according to Table 6.2.5A.1.3-1.						

Table 6.2.4A.1_1.5-4: Test requirement (network signalled value "CA_NS_04")

Configuration ID	Class 1 (dBm)	Tol. (dB)	Class 2 (dBm)	Tol. (dB)	Class 3 (dBm)	Tol. (dB)
1					23	+2.7 / -8.2
2					23	+2.7 / -8.2
3					23	+2.7 / -8.2
4					23	+2.7 / -18.7
5					23	+2.7 / -8.2
6					23	+2.7 / -8.2
7					23	+2.7 / -18.7
8					23	+2.7 / -8.2
9					23	+2.7 / -8.2
10					23	+2.7 / -8.2
11					23	+2.7 / -18.7
12					23	+2.7 / -8.2
13					23	+2.7 / -8.2
14					23	+2.7 / -8.2
15					23	+2.7 / -8.2
16					23	+2.7 / -18.7
Note 1: Lower limit is assuming $\Delta T_{IB,c}$ is zero. If non-zero, $P_{CMAX,c}$ will decrease and $T(P_{CMAX_L,c})$ may be higher resulting in different test requirements according to Table 6.2.5A.1.3-1.						

Table 6.2.4A.1_1.5-5: Test requirement (network signalled value "CA_NS_05")

Configuration ID	Class 1 (dBm)	Tol. (dB)	Class 2 (dBm)	Tol. (dB)	Class 3 (dBm)	Tol. (dB)
1					23	+2.7 / -6.2
2					23	+2.7 / -9.7
3					23	+2.7 / -9.7
4					23	+2.7 / -9.7
5					23	+2.7 / -11.7
6					23	+2.7 / -24.2
7					23	+2.7 / -9.7
8					23	+2.7 / -6.2
9					23	+2.7 / -11.7
10					23	+2.7 / -17.7
11					23	+2.7 / -24.2

Note 1: Lower limit is assuming $\Delta T_{IB,c}$ is zero. If non-zero, $P_{CMAX,c}$ will decrease and $T(P_{CMAX_L,c})$ may be higher resulting in different test requirements according to Table 6.2.5A.1.3-1.

Table 6.2.4A.1_1.5-6: Test requirement (network signalled value "CA_NS_06")

Configuration ID	Class 1 (dBm)	Tol. (dB)	Class 2 (dBm)	Tol. (dB)	Class 3 (dBm)	Tol. (dB)
1					23	+2.7 / -12.2
2					23	+2.7 / -6.2
3					23	+2.7 / -6.2
4					23	+2.7 / -11.7
5					23	+2.7 / -15.7
6					23	+2.7 / -26.7
7					23	+2.7 / -11.2
8					23	+2.7 / -6.2
9					23	+2.7 / -6.2
10					23	+2.7 / -9.7
11					23	+2.7 / -15.7
12					23	+2.7 / -26.7

Note 1: Lower limit is assuming $\Delta T_{IB,c}$ is zero. If non-zero, $P_{CMAX,c}$ will decrease and $T(P_{CMAX_L,c})$ may be higher resulting in different test requirements according to Table 6.2.5A.1.3-1.

Table 6.2.4A.1_1.5-7: Test requirement (network signalled value "CA_NS_07")

Configuration ID	Class 1 (dBm)	Tol. (dB)	Class 2 (dBm)	Tol. (dB)	Class 3 (dBm)	Tol. (dB)
1					23	+2.7 / -8.2
2					23	+2.7 / -11.7
3					23	+2.7 / -6.2
4					23	+2.7 / -6.2
5					23	+2.7 / -28.7
6					23	+2.7 / -17.7
7					23	+2.7 / -6.2
8					23	+2.7 / -11.7
9					23	+2.7 / -9.7
10					23	+2.7 / -6.2
11					23	+2.7 / -9.7
12					23	+2.7 /

							-28.7	
	13					23	+2.7 / -17.7	
	14					23	+2.7 / -6.2	
	15					23	+2.7 / -12.7	
	16					23	+2.7 / -6.2	
	17					23	+2.7 / -9.7	
	18					23	+2.7 / -28.7	
	Note 1: Lower limit is assuming $\Delta T_{IB,c}$ is zero. If non-zero, $P_{CMAX,c}$ will decrease and $T(P_{CMAX_L,c})$ may be higher resulting in different test requirements according to Table 6.2.5A.1.3-1.							

UL 256-QAM的CA（带内连续DL CA和UL CA）的附加杂散发射要求在TS 36.521-1 [5]中的第6.2.4A.1_2.5节定义。

6.2.4A.1_2.5 Test requirements

The maximum output power, derived in step 6 shall be within the range prescribed by the nominal maximum output power and tolerance in the applicable table from Table 6.2.4A.1_2.5-1 to Table 6.2.4A.1_2.5-7.

Table 6.2.4A.1_2.5-1: Test requirement (network signalled value "CA_NS_01")

Configuration ID	Class 1 (dBm)	Tol. (dB)	Class 2 (dBm)	Tol. (dB)	Class 3 (dBm)	Tol. (dB)
1					23	+2.7 / -17.7
2					23	+2.7 / -11.7
3					23	+2.7 / -9.7
4					23	+2.7 / -9.7
5					23	+2.7 / -11.7
6					23	+2.7 / -24.7
7					23	+2.7 / -18.7
8					23	+2.7 / -18.7
9					23	+2.7 / -11.7
10					23	+2.7 / -9.7
11					23	+2.7 / -9.7
12					23	+2.7 / -24.7
Note 1: Lower limit is assuming $\Delta T_{IB,c}$ is zero. If non-zero, $P_{CMAX,c}$ will decrease and $T(P_{CMAX_L,c})$ may be higher resulting in different test requirements according to Table 6.2.5A.1.3-1.						

Table 6.2.4A.1_2.5-2: Test requirement (network signalled value "CA_NS_02")

Configuration ID	Class 1 (dBm)	Tol. (dB)	Class 2 (dBm)	Tol. (dB)	Class 3 (dBm)	Tol. (dB)
1					23	+2.7 / -9.7
2					23	+2.7 / -9.7
3					23	+2.7 / -9.7
4					23	+2.7 / -11.7
5					23	+2.7 / -9.7
6					23	+2.7 / -9.7
7					23	+2.7 / -24.7
8					23	+2.7 / -9.7
9					23	+2.7 / -9.7
10					23	+2.7 / -9.7
11					23	+2.7 / -11.7

12					23	+2.7 / -15.7
13					23	+2.7 / -9.7
14					23	+2.7 / -24.7
Note 1: Lower limit is assuming $\Delta T_{IB,c}$ is zero. If non-zero, $P_{CMAX,c}$ will decrease and $T(P_{CMAX_L,c})$ may be higher resulting in different test requirements according to Table 6.2.5A.1.3-1.						

Table 6.2.4A.1_2.5-3: Test requirement (network signalled value "CA_NS_03")

Configuration ID	Class 1 (dBm)	Tol. (dB)	Class 2 (dBm)	Tol. (dB)	Class 3 (dBm)	Tol. (dB)
1					23	+2.7 / -15.7
2					23	+2.7 / -9.7
3					23	+2.7 / -9.7
4					23	+2.7 / -9.7
5					23	+2.7 / -13.7
6					23	+2.7 / -11.7
7					23	+2.7 / -9.7
8					23	+2.7 / -25.2
9					23	+2.7 / -15.7
10					23	+2.7 / -11.7
11					23	+2.7 / -9.7
12					23	+2.7 / -9.7
13					23	+2.7 / -12.7
14					23	+2.7 / -15.7
15					23	+2.7 / -9.7
16					23	+2.7 / -25.2
Note 1: Lower limit is assuming $\Delta T_{IB,c}$ is zero. If non-zero, $P_{CMAX,c}$ will decrease and $T(P_{CMAX_L,c})$ may be higher resulting in different test requirements according to Table 6.2.5A.1.3-1.						

Table 6.2.4A.1_2.5-4: Test requirement (network signalled value "CA_NS_04")

Configuration ID	Class 1 (dBm)	Tol. (dB)	Class 2 (dBm)	Tol. (dB)	Class 3 (dBm)	Tol. (dB)
1					23	+2.7 / -9.7
2					23	+2.7 / -9.7
3					23	+2.7 / -9.7
4					23	+2.7 / -19.2
5					23	+2.7 /

						-9.7
6					23	+2.7 / -9.7
7					23	+2.7 / -19.2
8					23	+2.7 / -9.7
9					23	+2.7 / -9.7
10					23	+2.7 / -9.7
11					23	+2.7 / -19.2
12					23	+2.7 / -9.7
13					23	+2.7 / -9.7
14					23	+2.7 / -9.7
15					23	+2.7 / -9.7
16					23	+2.7 / -19.2
Note 1: Lower limit is assuming $\Delta T_{IB,c}$ is zero. If non-zero, $P_{CMAX,c}$ will decrease and $T(P_{CMAX_L,c})$ may be higher resulting in different test requirements according to Table 6.2.5A.1.3-1.						

Table 6.2.4A.1_2.5-5: Test requirement (network signalled value "CA_NS_05")

Configuration ID	Class 1 (dBm)	Tol. (dB)	Class 2 (dBm)	Tol. (dB)	Class 3 (dBm)	Tol. (dB)
1					23	+2.7 / -9.7
2					23	+2.7 / -9.7
3					23	+2.7 / -9.7
4					23	+2.7 / -9.7
5					23	+2.7 / -11.7
6					23	+2.7 / -24.2
7					23	+2.7 / -9.7
8					23	+2.7 / -9.7
9					23	+2.7 / -11.7
10					23	+2.7 / -17.7
11					23	+2.7 / -24.2
Note 1: Lower limit is assuming $\Delta T_{IB,c}$ is zero. If non-zero, $P_{CMAX,c}$ will decrease and $T(P_{CMAX_L,c})$ may be higher resulting in different test requirements according to Table 6.2.5A.1.3-1.						

Table 6.2.4A.1_2.5-6: Test requirement (network signalled value "CA_NS_06")

Configuration ID	Class 1 (dBm)	Tol. (dB)	Class 2 (dBm)	Tol. (dB)	Class 3 (dBm)	Tol. (dB)
1 (low range)					23	+2.7 / -12.2

1 (high range)					23	+2.7 / -9.7
2					23	+2.7 / -9.7
3					23	+2.7 / -9.7
4					23	+2.7 / -11.7
5					23	+2.7 / -15.7
6					23	+2.7 / -26.7
7 (low range)					23	+2.7 / -12.2
7 (high range)					23	+2.7 / -9.7
8					23	+2.7 / -9.7
9					23	+2.7 / -9.7
10					23	+2.7 / -9.7
11					23	+2.7 / -15.7
12					23	+2.7 / -26.7
Note 1: Lower limit is assuming $\Delta T_{IB,c}$ is zero. If non-zero, $P_{CMAX,c}$ will decrease and $T(P_{CMAX_L,c})$ may be higher resulting in different test requirements according to Table 6.2.5A.1.3-1.						

Table 6.2.4A.1_2.5-7: Test requirement (network signalled value "CA_NS_07")

Configuration ID	Class 1 (dBm)	Tol. (dB)	Class 2 (dBm)	Tol. (dB)	Class 3 (dBm)	Tol. (dB)
1					23	+2.7 / -9.7
2					23	+2.7 / -11.7
3					23	+2.7 / -9.7
4					23	+2.7 / -9.7
5					23	+2.7 / -28.7
6					23	+2.7 / -17.7
7					23	+2.7 / -9.7
8					23	+2.7 / -11.7
9					23	+2.7 / -9.7
10					23	+2.7 / -9.7
11					23	+2.7 / -9.7
12					23	+2.7 / -28.7
13					23	+2.7 / -17.7
14					23	+2.7 / -9.7
15					23	+2.7 / -12.7
16					23	+2.7 /

							-9.7
	17					23	+2.7 / -9.7
	18					23	+2.7 / -28.7
	Note 1: Lower limit is assuming $\Delta T_{IB,c}$ is zero. If non-zero, $P_{CMAX,c}$ will decrease and $T(P_{CMAX_L,c})$ may be higher resulting in different test requirements according to Table 6.2.5A.1.3-1.						

CA（带内DL、CA和UL CA）的附加杂散发射要求在TS 36.521-1 [5]中的第6.6.3.3A.2.5节定义。

6.6.3.3A.2.5 Test requirement

Same test requirements as in clause 6.6.3.3.5 depending on network signal value.

UL 64QAM的CA（带内DL CA和UL CA）的附加杂散发射要求在TS 36.521-1 [5]中的第6.6.3.3A.2_1.5节定义。

6.6.3.3A.2_1.5 Test requirement

Same test requirements as in clause 6.6.3.3A.2.5.

UL 256QAM的CA（带内、DL、CA和UL CA）的附加杂散发射要求在TS 36.521-1 [5]中的第6.6.3.3A.2_2.5节定义。

6.6.3.3A.2_2.5 Test requirement

Same test requirements as in clause 6.6.3.3A.2.5.6.6.3.3A.3 Additional spurious emissions for CA (intra-band non-contiguous DL CA and UL CA)

CA（3UL CA）的附加杂散发射要求在TS 36.521-1 [5]中的第6.6.3.3A.4.5节定义。

6.6.3.3A.4.5 Test requirement

This clause specifies the requirements for the specified E-UTRA band for an additional spectrum emission for CA requirement with protected bands as indicated from Table 6.6.3.3A.4.5.1-1.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.6.3.3A.4.5.1-1: Additional requirement for CA

Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
Frequency range	1 805	-	1 855	–40	1	1
Frequency range	1 855	-	1 880	–15.5	5	1, 2, 3
NOTE 1: This requirement is applicable for carriers with aggregated channel bandwidths confined in 1 885-1 920 MHz						
NOTE 2: The requirement also applies for the frequency ranges that are less than FOOB (MHz) in Table 6.6.3.1.3-1 and Table 6.6.3.1A.0-1 from the edge of the channel bandwidth.						
NOTE 3: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.						

CA（4UL CA）的附加杂散发射要求在TS 36.521-1 [5]中的第6.6.3.3A.5节定义。

6.6.3.3A.5 Additional spurious emissions for CA (4UL CA)

6.6.3.3A.5.1 Test purpose

To verify that UE transmitter does not cause unacceptable interference to other channels or other systems in terms of transmitter spurious emissions in intra-band contiguous carrier aggregation under the deployment scenarios where additional requirements are specified.

6.6.3.3A.5.2 Test applicability

This test case applies to all types of E-UTRA UE release 11 and forward that support inter-band and 4UL CA.

6.6.3.3A.5.3 Minimum conformance requirements

Same minimum conformance requirements as in clause 6.6.3.3A.1.3

6.6.3.3A.5.4 Test description

6.6.3.3A.5.4.1 Initial conditions

Initial conditions are a set of test configurations the UE needs to be tested in and the steps for the SS to take with the UE to reach the correct measurement state. For the UE maximum output power modified by A-MPR specified in table 6.6.3.3A.5.4.1-1, the power limits specified in subclause 6.2.5A.6.3 apply.

Table 6.6.3.3A.2.4.1-1: Additional spurious emissions for inter-band CA

Uplink CA Configuration	NS-value per CC (in same order as UL CA Configuration column)		Applicable emissions requirements (in same order as UL CA Configuration column)	
CA_41C-42C	CA_NS_04	CA_NS_08	Table 6.6.3.3A.1.3.8-1	Table 6.6.3.3A.1.3.7-1
Note 1: A-MPR values for NS-values in this table are the same as in section 6.2.4.3.				

The initial test configurations consist of environmental conditions, test frequencies, and CC combinations based on E-UTRA CA configurations specified in Table 5.4.2A.1-2. All of these configurations shall be tested with applicable test parameters for each CA Configuration, and are shown in Table 6.6.3.3A.5.4.1-2. The details of the uplink reference measurement channels (RMCs) are specified in Annexes A.2. Configurations of PDSCH and PDCCH before measurement are specified in Annex C.2.

Table 6.6.3.3A.5.4.1-2: Test Configuration Table (network signalled value CA_NS_04/CA_NS_08)

Initial Conditions	
Test Environment as specified in TS 36.508 [7] subclause 4.1	NC
Test Frequencies as specified in TS 36.508 [7] subclause 4.3.1 for different CA bandwidth classes	Low and High range for both PCC and SCC
Test CC Combination setting (NRB_agg) as specified in subclause 5.4.2A.1 for the CA Configuration across bandwidth combination sets supported by the UE.	Lowest and Highest N_{RBagg}

1. Connect the SS to the UE to the UE antenna connectors as shown in Figure TS 36.508 [7] Annex A, Figure group A.56 as appropriate.
2. The parameter settings for the cell are set up according to TS 36.508 [7] subclause 4.4.3.
3. Downlink signals for PCC are initially set up according to Annex C.0, C.1 and C.3.0, and uplink signals according to Annex H.1 and H.3.0.
4. The UL Reference Measurement channels are set according to Table 6.6.3.3A.5.4.1-2.

5. Propagation conditions are set according to Annex B.0.

6. Ensure the UE is in State 3A-RF according to TS 36.508 [7] clause 5.2A.2. Message contents are defined in clause 6.6.3.3A.5.4.3.

6.6.3.3A.5.4.2 Test procedure

1. Configure SCCs according to Annex C.0, C.1 and Annex C.3.0 for all downlink physical channels.

2. The SS shall configure SCC as per TS 36.508 [7] clause 5.2A.4. Message contents are defined in clause 6.6.3.3A.5.4.3

3. SS activates SCCs by sending the activation MAC-CE (Refer TS 36.321 [13], clauses 5.13, 6.1.3.8). Wait for at least 2 seconds (Refer TS 36.133, clauses 8.3.3.2).

4. SS sends uplink scheduling information for each UL HARQ process via PDCCH DCI format 0 for C_RNTI to schedule the UL RMC on both PCC and SCC, according to Table 6.6.3.3A.5.4.1-2. Since the UE has no payload and no loopback data to send the UE sends uplink MAC padding bits on the UL RMC.

5. Send continuously uplink power control "up" commands in every uplink scheduling information to the UE until the UE transmits at P_{UMAX} level.

6. Measure the mean power of the UE in the channel bandwidth of the radio access mode according to the test configuration. The period of the measurement shall be at least one sub-frame (1ms).

7. Measure the power of the transmitted signal with a measurement filter of bandwidths according to Table 6.6.3.3A.1.5.1-1 to 6.6.3.3A.1.5.8-1 as appropriate. The centre frequency of the filter shall be stepped in contiguous steps according to the same table. The measured power shall be verified for each step. The measurement period shall capture the active time slots.

6.6.3.3A.5.4.3 Message contents

Same message contents as in clause 6.2.4A.5.4.3.

6.6.3.3A.2.5 Test requirement

Same test requirements as in clause 6.6.3.3A.1.5 depending on network signal value.

1.2.3 UL-MIMO的发射机杂散发射

UL-MIMO的E-UTRA杂散发射在TS 36.521-1 [5]中的第6.6.3B.1.5节定义。

6.6.3B.1.5 Test requirement

The measured average power of spurious emission, derived in step 3, shall not exceed the described value in Table 6.6.3B.1.5-1.

The spurious emission limits apply for the frequency ranges that are more than ΔfOOB (MHz) from the edge of the channel bandwidth shown in Table 6.6.3.1.3-1.

Table 6.6.3B.1.5-1: General spurious emissions test requirements

Frequency Range	Maximum Level	Measurement Bandwidth	Notes
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	
12.75 GHz ≤ f < 5th harmonic of the upper frequency edge of the UL operating band in GHz	–30 dBm	1 MHz	Note 1
Note 1: Applies for Band 22, Band 42 and Band 43.			

NOTE: In order that the measurement of spurious emissions falls within the frequency ranges that are more than ΔfOOB (MHz) from the edge of the channel bandwidth, the minimum offset of the measurement frequency from each edge of the channel should be ΔfOOB + MBW/2. MBW denotes the measurement bandwidth defined in Table 6.6.3B.1.5-1.

UL-MIMO的共存要求在TS 36.521-1 [5]中的第6.6.3B.2.5节定义。

6.6.3B.2.5 Test requirement

Test requirements for Spurious Emissions UE Co-existence for UL-MIMO are the same as the minimum requirements and are not repeated in this section.

The measured average power of spurious emission, derived in step 3, shall not exceed the described value in Tables 6.6.3.2.3-1B to 6.6.3.2.3-1G according to the following rule:

The requirements for the UE are release specific and can be found in Tables 6.6.3.2.3-1B to 6.6.3.2.3-1G. If the UE support a band, which is not defined in the table corresponding UE's release, the requirements for this band are taken from the table of earliest release where requirements for this band are defined. This has been described in following Table 6.6.3B.2.5-1.

The spurious emission limits apply for the frequency ranges that are more than ΔfOOB (MHz) from the edge of the channel bandwidth shown in Table 6.6.3.1.3-1.

Table 6.6.3B.2.5-1: UE Requirements according to UE E-UTRA release and supported E-UTRA band

Band	UE Requirements per release					
	Rel-10	Rel-11	Rel-12	Rel-13	Rel-14	Rel-15
1	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G
2	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G
3	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G
4	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G

	5	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	
	6	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	
	7	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	
	8	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	
	9	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	
	10	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	
	11	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	
	12	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	
	13	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	
	14	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	
	...							
	17	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	
	18	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	
	19	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	
	20	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	
	21	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	
	22	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	
	23	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	
	24	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	
	25	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	
	26	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	
	27	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	
	28	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G	

30	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G
31	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G
...						
33	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G
34	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G
35						
36						
37						
38	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G
39	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G
40	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G
41	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G
42	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G
43	Table 6.6.3.2.3-1B	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G
44	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1C	Table 6.6.3.2.3-1D	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G
45	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G
…						
48	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G
65	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1E	Table 6.6.3.2.3-1F	Table 6.6.3.2.3-1G
…						
68	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G
…						
71	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G
72	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G	Table 6.6.3.2.3-1G

NOTE: The frequency range applicable with network signalled values of NS_05, NS_08, and NS_09 are covered in 6.6.3B.3 Additional Spurious Emissions for UL-MIMO.

UL-MIMO的附加杂散发射要求在TS 36.521-1 [5]中定义。参见第6.6.3B.3.5节。

6.6.3B.3.5 Test requirement

Same test requirements as defined in clause 6.6.3.3.5.

1.2.4 UE类别0的发射机杂散发射

UE类别0的E-UTRA杂散发射在TS 36.521-1 [5]中的第6.6.3E.1.5节定义。

6.6.3E.1.5 Test requirement

This clause specifies the requirements for the specified E-UTRA band for Transmitter Spurious emissions requirement with frequency range as indicated in Table 6.6.3E.1.5-1.

The measured average power of spurious emission, derived in step 3, shall not exceed the described value in Table 6.6.3E.1.5-1.

The spurious emission limits apply for the frequency ranges that are more than Δf_{OOB} (MHz) from the edge of the channel bandwidth shown in Table 6.6.3.1.3-1.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.6.3E.1.5-1: General spurious emissions test requirements

Frequency Range	Maximum Level	Measurement Bandwidth	Notes
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	

UE类别0的共存要求在TS 36.521-1 [5]中的第6.6.3E.2.5节定义。

6.6.3E.2.5 Test requirement

Test requirements for Spurious Emissions UE Co-existence are the same as the minimum requirements and are not repeated in this section.

The measured average power of spurious emission, derived in step 3, shall not exceed the described value in Table 6.6.3E.2.3-1 according to the following rule:

The requirements for the UE are release specific and can be found in Tables 6.6.3E.2.3-1. If the UE support a band, which is not defined in the table corresponding UE's release, the requirements for this band are taken from the table of earliest release where requirements for this band are defined. This has been described in following Table 6.6.3E.2.5-1.

Table 6.6.3E.2.5-1: UE Requirements according to UE E-UTRA release and supported E-UTRA band

Band	UE Requirements per release
	Rel-12
2	Table 6.6.3E.2.3-1
3	Table 6.6.3E.2.3-1
4	Table 6.6.3E.2.3-1
5	Table 6.6.3E.2.3-1
8	Table 6.6.3E.2.3-1
13	Table 6.6.3E.2.3-1
20	Table 6.6.3E.2.3-1
39	Table 6.6.3E.2.3-1
41	Table 6.6.3E.2.3-1

NOTE 1: The following is applied to Note2 in Table 6.6.3E.2.3-1. For frequency with 2nd, 3rd or 4th harmonic spurious emissions, the measurements are covered in 6.6.3.1.

NOTE 2: The restriction on the maximum uplink transmission to 36 RB in Notes 14 and 15 of Table 6.6.3E.2.5-1 is intended for conformance testing and may be applied to network operation to facilitate coexistence when the aggressor and victim bands are deployed in the same geographical area. The applicable spurious emission requirement of -15.5 dBm/5 MHz is a least restrictive technical condition for FDD/TDD coexistence and may have to be revised in the future.

UE类别0的附加杂散发射要求在TS 36.521-1 [5]中的第6.6.3E.3.5节定义。

6.6.3E.3.5 Test requirement

This clause specifies the requirements for the specified E-UTRA band for an additional spectrum emission requirement with protected bands as indicated from Table 6.6.3E.3.5.1-1 to Table 6.6.3E.3.5.2-1.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

6.6.3E.3.5.1 Test requirement (network signalled value "NS_07")

When "NS_07" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-7 as appropriate,

and

- the measured average power of spurious emission, derived in step 4, shall not exceed the described value in Table 6.6.3E.3.5.1-1. These requirements also apply for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3E.3.5.1-1: Additional requirements (network signalled value "NS_07")

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	10 MHz	
769 ≤ f ≤ 775	–55.5	6.25 kHz
Note: The emissions measurement shall be sufficiently power averaged to ensure a standard deviation < 0.5 dB.		

1.2.5 UE类别M1的发射机杂散发射

UE类别M1的E-UTRA杂散发射在TS 36.521-1 [5]中的第6.6.3EA.1.5节定义。

6.6.3EA.1.5 Test requirement

This clause specifies the requirements for the specified E-UTRA band for Transmitter Spurious emissions requirement with frequency range as indicated in Table 6.6.3EA.1.5-1.

The measured average power of spurious emission, derived in step 3, shall not exceed the described value in Table 6.6.3EA.1.5-1.

The spurious emission limits apply for the frequency ranges that are more than Δf_{OOB} (MHz) from the edge of the channel bandwidth shown in Table 6.6.3.1.3-1.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.6.3EA.1.5-1: General spurious emissions test requirements

Frequency Range	Maximum Level	Measurement Bandwidth	Notes
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	

UE类别M1的共存要求在TS 36.521-1 [5]中的第6.6.3EA.2.5节定义。

6.6.3EA.2.5 Test requirement

Test requirements for Spurious Emissions UE Co-existence are the same as the minimum requirements and are not repeated in this section.

The measured average power of spurious emission, derived in step 3, shall not exceed the described value in Table 6.6.3EA.2.3-1 to 6.6.3EA.2.3-1C according to the following rule:

The requirements for the UE are release specific and can be found in Tables 6.6.3EA.2.3-1 to 6.6.3EA.2.3-1C. If the UE support a band, which is not defined in the table corresponding UE's release, the requirements for this band are taken from the table of earliest release where requirements for this band are defined. This has been described in following Table 6.6.3EA.2.5-1.

Table 6.6.3EA.2.5-1: UE Requirements according to UE E-UTRA release and supported E-UTRA band

Band		UE Requirements per release		
	Rel-13	Rel-14	Rel-15	Rel-16
1	Table 6.6.3EA.2.3-1	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
2	Table 6.6.3EA.2.3-1	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
3	Table 6.6.3EA.2.3-1	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
4	Table 6.6.3EA.2.3-1	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
5	Table 6.6.3EA.2.3-1	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
7	Table 6.6.3EA.2.3-1	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
8	Table 6.6.3EA.2.3-1	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
11	Table 6.6.3EA.2.3-1	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
12	Table 6.6.3EA.2.3-1	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
13	Table 6.6.3EA.2.3-1	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
14	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
18	Table 6.6.3EA.2.3-1	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
19	Table 6.6.3EA.2.3-1	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
20	Table 6.6.3EA.2.3-1	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
21	Table 6.6.3EA.2.3-1	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
26	Table 6.6.3EA.2.3-1	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
27	Table 6.6.3EA.2.3-1	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
28	Table 6.6.3EA.2.3-1	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
31	Table 6.6.3EA.2.3-1	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
39	Table 6.6.3EA.2.3-1	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
41	Table 6.6.3EA.2.3-1	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
42	Table 6.6.3EA.2.3-1C	Table 6.6.3EA.2.3-1C	Table 6.6.3EA.2.3-1C	Table 6.6.3EA.2.3-1C
43	Table 6.6.3EA.2.3-1C	Table 6.6.3EA.2.3-1C	Table 6.6.3EA.2.3-1C	Table 6.6.3EA.2.3-1C
66	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1A	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C
71	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1B	Table 6.6.3EA.2.3-1C

NOTE 1: The following is applied to Note2 in Tables 6.6.3EA.2.3-1 to 6.6.3EA.2.3-1C. For frequency with 2nd, 3rd or 4th harmonic spurious emissions, the measurements are covered in 6.6.3.1.

NOTE 2: The restriction on the maximum uplink transmission to 36 RB in Notes 14 and 15 of Table 6.6.3EA.2.5-1 is intended for conformance testing and may be applied to network operation to facilitate coexistence when the aggressor and victim bands are deployed in the same geographical area. The applicable spurious emission requirement of –15.5 dBm/5 MHz is a least restrictive technical condition for FDD/TDD coexistence and may have to be revised in the future 6.6.3EA.3 Additional spurious emissions for UE category M1

UE类别M1的附加杂散发射要求在TS 36.521-1 [5]中的第6.6.3EA.3.5节定义。

6.6.3EA.3.5 Test requirement

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Tables 6.2.4EA.5-1 to 6.2.4EA.5-22 as appropriate,

and

With the exception of NS_07, test requirements for Additional Spurious Emissions are the same as the minimum requirements and are not repeated in this section.

6.6.3EA.3.5.1 Test requirement (network signalled value "NS_07")

When "NS_07" is indicated in the cell, the power of any UE emission shall not exceed the levels specified in Table 6.6.3EA.3.5.1-1. This requirement also applies for the frequency ranges that are less than FOOB (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3EA.3.5.1-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	10 MHz	
769 ≤ f ≤ 775	–55.5	6.25 kHz
NOTE: The emissions measurement shall be sufficiently power averaged to ensure standard deviation < 0.5 dB.		

6.6.3EA.3.5.2 Test requirement (network signalled value "NS_05")

When "NS_05" is indicated in the cell, the power of any UE emission shall not exceed the levels specified in Table 6.6.3EA.3.5.2-1. This requirement also applies for the frequency ranges that are less than FOOB (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3EA.3.5.2-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)				Measurement bandwidth	NOTE
	5 MHz	10 MHz	15 MHz	20 MHz		
1 884.5 ≤ f ≤1 915.7	–41	–41	–41	–41	300 KHz	1

1.2.6 UE类别1*bis*的发射机杂散发射

UE类别1*bis*的E-UTRA杂散发射在TS 36.521-1 [5]中的第6.6.3EB.1.5节定义。

6.6.3EB.1.5 Test requirement

This clause specifies the requirements for the specified E-UTRA band for Transmitter Spurious emissions requirement with frequency range as indicated in Table 6.6.3EB.1.5-1.

The measured average power of spurious emission, derived in step 3, shall not exceed the described value in Table 6.6.3EB.1.5-1.

The spurious emission limits apply for the frequency ranges that are more than Δf_{OOB} (MHz) from the edge of the channel bandwidth shown in Table 6.6.3.1.3-1.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.6.3EB.1.5-1: General spurious emissions test requirements

Frequency Range	Maximum Level	Measurement Bandwidth	Notes
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	

UE类别1*bis*的共存要求在TS 36.521-1 [5]中的第6.6.3EB.2.5节定义。

6.6.3EB.2.5 Test requirement

Test requirements for Spurious Emissions UE Co-existence are the same as the minimum requirements and are not repeated in this section.

UE类别1*bis*的附加杂散发射要求在TS 36.521-1 [5]中的第6.6.3EB.3.5节定义。

6.6.3E.3.5 Test requirement

This clause specifies the requirements for the specified E-UTRA band for an additional spectrum emission requirement with protected bands as indicated from table 6.6.3.1.5-1 to table 6.6.3.2.5-1.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

6.6.3E.3.5.1 Test requirement (network signalled value "NS_07")

When "NS_07" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.4.5-7 as appropriate,

and

- the measured average power of spurious emission, derived in step 4, shall not exceed the described value in Table 6.6.3EB.3.5.1-1. These requirements also apply for the frequency ranges that are less than Δf_{OOB} (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3EB.3.5.1-1: Additional requirements (network signalled value "NS_07")

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	10 MHz	
769 ≤ f ≤ 775	–55.5	6.25 kHz
Note: The emissions measurement shall be sufficiently power averaged to ensure a standard deviation < 0.5 dB.		

1.2.7 用户设备类别M2的发射机杂散发射

UE类别M2的E-UTRA杂散发射在TS 36.521-1 [5]中的第6.6.3EC.1.5节定义。

6.6.3EC.1.5 Test requirement

This clause specifies the requirements for the specified E-UTRA band for Transmitter Spurious emissions requirement with frequency range as indicated in Table 6.6.3EC.1.5-1.

The measured average power of spurious emission, derived in step 3, shall not exceed the described value in Table 6.6.3EC.1.5-1.

The spurious emission limits apply for the frequency ranges that are more than Δf_{OOB} (MHz) from the edge of the channel bandwidth shown in Table 6.6.3.1.3-1.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.6.3EC.1.5-1: General spurious emissions test requirements

Frequency Range	Maximum Level	Measurement Bandwidth	Notes
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	

UE类别M2的共存要求在TS 36.521-1 [5]中的第6.6.3EC.2.5节定义。

6.6.3EC.2.5 Test requirement

Test requirements for Spurious Emissions UE Co-existence are the same as the minimum requirements and are not repeated in this section.

The measured average power of spurious emission, derived in step 3, shall not exceed the described value in Tables 6.6.3EA.2.3-1 to 6.6.3EC.2.3-1A according to the following rule:

The requirements for the UE are release specific and can be found in Tables 6.6.3EA.2.3-1 to 6.6.3EC.2.3-1A. If the UE support a band, which is not defined in the table corresponding UE's release, the requirements for this band are taken from the table of earliest release where requirements for this band are defined. This has been described in following Table 6.6.3EC.2.5-1.

Table 6.6.3EC.2.5-1: UE Requirements according to UE E-UTRA release and supported E-UTRA band

Band	UE Requirements per release	UE Requirements per release	UE Requirements per release
	Rel-14	Rel-15	Rel-16
1	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
2	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
3	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
4	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
5	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
7	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
8	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
11	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
12	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
13	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
14	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
18	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
19	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
20	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
21	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
25	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
26	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
27	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
28	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
31	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
39	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
40	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
41	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
42	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
43	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
66	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
70	Table 6.6.3EC.2.3-1	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
71	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
72	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
73	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
74	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B
85	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1A	Table 6.6.3EC.2.3-1B

NOTE 1: The following is applied to Note 2 in Table 6.6.3EC.2.3-1. For frequency with 2nd, 3rd or 4th harmonic spurious emissions, the measurements are covered in 6.6.3.1.

UE类别M2的附加杂散发射要求在TS 36.521-1 [5]中的第6.6.3EC.3.5节定义。

6.6.3EC.3.5 Test requirement

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Tables 6.2.4EC.5-1 to 6.2.4EC.5-16 as appropriate,

and

With the exception of NS_07, test requirements for Additional Spurious Emissions are the same as the minimum requirements and are not repeated in this section.

6.6.3EC.3.5.1 Test requirement (network signalled value "NS_07")

When "NS_07" is indicated in the cell, the power of any UE emission shall not exceed the levels specified in Table 6.6.3EC.3.5.1-1. This requirement also applies for the frequency ranges that are less than FOOB (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3EC.3.5.1-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	10 MHz	
769 ≤ f ≤ 775	–55.5	6.25 kHz
NOTE: The emissions measurement shall be sufficiently power averaged to ensure standard deviation < 0.5 dB.		

6.6.3EC.3.5.1 Test requirement (network signalled value "NS_05")

When "NS_05" is indicated in the cell, the power of any UE emission shall not exceed the levels specified in Table 6.6.3EC.3.5.1-2. This requirement also applies for the frequency ranges that are less than FOOB (MHz) in Table 6.6.3.1.3-1 from the edge of the channel bandwidth.

Table 6.6.3EC.3.5.1-2: Additional requirements (PHS)

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)				Measurement bandwidth	NOTE
	5 MHz	10 MHz	15 MHz	20 MHz		
1 884.5 ≤ f ≤1 915.7	–41	–41	–41	–41	300 KHz	1

1.2.8 UE类别NB1和NB2的发射机杂散发射

UE类别NB1和NB2的E-UTRA杂散发射在TS 36.521-1 [5]中的第6.6.3F.1.5节定义。

6.6.3F.1.5 Test requirement

This clause specifies the requirements for the specified E-UTRA band for Transmitter Spurious emissions requirement with frequency range as indicated in Table 6.6.3F.1.5-1.

The measured average power of spurious emission, derived in step 3, shall not exceed the described value in Table 6.6.3F.1.5-1.

The spurious emission limits apply for the frequency ranges that are more than Δf_{OOB} (MHz) from the edge of the channel bandwidth.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.6.3F.1.5-1: General spurious emissions test requirements

Frequency Range	Maximum Level	Measurement Bandwidth	Notes
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	

UE类别NB1和NB2的共存要求在TS 36.521-1 [5]中定义。参见第6.6.3F.2.5节。

6.6.3F.2.5 Test requirement

Test requirements for Spurious Emissions UE Co-existence are the same as the minimum requirements and are not repeated in this section.

The measured average power of spurious emission, derived in step 2, shall not exceed the described value in Tables 6.6.3F.2.3-1 to 6.6.3F.2.3-1C according to the following rule:

The requirements for the UE are release specific and can be found in Tables 6.6.3F.2.3-1 to 6.6.3F.2.3-1C. If the UE support a band, which is not defined in the table corresponding UE's release, the requirements for this band are taken from the table of earliest release where requirements for this band are defined. This has been described in following Table 6.6.3F.2.5-1.

Table 6.6.3F.2.5-1: UE Requirements according to UE NB-IoT release and supported NB-IoT band

Band	UE Requirements per release			
	Rel-13	Rel-14	Rel-15	Rel-16
1	Table 6.6.3F.2.3-1	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
2	Table 6.6.3F.2.3-1	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
3	Table 6.6.3F.2.3-1	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
4	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
5	Table 6.6.3F.2.3-1	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
7	Table 6.6.3F.2.3-1C	Table 6.6.3F.2.3-1C	Table 6.6.3F.2.3-1C	Table 6.6.3F.2.3-1C
8	Table 6.6.3F.2.3-1	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
11	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
12	Table 6.6.3F.2.3-1	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
13	Table 6.6.3F.2.3-1	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
14	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
17	Table 6.6.3F.2.3-1	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C

18	Table 6.6.3F.2.3-1	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
19	Table 6.6.3F.2.3-1	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
20	Table 6.6.3F.2.3-1	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
21	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
25	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
26	Table 6.6.3F.2.3-1	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
28	Table 6.6.3F.2.3-1	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
31	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
42	Table 6.6.3F.2.3-1C	Table 6.6.3F.2.3-1C	Table 6.6.3F.2.3-1C	Table 6.6.3F.2.3-1C
43	Table 6.6.3F.2.3-1C	Table 6.6.3F.2.3-1C	Table 6.6.3F.2.3-1C	Table 6.6.3F.2.3-1C
65	Table 6.6.3F.2.3-1C	Table 6.6.3F.2.3-1C	Table 6.6.3F.2.3-1C	Table 6.6.3F.2.3-1C
66	Table 6.6.3F.2.3-1	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
70	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1A	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
71	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
72	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
74	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C
85	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1B	Table 6.6.3F.2.3-1C

1.2.9 V2X的发射机杂散发射

对于V2X通信且不与E-UTRA上行传输同时进行的情况，其杂散发射要求规定在TS 36.521-1 [5]中定义。参见第6.6.3G.1.5节。

6.6.3G.1.5 Test requirement

The measured average power of transmitter spurious emissions measured in step 2 shall not exceed the value in table 6.6.3G.1.5-1.The spurious emission limits apply for the frequency ranges that are more than Δf_{OOB} (MHz) from the edge of the channel bandwidth shown in Table 6.6.3G.1.3-1.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.6.3G.1.5-1: General spurious emissions test requirements

Frequency Range	Maximum Level	Measurement bandwidth	NOTE
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	
12.75 GHz ≤ f < 5th harmonic of the upper frequency edge of the UL operating band in GHz	–30 dBm	1 MHz	1
12.75 GHz < f < 26 GHz	–30 dBm	1MHz	2
NOTE 1: Applies for Band 22, Band 42, Band 43 and Band 48. NOTE 2: Applies for Band 46 and Band 47.			

针对V2X通信在不与E-UTRA上行发射同时运行的场景，UE的杂散发射频段共存要求在TS 36.521-1 [5]中定义。参见第6.6.3G.1_1.5节。

6.6.3G.1_1.5 Test requirement

The measured average power of spurious emission, derived in step 2, shall not exceed the described value in Table 6.6.3G.1_1.5-1 for the operating bands for V2X sidelink communication specified in 5.2G.

Table 6.6.3G.1_1.5-1: Spurious emission band UE co-existence limits Rel-14(TP2)

E-UTRA Band	Spurious emission						
	Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
47	E-UTRA Band 1, 3, 5, 7, 8, 22, 26, 28, 34, 39, 40, 41, 42, 44, 45, 65,68	F_{DL_low}	-	F_{DL_high}	-50	1	
	Frequency range	5 925	-	5 950	–30 EIRP	1	38, 40, 41
	Frequency range	5 815	-	5 855	–30 EIRP	1	38, 41, 43

NOTE 38: Applicable when NS_33 or NS_34 is configured by the pre-configured radio parameters.
NOTE 40: In the frequency range x-5 950 MHz, SE requirement of –30 dBm/MHz should be applied; where x = max (5925, fc + 15), where fc is the channel centre frequency.
NOTE 41: The EIRP requirement is converted to conducted requirement depend on the supported post antenna connector gain $G_{post\ connector}$ declared by the UE following the principle described in annex I.
NOTE 43: Resolution BW is 10% of the measurement BW and the result should be integrated to achieve the measurement bandwidth. The sweep time shall be set at least as 10*symbol length to improve the measurement accuracy.

对于V2X通信/侧链路与E-UTRA上行传输同时进行的情况，其杂散发射要求在TS 36.521-1 [5]中定义。参见第6.6.3G.2.5节。

6.6.3G.2.5 Test requirement

For frequencies Δf_{OOB} greater than F_{OOB} as specified in Table 6.6.3G.2.3-1 the measured average power of spurious emission, derived in step 4 and 5, shall not exceed the described value in Table 6.6.3G.2.5-1.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.6.3G.2.5-1: Spurious emissions limits

Frequency Range	Maximum Level	Measurement Bandwidth	Notes
Test requirements for V2X_3A-47A Configuration			
2 285 MHz ≤ f ≤ 2 505 MHz 4 070 MHz ≤ f ≤ 4 215 MHz 7 565 MHz ≤ f ≤ 7 710 MHz 9 275 MHz ≤ f ≤ 9 495 MHz 9 925 MHz ≤ f ≤ 10 140 MHz	–30 dBm	1 MHz	
13 420 MHz ≤ f ≤13 635 MHz	–30 dBm	1 MHz	2
Test requirements for V2X_5A-47A Configuration			
4 157 MHz<=f< 4 277 MHz 5 006 MHz<=f< 5 101 MHz 6 679 MHz<=f< 6 774 MHz 7 503 MHz<=f< 7 623 MHz	–30 dBm	1 MHz	

10 861 MHz<=f< 11 026 MHz 12 534 MHz<=f< 12 699 MHz				
Test requirements for V2X_7A-47A Configuration				
715 MHz<=f< 925 MHz	–36 dBm	100 kHz		
3 285 MHz<=f< 3 425 MHz 8 355 MHz<=f< 8 495 MHz 9 140 MHz<=f< 9 350 MHz 10 855 MHz<=f< 11 065 MHz	–30 dBm	1 MHz		
14 210 MHz<=f< 14 420 MHz	–30 dBm	1 MHz	2	
Test requirements for V2X_8A-47A Configuration				
4 025 MHz<=f< 4 165 MHz 4 940 MHz<=f< 5 045 MHz 6 735 MHz<=f< 6 840 MHz 7 615 MHz<=f< 7 755 MHz 10 795 MHz<=f< 10 970 MHz 12 590 MHz<=f< 12 765 MHz	–30 dBm	1 MHz		
12 590 MHz<=f< 12 765 MHz	–30 dBm	1 MHz	2	
Test requirements for V2X_20A-47A Configuration				
4 131 MHz<=f< 4 261 MHz 4 993 MHz<=f< 5 093 MHz 6 687 MHz<=f< 6 787 MHz 7 519 MHz<=f< 7 649 MHz 10 848 MHz<=f< 11 018 MHz 12 542 MHz<=f< 12 712 MHz	–30 dBm	1 MHz		
Test requirements for V2X_28A-47A Configuration				
4 359 MHz<=f< 4 519 MHz 5 107 MHz<=f< 5 222 MHz 6 558 MHz<=f< 6 673 MHz 7 261 MHz<=f< 7 421 MHz 10 962 MHz<=f< 11 147 MHz 12 413 MHz<=f< 12 598 MHz	–30 dBm	1 MHz		
Test requirements for V2X_34A-47A Configuration				
1 805 MHz<=f< 1 905 MHz 3 830 MHz<=f< 3 915 MHz 7 865 MHz<=f< 7 950 MHz 9 685 MHz<=f< 9 840 MHz 9 875 MHz<=f< 9 975 MHz	–30 dBm	1 MHz		
13 720 MHz<=f< 13 875 MHz	–30 dBm	1 MHz	2	
Test requirements for V2X_39A-47A Configuration				
2 015 MHz<=f< 2 165 MHz 3 935 MHz<=f< 4 045 MHz 7 735 MHz<=f< 7 845 MHz 9 615 MHz<=f< 9 765 MHz 9 790 MHz<=f< 9 970 MHz	–30 dBm	1 MHz		
13 590 MHz<=f< 13 770 MHz	–30 dBm	1 MHz	2	
Test requirements for V2X_41A-47A Configuration				
475 MHz<=f< 933 MHz	–36 dBm	100 kHz		
3 165 MHz<=f< 3 429 MHz 8 351 MHz<=f< 8 615 MHz 9 020 MHz<=f< 9 354 MHz 10 847 MHz<=f< 11 305 MHz	–30 dBm	1 MHz		
14 206 MHz<=f< 14 540 MHz	–30 dBm	1 MHz	2	
Test requirements for V2X_71A-47A Configuration				
4 459 MHz<=f< 4 599 MHz 5 157 MHz<=f< 5 262 MHz 6 518 MHz<=f< 6 623 MHz 7 181 MHz<=f< 7 321 MHz 11 012 MHz<=f< 11 187 MHz 12 373 MHz<=f< 12 548 MHz	–30 dBm	1 MHz		

对于V2X通信/侧链路与E-UTRA上行传输同时进行的场景，其UE的杂散发射频段共存要求在TS 36.521-1 [5]中定义。参见第6.6.3G.2_1.5节。

6.6.3G.2_1.5 Test requirement

The measurement average power of spurious emission, derived in step 4 and 5, shall not exceed the described value specified in Table 6.6.3G.2_1.5-1.

6.6.3G.2_1.5-1 Test Requirement on Spurious Emission band UE co-existence for V2X Communication / Sidelink simultaneous with E-UTRA uplink transmissions

V2X con-current band Configuration	Spurious emission						
	Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
V2X_3A-47A	E-UTRA Band 1, 5, 7, 8, 26, 28, 34, 39, 40, 44, 45, 65, 87, 88	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 3	F_{DL_low}	-	F_{DL_high}	–50	1	3
	E-UTRA Band 22, 41, 42, 52	F_{DL_low}	-	F_{DL_high}	–50	1	2
	Frequency range	5 925	-	5 950	–30	1	7,8
	Frequency range	5 815	-	5 855	–30	1	7
V2X_5A-47A	E-UTRA Band 1, 3, 5, 7, 8, 10, 12, 13, 14, 17, 40, 65, 85	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 26	859	-	869	–27	1	
	E-UTRA Band 41, 52	F_{DL_low}	-	F_{DL_high}	–50	1	2
	Frequency range	5 925	-	5 950	–30	1	7, 8
	Frequency range	5 815	-	5 855	–30	1	7
V2X_7A-47A	E-UTRA Band 1, 3, 5, 7, 8, 22, 26, 28, 34, 39, 40, 41, 42, 44, 45, 52, 65, 87, 88	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	2 570	-	2 575	+1.6	5	3, 6, 4
	Frequency range	2 575	-	2 595	–15.5	5	3, 6, 4
	Frequency range	2 595	-	2 620	–40	1	3, 6
	Frequency range	5 925	-	5 950	–30	1	7, 8
	Frequency range	5 815	-	5 855	–30	1	7
V2X_8A-47A	E-UTRA Band 1, 5, 26, 28, 34, 39, 40, 44, 45, 65, 87, 88	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 7, 22, 41, 42, 52	F_{DL_low}	-	F_{DL_high}	–50	1	2
	E-UTRA Band 3, 8	F_{DL_low}	-	F_{DL_high}	–50	1	2, 3
	Frequency range	5 925	-	5 950	–30	1	7, 8
	Frequency range	5 815	-	5 855	–30	1	7
V2X_20A-47A	E-UTRA Band 1, 3, 7, 8, 22, 31, 32, 33, 34, 40, 43, 65, 67, 87, 88	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 20	F_{DL_low}	-	F_{DL_high}	–50	1	3
	E-UTRA Band 38, 42, 52, 69	F_{DL_low}	-	F_{DL_high}	–50	1	2
	Frequency range	758	-	788	–50	1	
	Frequency range	5 925	-	5 950	–30	1	7, 8
	Frequency range	5 815	-	5 855	–30	1	7
V2X_28A-47A	E-UTRA Band 1, 22, 42, 43, 65, 87, 88	F_{DL_low}	-	F_{DL_high}	–50	1	2
	E-UTRA Band 1	F_{DL_low}	-	F_{DL_high}	–50	1	10, 11
	E-UTRA Band 3, 7, 8, 20, 31, 38, 40	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	470	-	694	–42	8	3, 12
	Frequency range	470	-	710	–26.2	6	13
	Frequency range	662	-	694	–26.2	6	3
	Frequency range	758	-	773	–32	1	3

	Frequency range	773	-	803	–50	1	
	Frequency range	5 925	-	5 950	–30	1	7, 8
	Frequency range	5 815	-	5 855	–30	1	7
V2X_34A-47A	E-UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 20, 21, 22, 26, 28, 31, 32, 33, 34, 38,39, 40, 41, 42, 43, 44, 45, 52, 65, 67, 69, 87, 88	F_{DL_low}	-	F_{DL_high}	–50	1	9
	Frequency range	5 925	-	5 950	-30	1	7, 8
	Frequency range	5 815	-	5 855	-30	1	7
V2X_39A-47A	E-UTRA Band 1, 3,5,7,8, 22, 26, 28, 34, 39, 40, 41, 42, 44, 45, 52, 65	F_{DL_low}	-	F_{DL_high}	-50	1	
	Frequency range	1 805	-	1 855	–40	1	5
	Frequency range	1 855	-	1 880	–15.5	5	3, 4, 5
	Frequency range	5 925	-	5 950	–30	1	7, 8
	Frequency range	5 815	-	5 855	–30	1	7
V2X_41A-47A	E-UTRA Band 1, 3, 5, 7, 8, 22, 26, 28, 34, 39, 40, 41, 42, 44, 45, 52, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	5 925	-	5 950	–30	1	7, 8
	Frequency range	5 815	-	5 855	–30	1	7
V2X_71A-47A	E-UTRA Band 5, 26	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 41	F_{DL_low}	-	F_{DL_high}	–50	1	2
	Frequency range	5 925	-	5 950	–30	1	7, 8
	Frequency range	5 815	-	5 855	–30	1	7

NOTE 1: F_{DL_low} and F_{DL_high} refer to each E-UTRA frequency band specified in Table 5.5-1

NOTE 2: As exceptions, measurements with a level up to the applicable requirements defined in Table 6.6.3.1-2 are permitted for each assigned E-UTRA carrier used in the measurement due to 2nd, 3rd, 4th or 5th harmonic spurious emissions. In case the exceptions are allowed due to spreading of the harmonic emission the exception is also allowed for the first 1 MHz frequency range immediately outside the harmonic emission on both sides of the harmonic emission. This results in an overall exception interval centred at the harmonic emission of (2 MHz + N x L_{CRB} x 180 kHz), where N is 2, 3 or 4 for the 2nd, 3rd or 4th harmonic respectively. The exception is allowed if the measurement bandwidth (MBW) totally or partially overlaps the overall exception interval.

NOTE 3: These requirements also apply for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1-1 and Table 6.6.3.1A-1 from the edge of the aggregated channel bandwidth.

NOTE 4: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.

NOTE 5: This requirement is only applicable for carriers with bandwidth confined within 1 885-1 920 MHz (requirement for carriers with at least 1RB confined within 1 880-1 885 MHz is not specified). This requirement applies for an uplink transmission bandwidth less than or equal to 54 RB for carriers of 15 MHz bandwidth when carrier center frequency is within the range 1 892.5-1 894.5 MHz and for carriers of 20 MHz bandwidth when carrier center frequency is within the range 1 895-1 903 MHz.

NOTE 6: As exceptions, measurements with a level up to the applicable requirement of –38 dBm/MHz is permitted for each assigned E-UTRA carrier used in the measurement due to 2nd harmonic spurious emissions. An exception is allowed if there is at least one individual RB within the transmission bandwidth (see Figure 5.6-1) for which the 2nd harmonic totally or partially overlaps the measurement bandwidth (MBW).

NOTE 7: Applicable when NS_33 or NS_34 is configured by the pre-configured radio parameters.

NOTE 8: In the frequency range x-5 950 MHz, SE requirement of –30 dBm/MHz should be applied; where x = max (5925, fc + 15), where fc is the channel centre frequency.

NOTE 9: For non synchronised TDD operation to meet these requirements some restriction will be needed for either the operating band or protected band

NOTE 10: Applicable when the assigned E-UTRA carrier is confined within 718 MHz and 748 MHz and when the channel bandwidth used is 5 or 10 MHz.

NOTE 11: As exceptions, measurements with a level up to the applicable requirement of –36 dBm/MHz is permitted for each assigned E-UTRA carrier used in the measurement due to 3rd harmonic spurious emissions. An exception is allowed if there is at least one individual RB within the transmission bandwidth (see Figure 5.6-1) for which the 3rd harmonic totally or partially overlaps the measurement bandwidth (MBW).

NOTE 12: This requirement is applicable in the case of a 10 MHz E-UTRA carrier confined within 703 MHz and 733 MHz, otherwise the requirement of –25 dBm with a measurement bandwidth of 8 MHz applies.

NOTE 13: This requirement is applicable for 5 and 10 MHz E-UTRA channel bandwidth allocated within 718-728 MHz. For carriers of 10 MHz bandwidth, this requirement applies for an uplink transmission bandwidth less than or equal to 30 RB with RBstart > 1 and RBstart<48.

V2X通信/带内连续MCC操作的杂散发射在TS 36.521-1 [5]中定义。参见第6.6.3G.3.5节。

6.6.3G.3.5 Test requirement

The measured average power of transmitter spurious emissions measured in step 2 shall not exceed the value in Table 6.6.3G.3.3-1.The spurious emission limits apply for the frequency ranges that are more than Δf_{OOB} (MHz) from the edge of the channel bandwidth shown in Table 6.6.3G.3.3-2.

Table 6.6.3G.3.3-1: Boundary between E-UTRA out of band and spurious emission domain for intra-band contiguous carrier aggregation

CA Bandwidth Class	OOB boundary F_{OOB} (MHz)
A	Table 6.6.3.1.3-1
B	$BW_{Channel_CA}$ + 5
C	$BW_{Channel_CA}$ + 5

Table 6.6.3G.3.3-2: Spurious emissions limits

Frequency Range	Maximum Level	Measurement bandwidth	NOTE
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	
12.75 GHz ≤ f < 5th harmonic of the upper frequency edge of the UL operating band in GHz	–30 dBm	1 MHz	1
12.75 GHz < f < 26 GHz	–30 dBm	1 MHz	2
NOTE 1: Applies for Band 22, Band 42, Band 43 and Band 48. NOTE 2: Applies for Band 46 and Band 47.			

V2X通信/带内连续MCC操作的杂散发射频段UE共存在TS 36.521-1 [5]中定义。参见第6.6.3G.3_1.5节。

6.6.3G.3_1.5 Test requirement

The measured average power of transmitter spurious emissions measured in step 2 shall not exceed the value in table 6.6.3G.3_1.3-1.

Table 6.6.3G.3_1.3-1: Requirements for intraband multi-carrier V2X operation

V2X multi-carrier Configuration	Spurious emission						
	Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
V2X_47B	E-UTRA Band 1, 3, 5, 7, 8, 22, 26, 28, 34, 39, 40, 41, 42, 44, 45, 65	F_{DL_low}	-	F_{DL_high}	–50	1	

1.3 接收机杂散发射

一般接收机杂散发射要求在TS 36.521-1 [5]中定义。参见第7.7.5节。

7.7.5 Test Requirement

The throughput measurement derived in test procedure shall be ≥ 95% of the maximum throughput of the reference measurement channels as specified in Annex A.3.2 with parameters specified in Tables 7.7.5-1 and 7.7.5-2.

Table 7.7.5-1: Spurious response parameters

Rx Parameter	Units	Channel bandwidth					
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
Power in Transmission Bandwidth Configuration	dBm	REFSENS + channel bandwidth specific value below					
		6	6	6	6	7	9
Note 1: The transmitter shall be set to 4 dB below P_{CMAX_L} with P_{CMAX_L} as defined in clause 6.2.5. Note 2: The reference measurement channel is specified in Annex A.3.2 with one sided dynamic OCNG Pattern OP.1 FDD/TDD as described in Annex A.5.1.1/A.5.2.1.							

Table 7.7.5-2: Spurious Response

Parameter	Unit	Level
$P_{Interferer}$ (CW)	dBm	–44
$F_{Interferer}$	MHz	Spurious response frequencies

For the UE which supports inter band CA configuration in Table 7.3.3-1A, 7.3.3-1B and 7.3.3-1C, P_{uw} power defined in Table 7.7.5-2 is increased by the amount given by $\Delta R_{IB,c}$ in Table 7.3.3-1A, 7.3.3-1B and 7.3.3-1C.

具有4个Rx天线端口的一般接收机杂散发射要求在TS 36.521-1 [5]中的第7.7_1.5节定义。

7.7_1.5 Test Requirement

The throughput measurement derived in test procedure shall be ≥ 95% of the maximum throughput of the reference measurement channels as specified in Annex A.3.2 with parameters specified in Tables 7.7_1.5-1 and 7.7_1.5-2.

Table 7.7_1.5-1: Spurious response parameters

Rx Parameter	Units	Channel bandwidth					
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
Power in Transmission Bandwidth Configuration	dBm	REFSENS + channel bandwidth specific value below					
		6	6	6	6	7	9
Note 1: The transmitter shall be set to 4dB below P_{CMAX_L} with P_{CMAX_L} as defined in clause 6.2.5. Note 2: The reference measurement channel is specified in Annex A.3.2 with one sided dynamic OCNG Pattern OP.1 FDD/TDD as described in Annex A.5.1.1/A.5.2.1. Note 3: The REFSENS power level is specified in Table 7.3.3-1a.							

Table 7.7_1.5-2: Spurious Response

Parameter	Unit	Level
$P_{Interferer}$ (CW)	dBm	–44
$F_{Interferer}$	MHz	Spurious response frequencies

For the UE which supports inter band CA configuration in Table 7.3.3-1A, 7.3.3-1B and 7.3.3-1C, P_{uw} power defined in Table 7.7_1.5-2 is increased by the amount given by $\Delta R_{IB,c}$ in Table 7.3.3-1A, 7.3.3-1B and 7.3.3-1C.

CA（带内连续DL CA和UL CA）的接收机杂散发射要求在TS 36.521-1 [5]中的第7.7A.1.5节定义。

7.7A.1.5 Test Requirement

The throughput measurement of each carrier derived in test procedure shall be ≥ 95% of the maximum throughput of the reference measurement channels as specified in Annex A.3.2 with parameters specified in Table 7.7A.1.5-1 and 7.7A.1.5-2.

Table 7.7A.1.5-1: Spurious response parameters

Rx Parameter	Units	CA Bandwidth Class				
		B	C	D	E	F
Pw in Transmission Bandwidth Configuration, per CC	dBm	REFSENS + CA Bandwidth Class specific value below				
		9	9			
Note 1: The transmitter shall be set to 4 dB below P_{CMAX_L} or $P_{CMAX_L_CA}$ as defined in subclause 6.2.5 for one uplink carrier and in subclause 6.2.5A for two uplink carriers. Note 2: Reference measurement channel is specified in Annex A.3.2 with one sided dynamic OCNG Pattern OP.1 FDD/TDD as described in Annex A.5.1.1/A.5.2.1.						

Table 7.7A.1.5-2: Spurious response

Parameter	Unit	Level
$P_{Interferer}$ (CW)	dBm	-44
$F_{Interferer}$	MHz	Spurious response frequencies

For the UE which supports inter band CA configuration in Table 7.3.3-1A, 7.3.3-1B and 7.3.3-1C, $P_{Interferer}$ power defined in Table 7.7A.1.5-2 is increased by the amount given by $\Delta R_{IB,c}$ in Table 7.3.3-1A, 7.3.3-1B and 7.3.3-1C.

CA（带内连续DL CA没有UL CA）的接收机杂散发射要求在TS 36.521-1 [5]中的第7.7A.2.5节定义。

7.7A.2.5 Test Requirement

Same test requirement as in clause 7.7A.1.5 with the following exceptions :

- Instead of Table 7.7A.1.5-1 → use Table 7.7A.2.5-1.

Table 7.7A.2.5-1: Spurious response parameters

Rx Parameter	Units	CA Bandwidth Class				
		B	C	D	E	F
Pw in Transmission Bandwidth Configuration, per CC	dBm	REFSENS + CA Bandwidth Class specific value below				
		9	9			
Note 1: The transmitter shall be set to 4 dB below P_{CMAX_L} or $P_{CMAX_L_CA}$ as defined in subclause 6.2.5. Note 2: Reference measurement channel is specified in Annex A.3.2 with one sided dynamic OCNG Pattern OP.1 FDD/TDD as described in Annex A.5.1.1/A.5.2.1.						

CA（带内DL CA没有UL CA）的接收机杂散发射要求在TS 36.521-1 [5]中的第7.7A.3.5节定义。

7.7A.3.5 Test Requirement

For inter-band carrier aggregation with uplink assigned to one E-UTRA band the spurious response requirements are defined with the uplink active on the band other than the band whose downlink is being tested i.e. the requirements are tested only for the SCell downlink. The UE shall meet the requirement for each component carrier, when operated as SCell, while both downlink carriers are active.

The throughput measured during the test procedure for each component carrier, when operated as SCell, shall be ≥ 95% of the maximum throughput of the reference measurement channels as specified in Annexes A.2.2, A.2.3 and A.3.2 (with one sided dynamic OCNG Pattern OP.1 FDD/TDD for the DL-signal as described in Annex A.5.1.1/A.5.2.1) with parameters specified in Tables 7.7A.3.5-1 (originated from the single carrier Table 7.7.5-1) and 7.7A.3.5-2 (originated from Table 7.6.2A.3.5-2).

Table 7.7A.3.5-1: Spurious response parameters

Rx Parameter	Units	Channel bandwidth					
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
Pw in Transmission Bandwidth Configuration, per CC	dBm	REFSENS + channel bandwidth specific value below					
		6	6	6	6	7	9
Note 1: The transmitter shall be set to 4 dB below P_{CMAX_L} with P_{CMAX_L} as defined in clause 6.2.5. Note 2: The reference measurement channel is specified in Annex A.3.2 with one sided dynamic OCNG Pattern OP.1 FDD/TDD as described in Annex A.5.1.1/A.5.2.1.							

Table 7.7A.3.5-2: Spurious Response

Parameter	Unit	Level
$P_{Interferer}$ (CW)	dBm	–44
$F_{Interferer}$	MHz	Spurious response frequencies

For the UE which supports inter band CA configuration in Table 7.3.3-1A, 7.3.3-1B and 7.3.3-1C, P_{uw} power defined in Table 7.7A.3.5-2 is increased by the amount given by $\Delta R_{IB,c}$ in Table 7.3.3-1A, 7.3.3-1B and 7.3.3-1C.

CA（带内不连续无UL CA的）接收机杂散发射要求在TS 36.521-1 [5]中的第7.7A.4.5节定义。

7.7A.4.5 Test Requirement

For intra-band non-contiguous carrier aggregation with one uplink carrier and two downlink carriers, the spurious response requirements are defined with the uplink configuration of the PCC being in accordance with Table 7.3A.0-3. The UE shall meet the requirements specified in Tables 7.7A.4.5-1and 7.7A.4.5-2 for each component carrier while both downlink carriers are active.

The requirements for each component carrier are the same as single carrier requirements in Tables 7.7.5-1 and 7.7.5-2.

Table 7.7A.4.5-1: Spurious response parameters

Rx Parameter	Units	Channel bandwidth					
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
Pw in Transmission Bandwidth Configuration, per CC	dBm	REFSENS + channel bandwidth specific value below					
		6	6	6	6	7	9
Note 1: The transmitter shall be set to 4 dB below P_{CMAX_L} with P_{CMAX_L} as defined in clause 6.2.5. Note 2: The reference measurement channel is specified in Annex A.3.2 with one sided dynamic OCNG Pattern OP.1 FDD/TDD as described in Annex A.5.1.1/A.5.2.1.							

Table 7.7A.4.5-2: Spurious Response

Parameter	Unit	Level
$P_{Interferer}$ (CW)	dBm	-44
$F_{Interferer}$	MHz	Spurious response frequencies

For the UE which supports inter band CA configuration in Table 7.3.3-1A, 7.3.3-1B and 7.3.3-1C, P_{uw} power defined in Table 7.7A.4.5-2 is increased by the amount given by $\Delta R_{IB,c}$ in Table 7.3.3-1A, 7.3.3-1B and 7.3.3-1C.

TS 3DL CA的接收机杂散发射要求在TS 36.521-1 [5]中的第7.7A.5.5节定义。

7.7A.5.5 Test Requirement

The throughput measurement of each carrier derived in test procedure shall be ≥ 95% of the maximum throughput of the reference measurement channels as specified in Annex A.3.2 with parameters specified in Table s below, according to the type of CA.

Table 7.7A.5.5-1: Spurious response parameters (Intra-band contiguous)

Rx Parameter	Units	CA Bandwidth Class				
		B	C	D	E	F
Power per CC in Aggregated Transmission Bandwidth Configuration	dBm	REFSENS + CA Bandwidth Class specific value below				
		9	9	9		
Note 1: The transmitter shall be set to 4 dB below P_{CMAX_L} or $P_{CMAX_L_CA}$ as defined in subclause 6.2.5. Note 2: Reference measurement channel is specified in Annex A.3.2 with one sided dynamic OCNG Pattern OP.1 FDD/TDD as described in Annex A.5.1.1/A.5.2.1.						

Table 7.7A.5.5-2: Spurious response (All types of CA)

Parameter	Unit	Level
$P_{Interferer}$ (CW)	dBm	–44
$F_{Interferer}$	MHz	Spurious response frequencies

Table 7.7A.5.5-3: Spurious response parameters (Inter-band, Intra-band non-contiguous)

Rx Parameter	Units	Channel bandwidth					
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
Power in Transmission Bandwidth Configuration for each CC	dBm	REFSENS + channel bandwidth specific value below					
		6	6	6	6	7	9
Note 1: The transmitter shall be set to 4 dB below P_{CMAX_L} with P_{CMAX_L} as defined in clause 6.2.5. Note 2: The reference measurement channel is specified in Annex A.3.2 with one sided dynamic OCNG Pattern OP.1 FDD/TDD as described in Annex A.5.1.1/A.5.2.1. Note 3: For intra-band non-contiguous + inter-band CA, ΔR_{IBNC} = 0 dB for all sub-block gaps.							

For a UE, which supports CA configuration in Tables 7.3.3-1A, 7.3.3-1B and 7.3.3-1C, P_{uw} power defined in Table 7.7A.5.5-2 is increased by the amount given by $\Delta R_{IB,c}$ in Tables 7.3.3-1A, 7.3.3-1B and 7.3.3-1C.

4DL CA的接收机杂散发射要求在TS 36.521-1 [5]中的第7.7A.7.5节定义。

7.7A.7.5 Test Requirement

The throughput measurement of each carrier derived in test procedure shall be ≥ 95% of the maximum throughput of the reference measurement channels as specified in Annex A.3.2 with parameters specified in Table s below, according to the type of CA.

Table 7.7A.7.5-1: Spurious response parameters (Intra-band contiguous)

Rx Parameter	Units	CA Bandwidth Class				
		B	C	D	E	F
Power per CC in Aggregated Transmission Bandwidth Configuration	dBm	REFSENS + CA Bandwidth Class specific value below				
		9	9	9	9	
Note 1: The transmitter shall be set to 4 dB below P_{CMAX_L} or $P_{CMAX_L_CA}$ as defined in subclause 6.2.5A. Note 2: Reference measurement channel is specified in Annex A.3.2 with one sided dynamic OCNG Pattern OP.1 FDD/TDD as described in Annex A.5.1.1/A.5.2.1.						

Table 7.7A.7.5-2: Spurious response (All types of CA)

Parameter	Unit	Level
$P_{Interferer}$ (CW)	dBm	–44
$F_{Interferer}$	MHz	Spurious response frequencies

Table 7.7A.7.5-3: Spurious response parameters (Inter-band, Intra-band non-contiguous)

Rx Parameter	Units	Channel bandwidth					
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
Power in Transmission Bandwidth Configuration for each CC	dBm	REFSENS + channel bandwidth specific value below					
		6	6	6	6	7	9
Note 1: The transmitter shall be set to 4 dB below P_{CMAX_L} with P_{CMAX_L} as defined in clause 6.2.5. Note 2: The reference measurement channel is specified in Annex A.3.2 with one sided dynamic OCNG Pattern OP.1 FDD/TDD as described in Annex A.5.1.1/A.5.2.1. Note 3: For intra-band non-contiguous + inter-band CA, ΔR_{IBNC} = 0 dB for all sub-block gaps.							

For a UE, which supports CA configuration in Tables 7.3.3-1A, 7.3.3-1B and 7.3.3-1C, P_{uw} power defined in Table 7.7A.7.5-2 is increased by the amount given by $\Delta R_{IB,c}$ in Tables 7.3.3-1A, 7.3.3-1B and 7.3.3-1C.

5DL CA的接收机杂散发射要求在TS 36.521-1 [5]中的第7.7A.8.5节定义。

7.7A.8.5 Test Requirement

The throughput measurement of each carrier derived in test procedure shall be ≥ 95% of the maximum throughput of the reference measurement channels as specified in Annex A.3.2 with parameters specified in Table s below, according to the type of CA.

Table 7.7A.8.5-1: Spurious response parameters (Intra-band contiguous)

Rx Parameter	Units	CA Bandwidth Class				
		B	C	D	E	F
Power per CC in Aggregated Transmission Bandwidth Configuration	dBm	REFSENS + CA Bandwidth Class specific value below				
		9	9	9	9	9
Note 1: The transmitter shall be set to 4 dB below P_{CMAX_L} or $P_{CMAX_L_CA}$ as defined in subclause 6.2.5A. Note 2: Reference measurement channel is specified in Annex A.3.2 with one sided dynamic OCNG Pattern OP.1 FDD/TDD as described in Annex A.5.1.1/A.5.2.1.						

Table 7.7A.8.5-2: Spurious response (All types of CA)

Parameter	Unit	Level
$P_{Interferer}$ (CW)	dBm	–44
$F_{Interferer}$	MHz	Spurious response frequencies

Table 7.7A.8.5-3: Spurious response parameters (Inter-band, Intra-band non-contiguous)

Rx Parameter	Units	Channel bandwidth					
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
Power in Transmission Bandwidth Configuration for each CC	dBm	REFSENS + channel bandwidth specific value below					
		6	6	6	6	7	9
Note 1: The transmitter shall be set to 4 dB below P_{CMAX_L} with P_{CMAX_L} as defined in clause 6.2.5. Note 2: The reference measurement channel is specified in Annex A.3.2 with one sided dynamic OCNG Pattern OP.1 FDD/TDD as described in Annex A.5.1.1/A.5.2.1. Note 3: For intra-band non-contiguous + inter-band CA, ΔR_{IBNC} = 0 dB for all sub-block gaps.							

For a UE, which supports CA configuration in Tables 7.3.3-1A, 7.3.3-1B, 7.3.3-1C and 7.3.3-1D, P_{uw} power defined in Table 7.7A.8.5-2 is increased by the amount given by $\Delta R_{IB,c}$ in Tables 7.3.3-1A, 7.3.3-1B, 7.3.3-1C and 7.3.3-1D.

6DL CA的接收机杂散发射要求在TS 36.521-1 [5]中的第7.7A.9.5节定义。

7.7A.9.5 Test Requirement

The throughput measurement of each carrier derived in test procedure shall be ≥ 95% of the maximum throughput of the reference measurement channels as specified in Annex A.3.2 with parameters specified in Table s below, according to the type of CA.

Table 7.7A.9.5-1: Spurious response parameters (Intra-band contiguous)

Rx Parameter	Units	CA Bandwidth Class				
		B	C	D	E	F
Power per CC in Aggregated Transmission Bandwidth Configuration	dBm	REFSENS + CA Bandwidth Class specific value below				
		9	9	9	9	9
Note 1: The transmitter shall be set to 4 dB below P_{CMAX_L} or $P_{CMAX_L_CA}$ as defined in subclause 6.2.5A. Note 2: Reference measurement channel is specified in Annex A.3.2 with one sided dynamic OCNG Pattern OP.1 FDD/TDD as described in Annex A.5.1.1/A.5.2.1.						

Table 7.7A.9.5-2: Spurious response (All types of CA)

Parameter	Unit	Level
$P_{Interferer}$ (CW)	dBm	–44
$F_{Interferer}$	MHz	Spurious response frequencies

Table 7.7A.9.5-3: Spurious response parameters (Inter-band, Intra-band non-contiguous)

Rx Parameter	Units	Channel bandwidth					
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
Power in Transmission Bandwidth Configuration for each CC	dBm	REFSENS + channel bandwidth specific value below					
		6	6	6	6	7	9
Note 1: The transmitter shall be set to 4 dB below P_{CMAX_L} with P_{CMAX_L} as defined in clause 6.2.5. Note 2: The reference measurement channel is specified in Annex A.3.2 with one sided dynamic OCNG Pattern OP.1 FDD/TDD as described in Annex A.5.1.1/A.5.2.1. Note 3: For intra-band non-contiguous + inter-band CA, ΔR_{IBNC} = 0 dB for all sub-block gaps.							

For a UE, which supports CA configuration in Tables 7.3.3-1A, 7.3.3-1B, 7.3.3-1C and 7.3.3-1D, P_{uw} power defined in Table 7.7A.9.5-2 is increased by the amount given by $\Delta R_{IB,c}$ in Tables 7.3.3-1A, 7.3.3-1B, 7.3.3-1C and 7.3.3-1D.

7DL CA的接收机杂散发射要求在TS 36.521-1 [5]中的第7.7A10.5节定义。

7.7A.10.5 Test Requirement

The throughput measurement of each carrier derived in test procedure shall be ≥ 95% of the maximum throughput of the reference measurement channels as specified in Annex A.3.2 with parameters specified in Table s below, according to the type of CA.

Table 7.7A.10.5-1: Spurious response parameters (Intra-band contiguous)

Rx Parameter	Units	CA Bandwidth Class				
		B	C	D	E	F
Power per CC in Aggregated Transmission Bandwidth Configuration	dBm	REFSENS + CA Bandwidth Class specific value below				
		9	9	9	9	9
Note 1: The transmitter shall be set to 4 dB below P_{CMAX_L} or $P_{CMAX_L_CA}$ as defined in subclause 6.2.5A. Note 2: Reference measurement channel is specified in Annex A.3.2 with one sided dynamic OCNG Pattern OP.1 FDD/TDD as described in Annex A.5.1.1/A.5.2.1.						

Table 7.7A.10.5-2: Spurious response (All types of CA)

Parameter	Unit	Level
$P_{Interferer}$ (CW)	dBm	–44
$F_{Interferer}$	MHz	Spurious response frequencies

Table 7.7A.10.5-3: Spurious response parameters (Inter-band, Intra-band non-contiguous)

Rx Parameter	Units	Channel bandwidth					
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
Power in Transmission Bandwidth	dBm	REFSENS + channel bandwidth specific value below					
		6	6	6	6	7	9

Configuration for each CC							

Note 1: The transmitter shall be set to 4 dB below P_{CMAX_L} with P_{CMAX_L} as defined in clause 6.2.5.
Note 2: The reference measurement channel is specified in Annex A.3.2 with one sided dynamic OCNG Pattern OP.1 FDD/TDD as described in Annex A.5.1.1/A.5.2.1.
Note 3: For intra-band non-contiguous + inter-band CA, ΔR_{IBNC} = 0 dB for all sub-block gaps.

For a UE, which supports CA configuration in Tables 7.3.3-1A, 7.3.3-1B, 7.3.3-1C and 7.3.3-1D, P_{uw} power defined in Table 7.7A.10.5-2 is increased by the amount given by $\Delta R_{IB,c}$ in Tables 7.3.3-1A, 7.3.3-1B, 7.3.3-1C and 7.3.3-1D.

UL-MIMO的接收机杂散发射要求在TS 36.521-1 [5]中的第7.7B.5节定义。

7.7B.5 Test Requirement

The throughput measurement derived in test procedure shall be ≥ 95% of the maximum throughput of the reference measurement channels as specified in Annex A.3.2 with parameters specified in Tables 7.7B.5-1 and 7.7B.5-2.

Table 7.7B.5-1: Spurious response parameters

Rx Parameter	Units	Channel bandwidth					
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
Power in Transmission Bandwidth Configuration	dBm	REFSENS + channel bandwidth specific value below					
		6	6	6	6	7	9

Note 1: The transmitter shall be set to 4 dB below P_{CMAX_L} with P_{CMAX_L} as defined in clause 6.2.5.
Note 2: The reference measurement channel is specified in Annex A.3.2 with one sided dynamic OCNG Pattern OP.1 FDD/TDD as described in Annex A.5.1.1/A.5.2.1.

Table 7.7B.5-2: Spurious Response

Parameter	Unit	Level
$P_{Interferer}$ (CW)	dBm	–44
$F_{Interferer}$	MHz	Spurious response frequencies

For the UE which supports inter band CA configuration in Tables 7.3.3-1A, 7.3.3-1B and 7.3.3-1C, P_{uw} power defined in Table 7.7B.5-2 is increased by the amount given by $\Delta R_{IB,c}$ in Tables 7.3.3-1A, 7.3.3-1B and 7.3.3-1C.

用于ProSe直接发现的接收器杂散发射要求在TS 36.521-1 [5]中的第7.7D.1.5节定义。

7.7D.1.5 Test Requirement

The throughput measurement of each carrier derived in test procedure shall be ≥ 95% of the maximum throughput of the reference measurement channels as specified in Annex A.6.2 with parameters specified in Table 7.7D.1.5-1 and 7.7D.1.5-2.

Table 7.7D.1.5-1: Spurious response parameters for ProSe Direct Discovery

Rx parameter	Units	Channel bandwidth					
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
Power in Transmission Bandwidth Configuration	dBm	$P_{REFSENS_ProSe}$ + channel bandwidth specific value below+ P_{offset}					
				6	6	7	9
P_{offset}	dB			10.9	13.9	15.7	16.9
NOTE 1: Reference measurement channel is specified in Annex A.6.2.							

Table 7.7D.1.5-2: Spurious response for ProSe

Parameter	Unit	Level
$P_{Interferer}$ (CW)	dBm	–44
$F_{Interferer}$	MHz	Spurious response frequencies

For the UE which supports inter band CA configuration in Table 7.3.3-1A, 7.3.3-1B and 7.3.3-1C, $P_{Interferer}$ power defined in Table 7.7D.1.5-2 is increased by the amount given by $\Delta R_{IB,c}$ in Table 7.3.3-1A, 7.3.3-1B and 7.3.3-1C.

用于ProSe直接通信的接收机杂散发射要求在TS 36.521-1 [5]中的第7.7D.2.5节定义。

7.7D.2.5 Test Requirement

Same test requirement as in clause 7.7D.1.5 with the following exceptions:

- Instead of Table 7.7D.1.5-1 → use Table 7.7D.2.5-1.

Table 7.7D.2.5-1: Spurious response parameters for ProSe Direct Communication

Rx parameter	Units	Channel bandwidth					
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
Power in Transmission Bandwidth Configuration	dBm	$P_{REFSENS_ProSe}$ + channel bandwidth specific value below					
				6	6	7	9
NOTE 1: Reference measurement channel is specified in Annex A.6.2.							

UE类别0的接收机杂散发射要求在TS 36.521-1 [5]中的第7.7E.5节定义。

7.7E.5 Test Requirement

The throughput measurement derived in test procedure shall be ≥ 95% of the maximum throughput of the reference measurement channels as specified in Annex A.3.2 with parameters specified in Tables 7.7E.5-1 and 7.7E.5-2.

Table 7.7E.5-1: Spurious response parameters

Rx Parameter	Units	Channel bandwidth					
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
Power in Transmission Bandwidth Configuration	dBm	REFSENS + channel bandwidth specific value below					
		6	6	6	6	7	9
Note 1: The transmitter shall be set to 4dB below P_{CMAX_L} with P_{CMAX_L} as defined in clause 6.2.5. Note 2: The reference measurement channel is specified in Annex A.3.2 with one sided dynamic OCNG Pattern OP.1 FDD/TDD as described in Annex A.5.1.1/A.5.2.1.							

Table 7.7E.5-2: Spurious Response

Parameter	Unit	Level
$P_{Interferer}$ (CW)	dBm	–44
$F_{Interferer}$	MHz	Spurious response frequencies

UE类别M1的接收机杂散发射要求在TS 36.521-1 [5]中的第7.7EA.5节定义。

7.7EA.5 Test Requirement

The throughput measurement derived in test procedure shall be ≥ 95% of the maximum throughput of the reference measurement channels as specified in Annex A.3.2 with parameters specified in Tables 7.7EA.5-1 and 7.7EA.5-2.

Table 7.7EA.5-1: Spurious response parameters

Rx Parameter	Units	Channel bandwidth					
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
Power in Transmission Bandwidth Configuration	dBm	REFSENS + channel bandwidth specific value below					
		6	6	6	6	7	9
Note 1: The transmitter shall be set to 4dB below P_{CMAX_L} with P_{CMAX_L} as defined in clause 6.2.5EA. Note 2: The reference measurement channel is specified in Annex A.3.2 with one sided dynamic OCNG Pattern OP.1 FDD/TDD as described in Annex A.5.1.1/A.5.2.1.							

Table 7.7EA.5-2: Spurious Response

Parameter	Unit	Level
$P_{Interferer}$ (CW)	dBm	–44
$F_{Interferer}$	MHz	Spurious response frequencies

UE 类别1之二的接收机杂散发射要求在TS 36.521-1 [5]中的第7.7EB.5节定义。

7.7EB.5 Test Requirement

The throughput measurement derived in test procedure shall be ≥ 95% of the maximum throughput of the reference measurement channels as specified in Annex A.3.2 with parameters specified in Tables 7.7EB.5-1 and 7.7EB.5-2.

Table 7.7EB.5-1: Spurious response parameters

Rx Parameter	Units	Channel bandwidth					
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
Power in Transmission Bandwidth Configuration	dBm	REFSENS + channel bandwidth specific value below					
		6	6	6	6	7	9
Note 1: The transmitter shall be set to 4dB below P_{CMAX_L} with P_{CMAX_L} as defined in clause 6.2.5. Note 2: The reference measurement channel is specified in Annex A.3.2 with one sided dynamic OCNG Pattern OP.1 FDD/TDD as described in Annex A.5.1.1/A.5.2.1. Note 3: The REFSENS power level is specified in Table 7.3EB.3-1 for main antenna port.							

Table 7.7EB.5-2: Spurious Response

Parameter	Unit	Level
$P_{Interferer}$ (CW)	dBm	–44
$F_{Interferer}$	MHz	Spurious response frequencies

UE类别M2的接收机杂散发射要求在TS 36.521-1 [5]中的第7.7EC.5节定义。

7.7EC.5 Test Requirement

The throughput measurement derived in test procedure shall be ≥ 95% of the maximum throughput of the reference measurement channels as specified in Annex A.3.2 with parameters specified in Tables 7.7EC.5-1 and 7.7EC.5-2.

Table 7.7EC.5-1: Spurious response parameters

Rx Parameter	Units	Channel bandwidth					
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
Power in Transmission Bandwidth Configuration	dBm	REFSENS + channel bandwidth specific value below					
		6	6	6	6	7	9
Note 1: The transmitter shall be set to 4dB below P_{CMAX_L} with P_{CMAX_L} as defined in clause 6.2.5EC. Note 2: The reference measurement channel is specified in Annex A.3.2 with one sided dynamic OCNG Pattern OP.1 FDD/TDD as described in Annex A.5.1.1/A.5.2.1.							

Table 7.7EC.5-2: Spurious Response

Parameter	Unit	Level
$P_{Interferer}$ (CW)	dBm	-44
$F_{Interferer}$	MHz	Spurious response frequencies

NB1和NB2的接收机杂散发射要求在TS 36.521-1 [5]中的第7.7F.5节定义。

7.7F.5 Test requirement

The throughput measurement derived in test procedure shall be ≥ 95% of the maximum throughput of the reference measurement channels as specified in Annex A.3.2 with parameters specified in Tables 7.7F.5-1.

Table 7.7F.5-1: Spurious response parameters for category NB1 and NB2

Parameter	Unit	Level
P_{signal}	dBm	REFSENS+6
$P_{Interferer}$ (CW)	dBm	–44
$F_{Interferer}$	MHz	Spurious response frequencies
Number of spurious response frequencies		24 (in OOB range 1, 2, 3)
NOTE 1: The REFSENS power level is specified in 7.3.1F.1-1. NOTE 2: OOB range 1, 2, 3 refers to Table 7.6.2.1F-1.		

针对V2X通信在非并发E-UTRA上行传输场景下的接收机杂散发射要求，在TS 36.521-1 [5]中的第7.7G.1.5节定义。

7.7G.1.5 Test Requirement

The throughput measurement derived in test procedure shall be ≥ 95% of the maximum throughput of the reference measurement channels as specified in Annex A.8.2 with parameters specified in Tables 7.7G.1.5-1 and 7.7G.1.5-2.

Table 7.7G.1.5-1: Spurious response parameters

Rx parameter	Units	Channel bandwidth					
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
Power in Transmission Bandwidth Configuration	dBm	$P_{REFSENS_V2X}$ + channel bandwidth specific value below					
					6		9
NOTE 1: Reference measurement channel is specified in TS36.101[2] Annex A.8.2.							

Table 7.7G.1.5-2: Spurious response

Parameter	Unit	Level
$P_{Interferer}$ (CW)	dBm	–44
$F_{Interferer}$	MHz	Spurious response frequencies

针对E-UTRA V2X侧链路通信与E-UTRA上行发射并发操作的场景，其接收机杂散发射要求在TS 36.521-1 [5]中的第7.7G.2.5节定义。

7.7G.2.5 Test Requirement

The throughput shall be ≥ 95% of the maximum throughput of the reference measurement channels as specified in Annex A.8.2 with parameters specified in Tables 7.7G.2.5-1 and 7.7G.2.5-2.

Table 7.7G.2.5-1: Spurious response parameters

Rx parameter	Units	Channel bandwidth					
		1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
Power in Transmission Bandwidth Configuration	dBm	$P_{REFSENS_V2X}$ + channel bandwidth specific value below					
					6		9
NOTE 1: Reference measurement channel is specified in Annex A.8.2.							

Table 7.7G.2.5-2: Spurious response

Parameter	Unit	Level
$P_{Interferer}$ (CW)	dBm	–44
$F_{Interferer}$	MHz	Spurious response frequencies

When UE is configured for simultaneous E-UTRA V2X sidelink and E-UTRA downlink reception for inter-band E-UTRA V2X / E-UTRA bands specified in Table 5.5G-2, the requirements in subclause 7.7G.2.5 apply for the E-UTRA V2X sidelink reception and the requirements in subclause 7.7.3 apply for the E-UTRA downlink reception while all downlink carriers are active.

针对V2X通信带内连续多载波操作场景的接收机杂散发射要求，在TS 36.521-1 [5]中的第7.7G.3.5节定义。

7.7G.3.5 Test Requirement

For intra-band contiguous multi-carrier operation, the V2X UE throughput shall be ≥ 95% of the maximum throughput of the reference measurement channels as specified in Annex A.8.2 with parameters specified in Table 7.7G.3.5-1 and Table 7.7G.3.5-2.

Table 7.7G.3.5-1: Spurious response parameters for intra-band contiguous multi-carrier for V2X UE

Rx Parameter	Units	V2X Bandwidth Class				
		B	C	D	E	F
Pw in Transmission Bandwidth Configuration, per CC	dBm	REFSENS + V2X Bandwidth Class specific value below				
		9				
NOTE 1: The requirement is applied for multi- carrier intra--band con concurrent receptions when 2 carrier transmissions are activated at the same time						

Table 7.7.G.3.5-2: Spurious response for intra-band contiguous multi-carrier for V2X UE

Parameter	Unit	Level
$P_{Interferer}$ (CW)	dBm	–44
$F_{Interferer}$	MHz	Spurious response frequencies
NOTE 1: The requirement is applied for multi- carrier intra--band con concurrent receptions when 2 carrier transmissions are activated at the same time		

2 NR频率范围1独立组网模式下的一般无用发射特性

2.1 操作频段和信道安排

在许多情况下，整个射频规范的要求是针对不同的频率范围（FR）分别定义的。表A1-3描述了NR能够按照本版本规范工作的频率范围。

表A1-3

频率范围的定义

频率范围名称	对应的频率范围*
FR1	410 MHz – 7 125 MHz
FR2	24 250 MHz – 52 600 MHz

*《无线电规则》并未将这些范围内的频段全部确定用于IMT。

2.1.1 操作频段

NR设计用于在表A1-4和表A1-5中定义的FR1操作频段内工作。

表A1-4

FR1中的NR操作频段

由NR使用且在《无线电规则》中确定为IMT频段

NR操作频段	上行链路（UL）操作频段 BS接收/UE发射 F_{UL}_low – FUL_high	下行链路（DL）操作频段 BS发射/UE接收 F_{DL}_low – FDL_high	双工模式	为各国/各区域确定IMT频段或其中一部分的脚注
n1	1 920 MHz – 1 980 MHz	2 110 MHz – 2 170 MHz	FDD	5.388
n2	1 850 MHz – 1 910 MHz	1 930 MHz – 1 990 MHz	FDD	5.384A、5.388
n3	1 710 MHz – 1 785 MHz	1 805 MHz – 1 880 MHz	FDD	5.384A
n5	824 MHz – 849 MHz	869 MHz – 894 MHz	FDD	5.317A
n7	2 500 MHz – 2 570 MHz	2 620 MHz – 2 690 MHz	FDD	5.384A
n8	880 MHz – 915 MHz	925 MHz – 960 MHz	FDD	5.317A
n12	699 MHz – 716 MHz	729 MHz – 746 MHz	FDD	5.317A
n14	788 MHz – 798 MHz	758 MHz – 768 MHz	FDD	5.317A
n20	832 MHz – 862 MHz	791 MHz – 821 MHz	FDD	5.317A
n25	1 850 MHz – 1 915 MHz	1 930 MHz – 1 995 MHz	FDD	5.384A、5.388
n26	814 MHz – 849 MHz	859 MHz – 894 MHz	FDD	5.317A
n28	703 MHz – 748 MHz	758 MHz – 803 MHz	FDD	5.317A
n29	不适用	717 MHz – 728 MHz	SDL	5.317A

NR操作频段	上行链路（UL） 操作频段 BS接收/UE发射 F_{UL}_low – FUL_high	下行链路（DL） 操作频段 BS发射/UE接收 F_{DL}_low – FDL_high	双工模式	为各国/各区域确定IMT频段或其中一部分的脚注
n30[3]	2 305 MHz – 2 315 MHz	2 350 MHz – 2 360 MHz	FDD	**5.384A**
n34	2 010 MHz – 2 025 MHz	2 010 MHz – 2 025 MHz	TDD	**5.388**
n38[10]	2 570 MHz – 2 620 MHz	2 570 MHz – 2 620 MHz	TDD	**5.384A**
n39	1 880 MHz – 1 920 MHz	1 880 MHz – 1 920 MHz	TDD	**5.388**
n40	2 300 MHz – 2 400 MHz	2 300 MHz – 2 400 MHz	TDD	**5.384A**
n48	3 550 MHz – 3 700 MHz	3 550 MHz – 3 700 MHz	TDD	**5.430A、5.431B、5.433A、5.434**
n51	1 427 MHz – 1 432 MHz	1 427 MHz – 1 432 MHz	TDD	**5.341A、5.341B、5.341C**
n65	1 920 MHz – 2 010 MHz	2 110 MHz – 2 200 MHz	FDD4	**5.388**
n66	1 710 MHz – 1 780 MHz	2 110 MHz – 2 200 MHz	FDD	**5.384A、5.388**
n71	663 MHz – 698 MHz	617 MHz – 652 MHz	FDD	**5.296A**
n74	1 427 MHz – 1 470 MHz	1 475 MHz – 1 518 MHz	FDD	**5.341A、5.341B、5.341C**
n75	不适用	1 432 MHz – 1 517 MHz	SDL	**5.341A、5.341B、5.341C**
n76	不适用	1 427 MHz – 1 432 MHz	SDL	**5.341A、5.341B、5.341C**
n81	880 MHz – 915 MHz	不适用	SUL	**5.317A**
n82	832 MHz – 862 MHz	不适用	SUL	**5.317A**
n84	1920 MHz – 1 980 MHz	不适用	SUL	**5.388**
n95[8]	2 010 MHz – 2 025 MHz	不适用	SUL	**5.388**
n97[15]	2 300 MHz – 2 400 MHz	不适用	SUL	**5.384A**
n98[15]	1 880 MHz – 1 920 MHz	不适用	SUL	**5.384, 5.388**
n100	874.4 MHz – 880 MHz	919.4 MHz – 925 MHz	FDD	**5.317A**
n101	1 900 MHz – 1 910 MHz	1 900 MHz – 1 910 MHz	TDD	**5.388**
n104[17]	6 425 MHz – 7 125 MHz	6 425 MHz – 7 125 MHz	TDD	**5.6A12、5.6C12、5.6B12**

表A1-5

FR1中的NR操作频段

由NR使用但尚未或未完全确定用于《无线电规则》中IMT的频段

NR操作频段	上行链路（UL）操作频段 BS接收/UE发射 F_{UL}_low – FUL_high	下行链路（DL）操作频段 BS发射/UE接收 F_{DL}_low – FDL_high	双工模式	为各国/各区域确定IMT频段或其中一部分的脚注
n24[16]	1 626.5 MHz – 1 660.5 MHz	1 525 MHz – 1 559 MHz	FDD	在《无线电规则》中未确定用于IMT
n41	2 496 MHz – 2 690 MHz	2 496 MHz – 2 690 MHz	TDD	**5.384A**
n46	5 150 MHz – 5 925 MHz	5 150 MHz – 5 925 MHz	TDD[13]	在《无线电规则》中未确定用于IMT
n47[11]	5855 MHz – 5925 MHz	5 855 MHz – 5 925 MHz	TDD	在《无线电规则》中未确定用于IMT
n53	2483.5 MHz – 2495 MHz	2 483.5 MHz – 2 495 MHz	TDD	在《无线电规则》中未确定用于IMT
n70	1 695 MHz – 1 710 MHz	1995 MHz – 2 020 MHz	FDD	**5.388**
n77[12]	3 300 MHz – 4 200 MHz	3 300 MHz – 4 200 MHz	TDD	**5.429B, 5.429D, 5.429F, 5.430A, 5.431B, 5.432A, 5.432B, 5.433A, 5.434, 5.A13C, 5.A13D, 5.36A12**
n78	3 300 MHz – 3 800 MHz	3 300 MHz – 3 800 MHz	TDD	**5.429B, 5.429D, 5.429F, 5.430A, 5.431B, 5.432A, 5.432B, 5.433A, 5.434, 5.A13C, 5.A13D , 5.36A12**
n79	4 400 MHz – 5 000 MHz	4 400 MHz – 5 000 MHz	TDD	**5.441A, 5.441B**
n96[14]	5 925 MHz – 7 125 MHz	5 925 MHz – 7 125 MHz	TDD[13]	**5.6A12, 5.6C12, 5.6B12**
n99[16]	1 626.5 MHz – 1 660.5 MHz	不适用	SUL	在《无线电规则》中未确定用于IMT
n102[14]	5 925 MHz – 6 425 MHz	5 925 MHz – 6 425 MHz	TDD[13]	在《无线电规则》中未确定用于IMT

注1 – 符合本规范中NR频段n50最低要求的UE，亦应符合NR频段n51的最低要求。

注2 – 符合本规范中NR频段n75最低要求的UE，亦应符合 NR 频段 n76 的最低要求。

注3 – 对于配备外置车载天线的UE，不许在此频段进行上行链路传输。

注4 – 符合本规范中NR频段n65最低要求的UE，亦应符合NR频段n1的最低要求。

NR操作频段	上行链路（UL） 操作频段 BS接收/UE发射 F_{UL}_low – FUL_high	下行链路（DL） 操作频段 BS发射/UE接收 F_{DL}_low – FDL_high	双工模式	为各国/各区域确定IMT频段或其中一部分的脚注

注 5 – 未使用。

注6 – 支持NR频段n66的UE应在整个DL操作频段接收。

注7 – 支持NR频段n66和任何CA频段中CA操作的UE，还应符合当前版本规范中对DL CA配置CA_n66B和CA_n66（2A）的最低要求。

注8 – 该频段仅适用于中国。

注 9 – 未使用。

注10 – 当该频段用于V2X SL业务时，在特定区域专门用于NR V2X。

注11 – 该频段是用于V2X业务的免许可频段。预计不会在此频段部署网络。

注12 – 在美国，该频段仅限于3 450-3 550 MHz和3 700-3 980 MHz。

注13 – 该频段限于如TS 37.213中所定义的共用频谱信道接入的操作。

注14 – 该频段仅适用于美国，须遵守FCC报告和FCC 20-51命令。

注15 – 对该频段的要求仅适用于同一地理区域内该频段的频率范围未使用其他NR或E-UTRA TDD操作频段的情况。对于在同一地域、该频段的频率范围内使用其他NR或E-UTRA TDD操作频段的情况，可能需要采用3GPP规范中未涉及的特殊共存要求。

注16 – 此频段的DL操作限制在1 526-1 536 MHz，UL操作限制在1 627.51 637.5 MHz和1 646.5-1 656.5 MHz。

注17 – 对于该频段，无论最小信道带宽是多少，都适用TS 38.213表13-5或表13-6中的CORESET#0值。

CA的UE操作频段在TS 38.101-1 [1]中的第5.2A节定义。

5.2A Operating bands for CA

5.2A.0 General

CA operating bands including Band n90 are defined by the corresponding CA operating bands including Band n41 with Band n90 replacing Band n41. For brevity the said CA operating bands including Band n90 are not listed in the tables below but are covered by this specification.

5.2A.1 Intra-band CA

NR intra-band carrier aggregation is designed to operate in the operating bands defined in Table 5.2A.1-1 and Table 5.2A.1-2, where all operating bands are within FR1.

Table 5.2A.1-1: Intra-band contiguous CA operating bands in FR1

NR CA Band	NR Band (Table 5.2-1)
CA_n1	n1
CA_n2	n2
CA_n3	n3
CA_n5	n5
CA_n7	n7
CA_n25	n25
CA_n38	n38
CA_n40	n40
CA_n41	n41
CA_n46	n46
CA_n48	n48
CA_n66	n66
CA_n71	n71
CA_n77	n77
CA_n78	n78
CA_n79	n79
CA_n96	n96
NOTE 1: The minimum requirements only apply for non simultaneous Tx/Rx between all carriers for TDD combinations.	

Table 5.2A.1-2: Intra-band non-contiguous CA operating bands in FR1

NR CA Band	NR Band (Table 5.2-1)
CA_n1(*)	n1
CA_n3(*)	n3
CA_n5(*)	n5
CA_n7(*)	n7
CA_n12(*)	n12
CA_n25(*)	n25
CA_n41(*)	n41
CA_n48(*)	n48
CA_n66(*)	n66
CA_n71(*)	n71
CA_n77(*)	n77
CA_n78(*)	n78
CA_n96(*)	n96
NOTE 1: The minimum requirements only apply for non simultaneous Tx/Rx between all carriers for TDD combinations. NOTE 2: The notation CA_nX(*) in this table indicates intra-band non-contiguous CA for band nX. The configurations for each band are in 5.5A.2.	

5.2A.2 Inter-band CA

NR inter-band carrier aggregation is designed to operate in the operating bands defined in Table 5.2A.2.1-1, 5.2A.2.2-1 and Table 5.2A.2.3-1, where all operating bands are within FR1.

If the mandatory simultaneous Rx/Tx capability applies for a band combination, the mandatory simultaneous Rx/Tx capability also applies for the band combination when the applicable band combination is a subset of a higher order band combination.

Table 5.2A.2-1: Void

Table 5.2A.2-2: Void

Table 5.2A.2-3: Void

5.2A.2.1 Inter-band CA (two bands)

Table 5.2A.2.1-1: Inter-band CA operating bands involving FR1 (two bands)

NR CA Band	NR Band (Table 5.2-1)	DL interruption allowed (Note 8)
CA_n1-n3	n1, n3	
CA_n1-n5	n1, n5	
CA_n1-n7	n1, n7	
CA_n1-n8	n1, n8	
CA_n1-n18	n1, n18	
CA_n1-n20	n1, n20	
CA_n1-n28	n1, n28	
CA_n1-n38	n1, n38	
CA_n1-n40	n1, n40	
CA_n1-n41[1]	n1, n41	
CA_n1-n67	n1, n67	
CA_n1-n74	n1, n74	
CA_n1-n77[1]	n1, n77	No
CA_n1-n78[1]	n1, n78	No
CA_n1-n79[1]	n1, n79	No
CA_n2-n5	n2, n5	
CA_n2-n7	n2, n7	
CA_n2-n12	n2, n12	
CA_n2-n14	n2, n14	
CA_n2-n29	n2, n29	
CA_n2-n30	n2, n30	
CA_n2-n48	n2, n48	
CA_n2-n66	n2, n66	
CA_n2-n77	n2, n77	
CA_n2-n78	n2, n78	
CA_n3-n5	n3, n5	
CA_n3-n7	n3, n7	
CA_n3-n8	n3, n8	
CA_n3-n18	n3, n18	
CA_n3-n20	n3, n20	
CA_n3-n28	n3, n28	
CA_n3-n34[1]	n3, n34	
CA_n3-n38	n3, n38	
CA_n3-n40[1]	n3, n40	No
CA_n3-n41[1]	n3, n41	No
CA_n3-n67	n3, n67	
CA_n3-n74	n3, n74	
CA_n3-n77[1]	n3, n77	No
CA_n3-n78[1]	n3, n78	No
CA_n3-n79[1]	n3, n79	No

	CA_n5-n7	n5, n7		
	CA_n5-n12	n5, n12		
	CA_n5-n14	n5, n14		
	CA_n5-n25	n5, n25		
	CA_n5-n28	n5, n28		
	CA_n5-n29	n5, n29		
	CA_n5-n30	n5, n30		
	CA_n5-n40	n5, n40		
	CA_n5-n48	n5, n48		
	CA_n5-n66	n5, n66		
	CA_n5-n77[1]	n5, n77		
	CA_n5-n78[1]	n5, n78	No	
	CA_n5-n79[1]	n5, n79	No	
	CA_n7-n8	n7, n8		
	CA_n7-n25	n7, n25		
	CA_n7-n28	n7, n28		
	CA_n7-n40	n7, n40		
	CA_n7-n46	n7, n46		
	CA_n7-n66	n7, n66		
	CA_n7-n77	n7, n77		
	CA_n7-n78[1]	n7, n78		
	CA_n7-n79	n7, n79		
	CA_n8-n20	n8, n20		
	CA_n8-n28	n8, n28		
	CA_n8-n34[1]	n8, n34		
	CA_n8-n38	n8, n38		
	CA_n8-n39[1]	n8, n39		
	CA_n8-n40[1]	n8, n40		
	CA_n8-n41[1]	n8, n41	No	
	CA_n8-n75[1]	n8, n75		
	CA_n8-n77[1]	n8, n77		
	CA_n8-n78[1]	n8, n78	No	
	CA_n8-n79[1]	n8, n79	No	
	CA_n12-n25	n12, n25		
	CA_n12-n30	n12, n30		
	CA_n12-n48	n12, n48		
	CA_n12-n66	n12, n66		
	CA_n12-n71	n12, n71		
	CA_n12-n77	n12, n77		
	CA_n13-n25	n13, n25		
	CA_n13-n66	n13, n66		
	CA_n13-n77	n13, n77		
	CA_n14-n30	n14, n30		
	CA_n14-n66	n14, n66		
	CA_n14-n77	n14, n77		
	CA_n18-n28	n18, n28		
	CA_n18-n41	n18, n41		
	CA_n18-n74	n18, n74		
	CA_n18-n77[10]	n18, n77		
	CA_n18-n78[11]	n18, n78		
	CA_n20-n28[2]	n20, n28		
	CA_n20-n40	n20, n40		
	CA_n20-n67	n20, n67		
	CA_n20-n75	n20, n75		
	CA_n20-n78	n20, n78		
	CA_n24-n41	n24, n41		
	CA_n24-n48	n24, n48		
	CA_n24-n77	n24, n77		
	CA_n25-n29	n25, n29		
	CA_n25-n38	n25, n38		
	CA_n25-n41	n25, n41		
	CA_n25-n46[6]	n25, n46		
	CA_n25-n48	n25, n48		
	CA_n25-n66	n25, n66		
	CA_n25-n71	n25, n71		

	CA_n25-n77	n25, n77		
	CA_n25-n78	n25, n78		
	CA_n26-n66	n26, n66		
	CA_n26-n70	n26, n70		
	CA_n28-n34	n28, n34		
	CA_n28-n38	n28, n38		
	CA_n28-n39	n28, n39		
	CA_n28-n40	n28, n40		
	CA_n28-n41[1]	n28, n41		
	CA_n28-n46	n28, n46		
	CA_n28-n50	n28, n50		
	CA_n28-n71[12]	n28, n71		
	CA_n28-n74	n28, n74		
	CA_n28-n75[2]	n28, n75		
	CA_n28-n77[1]	n28, n77	No	
	CA_n28-n78[1]	n28, n78	No	
	CA_n28-n79[1]	n28, n79		
	CA_n29-n30	n29, n30		
	CA_n29-n66	n29, n66		
	CA_n29-n70	n29, n70		
	CA_n29-n71	n29, n71		
	CA_n29-n77	n29, n77		
	CA_n30-n66	n30, n66		
	CA_n30-n77	n30, n77		
	CA_n34-n40	n34, n40		
	CA_n34-n41[9]	n34, n41		
	CA_n34-n79[1]	n34, n79		
	CA_n38-n40[9]	n38, n40		
	CA_n38-n66	n38, n66		
	CA_n38-n78[1]	n38, n78		
	CA_n38-n79[1]	n38, n79		
	CA_n39-n40	n39, n40		
	CA_n39-n41	n39, n41	No	
	CA_n39-n79[1]	n39, n79	No	
	CA_n40-n41	n40, n41		
	CA_n40-n77[1]	n40, n77		
	CA_n40-n78[1]	n40, n78		
	CA_n40-n79[1,4]	n40, n79	No	
	CA_n41-n48[1]	n41, n48		
	CA_n41-n50[1]	n41, n50		
	CA_n41-n66	n41, n66		
	CA_n41-n70	n41, n70		
	CA_n41-n71[1]	n41, n71		
	CA_n41-n74	n41, n74		
	CA_n41-n77[1]	n41, n77		
	CA_n41-n78[1]	n41, n78		
	CA_n41-n79[1,3]	n41, n79	No	
	CA_n46-n48[1,6]	n46, n48		
	CA_n46-n66[6]	n46, n66		
	CA_n46-n78[1,6]	n46, n78		
	CA_n46-n96[15,16,17,18]	n46, n96		
	CA_n48-n53[9]	n48, n53		
	CA_n48-n66	n48, n66		
	CA_n48-n70	n48, n70		
	CA_n48-n71	n48, n71		
	CA_n48-n77[13,14,18]	n48, n77		
	CA_n48-n96[1,9]	n48, n96		
	CA_n50-n78	n50, n78		
	CA_n66-n70	n66, n70		
	CA_n66-n71	n66, n71		
	CA_n66-n77	n66, n77		
	CA_n66-n78	n66, n78		
	CA_n70-n71	n70, n71		
	CA_n70-n78	n70, n78		
	CA_n71-n77	n71, n77		

CA_n71-n78	n71, n78	
CA_n74-n77[1]	n74, n77	
CA_n74-n78[1]	n74, n78	
CA_n75-n78[1]	n75, n78	
CA_n76-n78[1]	n76, n78	
CA_n77-n79[5,7]	n77, n79	
CA_n78-n79[5]	n78, n79	
CA_n78-n92	n78, n92	

NOTE 1: Applicable for UE supporting inter-band carrier aggregation with mandatory simultaneous Rx/Tx capability.
NOTE 2: The frequency range in band n28 is restricted for this band combination to 703-733 MHz for the UL and 758-788 MHz for the DL.
NOTE 3: The frequency range below 2 506 MHz for Band n41 is not used in this combination.
NOTE 4: Applicable for frequency range above 4 800 MHz for Band n79 in this combination.
NOTE 5: For UEs supporting band n77, the minimum requirements apply only when there is non-simultaneous Rx/Tx operation between n78-n79 NR carriers. This restriction applies also for these carriers when applicable NR CA configuration is part of a higher order configuration.
NOTE 6: The PCell is allocated in the licensed band in this combination.
NOTE 7: The minimum requirements apply only when there is non-simultaneous Rx/Tx operation between n77-n79 NR carriers. This restriction applies also for these carriers when applicable NR CA configuration is part of a higher order configuration.
NOTE 8: Applicable when dynamic Tx switching is conducted. The DL interruption requirement is specified in clause 8.2.2.2.10 of 38.133 [13].
NOTE 9: Only applicable for UE supporting inter-band carrier aggregation without simultaneous Rx/Tx.
NOTE 10 The frequency range in band n77 is restricted for this band combination to 3 520-3 560 MHz, 3 700-3 800 MHz, 4 000-4 100 MHz.
NOTE 11: The frequency range in band n78 is restricted for this band combination to 3 520-3 560 MHz and 3 700-3 800 MHz.
NOTE 12: The implementation with 4 antennas is targeted for FWA form factor for this band combination.
NOTE 13: Simultaneous Rx/Tx capability for TDD combinations does not apply for UEs supporting band n48 with an n77 implementation.
NOTE 14: The band n48 and n77 will synchronize their uplink and downlink configurations and in commonly TDD network coordination.
NOTE 15: Simultaneous Rx/Tx capability does not apply for UEs supporting CA_n46-n96. Same restrictions are applied when applicable NR CA configuration is part of a higher order configurations
NOTE 16: The minimum requirements for intra-band non-contiguous CA/DC apply for CA_n46-n96 and related higher order CA/DC configurations.
NOTE 17: The combination is not used alone as fall back mode of other band combinations in which UL in Band 48 is not used.
NOTE 18: The minimum requirements for inter-band CA apply when the maximum power spectral density imbalance between downlink carriers is within 6 dB. The power spectral density imbalance condition also applies for these carriers when applicable CA configuration is a subset of a higher order CA configuration.

5.2A.2.2 Inter-band CA (three bands)

Table 5.2A.2.2-1: Inter-band CA operating bands involving FR1 (three bands)

NR CA Band	NR Band (Table 5.2-1)	DL interruption allowed (Note 4)
CA_n1-n3-n5	n1, n3, n5	
CA_n1-n3-n7	n1, n3, n7	
CA_n1-n3-n8	n1, n3, n8	
CA_n1-n3-n18	n1, n3, n18	
CA_n1-n3-n20	n1, n3, n20	
CA_n1-n3-n28	n1, n3, n28	
CA_n1-n3-n41[3]	n1, n3, n41	
CA_n1-n3-n77	n1, n3, n77	
CA_n1-n3-n78[3]	n1, n3, n78	No for CA_n1-n78, CA_n3-n78
CA_n1-n3-n79[3]	n1, n3, n79	
CA_n1-n5-n7	n1, n5, n7	

	CA_n1-n5-n28	n1, n5, n28		
	CA_n1-n5-n78	n1, n5, n78		
	CA_n1-n7-n8	n1, n7, n8		
	CA_n1-n7-n28	n1, n7, n28		
	CA_n1-n7-n40	n1, n7, n40		
	CA_n1-n7-n78[3]	n1, n7, n78		
	CA_n1-n7-n79	n1, n7, n79		
	CA_n1-n8-n28	n1, n8, n28		
	CA_n1-n8-n40	n1, n8, n40		
	CA_n1-n8-n77	n1, n8, n77		
	CA_n1-n8-n78[3]	n1, n8, n78		
	CA_n1-n8-n79	n1, n8, n79		
	CA_n1-n18-n28	n1, n18, n28		
	CA_n1-n18-n41	n1, n18, n41		
	CA_n1-n18-n77	n1, n18, n77		
	CA_n1-n20-n67	n1, n20, n67		
	CA_n1-n20-n78	n1, n20, n78		
	CA_n1-n28-n38	n1, n28, n38		
	CA_n1-n28-n40	n1, n28, n40		
	CA_n1-n28-n41[3]	n1, n28, n41		
	CA_n1-n28-n77[3]	n1, n28, n77		
	CA_n1-n28-n79[3]	n1, n28, n79		
	CA_n1-n28-n78[3]	n1, n28, n78		
	CA_n1-n38-n78	n1, n38, n78		
	CA_n1-n40-n78	n1, n40, n78		
	CA_n1-n41-n77[3]	n1, n41, n77		
	CA_n1-n77-n79	n1, n77, n79		
	CA_n1-n78-n79	n1, n78, n79		
	CA_n2-n5-n30	n2, n5, n30		
	CA_n2-n5-n48	n2, n5, n48		
	CA_n2-n5-n66	n2, n5, n66		
	CA_n2-n5-n77	n2, n5, n77		
	CA_n2-n12-n30	n2, n12, n30		
	CA_n2-n12-n66	n2, n12, n66		
	CA_n2-n12-n77	n2, n12, n77		
	CA_n2-n14-n30	n2, n14, n30		
	CA_n2-n14-n66	n2, n14, n66		
	CA_n2-n14-n77	n2, n14, n77		
	CA_n2-n29-n30	n2, n29, n30		
	CA_n2-n29-n66	n2, n29, n66		
	CA_n2-n29-n77	n2, n29, n77		
	CA_n2-n30-n66	n2, n30, n66		
	CA_n2-n30-n77	n2, n30, n77		
	CA_n2-n48-n66	n2, n48, n66		
	CA_n2-n48-n77	n2, n48, n77		
	CA_n2-n66-n77	n2, n66, n77		
	CA_n2-n66-n78	n2, n66, n78		
	CA_n2-n71-n78	n2, n71, n78		
	CA_n3-n5-n7	n3, n5, n7		
	CA_n3-n5-n28	n3, n5, n28		
	CA_n3-n5-n78	n3, n5, n78		
	CA_n3-n7-n8	n3, n7, n8		
	CA_n3-n7-n28	n3, n7, n28		
	CA_n3-n7-n78[3]	n3, n7, n78		
	CA_n3-n8-n28	n3, n8, n28		
	CA_n3-n8-n41	n3, n8, n41		
	CA_n3-n8-n79	n3, n8, n79		
	CA_n3-n8-n77	n3, n8, n77		
	CA_n3-n8-n78[3]	n3, n8, n78		
	CA_n3-n18-n28	n3, n18, n28		
	CA_n3-n18-n41	n3, n18, n41		
	CA_n3-n18-n77	n3, n18, n77		
	CA_n3-n20-n67	n3, n20, n67		
	CA_n3-n20-n78	n3, n20, n78		
	CA_n3-n28-n41[3]	n3, n28, n41		

	CA_n3-n28-n77[3]	n3, n28, n77		
	CA_n3-n28-n78[3]	n3, n28, n78		
	CA_n3-n28-n79[3]	n3, n28, n79		
	CA_n3-n38-n40	n3, n38, n40		
	CA_n3-n40-n41	n3, n40, n41	No for CA n3-n40, CA n3-n41	
	CA_n3-n41-n77[3]	n3, n41, n77		
	CA_n3-n41-n78[3]	n3, n41, n78		
	CA_n3-n41-n79[3]	n3, n41, n79	No	
	CA_n3-n77-n79	n3, n77, n79		
	CA_n5-n7-n28	n5, n7, n28		
	CA_n5-n7-n78	n5, n7, n78		
	CA_n5-n12-n77	n5, n12, n77		
	CA_n5-n14-n77	n5, n14, n77		
	CA_n5-n25-n66	n5, n25, n66		
	CA_n5-n25-n77	n5, n25, n77		
	CA_n5-n25-n78	n5, n25, n78		
	CA_n5-n29-n77	n5, n29, n77		
	CA_n5-n30-n66	n5, n30, n66		
	CA_n5-n30-n77	n5, n30, n77		
	CA_n5-n40-n78	n5, n40, n78		
	CA_n5-n48-n77	n5, n48, n77		
	CA_n5-n48-n66	n5, n48, n66		
	CA_n5-n66-n77	n5, n66, n77		
	CA_n5-n66-n78	n5, n66, n78		
	CA_n7-n8-n28	n7, n8, n28		
	CA_n7-n8-n40	n7, n8, n40		
	CA_n7-n8-n78	n7, n8, n78		
	CA_n7-n25-n66	n7, n25, n66		
	CA_n7-n25-n77	n7, n25, n77		
	CA_n7-n25-n78	n7, n25, n78		
	CA_n7-n28-n78	n7, n28, n78		
	CA_n7-n46-n78	n7, n46, n78		
	CA_n7-n66-n78	n7, n66, n78		
	CA_n7-n66-n77	n7, n66, n77		
	CA_n8-n28-n78[3]	n8, n28, n78		
	CA_n8-n38-n40	n8, n38, n40		
	CA_n8-n39-n41	n8, n39, n41	No for CA n8-n41, CA n39-n41	
	CA_n8-n40-n41	n8, n40, n41		
	CA_n8-n40-n78	n8, n40, n78		
	CA_n8-n41-n79[3]	n8, n41, n79	No	
	CA_n8-n78-n79	n8, n78, n79		
	CA_n12-n30-n66	n12, n30, n66		
	CA_n12-n30-n77	n12, n30, n77		
	CA_n12-n66-n77	n12, n66, n77		
	CA_n13-n25-n66	n13, n25, n66		
	CA_n13-n25-n77	n13, n25, n77		
	CA_n13-n66-n77	n13, n66, n77		
	CA_n14-n30-n66	n14, n30, n66		
	CA_n14-n30-n77	n14, n30, n77		
	CA_n14-n66-n77	n14, n66, n77		
	CA_n18-n28-n41	n18, n28, n41		
	CA_n18-n28-n77	n18, n28, n77		
	CA_n18-n41-n77	n18, n41, n77		
	CA_n20-n28-n78	n20, n28, n78		
	CA_n24-n41-n48	n24, n41, n48		
	CA_n24-n41-n77	n24, n41, n77		
	CA_n24-n48-n77	n24, n48, n77		
	CA_n25-n41-n77	n25, n41, n77		
	CA_n25-n29-n66	n25, n29, n66		
	CA_n25-n38-n78	n25, n38, n78		
	CA_n25-n41-n66	n25, n41, n66		
	CA_n25-n41-n71	n25, n41, n71		

CA_n25-n41-n77	n25, n41, n77	No for CA_n1-n78, CA_n3-n78
CA_n25-n41-n78	n25, n41, n78	
CA_n25-n48-n66	n25, n48, n66	
CA_n25-n66-n71	n25, n66, n71	
CA_n25-n66-n77	n25, n66, n77	
CA_n25-n66-n78	n25, n66, n78	
CA_n25-n71-n77	n25, n71, n77	
CA_n25-n71-n78	n25, n71, n78	
CA_n26-n66-n70	n26, n66, n70	
CA_n28-n40-n79	n28, n40, n79	
CA_n28-n41-n79[3]	n28, n41, n79	
CA_n28-n46-n78	n28, n46, n78	
CA_n28-n77-n79	n28, n77, n79	
CA_n28-n78-n79	n28, n78, n79	
CA_n28-n38-n78	n28, n38, n78	
CA_n28-n39-n40	n28, n39, n40	
CA_n28-n39-n41	n28, n39, n41	
CA_n28-n39-n79	n28, n39, n79	
CA_n28-n40-n78	n28, n40, n78	
CA_n28-n41-n77[3]	n28, n41, n77	
CA_n28-n41-n78[3]	n28, n41, n78	
CA_n29-n30-n66	n29, n30, n66	
CA_n29-n30-n77	n29, n30, n77	
CA_n29-n66-n70	n29, n66, n70	
CA_n29-n66-n77	n29, n66, n77	
CA_n30-n66-n77	n30, n66, n77	
CA_n38-n66-n78	n38, n66, n78	
CA_n39-n40-n41	n39, n40, n41	
CA_n39-n40-n79	n39, n40, n79	
CA_n39-n41-n79	n39, n41, n79	No
CA_n40-n41-n79[1,2]	n40, n41, n79	No for CA n40-n79, CA n41-n79
CA_ n41-n66-n71	n41, n66, n71	
CA_n41-n66-n78	n41, n66, n78	
CA_ n41-n66-n77	n41, n66, n77	
CA_n41-n70-n78	n41, n70, n78	
CA_n41-n71-n77	n41, n71, n77	
CA_n41-n71-n78	n41, n71, n78	
CA_n48-n66-n70	n48, n66, n70	
CA_n48-n66-n71	n48, n66, n71	
CA_n48-n66-n77	n48, n66, n77	
CA_n48-n70-n71	n48, n70, n71	
CA_n66-n70-n71	n66, n70, n71	
CA_n66-n71-n77	n66, n71, n77	
CA_n66-n71-n78	n66, n71, n78	

NOTE 1: The frequency range below 2506 MHz for Band n41 is not used in this band combination.
NOTE 2: Applicable for frequency range above 4800 MHz for Band n79 in this band combination.
NOTE 3: Applicable for UE supporting inter-band carrier aggregation with mandatory simultaneous Rx/Tx capability
NOTE 4: Applicable when dynamic Tx switching is conducted. The DL interruption requirement is specified in clause 8.2.2.2.10 of 38.133 [13].

5.2A.2.3 Inter-band CA (four bands)

Table 5.2A.2.3-1: Inter-band CA operating bands involving FR1 (four bands)

NR CA Band	NR Band (Table 5.2-1)
CA_n1-n3-n5-n7	n1, n3, n5, n7
CA_n1-n3-n5-n78	n1, n3, n5, n78
CA_n1-n3-n7-n28	n1, n3, n7, n28
CA_n1-n3-n7-n78	n1, n3, n7, n78

	CA_n1-n3-n8-n77	n1, n3, n8, n77	
	CA_n1-n3-n8-n78	n1, n3, n8, n78	
	CA_n1-n3-n18-n28	n1, n3, n18, n28	
	CA_n1-n3-n18-n41	n1, n3, n18, n41	
	CA_n1-n3-n18-n77	n1, n3, n18, n77	
	CA_n1-n3-n28-n41	n1, n3, n28, n41	
	CA_n1-n3-n28-n77[1]	n1, n3, n28, n77	
	CA_n1-n3-n28-n78	n1, n3, n28, n78	
	CA_n1-n3-n28-n79[1]	n1, n3, n28, n79	
	CA_n1-n3-n41-n77	n1, n3, n41, n77	
	CA_n1-n3-n77-n79	n1, n3, n77, n79	
	CA_n1-n5-n7-n78	n1, n5, n7, n78	
	CA_n1-n7-n8-n40	n1, n7, n8, n40	
	CA_n1-n7-n8-n78	n1, n7, n8, n78	
	CA_n1-n7-n28-n78	n1, n7, n28, n78	
	CA_n1-n7-n40-n78	n1, n7, n40, n78	
	CA_n1-n8-n40-n78	n1, n8, n40, n78	
	CA_n1-n8-n78-n79	n1, n8, n78, n79	
	CA_n1-n18-n28-n41	n1, n18, n28, n41	
	CA_n1-n18-n28-n77	n1, n18, n28, n77	
	CA_n1-n18-n41-n77	n1, n18, n41, n77	
	CA_n1-n28-n40-n78	n1, n28, n40, n78	
	CA_n1-n28-n41-n77	n1, n28, n41, n77	
	CA_n1-n28-n77-n79	n1, n28, n77, n79	
	CA_n2-n5-n30-n66	n2, n5, n30, n66	
	CA_n2-n5-n30-n77	n2, n5, n30, n77	
	CA_n2-n5-n48-n66	n2, n5, n48, n66	
	CA_n2-n5-n48-n77	n2, n5, n48, n77	
	CA_n2-n5-n66-n77	n2, n5, n66, n77	
	CA_n2-n12-n30-n66	n2, n12, n30, n66	
	CA_n2-n12-n30-n77	n2, n12, n30, n77	
	CA_n2-n12-n66-n77	n2, n12, n66, n77	
	CA_n2-n14-n30-n66	n2, n14, n30, n66	
	CA_n2-n14-n30-n77	n2, n14, n30, n77	
	CA_n2-n14-n66-n77	n2, n14, n66, n77	
	CA_n2-n29-n30-n66	n2, n29, n30, n66	
	CA_n2-n29-n30-n77	n2, n29, n30, n77	
	CA_n2-n29-n66-n77	n2, n29, n66, n77	
	CA_n2-n48-n66-n77	n2, n48, n66, n77	
	CA_n2-n66-n71-n78	n2, n66, n71, n78	
	CA_n3-n5-n7-n78	n3, n5, n7, n78	
	CA_n3-n7-n28-n78	n3, n7, n28, n78	
	CA_n3-n18-n28-n41	n3, n18, n28, n41	
	CA_n3-n18-n28-n77	n3, n18, n28, n77	
	CA_n3-n18-n41-n77	n3, n18, n41, n77	
	CA_n3-n28-n41-n77	n3, n28, n41, n77	
	CA_n3-n28-n77-n79	n3, n28, n77, n79	
	CA_n3-n28-n41-n78	n3, n28, n41, n78	
	CA_n5-n25-n66-n77	n5, n25, n66, n77	
	CA_n5-n25-n66-n78	n5, n25, n66, n78	
	CA_n5-n30-n66-n77	n5, n30, n66, n77	
	CA_n5-n48-n66-n77	n5, n48, n66, n77	
	CA_n7-n8-n40-n78	n7, n8, n40, n78	
	CA_n7-n25-n66-n77	n7, n25, n66, n77	
	CA_n7-n25-n66-n78	n7, n25, n66, n78	
	CA_n12-n30-n66-n77	n12, n30, n66, n77	
	CA_n13-n25-n66-n77	n13, n25, n66, n77	
	CA_n14-n30-n66-n77	n14, n30, n66, n77	
	CA_n18-n28-n41-n77	n18, n28, n41, n77	
	CA_n25-n38-n66-n78	n25, n38, n66, n78	
	CA_n25-n41-n66-n71	n25, n41, n66, n71	
	CA_n25-n41-n66-n77	n25, n41, n66, n77	
	CA_n25-n41-n66-n78	n25, n41, n66, n78	
	CA_n25-n41-n71-n77	n25, n41, n71, n77	
	CA_n25-n41-n71-n78	n25, n41, n71, n78	

CA_n25-n66-n71-n77	n25, n66, n71, n77
CA_n25-n66-n71-n78	n25, n66, n71, n78
CA_n29-n30-n66-n77	n29, n30, n66, n77
CA_n41-n66-n70-n78	n41, n66, n70, n78
CA_n41-n66-n71-n77	n41, n66, n71, n77
CA_n41-n66-n71-n78	n41, n66, n71, n78
NOTE 1: Applicable for UE supporting inter-band carrier aggregation with mandatory simultaneous Rx/Tx capability.	

5.2A.2.4 Inter-band CA (five bands)

Table 5.2A.2.4-1: Inter-band CA operating bands involving FR1 (five bands)

NR CA Band	NR Band (Table 5.2-1)
CA_n1-n3-n5-n7-n78	n1, n3, n5, n7, n78
CA_n1-n3-n7-n28-n78	n1, n3, n7, n28, n78

DC的UE操作频段在TS 38.101-1[1]中的第5.2B节定义。

5.2B Operating bands for DC

The operating bands are specified in clause 5.5B for operation with NR dual connectivity configured, where all operating bands are within FR1.

If the mandatory simultaneous Rx/Tx capability applies for a band combination, the mandatory simultaneous Rx/Tx capability also applies for the band combination when the applicable band combination is a subset of a higher order band combination.

5.5B Configurations for DC

For an NR DC configuration specified in 5.5B.1-1, the bandwidth combination sets for the corresponding NR CA configuration in 5.5A.3,i.e.,dual uplink inter-band carrier aggregation with uplink assigned to two NR bands, are applicable to Dual Connectivity.

Table 5.5B.1-1: Inter-band NR DC configurations (two bands)

NR DC configuration	Uplink NR DC configuration
DC_n1A-n3A	DC_n1A-n3A
DC_n1A-n7A	DC_n1A-n7A
DC_n1A-n28A	DC_n1A-n28A
DC_n1A-n41A	DC_n1A-n41A
DC_n1A-n77A[2]	DC_n1A-n77A
DC_n1A-n78A	DC_n1A-n78A
DC_n1A-n79A[2]	DC_n1A-n79A
DC_n2A-n5A DC_n2A-n5B	DC_n2A-n5A
DC_n2A-n48A DC_n2A-n48B DC_n2A-n48C	DC_n2A-n48A
DC_n2A-n48(2A) DC_n2A-n48(A-C)	DC_n2A-n48A
DC_n2A-n66A DC_n2A-n66B	DC_n2A-n66A
DC_n2A-n77A DC_n2A-n77C	DC_n2A-n77A
DC_n2A-n77(2A) DC_n2(2A)-n77A DC_n2(2A)-n77C	DC_n2A-n77A
DC_n3A-n28A	DC_n3A-n28A
DC_n3A-n41A	DC_n3A-n41A
DC_n3A-n77A[2]	DC_n3A-n77A
DC_n3A-n77(2A)[2]	DC_n3A-n77A
DC_n3A-n78A[2]	DC_n3A-n78A
DC_n3A-n79A	DC_n3A-n79A
DC_n5A-n48A DC_n5A-n48B DC_n5A-n48C	DC_n5A-n48A
DC_n5A-n48(2A)	DC_n5A-n48A
DC_n5A-n66A DC_n5B-n66A	DC_n5A-n66A
DC_n5A-n66(2A) DC_n5B-n66(2A)	DC_n5A-n66A
DC_n5A-n77A DC_n5A-n77C	DC_n5A-n77A
DC_n5A-n77(2A) DC_n5(2A)-n77A DC_n5(2A)-n77C	DC_n5A-n77A
DC_n7A-n46A DC_n7A-n46C DC_n7A-n46D	DC_n7A-n46A
DC_n7A-n78A	DC_n7A-n78A
DC_n12A-n77A	DC_n12A-n77A
DC_n12A-n77(2A)	DC_n12A-n77A

	DC_n28A-n41A	DC_n28A-n41A	
	DC_n28A-n46A DC_n28A-n46C DC_n28A-n46D	DC_n28A-n46A	
	DC_n28A-n77A[2]	DC_n28A-n77A	
	DC_n28A-n77(2A)	DC_n28A-n77A	
	DC_n28A-n78A[2]	DC_n28A-n78A	
	DC_n28A-n79A	DC_n28A-n79A	
	DC_n41A-n77A	DC_n41A-n77A	
	DC_n41A-n78A	DC_n41A-n78A	
	DC_n46A-n48A DC_n46A-n48B DC_n46A-n48C DC_n46B-n48A DC_n46B-n48B DC_n46B-n48C DC_n46C-n48A DC_n46C-n48B DC_n46C-n48C DC_n46D-n48A DC_n46D-n48B DC_n46D-n48C DC_n46N-n48A DC_n46N-n48B DC_n46N-n48C	DC_n46A-n48A DC_n46A-n48B	
	DC_n46A-n78A DC_n46C-n78A DC_n46D-n78A	DC_n46A-n78A	
	DC_n48A-n66A DC_n48B-n66A DC_n48C-n66A	DC_n48A-n66A	
	DC_n48A-n66(2A) DC_n48B-n66(2A) DC_n48(2A)-n66A DC_n48(2A)-n66(2A) DC_n48(A-C)-n66A	DC_n48A-n66A	
	DC_n48A-n70A DC_n48B-n70A	DC_n48A-n70A	
	DC_n48(2A)-n70A	DC_n48A-n70A	
	DC_n48A-n71A DC_n48B-n71A DC_n48C-n71A	DC_n48A-n71A	
	DC_n48A-n71(2A) DC_n48(2A)-n71A DC_n48(2A)-n71(2A) DC_n48(3A)-n71A DC_n48(4A)-n71A DC_n48B-n71(2A)	DC_n48A-n71A	
	DC_n48A-n96A DC_n48B-n96A DC_n48C-n96A DC_n48A-n96B DC_n48B-n96B DC_n48C-n96B DC_n48A-n96C DC_n48B-n96C DC_n48C-n96C DC_n48A-n96D DC_n48B-n96D DC_n48C-n96D DC_n48A-n96E DC_n48B-n96E DC_n48C-n96E	DC_n48A-n96A DC_n48B-n96A	
	DC_n66A-n77A DC_n66A-n77C DC_n66B-n77A DC_n66B-n77C	DC_n66A-n77A	

DC_n66A-n77(2A)	DC_n66A-n77A
DC_n66(2A)-n77(2A) DC_n66(2A)-n77C	DC_n66A-n77A
DC_n71A-n77A	DC_n71A-n77A
DC_n71A-n77(2A)	DC_n71A-n77A
DC_n77A-n79A[1]	DC_n77A-n79A
DC_n77(2A)-n79A[1]	DC_n77A-n79A
NOTE 1: The minimum requirements apply only when there is non-simultaneous Rx/Tx operation between n77-n79 NR carriers. This restriction applies also for these carriers when applicable NR DC configuration is part of a higher order configuration. NOTE 2: Applicable for UE supporting inter-band NR DC with mandatory simultaneous Rx/Tx capability.	

Table 5.5B.1-2: Inter-band NR DC configurations (three bands)

NR DC configuration	Uplink NR DC configuration
DC_n1A-n3A-n28A	DC_n1A-n3A DC_n1A-n28A DC_n3A-n28A
DC_n1A-n3A-n41A	DC_n1A-n3A DC_n1A-n41A DC_n3A-n41A
DC_n1A-n3A-n77A	DC_n1A-n3A DC_n3A-n77A DC_n1A-n77A
DC_n1A-n3A-n78A	DC_n1A-n3A DC_n3A-n78A DC_n1A-n78A
DC_n1A-n3A-n79A	DC_n1A-n3A DC_n3A-n79A DC_n1A-n79A
DC_n1A-n7A-n78A	DC_n1A-n7A DC_n7A-n78A DC_n1A-n78A
DC_n1A-n28A-n41A	DC_n1A-n28A DC_n1A-n41A DC_n28A-n41A
DC_n1A-n28A-n77A	DC_n1A-n28A DC_n1A-n77A DC_n28A-n77A
DC_n1A-n28A-n78A	DC_n1A-n28A DC_n1A-n78A DC_n28A-n78A
DC_n1A-n28A-n79A	DC_n1A-n28A DC_n1A-n79A DC_n28A-n79A
DC_n1A-n41A-n77A	DC_n1A-n41A DC_n1A-n77A DC_n41A-n77A
DC_n1A-n77A-n79A	DC_n1A-n77A DC_n1A-n79A DC_n77A-n79A
DC_n3A-n28A-n41A	DC_n3A-n28A DC_n3A-n41A DC_n28A-n41A
DC_n3A-n28A-n77A	DC_n3A-n28A DC_n3A-n77A DC_n28A-n77A
DC_n3A-n28A-n77(2A)	DC_n3A-n28A DC_n3A-n77A DC_n28A-n77A
DC_n3A-n28A-n78A	DC_n3A-n28A DC_n3A-n78A

	DC_n28A-n78A
DC_n3A-n28A-n79A	DC_n3A-n28A DC_n3A-n79A DC_n28A-n79A
DC_n3A-n41A-n77A	DC_n3A-n41A DC_n3A-n77A DC_n41A-n77A
DC_n28A-n41A-n77A	DC_n28A-n41A DC_n28A-n77A DC_n41A-n77A
DC_n3A-n77A-n79A	DC_n3A-n77A DC_n3A-n79A DC_n77A-n79A
DC_n3A-n77(2A)-n79A	DC_n3A-n77A DC_n3A-n79A DC_n77A-n79A
DC_n7A-n46A-n78A	DC_n7A-n46A DC_n7A-n78A DC_n46A-n78A
DC_n7A-n46C-n78A	DC_n7A-n46A DC_n7A-n78A DC_n46A-n78A
DC_n7A-n46D-n78A	DC_n7A-n46A DC_n7A-n78A DC_n46A-n78A
DC_n28A-n46A-n78A DC_n28A-n46C-n78A DC_n28A-n46D-n78A	DC_n28A-n46A DC_n28A-n78A DC_n46A-n78A
DC_n28A-n77A-n79A	DC_n28A-n77A DC_n28A-n79A DC_n77A-n79A
DC_n28A-n77(2A)-n79A	DC_n28A-n77A DC_n28A-n79A DC_n77A-n79A

Table 5.5B.1-3: Inter-band NR DC configurations (four bands)

NR DC configuration	Uplink NR DC configuration
DC_n1A-n3A-n28A-n77A	DC_n1A-n3A DC_n1A-n28A DC_n1A-n77A DC_n3A-n28A DC_n3A-n77A DC_n28A-n77A
DC_n1A-n3A-n28A-n79A	DC_n1A-n3A DC_n1A-n28A DC_n1A-n79A DC_n3A-n28A DC_n3A-n79A DC_n28A-n79A
DC_n1A-n3A-n77A-n79A	DC_n1A-n3A DC_n1A-n77A DC_n1A-n79A DC_n3A-n77A DC_n3A-n79A DC_n77A-n79A
DC_n1A-n28A-n77A-n79A	DC_n1A-n28A DC_n1A-n77A DC_n1A-n79A DC_n28A-n77A DC_n28A-n79A DC_n77A-n79A
DC_n3A-n28A-n41A-n77A	DC_n3A-n28A DC_n3A-n41A DC_n3A-n77A

		DC_n28A-n41A DC_n28A-n77A DC_n41A-n77A	
	DC_n3A-n28A-n77A-n79A	DC_n3A-n28A DC_n3A-n77A DC_n3A-n79A DC_n28A-n77A DC_n28A-n79A DC_n77A-n79A	
	DC_n3A-n28A-n77(2A)-n79A	DC_n3A-n28A DC_n3A-n77A DC_n3A-n79A DC_n28A-n77A DC_n28A-n79A DC_n77A-n79A	

用于SUL的UE操作频段组合在TS 38.101-1 [1]中的第5.2C节定义。

5.2C Operating band combination for SUL

NR operation is designed to operate in the operating band combination defined in Table 5.2C-1, Table 5.2C-2, Table 5.2C-3 and Table 5.2C-4, where all operating bands are within FR1.

If the mandatory simultaneous Rx/Tx capability applies for a band combination, the mandatory simultaneous Rx/Tx capability also applies for the band combination when the applicable band combination is a subset of a higher order band combination.

Table 5.2C-1: Operating band combination for SUL in FR1

NR Band combination for SUL	NR Band (Table 5.2-1)
SUL_n24-n99[2]	n24, n99
SUL_n41-n80[2]	n41, n80
SUL_n41-n81[2]	n41, n81
SUL_n41-n83[2]	n41, n83
SUL_n41-n95[2]	n41, n95
SUL_n41-n97[2]	n41, n97
SUL_n41-n98[2]	n41, n98
SUL_n41-n99[2]	n41, n99
SUL_n48-n99[2]	n48, n99
SUL_n77-n80[2]	n77, n80
SUL_n77-n84[2]	n77, n84
SUL_n77-n99[2]	n77, n99
SUL_n78-n80[2]	n78, n80
SUL_n78-n81[2]	n78, n81
SUL_n78-n82[2]	n78, n82
SUL_n78-n83[2]	n78, n83
SUL_n78-n84[2]	n78, n84
SUL_n78-n86[2]	n78, n86
SUL_n79-n80[2]	n79, n80
SUL_n79-n81[2]	n79, n81
SUL_n79-n83[2]	n79, n83
SUL_n79-n84[2]	n79, n84
SUL_n79-n95[2]	n79, n95
SUL_n79-n97[2]	n79, n97
SUL_n79-n98[2]	n79, n98
NOTE 1: If a UE is configured with both NR UL and NR SUL carriers in a cell, the switching time	

between NR UL carrier and NR SUL carrier is 0 us. NOTE 2: For UE supporting SUL band combination simultaneous Rx/Tx capability is mandatory.

Table 5.2C-2: Operating SUL band combination with intra-band non-contiguous CA in FR1

NR Band combination for SUL	NR Band (Table 5.2-1)
SUL_n41(*)-n99[2]	n41, n99
SUL_n48(*)-n99[2]	n48, n99
SUL_n77(*)-n99[2]	n77, n99
SUL_n78(*)-n86[2]	n78, n86
NOTE 1: If a UE is configured with both NR UL and NR SUL carriers in a cell, the switching time between NR UL carrier and NR SUL carrier is 0 us. NOTE 2: For UE supporting SUL band combination simultaneous Rx/Tx capability is mandatory. NOTE 3: The notation CA_nX(*) in this table indicates intra-band non-contiguous CA for band nX. The configurations for each band are in Table 5.5C-2.	

Table 5.2C-3: Operating SUL band combination with intra-band contiguous CA in FR1

NR Band combination for SUL	NR Band (Table 5.2-1)
SUL_n41-n80	n41, n80
SUL_n41-n83	n41, n83
SUL_n41-n95	n41, n95
SUL_n78-n80	n78, n80
SUL_n78-n84	n78, n84
SUL_n79-n80	n79, n80
SUL_n79-n83	n79, n83
SUL_n79-n95	n79, n95
NOTE 1: If a UE is configured with both NR UL and NR SUL carriers in a cell, the switching time between NR UL carrier and NR SUL carrier is 0 us. NOTE 2: For UE supporting SUL band combination simultaneous Rx/Tx capability is mandatory.	

Table 5.2C-4: Operating SUL band combination with inter-band CA in FR1

NR Band combination for SUL	NR Band (Table 5.2-1)
CA_n1_SUL_n78-n80	n1, n78, n80
CA_n1_SUL_n78-n84	n1, n78, n84
CA_n3_SUL_n41-n80	n3, n41, n80
CA_n3_SUL_n78-n80	n3, n78, n80
CA_n3_SUL_n79-n80	n3, n79, n80
CA_n28_SUL_n41-n83	n28, n41, n83
CA_n28_SUL_n79-n83	n28, n79, n83
CA_n41_SUL_n79-n80	n41, n79, n80
CA_n41_SUL_n79-n83	n41, n79, n83
CA_n41_SUL_n79-n97	n41, n79, n97
CA_n79_SUL_n41-n80	n41, n79, n80
CA_n79_SUL_n41-n83	n41, n79, n83
CA_n79_SUL_n41-n97	n41, n79, n97

CA_n28-n79_SUL_n41-n83	n28, n41, n79, n83	
CA_n28-n41_SUL_n79-n83	n28, n41, n79, n83	
NOTE 1: If a UE is configured with both NR UL and NR SUL carriers in a cell, the switching time between NR UL carrier and NR SUL carrier is 0 us. NOTE 2: For UE supporting SUL band combination simultaneous Rx/Tx capability is mandatory.		

UL MIMO的UE操作频段组合在TS 38.101-1 [1]中的第5.2D节定义。

5.2D Operating bands for UL MIMO

NR is designed to support UL MIMO where all of the operating bands are in FR1 defined in Table 5.2D-1.

Table 5.2D-1: NR operating bands for UL MIMO in FR1

NR operating band
n1
n2
n3
n7
n24
n25
n30[1]
n34
n38
n39
n40
n41
n46
n48
n66
n70
n71[2]
n77
n78
n79
n80
n84
n95
n96
n97
n98
n99
n102
NOTE 1: Uplink transmission is not allowed at this band for UE with external vehicle-mounted antennas. NOTE 2: UL MIMO is targeted for FWA form factor.

V2X的UE操作频段组合在TS 38.101-1 [1]中的第5.2E节定义。

5.2E Operating band for V2X

5.2E.1 V2X operating bands

NR V2X is designed to operate in the operating bands in FR1 defined in Table 5.2E.1-1.

Table 5.2E.1-1 V2X operating bands in FR1

V2X Operating Band	Sidelink (SL) Transmission operating band	Sidelink (SL) Reception operating band	Duplex Mode	Interface
	$F_{UL_low} – F_{UL_high}$	$F_{DL_low} – F_{DL_high}$		
n14[2]	788 MHz - 798 MHz	788 MHz - 798 MHz	HD	PC5
n38[1]	2 570 MHz - 2 620 MHz	2 570 MHz - 2 620 MHz	HD	PC5
n47	5 855 MHz - 5 925 MHz	5 855 MHz - 5 925 MHz	HD	PC5
n79	4 400 MHz - 5 000 MHz	4 400 MHz - 5 000 MHz	HD	PC5
Note 1: When this band is used for V2X SL service, the band is exclusively used for NR V2X in particular regions. Note 2: When this band is used for public safety service, the NR band is operated with both in-coverage scenarios and out-of-coverage scenarios.				

5.2E.2 V2X operating bands for con-current operation

NR V2X operation is designed to operate concurrent with NR uplink/downlink on the operating bands combinations listed in Table 5.2E.2-1 and Table 5.2E.2-2.

Table 5.2E.2-1 Inter-band con-current V2X operating bands

V2X con-current operating Band	NR or V2X Operating Band	Interface
V2X_n1-n47	n1	Uu
	n47	PC5
V2X_n5-n47	n5	Uu
	n47	PC5
V2X_n8-n47	n8	Uu
	n47	PC5
V2X_n39-n47	n39	Uu
	n47	PC5
V2X_n40-n47	n40	Uu
	n47	PC5
V2X_n41-n47	n41	Uu
	n47	PC5
V2X_n71-n47	n71	Uu
	n47	PC5
V2X_n78-n47	n78	Uu
	n47	PC5
V2X_n79-n47	n79	Uu
	n47	PC5

Table 5.2E.2-2 Intra-band con-current V2X operating bands

V2X con-current operating Band	NR or V2X Operating Band	Interface
V2X_n79-n79	n79	Uu
	n79	PC5

2.1.2 UE信道带宽

不同NR频段的UE信道带宽在TS 38.101-1 [1]中的第5.3节定义。

5.3 UE channel bandwidth

5.3.1 General

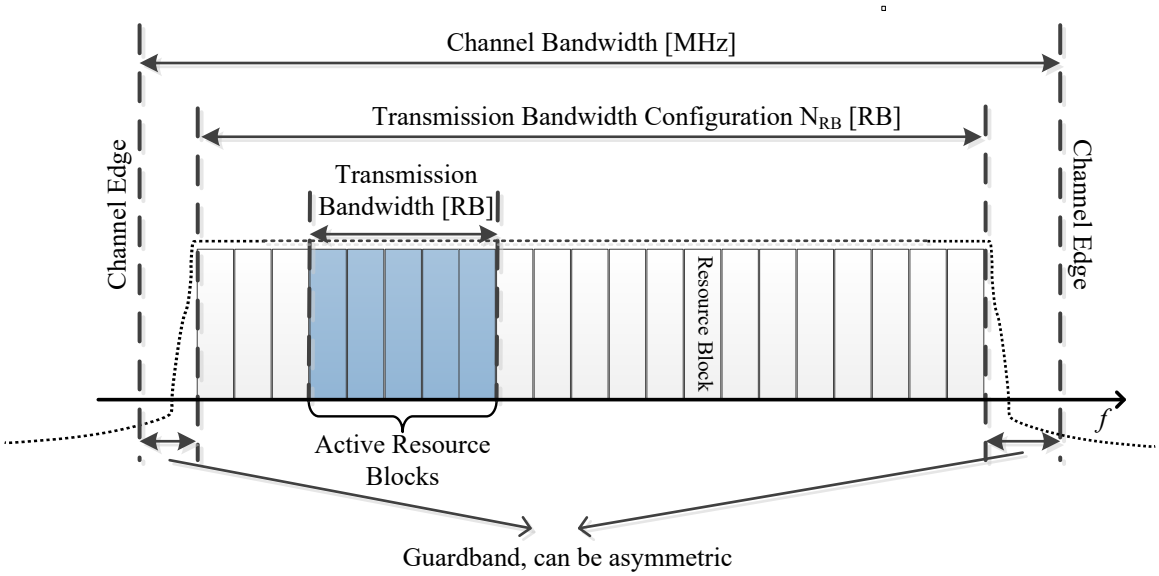
The UE channel bandwidth supports a single NR RF carrier in the uplink or downlink at the UE. From a BS perspective, different UE channel bandwidths may be supported within the same spectrum for transmitting to and receiving from UEs connected to the BS. Transmission of multiple carriers to the same UE (CA) or multiple carriers to different UEs within the BS channel bandwidth can be supported.

From a UE perspective, the UE is configured with one or more BWP / carriers, each with its own UE channel bandwidth. The UE does not need to be aware of the BS channel bandwidth or how the BS allocates bandwidth to different UEs.

The placement of the UE channel bandwidth for each UE carrier is flexible but can only be completely within the BS channel bandwidth.

The relationship between the channel bandwidth, the guardband and the maximum transmission bandwidth configuration is shown in Figure 5.3.1-1.

Figure 5.3.1-1: Definition of the channel bandwidth and the maximum transmission bandwidth configuration for one NR channel



5.3.2 Maximum transmission bandwidth configuration

The maximum transmission bandwidth configuration N_{RB} for each UE channel bandwidth and subcarrier spacing is specified in Table 5.3.2-1.

Table 5.3.2-1: Maximum transmission bandwidth configuration N_{RB}

SCS (kHz)	5 MHz	10 MHz	15 MHz	20 MHz	25 MHz	30 MHz	35 MHz	40 MHz	45 MHz	50 MHz	60 MHz	70 MHz	80 MHz	90 MHz	100 MHz
	N_{RB}	N_{RB}	N_{RB}	N_{RB}	N_{RB}	N_{RB}	N_{RB}	N_{RB}	N_{RB}	N_{RB}	N_{RB}	N_{RB}	N_{RB}	N_{RB}	N_{RB}
15	25	52	79	106	133	160	188	216	242	270	N/A	N/A	N/A	N/A	N/A
30	11	24	38	51	65	78	92	106	119	133	162	189	217	245	273
60	N/A	11	18	24	31	38	44	51	58	65	79	93	107	121	135

5.3.3 Minimum guardband and transmission bandwidth configuration

The minimum guardband for each UE channel bandwidth and SCS is specified in Table 5.3.3-1,

Table 5.3.3-1: Minimum guardband for each UE channel bandwidth and SCS (kHz)

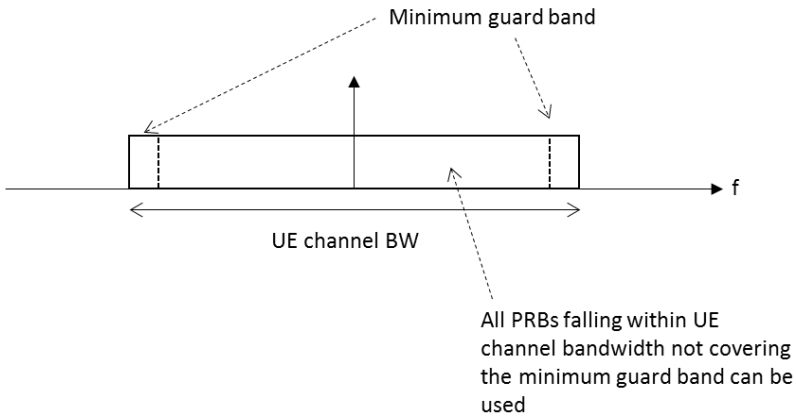
SCS (kHz)	5 MHz	10 MHz	15 MHz	20 MHz	25 MHz	30 MHz	35 MHz	40 MHz	45 MHz	50 MHz	60 MHz	70 MHz	80 MHz	90 MHz	100 MHz
15	242.5	312.5	382.5	452.5	522.5	592.5	572.5	552.5	712.5	692.5	N/A	N/A	N/A	N/A	N/A
30	505	665	645	805	785	945	925	905	1065	1045	825	965	925	885	845
60	N/A	1010	990	1330	1310	1290	1630	1610	1590	1570	1530	1490	1450	1410	1370

NOTE: The minimum guardbands have been calculated using the following equation: ($BW_{Channel}$ x 1000 (kHz) - N_{RB} x SCS x 12) / 2 - SCS/2, where N_{RB} are from Table 5.3.2-1.

Figure 5.3.3-1: Void

The number of RBs configured in any channel bandwidth shall ensure that the minimum guardband specified in this clause is met.

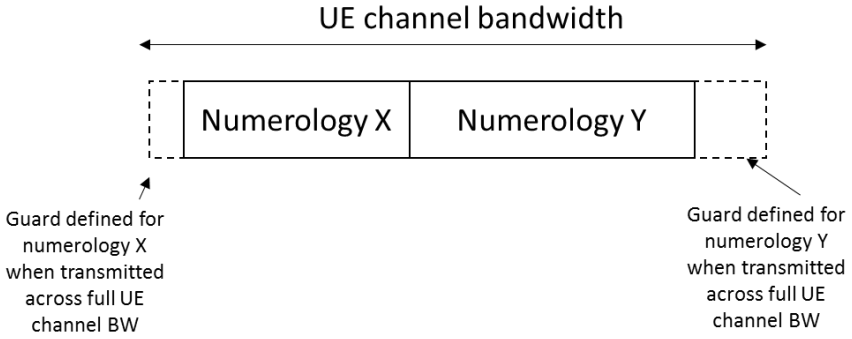
Figure 5.3.3-2: UE PRB utilization



In the case that multiple numerologies are multiplexed in the same symbol due to BS transmission of SSB, the minimum guardband on each side of the carrier is the guardband applied at the configured channel bandwidth for the numerology that is received immediately adjacent to the guard.

If multiple numerologies are multiplexed in the same symbol and the UE channel bandwidth is >50 MHz, the minimum guardband applied adjacent to 15 kHz SCS shall be the same as the minimum guardband defined for 30 kHz SCS for the same UE channel bandwidth.

Figure 5.3.3-3 Guard band definition when transmitting multiple numerologies



NOTE: Figure 5.3.3-3 is not intended to imply the size of any guard between the two numerologies. Inter-numerology guard band within the carrier is implementation dependent.

For a UE supporting wideband operation, the nominal intra-cell guard bands and the corresponding sizes of the RB sets separated by the said guard bands are as specified in Table 5.3.3-2 for each UE channel bandwidth and sub-carrier spacing for the downlink and uplink. The nominal intra-cell guard bands in Table 5.3.3-2 are applicable when the respective IE *intraCellGuardBandsUL-List* and *intraCellGuardBandsDL-List* [7] for the uplink and downlink are not provided, as specified in [10] clause 7.

Table 5.3.3-2: Nominal intra-cell guard bands for wideband operation

SCS (kHz)	40 MHz	60 MHz	80 MHz	100 MHz
15	105-6-105 (216)	N/A	N/A	N/A
30	50-6-50 (106)	50-6-50-6-50 (162)	50-6-50-5-50-6-50 (217)	50-6-50-6-49-6-50-6-50 (273)
60	23-5-23 (51)	23-5-23-5-23 (79)	23-5-23-5-23-5-23 (107)	23-5-23-5-23-5-23-5-23 (135)
NOTE 1: The intra-cell guard band is denoted TBW_0-GB_0-…-$GB_{N_RBset-2}$-$TBW_{N_RBset-1}$ for N_RBset > 1 number of RB-sets with TBW_r the maximum transmission bandwidth (PRB) of RB-set *r* and GB_r the guard band (PRB) above the upper edge of RB-set *r*. The RB-set 0 is starting at the first common resource block (CRB) of the carrier as indicated by *offsetToCarrier*. The total transmission bandwidth configuration (size of resource grid) including guard bands is given in between parentheses.				

For a UE that supports shared spectrum channel access, there are no uplink or downlink intra-cell guard bands for operation with 10 MHz and 20 MHz channel bandwidths; the maximum transmission bandwidth configurations for these channel bandwidths are in accordance with clause 5.3.2.

For each UE channel bandwidth and sub-carrier spacing given by Table 5.3.3-2, the maximum transmission bandwidth configuration of the carrier including intra-cell guard bands, if configured for the uplink and downlink by the respective IE *intraCellGuardBandsUL-List* and *intraCellGuardBandsDL-List* [7], and corresponding RB-set(s) shall be in accordance with clause 5.3.2 with a minimum inter-cell guard band of the UE channel bandwidth as specified in Table 5.3.3-1 for the uplink and downlink. Minimum requirements specified for wideband operation in Clause 6 and Clause 7 also apply for intra-cell guard bands larger than the nominal sizes in Table 5.3.3-2 as listed in Table 5.3.3-3 for each sub-carrier spacing; each guard band in order of CRB index must be larger than or equal to the corresponding nominal guard band specified in Table 5.3.3-2 for each channel bandwidth.

Table 5.3.3-3: Applicable intra-cell guard bands for wideband operation

Parameter	Unit	SCS	
		15 kHz	30 kHz
Intra-cell guard band (size)	PRB	6,7	5,6,7
Transmission bandwidth (size) of RB-set	PRB	104,105	49,50,51

If the UE is configured with zero width intra-cell guard bands for the uplink and downlink by the IE *intraCellGuardBandsUL-List* and *intraCellGuardBandsDL-List* [7] on a carrier greater than 20 MHz, the maximum transmission bandwidth configuration for the uplink and downlink shall be in accordance with clause 5.3.2 with a minimum inter-cell guard band of the UE channel bandwidth as specified in Table 5.3.3-1.

5.3.4 RB alignment

For each numerology, its common resource blocks are specified in Clause 4.4.4.3 in TS 38.211 [6], and the starting point of its transmission bandwidth configuration on the common resource block grid for a given channel bandwidth is indicated by an offset to "Reference point A" in the unit of the numerology. The *UE transmission bandwidth configuration* is indicated by the higher layer parameter *carrierBandwidth* [7] and will fulfil the minimum UE guardband requirement specified in Clause 5.3.3.

5.3.5 UE channel bandwidth per operating band

The requirements in this specification apply to the combination of channel bandwidths, SCS and operating bands shown in Table 5.3.5-1. The transmission bandwidth configuration in Table 5.3.2-1 shall be supported for each of the specified channel bandwidths. The channel bandwidths are specified for both the TX and RX path.

Table 5.3.5-1 Channel bandwidths for each NR band

NR Band	SCS (kHz)	UE Channel bandwidth (MHz)														
		5	10	15	20	25	30	35	40	45	50	60	70	80	90	100
n1	15	5	10	15	20	25	30		40	45[4]	50					
	30		10	15	20	25	30		40	45[4]	50					
	60		10	15	20	25	30		40	45[4]	50					
n2	15	5	10	15	20	25	30	35[4]	40							
	30		10	15	20	25	30	35[4]	40							
	60		10	15	20	25	30	35[4]	40							
n3	15	5	10	15	20	25	30	35[4]	40	45[4]	50					
	30		10	15	20	25	30	35[4]	40	45[4]	50					
	60		10	15	20	25	30	35[4]	40	45[4]	50					
n5	15	5	10	15	20	25[3]										
	30		10	15	20	25[3]										
	60															
n7	15	5	10	15	20	25	30	35[4]	40		50					
	30		10	15	20	25	30	35[4]	40		50					
	60		10	15	20	25	30	35[4]	40		50					
n8	15	5	10	15	20			35[3,4]								
	30		10	15	20			35[3,4]								
	60															
n12	15	5	10	15												
	30		10	15												
	60															
n13	15	5	10													
	30		10													
	60															
n14[10]	15	5	10													
	30		10													
	60															
n18	15	5	10	15												
	30		10	15												
	60															
n20	15	5	10	15	20											
	30		10	15	20											
	60															
n24	15	5	10													
	30		10													
	60		10													
n25	15	5	10	15	20	25	30	35[4]	40	45[3,4]						
	30		10	15	20	25	30	35[4]	40	45[3,4]						
	60		10	15	20	25	30	35[4]	40	45[3,4]						
n26	15	5	10	15	20	25[3]	30[3]									

	30		10	15	20	25[3]	30[3]									
n28	15	5	10	15	20[7]	25[7]	30[7]									
	30		10	15	20[7]	25[7]	30[7]									
	60															
n29	15	5	10													
	30		10													
	60															
n30	15	5	10													
	30		10													
	60															
n34	15	5	10	15												
	30		10	15												
	60		10	15												
n38[10]	15	5	10	15	20	25	30		40							
	30		10	15	20	25	30		40							
	60		10	15	20	25	30		40							
n39	15	5	10	15	20	25	30		40							
	30		10	15	20	25	30		40							
	60		10	15	20	25	30		40							
n40	15	5[5]	10	15	20	25	30		40		50					
	30		10	15	20	25	30		40		50	60	70	80	90	100
	60		10	15	20	25	30		40		50	60	70	80	90	100
n41	15		10	15	20	25[4]	30	35[4]	40	45[4]	50					
	30		10	15	20	25[4]	30	35[4]	40	45[4]	50	60	70	80	90	100
	60		10	15	20	25[4]	30	35[4]	40	45[4]	50	60	70	80	90	100
n46	15		10[5]		20				40							
	30		10[5]		20				40			60		80		100[4]
	60		10[5]		20				40			60		80		100[4]
n47[10]	15		10		20		30		40							
	30		10		20		30		40							
	60		10		20		30		40							
n48	15	5[5]	10	15	20		30		40		50[6]					
	30		10	15	20		30		40		50[6]	60[6]	70[6]	80[6]	90[6]	100[6]
	60		10	15	20		30		40		50[6]	60[6]	70[6]	80[6]	90[6]	100[6]
n50	15	5[5]	10	15	20		30		40		50					
	30		10	15	20		30		40		50	60		80[3]		
	60		10	15	20		30		40		50	60		80[3]		
n51	15	5														
	30															
	60															
n53	15	5	10													
	30		10													
	60		10													
n65	15	5	10	15	20						50					
	30		10	15	20						50					
	60		10	15	20						50					
n66	15	5	10	15	20	25	30	35[4]	40	45[4]						
	30		10	15	20	25	30	35[4]	40	45[4]						
	60		10	15	20	25	30	35[4]	40	45[4]						
n67	15	5	10	15	20											
	30		10	15	20											
	60															
n70	15	5	10	15	20[3]	25[3]										
	30		10	15	20[3]	25[3]										
	60		10	15	20[3]	25[3]										
n71	15	5	10	15	20	25[3]	30[3]	35[3,4]								
	30		10	15	20	25[3]	30[3]	35[3,4]								
	60															
n74	15	5	10	15	20											
	30		10	15	20											
	60		10	15	20											
n75	15	5	10	15	20	25	30		40		50					
	30		10	15	20	25	30		40		50					
	60		10	15	20	25	30		40		50					
n76	15	5														

	30															
	60															
n77	15		10	15	20	25	30		40		50					
	30		10	15	20	25	30		40		50	60	70	80	90	100
	60		10	15	20	25	30		40		50	60	70	80	90	100
n78	15		10	15	20	25	30		40		50					
	30		10	15	20	25	30		40		50	60	70	80	90	100
	60		10	15	20	25	30		40		50	60	70	80	90	100
n79[10]	15		10		20		30		40		50					
	30		10		20		30		40		50	60	70[4]	80	90	100
	60		10		20		30		40		50	60	70[4]	80	90	100
n80	15	5	10	15	20	25	30		40							
	30		10	15	20	25	30		40							
	60		10	15	20	25	30		40							
n81	15	5	10	15	20											
	30		10	15	20											
	60															
n82	15	5	10	15	20											
	30		10	15	20											
	60															
n83	15	5	10	15	20[7]	25[7]	30[7]									
	30		10	15	20[7]	25[7]	30[7]									
	60															
n84	15	5	10	15	20	25	30		40		50					
	30		10	15	20	25	30		40		50					
	60		10	15	20	25	30		40		50					
n85	15	5	10	15												
	30		10	15												
	60															
n86	15	5	10	15	20				40							
	30		10	15	20				40							
	60		10	15	20				40							
n89	15	5	10	15	20											
	30		10	15	20											
	60										50					
n90	15	5[4]	10	15	20	25[4]	30	35[4]	40	45[4]	50					
	30		10	15	20	25[4]	30	35[4]	40	45[4]	50	60	70	80	90	100
	60		10	15	20	25[4]	30	35[4]	40	45[4]	50	60	70	80	90	100
n91	15	5	10[8]													
	30															
	60															
n92	15	5	10	15	20											
	30		10	15	20											
	60															
n93	15	5	10[8]													
	30															
	60															
n94	15	5	10	15	20											
	30		10	15	20											
	60															
n95	15	5	10	15												
	30		10	15												
	60		10	15												
n96	15				20				40							
	30				20				40			60		80		100[4]
	60				20				40			60		80		100[4]
n97	15	5	10	15	20	25	30		40		50					
	30		10	15	20	25	30		40		50	60	70	80	90	100
	60		10	15	20	25	30		40		50	60	70	80	90	100
n98	15	5	10	15	20	25	30		40							
	30		10	15	20	25	30		40							
	60		10	15	20	25	30		40							
n99	15	5	10													
	30		10													
	60		10													

n100	15	5														
	30															
	60															
n101	15	5	10													
	30		10													
	60															
n102	15				20				40							
	30				20				40			60		80		100[4]
	60				20				40			60		80		100[4]
n104	15				20		30		40		50					
	30				20		30		40		50	60	70	80	90	100
	60				20		30		40		50	60	70	80	90	100

NOTE 1: Void.
NOTE 2: Void.
NOTE 3: This UE channel bandwidth is applicable only to downlink.
NOTE 4: This UE channel bandwidth is optional in this release of the specification.
NOTE 5: For this bandwidth, the minimum requirements are restricted to operation when carrier is configured as an SCell part of DC or CA configuration.
NOTE 6: For this bandwidth, the minimum requirements are restricted to operation when carrier is configured as a downlink SCell part of CA configuration.
NOTE 7: For the 20 MHz bandwidth, the minimum requirements are specified for NR UL carrier frequencies confined to either 713-723 MHz or 728-738 MHz. For the 25 MHz bandwidth, the minimum requirements are specified for NR UL carrier frequencies confined to either 715.5-720.5 MHz or 730.5-735.5 MHz. For the 30 MHz bandwidth, the minimum requirements are specified for NR UL transmission bandwidth configuration confined to either 703-733 or 718-748 MHz.
NOTE 8: This UE channel bandwidth is applicable only to uplink.
NOTE 9: Void.
NOTE 10: For this band, UE channel bandwidths which are applicable to sidelink operation are specified in Table 5.3E.1-1.

5.3.6 Asymmetric channel bandwidths

The UE channel bandwidth can be asymmetric in downlink and uplink. In asymmetric channel bandwidth operation, the narrower carrier shall be confined within the frequency range of the wider channel bandwidth.

In FDD, the confinement is defined as a maximum deviation to the Tx-Rx carrier center frequency separation (defined in table 5.4.4-1) as following:

$$\Delta F_{TX\text{-}RX} = | (BW_{DL} - BW_{UL})/2 |$$

The operating bands and supported asymmetric channel bandwidth combinations are defined in Table 5.3.6-1.

Table 5.3.6-1: FDD asymmetric UL and DL channel bandwidth combinations

NR Band	Channel bandwidths for UL (MHz)	Channel bandwidths for DL (MHz)	Asymmetric channel bandwidth combination set
n5	20	25	0
n8	20	35	0
n24	10	5	0
n25	40	45	0
n26	20	25, 30	0
n66	5, 10	20, 40	0
	20	40	
	5, 10	20, 25, 30, 40	1
	20, 25, 30	40	
n70	5, 10	15	0
	5, 10, 15	20, 25	
n71	5	10	0
	10	15	
	15	20	
	5	10	1
	10	15	
	15	20	

	20	35	
	20	25, 30, 35	2
n91[1]	10	5	0
n92[1]	5	10, 15, 20	0
	10	15, 20	
n93[1]	10	5	0
n94[1]	5	10, 15, 20	0
	10	15, 20	
NOTE 1: The assignment of the paired UL and DL channels are subject to a TX-RX separation as specified in clause 5.4.4. NOTE 2: As indicated in TS38.306 [15], it is mandatory for UEs to support asymmetric channel BCS0 if there is an asymmetric BCS0 defined for the band.			

In TDD, the operating bands and supported asymmetric channel bandwidth combinations are defined in Table 5.3.6-2.

Table 5.3.6-2: TDD asymmetric UL and DL channel bandwidth combinations

NR Band	Channel bandwidths for UL (MHz)	Channel bandwidths for DL (MHz)
n50	60	80
NOTE 1: Both centre frequency and BWP-ID shall match between DL and UL carriers as defined in TS 38.331 [7] cl. 6.3.2 and TS 38.213 [8] clause 12. NOTE 2: In a case a UE is configured with a full width of BWP within both UL/ DL channels, the centre frequency of UL/ DL channels shall be same. NOTE 3: A position of Point A is common between UL and DL carriers as defined in TS 38.331 [7] cl. 6.3.2.		

CA的UE信道带宽在TS 38.101-1 [1]中的第5.3A节定义。

5.3A UE channel bandwidth for CA

5.3A.1 General

Figure 5.3A.1-1: Void

Figure 5.3A.1-2: Void

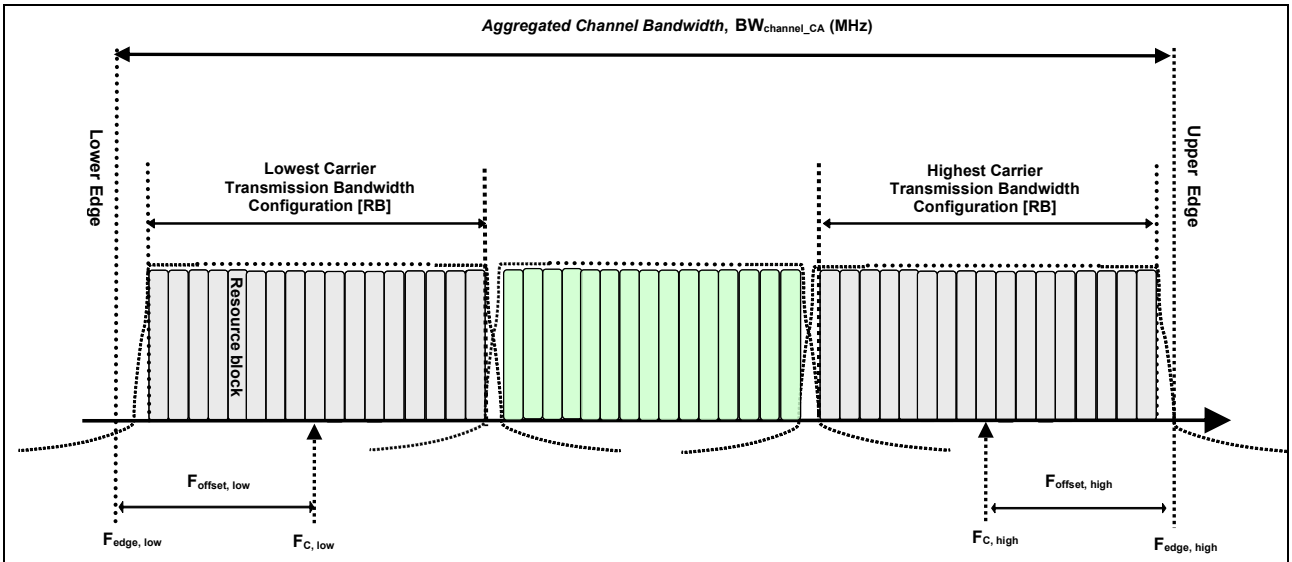
5.3A.2 Maximum transmission bandwidth configuration for CA

For carrier aggregation, the maximum transmission bandwidth configuration is defined per component carrier and the requirement is specified in clause 5.3.2.

5.3A.3 Minimum guardband and transmission bandwidth configuration for CA

For intra-band contiguous carrier aggregation, *Aggregated Channel Bandwidth* and *Guard Bands* are defined as follows, see Figure 5.3A.3-1.

Figure 5.3A.3-1: Definition of *Aggregated Channel Bandwidth* for intra-band carrier aggregation



The *aggregated channel bandwidth,* $BW_{Channel_CA}$, is defined as

$$BW_{Channel_CA} = F_{edge,high} - F_{edge,low} \text{ (MHz)}.$$

The lower bandwidth edge $F_{edge,\ low}$ and the upper bandwidth edge $F_{edge,high}$ of the aggregated channel bandwidth are used as frequency reference points for transmitter and receiver requirements and are defined by

$$F_{edge,low} = F_{C,low} - F_{offset,low}$$

$$F_{edge,high} = F_{C,high} + F_{offset,high}$$

The lower and upper frequency offsets depend on the transmission bandwidth configurations of the lowest and highest assigned edge component carrier and are defined as

$$F_{offset,low} = (N_{RB,low}*12 + 1)*SCS_{low}/2 + BW_{GB} \text{ (MHz)}$$

$$F_{offset,high} = (N_{RB,high}*12 - 1)*SCS_{high}/2 + BW_{GB} \text{ (MHz)}$$

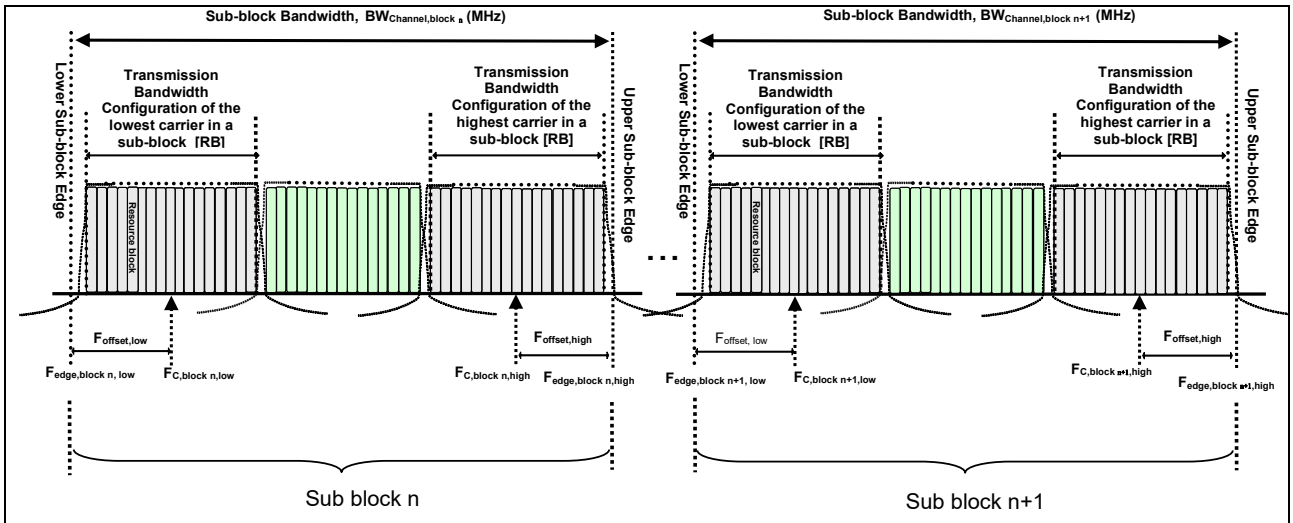
$$BW_{GB} = \max(BW_{GB,Channel(k)})$$

$N_{RB,low}$ and $N_{RB,high}$ are the transmission bandwidth configurations according to Table 5.3.2-1 for the lowest and highest assigned component carrier, SCS_{low} and SCS_{high} are the sub-carrier spacing for the lowest and highest assigned component carrier respectively. SCS_{low}, SCS_{high}, $N_{RB,low}$, $N_{RB,high}$, and $BW_{GB,Channel(k)}$ use the largest μ value among the subcarrier spacing configurations supported in the operating band for both of the channel bandwidths according to Table 5.3.5-1 and $BW_{GB,Channel(k)}$ is the minimum guard band for carrier k according to Table 5.3.3-1 for the said μ value.

In case there is no common μ value for both of the channel bandwidths, μ=1 is used for SCS_{low}, SCS_{high}, $N_{RB,low}$, $N_{RB,high}$, and $BW_{GB,Channel(k)}$.

For intra-band non-contiguous carrier aggregation *Sub-block Bandwidth* and *Sub-block edges* are defined as follows, see Figure 5.3A.3-2.

Figure 5.3A.3-2: Definition of sub-block bandwidth for intra-band non-contiguous spectrum



The lower sub-block edge of the Sub-block Bandwidth ($BW_{Channel,block}$) is defined as

$$F_{edge,block,\ low} = F_{C,block,low} - F_{offset,\ low}.$$

The upper sub-block edge of the Sub-block Bandwidth is defined as

$$F_{edge,block,high} = F_{C,block,high} + F_{offset,high}.$$

The Sub-block Bandwidth, $BW_{Channel,block}$, is defined as follows:

$$BW_{Channel,block} = F_{edge,block,high} - F_{edge,block,low}\ (MHz)$$

The lower and upper frequency offsets $F_{offset,block,low}$ and $F_{offset,block,high}$ depend on the transmission bandwidth configurations of the lowest and highest assigned edge component carriers within a sub-block and are defined as

$$F_{offset,block,low} = (N_{RB,low}*12 + 1)*SCS_{low}/2 + BW_{GB}\ (MHz)$$

$$F_{offset,block,high} = (N_{RB,high}*12 - 1)*SCS_{high}/2 + BW_{GB}(MHz)$$

$$BW_{GB} = \max(BW_{GB,Channel(k)})$$

where $N_{RB,low}$ and $N_{RB,high}$ are the transmission bandwidth configurations according to Table 5.3.2-1 for the lowest and highest assigned component carrier within a sub-block, respectively. SCS_{low} and SCS_{high} are the sub-carrier spacing for the lowest and highest assigned component carrier within a sub-block, respectively. SCS_{low}, SCS_{high}, $N_{RB,low}$, $N_{RB,high}$, and $BW_{GB,Channel(k)}$ use the largest μ value among the subcarrier spacing configurations supported in the operating band for both of the channel bandwidths according to Table 5.3.5-1 and $BW_{GB,Channel(k)}$ is the minimum guard band for carrier k according to Table 5.3.3-1 for the said μ value. In case there is no common μ value for both of the channel bandwidths, μ=1 is used for SCS_{low}, SCS_{high}, $N_{RB,low}$, $N_{RB,high}$, and $BW_{GB,Channel(k)}$.

The sub-block gap size between two consecutive sub-blocks W_{gap} is defined as

$$W_{gap} = F_{edge,block\ n+1,low} - F_{edge,block\ n,high}\ (MHz)$$

5.3A.4 Void

5.3A.5 UE channel bandwidth per operating band for CA

The requirements for carrier aggregation in this specification are defined for carrier aggregation configurations.

For intra-band contiguous carrier aggregation, a carrier aggregation configuration is a single operating band supporting a carrier aggregation bandwidth class with associated bandwidth combination sets specified in clause 5.5A.1. For each carrier aggregation configuration, requirements are specified for all aggregated channel bandwidths contained in a bandwidth combination set, a UE can indicate support of several bandwidth combination sets per carrier aggregation configuration. For intra-band non-contiguous carrier aggregation, a carrier aggregation

configuration is a single operating band supporting two or more sub-blocks, each supporting a carrier aggregation bandwidth class.

For intra-band non-contiguous uplink carrier aggregation, frequency separation class (Fs) specified in Table 5.3A.5-2 indicates the maximum frequency span between lower edge of lowest component carrier and upper edge of highest component carrier that UE can support per band combination in uplink in non-contiguous intra-band operation when the signalling is absent for dualPA-Architecture IE.

For inter-band carrier aggregation, a carrier aggregation configuration is a combination of operating bands, each supporting a carrier aggregation bandwidth class.

Table 5.3A.5-1: NR CA bandwidth classes

NR CA bandwidth class	Aggregated channel bandwidth	Number of contiguous CC	Fallback group
A	$BW_{Channel} \leq BW_{Channel,max}$	1	1, 2, 3[4]
B	20 MHz ≤ $BW_{Channel_CA}$ ≤ 100 MHz	2	2, 3[4]
C	100 MHz < $BW_{Channel_CA} \leq 2 \times BW_{Channel,max}$	2	1, 3[4]
D	200 MHz < $BW_{Channel_CA} \leq 3 \times BW_{Channel,max}$	3	
E	300 MHz < $BW_{Channel_CA} \leq 4 \times BW_{Channel,max}$	4	
G	100 MHz < $BW_{Channel_CA}$ ≤ 150 MHz	3	2
H	150 MHz < $BW_{Channel_CA}$ ≤ 200 MHz	4	
I	200 MHz < $BW_{Channel_CA}$ ≤ 250 MHz	5	
J	250 MHz < $BW_{Channel_CA}$ ≤ 300 MHz	6	
K	300 MHz < $BW_{Channel_CA}$ ≤ 350 MHz	7	
L	350 MHz < $BW_{Channel_CA}$ ≤ 400 MHz	8	
M[3]	50 MHz ≤ $BW_{Channel_CA}$ ≤ 200 MHz	3	3[4]
N[3]	80 MHz ≤ $BW_{Channel_CA}$ ≤ 300 MHz	4	
O[3]	100 MHz ≤ $BW_{Channel_CA}$ ≤ 400 MHz	5	

NOTE 1: $BW_{Channel,\ max}$ is maximum channel bandwidth supported among all bands in a release
NOTE 2: It is mandatory for a UE to be able to fallback to lower order NR CA bandwidth class configuration within a fallback group. It is not mandatory for a UE to be able to fallback to lower order NR CA bandwidth class configuration that belong to a different fallback group.
NOTE 3: This bandwidth class is only applicable to bands identified for use with shared spectrum channel access in Table 5.2-1.
NOTE 4: Fallback group 3 is only applicable to bands identified for use with shared spectrum channel access in Table 5.2-1.

Table 5.3A.5-2: NR intra-band non-contiguous UL CA frequency separation classes

NR NC UL CA frequency separation class	Maximum allowed frequency separation
I	100 MHz
II	200 MHz
III	600MHz

V2X的UE信道带宽在TS 38.101-1 [1]中的第5.3E节定义。

5.3E Channel bandwidth for V2X

5.3E.1 General

NR V2X operation channel bandwidths for each operating band is specified in Table 5.3E.1-1. The same (symmetrical) channel bandwidth is specified for both the transmission and reception path. The maximum channel bandwidth for SL operation in licensed band is 40 MHz.

Table 5.3E.1-1 NR V2X operation channel bandwidths for each operating band

NR band / SCS / UE Channel bandwidth						
NR Band	**SCS kHz**	**5 MHz**	**10 MHz**	**20 MHz**	**30 MHz**	**40 MHz**
n14	15	Yes	Yes			
	30		Yes			
	60					
n38	15		Yes	Yes	Yes	Yes
	30		Yes	Yes	Yes	Yes
	60		Yes	Yes	Yes	Yes
n47	15		Yes	Yes	Yes	Yes
	30		Yes	Yes	Yes	Yes
	60		Yes	Yes	Yes	Yes
n79	15		Yes	Yes	Yes	Yes
	30		Yes	Yes	Yes	Yes
	60		Yes	Yes	Yes	Yes

5.3E.2 Channel bandwidth for V2X concurrent operation

For NR V2X inter-band con-current operation in FR1, the NR V2X channel bandwidths for each operating band is specified in Table 5.3E.2-1.

Table 5.3E.2-1: Inter-band con-current operation configurations

NR V2X inter-band con-current operating configuration	NR Band	Interface	Channel bandwidth (MHz) (NOTE 3)	Bandwidth combination set
V2X_n1A-n47A	n1	Uu	5, 10, 15, 20, 25, 30, 40, 45, 50	0
	n47	PC5	10, 20, 30, 40	
V2X_n5A-n47A	n5	Uu	5, 10, 15, 20, 25	0
	n47	PC5	10, 20, 30, 40	
V2X_n8A-n47A	n8	Uu	5, 10, 15, 20, 35	0
	n47	PC5	10, 20, 30, 40	
V2X_n39A-n47A	n39	Uu	5, 10, 15, 20, 25, 30, 40	0
	n47	PC5	10, 20, 30, 40	
V2X_n40A-n47A	n40	Uu	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	0
	n47	PC5	10, 20, 30, 40	
V2X_n41A-n47A	n41	Uu	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	0
	n47	PC5	10, 20, 30, 40	
V2X_n71A-n47A	n71	Uu	5, 10, 15, 20	0
	n47	PC5	10, 20, 30, 40	
V2X_n78A-n47A	n78	Uu	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	0
	n47	PC5	10, 20, 30, 40	
V2X_n79A-n47A	n79	Uu	40, 50, 60, 80, 100	0
	n47	PC5	10, 20, 30, 40	
NOTE 1: The SCS of each channel bandwidth for NR band refers to Table 5.3.5-1.				

For NR V2X intra-band con-current operation in FR1, the NR V2X channel bandwidths for each operating band is specified in Table 5.3E.2-2.

Table 5.3E.2-2: Intra-band con-current operation configurations

NR V2X intra-band con-current operating configuration	NR Band	Interface	Channel bandwidth (MHz) (NOTE 3)	Bandwidth combination set
V2X_n79B	n79	Uu	40, 50, 60, 80, 100	0
	n79	PC5	10, 20, 30, 40	
NOTE 1: The SCS of each channel bandwidth for NR band refers to Table 5.3.5-1.				

2.1.3 信道安排

UE信道安排，即信道间隔、信道光栅、同步光栅和TX-RX频率间隔，在TS 38.101-1 [1]中的第5.4节定义。

5.4 Channel arrangement

5.4.1 Channel spacing

5.4.1.1 Channel spacing for adjacent NR carriers

The spacing between carriers will depend on the deployment scenario, the size of the frequency block available and the channel bandwidths. The nominal channel spacing between two adjacent NR carriers is defined as following:

- For NR operating bands with 100 kHz channel raster,

  Nominal Channel spacing = $(BW_{Channel(1)} + BW_{Channel(2)})/2$

- For NR operating bands with 15 kHz channel raster,

  Nominal Channel spacing = $(BW_{Channel(1)} + BW_{Channel(2)})/2+\{-5\text{ kHz}, 0\text{ kHz}, 5\text{ kHz}\}$ for ΔF_{Raster} equals 15 kHz

  Nominal Channel spacing = $(BW_{Channel(1)} + BW_{Channel(2)})/2+\{-10\text{ kHz}, 0\text{ kHz}, 10\text{ kHz}\}$ for ΔF_{Raster} equals 30 kHz

where $BW_{Channel(1)}$ and $BW_{Channel(2)}$ are the channel bandwidths of the two respective NR carriers. The channel spacing can be adjusted depending on the channel raster to optimize performance in a particular deployment scenario.

5.4.2 Channel raster

5.4.2.1 NR-ARFCN and channel raster

The global frequency channel raster defines a set of RF reference frequencies $F_{REF.}$ The RF reference frequency is used in signalling to identify the position of RF channels, SS blocks and other elements.

The global frequency raster is defined for all frequencies from 0 to 100 GHz. The granularity of the global frequency raster is ΔF_{Global}.

RF reference frequencies are designated by an NR Absolute Radio Frequency Channel Number (NR-ARFCN) in the range (0…2016666) on the global frequency raster. The relation between the NR-ARFCN and the RF reference frequency F_{REF} in MHz is given by the following equation, where $F_{REF-Offs}$ and $N_{Ref-Offs}$ are given in Table 5.4.2.1-1 and N_{REF} is the NR-ARFCN.

$$F_{REF} = F_{REF-Offs} + \Delta F_{Global} (N_{REF} – N_{REF-Offs})$$

Table 5.4.2.1-1: NR-ARFCN parameters for the global frequency raster

Frequency range (MHz)	ΔF_{Global} (kHz)	$F_{REF-Offs}$ (MHz)	$N_{REF-Offs}$	Range of N_{REF}
0–3 000	5	0	0	0 – 599999
3 000–24 250	15	3 000	600000	600000 – 2016666

The channel raster defines a subset of RF reference frequencies that can be used to identify the RF channel position in the uplink and downlink. The RF reference frequency for an RF channel maps to a resource element on the carrier. For each operating band, a subset of frequencies from the global frequency raster are applicable for that band and forms a channel raster with a granularity ΔF_{Raster}, which may be equal to or larger than ΔF_{Global}.

For SUL bands except n95, n97, n98 and for the uplink of all FDD bands defined in Table 5.2-1, and for TDD bands n34, n39, n48, n90, n38 and n40

$$F_{REF,\,shift} = F_{REF} + \Delta_{shift},\ \Delta_{shift} = 0\text{ kHz or }7.5\text{ kHz}.$$

where Δ_{shift} is signalled by the network in higher layer parameter *frequencyShift7p5khz* [7]. For Band n34, n38, n39, n40, n48 $F_{REF, shift}$ is only applicable to uplink transmissions using a 15 kHz SCS.

The mapping between the channel raster and corresponding resource element is given in clause 5.4.2.2. The applicable entries for each operating band are defined in Clause 5.4.2.3.

5.4.2.2 Channel raster to resource element mapping

The mapping between the RF reference frequency on the channel raster and the corresponding resource element is given in Table 5.4.2.2-1 and can be used to identify the RF channel position. The mapping depends on the total number of RBs that are allocated in the channel and applies to both UL and DL. The mapping must apply to at least one numerology supported by the UE.

Table 5.4.2.2-1: Channel raster to resource element mapping

	N_{RB}mod2 = 0	N_{RB}mod2 = 1
Resource element index k	0	6
Physical resource block number n_{PRB}	$n_{\mathrm{PRB}} = \left\lfloor \frac{N_{\mathrm{RB}}}{2} \right\rfloor$	$n_{\mathrm{PRB}} = \left\lfloor \frac{N_{\mathrm{RB}}}{2} \right\rfloor$

k , n_{PRB}, N_{RB} are as defined in TS 38.211[6].

5.4.2.3 Channel raster entries for each operating band

The RF channel positions on the channel raster in each NR operating band are given through the applicable NR-ARFCN in Table 5.4.2.3-1, using the channel raster to resource element mapping in clause 5.4.2.2.

For NR operating bands with 100 kHz channel raster, $\Delta F_{Raster} = 20 \times \Delta F_{Global}$. In this case every 20th NR-ARFCN within the operating band are applicable for the channel raster within the operating band and the step size for the channel raster in Table 5.4.2.3-1 is given as <20>.

For NR operating bands with 15 kHz channel raster below 3GHz, $\Delta F_{Raster} = I \times \Delta F_{Global}$, where $I \in \{3,6\}$. Every I^{th} NR-ARFCN within the operating band are applicable for the channel raster within the operating band and the step size for the channel raster in Table 5.4.2.3-1 is given as < *I* >.

For NR operating bands with 15 kHz channel raster above 3GHz, $\Delta F_{Raster} = I \times \Delta F_{Global}$, where $I \in \{1,2\}$. Every I^{th} NR-ARFCN within the operating band are applicable for the channel raster within the operating band and the step size for the channel raster in table 5.4.2.3-1 is given as <*I*>.

In frequency bands with two or more ΔF_{Raster}, the higher ΔF_{Raster}: For 15 kHz and 30 kHz channel raster applies to channels using only the SCS that is equal to or larger than the higher ΔF_{Raster} and SSB SCS is equal to the higher ΔF_{Raster}.

Table 5.4.2.3-1: Applicable NR-ARFCN per operating band

NR operating band	ΔF_{Raster} (kHz)	Uplink Range of N_{REF} (First – <Step size> – Last)	Downlink Range of N_{REF} (First – <Step size> – Last)
n1	100	384000 – <20> – 396000	422000 – <20> – 434000
n2	100	370000 – <20> – 382000	386000 – <20> – 398000
n3	100	342000 – <20> – 357000	361000 – <20> – 376000
n5	100	164800 – <20> – 169800	173800 – <20> – 178800
n7	100	500000 – <20> – 514000	524000 – <20> – 538000
n8	100	176000 – <20> – 183000	185000 – <20> – 192000
n12	100	139800 – <20> – 143200	145800 – <20> – 149200
n13	100	155400 – <20> – 157400	149200 – <20> – 151200
n14	100	157600 – <20> – 159600	151600 – <20> – 153600
n18	100	163000 – <20> – 166000	172000 – <20> – 175000
n20	100	166400 – <20> – 172400	158200 – <20> – 164200
n24	100	325300 – <20> – 332100	305000 – <20> – 311800
n25	100	370000 – <20> – 383000	386000 – <20> – 399000
n26	100	162800 – <20> – 169800	171800 – <20> – 178800

n28	100	140600 – <20> – 149600	151600 – <20> – 160600
n29	100	N/A	143400 – <20> – 145600
n30	100	461000 – <20> – 463000	470000 – <20> – 472000
n34	100	402000 – <20> – 405000	402000 – <20> – 405000
n38	100	514000 – <20> – 524000	514000 – <20> – 524000
n39	100	376000 – <20> – 384000	376000 – <20> – 384000
n40	100	460000 – <20> – 480000	460000 – <20> – 480000
n41	15	499200 – <3> – 537999	499200 – <3> – 537999
	30	499200 – <6> – 537996	499200 – <6> – 537996
n46[2]	15	743334 – <1> – 795000	743333 – <1> – 795000
n47	15	790334 – <1> – 795000	790334 – <1> – 795000
n48	15	636667 – <1> – 646666	636667 – <1> – 646666
	30	636668 – <2> – 646666	636668 – <2> – 646666
n50	100	286400 – <20> – 303400	286400 – <20> – 303400
n51	100	285400 – <20> – 286400	285400 – <20> – 286400
n53	100	496700 – <20> – 499000	496700 – <20> – 499000
n65	100	384000 – <20> – 402000	422000 – <20> – 440000
n66	100	342000 – <20> – 356000	422000 – <20> – 440000
n67	100	N/A	147600 – <20> – 151600
n70	100	339000 – <20> – 342000	399000 – <20> – 404000
n71	100	132600 – <20> – 139600	123400 – <20> – 130400
n74	100	285400 – <20> – 294000	295000 – <20> – 303600
n75	100	N/A	286400 – <20> – 303400
n76	100	N/A	285400 – <20> – 286400
n77	15	620000 – <1> – 680000	620000 – <1> – 680000
	30	620000 – <2> – 680000	620000 – <2> – 680000
n78	15	620000 – <1> – 653333	620000 – <1> – 653333
	30	620000 – <2> – 653332	620000 – <2> – 653332
n79	15	693334 – <1> – 733333	693334 – <1> – 733333
	30	693334 – <2> – 733332	693334 – <2> – 733332
n80	100	342000 – <20> – 357000	N/A
n81	100	176000 – <20> – 183000	N/A
n82	100	166400 – <20> – 172400	N/A
n83	100	140600 – <20> –149600	N/A
n84	100	384000 – <20> – 396000	N/A
n85	100	139600 – <20> – 143200	145600 – <20> – 149200
n86	100	342000 – <20> – 356000	N/A
n89	100	164800 – <20> – 169800	N/A
n90	15	499200 – <3> – 537999	499200 – <3> – 537999
	30	499200 – <6> – 537996	499200 – <6> – 537996
	100	499200 – <20> – 538000	499200 – <20> – 538000
n91	100	166400 – <20> – 172400	285400 – <20> – 286400
n92	100	166400 – <20> – 172400	286400 – <20> – 303400
n93	100	176000 – <20> – 183000	285400 – <20> – 286400
n94	100	176000 – <20> – 183000	286400 – <20> – 303400
n95	100	402000 – <20> – 405000	N/A
n96[3]	15	795000 – <1> – 875000	795000 – <1> – 875000
n97	100	460000 – <20> – 480000	N/A
n98	100	376000 – <20> – 384000	N/A
n99	100	325300 – <20> – 332100	N/A
n100	100	174880 – <20> – 176000	183880 – <20> – 185000
n101	100	380000 – <20> – 382000	380000 – <20> – 382000
n102[4]	15	795000 – <1> – 828333	795000 – <1> – 828333
n104	15	828334 – <1> – 875000	828334 – <1> – 875000
	30	828334 – <2> – 875000	828334 – <2> – 875000

NOTE 1: The channel numbers that designate carrier frequencies so close to the operating band edges that the carrier extends beyond the operating band edge shall not be used.
NOTE 2: The following N_{REF} are allowed for operation in Band n46: see Table 5.4.2.3-2.
NOTE 3: The following N_{REF} are allowed for operation in Band n96: see Table 5.4.2.3-3.
NOTE 4: The following N_{REF} are allowed for operation in Band n102: see Table 5.4.2.3-4.

Table 5.4.2.3-2: Allowed N_{REF} (NR-ARFCN) for operation in Band n46

Channel Bandwidth	Allowed N_{REF}

10 MHz	782000, 788668
20 MHz	744000, 745332, 746668, 748000, 749332, 750668, 752000, 753332, 754668, 756000, 765332, 766668, 768000, 769332, 770668, 772000, 773332, 774668, 776000, 777332, 778668, 780000, 781332, 783000, 784332, 785668, 787000, 788332, 789668, 791000, 792332, 793668
40 MHz	744668, 746000, 748668, 751332, 754000, 755332, 766000, 767332, 770000, 772668, 775332, 778000, 780668, 783668, 786332, 787668, 790332, 793000
60 MHz	745332, 746668, 748000, 752000, 753332, 754668, 766668, 768000, 769332, 773332, 774668, 778668, 780000, 784332, 785668, 791000, 792332
80 MHz	746000, 747332, 752668, 754000, 767332, 768668, 774000, 779332, 785000, 791668
100 MHz	746668, 753332, 768000, 791000

NOTE: 10 MHz channel bandwidth shall only apply in certain regions where the absence of non 3GPP technologies can be guaranteed on a long-term basis in this version of specification.

Table 5.4.2.3-3: Allowed N_{REF} (NR-ARFCN) for operation in Band n96

Channel Bandwidth	Allowed N_{REF}
20 MHz	797000, 798332, 799668, 801000, 802332, 803668, 805000, 806332, 807668, 809000, 810332, 811668, 813000, 814332, 815668, 817000, 818332, 819668, 821000, 822332, 823668, 825000, 826332, 827668, 829000, 830332, 831668, 833000, 834332, 835668, 837000, 838332, 839668, 841000, 842332, 843668, 845000, 846332, 847668, 849000, 850332, 851668, 853000, 854332, 855668, 857000, 858332, 859668, 861000, 862332, 863668, 865000, 866332, 867668, 869000, 870332, 871668, 873000, 874332
40 MHz	797668, 800332, 803000, 805668, 808332, 811000, 813668, 816332, 819000, 821668, 824332, 827000, 829668, 832332, 835000, 837668, 840332, 843000, 845668, 848332, 851000, 853668, 856332, 859000, 861668, 864332, 867000, 869668, 872332
60 MHz	798332, 799668, 803668, 805000, 809000, 810332, 814332, 815668, 819668, 821000, 825000, 826332, 830332, 831668, 835668, 837000, 841000, 842332, 846332, 847668, 851668, 853000, 857000, 858332, 862332, 863668, 867668, 869000, 873000
80 MHz	799000, 804332, 809668, 815000, 820332, 825668, 831000, 836332, 841668, 847000, 852332, 857668, 863000, 868332
100 MHz	799668, 803668, 810332, 814332, 821000, 825000, 831668, 835668, 842332, 846332, 853000, 857000, 863668, 867668, 869000, 870332, 871668

Table 5.4.2.3-4: Allowed N_{REF} (NR-ARFCN) for operation in Band n102

Channel Bandwidth	Allowed N_{REF}
20 MHz	797000, 798332, 799668, 801000, 802332, 803668, 805000, 806332, 807668, 809000, 810332, 811668, 813000, 814332, 815668, 817000, 818332, 819668, 821000, 822332, 823668, 825000, 826332, 827668
40 MHz	797668, 800332, 803000, 805668, 808332, 811000, 813668, 816332, 819000, 821668, 824332, 827000
60 MHz	798332, 799668, 803668, 805000, 809000, 810332, 814332, 815668, 819668, 821000, 825000, 826332
80 MHz	799000, 804332, 809668, 815000, 820332, 825668
100 MHz	799668, 803668, 810332, 814332, 821000, 825000

5.4.3 Synchronization raster

5.4.3.1 Synchronization raster and numbering

The synchronization raster indicates the frequency positions of the synchronization block that can be used by the UE for system acquisition when explicit signalling of the synchronization block position is not present.

A global synchronization raster is defined for all frequencies. The frequency position of the SS block is defined as SS_{REF} with corresponding number GSCN. The parameters defining the SS_{REF} and GSCN for all the frequency ranges are in Table 5.4.3.1-1.

The resource element corresponding to the SS block reference frequency SS_{REF} is given in clause 5.4.3.2. The synchronization raster and the subcarrier spacing of the synchronization block is defined separately for each band.

Table 5.4.3.1-1: GSCN parameters for the global frequency raster

Frequency range	SS Block frequency position SS_{REF}	GSCN	Range of GSCN
0-3 000 MHz	N * 1 200 kHz + M * 50 kHz, N=1:2499, M ϵ {1,3,5} (Note 1)	3N + (M-3)/2	2-7 498
3 000-24 250 MHz	3 000 MHz + N * 1.44 MHz N = 0:14756	7 499 + N	7 499-22 255
NOTE 1: The default value for operating bands with which only support SCS spaced channel raster(s) is M=3.			

5.4.3.2 Synchronization raster to synchronization block resource element mapping

The mapping between the synchronization raster and the corresponding resource element of the SS block is given in Table 5.4.3.2-1.

Table 5.4.3.2-1: Synchronization raster to SS block resource element mapping

Resource element index k	120

k is the subcarrier number of SS/PBCH block defined in TS 38.211 clause 7.4.3.1 [6].

5.4.3.3 Synchronization raster entries for each operating band

The synchronization raster for each band is give in Table 5.4.3.3-1. The distance between applicable GSCN entries is given by the <Step size> indicated in Table 5.4.3.3-1.

Table 5.4.3.3-1: Applicable SS raster entries per operating band

NR operating band	SS Block SCS	SS Block pattern[1]	Range of GSCN (First – <Step size> – Last)
n1	15 kHz	Case A	5279 – <1> – 5419
n2	15 kHz	Case A	4829 – <1> – 4969
n3	15 kHz	Case A	4517 – <1> – 4693
n5	15 kHz	Case A	2177 – <1> – 2230
	30 kHz	Case B	2183 – <1> – 2224
n7	15 kHz	Case A	6554 – <1> – 6718
n8	15 kHz	Case A	2318 – <1> – 2395
n12	15 kHz	Case A	1828 – <1> – 1858
n13	15 kHz	Case A	1871 – <1> – 1885
n14	15 kHz	Case A	1901 – <1> – 1915
n18	15 kHz	Case A	2156 – <1> – 2182
n20	15 kHz	Case A	1982 – <1> – 2047
n24	15 kHz	Case A	3818 – <1> – 3892
	30 kHz	Case B	3824 – <1> – 3886
n25	15 kHz	Case A	4829 – <1> – 4981
n26	15 kHz	Case A	2153 – <1> – 2230
n28	15 kHz	Case A	1901 – <1> – 2002
n29	15 kHz	Case A	1798 – <1> – 1813
n30	15 kHz	Case A	5879 – <1> – 5893
n34	15 kHz	Case A	NOTE 5
	30 kHz	Case C	5036 – <1> – 5050

n38	15 kHz	Case A	NOTE 2
	30 kHz	Case C	6437 – <1> – 6538
n39	15 kHz	Case A	NOTE 6
	30 kHz	Case C	4712 – <1> – 4789
n40	30 kHz	Case C	5762 – <1> – 5989
n41	15 kHz	Case A	6246 – <3> – 6717
	30 kHz	Case C	6252 – <3> – 6714
n46[3]	30 kHz	Case C	8993 – <1> – 9530
n48	30 kHz	Case C	7884 – <1> – 7982
n50	30 kHz	Case C	3590 – <1> – 3781
n51	15 kHz	Case A	3572 – <1> – 3574
n53	15 kHz	Case A	6215 – <1> – 6232
n65	15 kHz	Case A	5279 – <1> – 5494
n66	15 kHz	Case A	5279 – <1> – 5494
	30 kHz	Case B	5285 – <1> – 5488
n67	15 kHz	Case A	1850 – <1> – 1888
n70	15 kHz	Case A	4993 – <1> – 5044
n71	15 kHz	Case A	1547 – <1> – 1624
n74	15 kHz	Case A	3692 – <1> – 3790
n75	15 kHz	Case A	3584 – <1> – 3787
n76	15 kHz	Case A	3572 – <1> – 3574
n77	30 kHz	Case C	7711 – <1> – 8329
n78	30 kHz	Case C	7711 – <1> – 8051
n79	30 kHz	Case C	8480 – <16> – 8880[7]
			8475 – <1> – 8884[8]
n85	15 kHz	Case A	1826 – <1> – 1858
n90	15 kHz	Case A	6246 – <1> – 6717[10]
			6245 – <1> – 6718[11]
	30 kHz	Case C	6252 – <1> – 6714
n91	15 kHz	Case A	3572 – <1> – 3574
n92	15 kHz	Case A	3584 – <1> – 3787
n93	15 kHz	Case A	3572 – <1> – 3574
n94	15 kHz	Case A	3584 – <1> – 3787
n96[4]	30 kHz	Case C	9531 – <1> – 10363
n100	15 kHz	Case A	2303 – <1> – 2307
n101	15 kHz	Case A	4754 – <1> – 4768
	30 kHz	Case C	4760 – <1> – 4764
n102[9]	30 kHz	Case C	9531 – <1> – 9877
n104	30 kHz	Case C	9882 – <7> – 10358

NOTE 1: SS Block pattern is defined in clause 4.1 in TS 38.213 [8].
NOTE 2: The applicable SS raster entries are GSCN = {6432, 6443, 6457, 6468, 6479, 6493, 6507, 6518, 6532, 6543}.
NOTE 3: The following GSCN are allowed for operation in band n46:
GSCN = {8996, 9010, 9024, 9038, 9051, 9065, 9079, 9093, 9107, 9121, 9218, 9232, 9246, 9260, 9274, 9288, 9301, 9315, 9329, 9343, 9357, 9371, 9385, 9402, 9416, 9430, 9444, 9458, 9472, 9485, 9499, 9513}.
NOTE 4: The following GSCN are allowed for operation in band n96:
GSCN = {9548, 9562, 9576, 9590, 9603, 9617,9631, 9645, 9659, 9673, 9687, 9701, 9714, 9728, 9742, 9756, 9770, 9784, 9798, 9812, 9826, 9840, 9853, 9867, 9881, 9895, 9909, 9923, 9937, 9951, 9964, 9978, 9992, 10006, 10020, 10034, 10048, 10062, 10076, 10090, 10103, 10117, 10131, 10145, 10159, 10173, 10187, 10201, 10214, 10228, 10242, 10256, 10270, 10284, 10298, 10312, 10325, 10339, 10353}.
NOTE 5: The applicable SS raster entries are GSCN = {5032, 5043, 5054}
NOTE 6: The applicable SS raster entries are GSCN = {4707, 4715, 4718, 4729, 4732, 4743, 4747, 4754, 4761, 4768, 4772, 4782, 4786, 4793}
NOTE 7: The SS raster entries apply for channel bandwidths larger than or equal to 40 MHz
NOTE 8: The SS raster entries apply for channel bandwidths smaller than 40 MHz
NOTE 9: The following GSCN are allowed for operation in band n102:
GSCN = {9548, 9562, 9576, 9590, 9603, 9617,9631, 9645, 9659, 9673, 9687, 9701, 9714, 9728, 9742, 9756, 9770, 9784, 9798, 9812, 9826, 9840, 9853, 9867}.
NOTE 10: The SS raster entries apply for channel bandwidths larger than or equal to 10 MHz.
NOTE 11: The SS raster entries apply for channel bandwidth equal to 5 MHz

5.4.4 TX–RX frequency separation

The default TX channel (carrier centre frequency) to RX channel (carrier centre frequency) separation for operating bands is specified in Table 5.4.4-1.

Table 5.4.4-1: UE TX-RX frequency separation

NR Operating Band	TX – RX carrier centre frequency separation
n1	190 MHz
n2	80 MHz
n3	95 MHz
n5	45 MHz
n7	120 MHz
n8	45 MHz
n12	30 MHz
n13	-31 MHz
n14	-30 MHz
n18	45 MHz
n20	-41 MHz
n24	-101.5, -120.5 MHz
n25	80 MHz
n26	45 MHz
n28	55 MHz
n30	45 MHz
n65	190 MHz
n66	400 MHz
n70	300 MHz
n71	-46 MHz
n74	48 MHz
n85	30 MHz
n91	570 MHz – 595 MHz (NOTE 2)
n92	575 MHz – 680 MHz (μ = 0) 580 MHz – 675 MHz (μ = 1) (NOTE 2)
n93	517 MHz – 547 MHz (NOTE 2)
n94	522 MHz – 632 MHz (μ = 0) 527 MHz – 627 MHz (μ = 1) (NOTE 2)
n100	45 MHz

NOTE 1: Void

NOTE 2: The range of TX-RX frequency separation given paired UL and DL channel bandwidths BW_{UL} and BW_{DL} is given by the respective lower and upper limit $F_{DL_low} - F_{UL_high} + 0.5(BW_{DL} + BW_{UL})$ and $F_{DL_high} - F_{UL_low} - 0.5(BW_{DL} + BW_{UL})$. The UL and DL channel bandwidth combinations specified in Table 5.3.5-1 and 5.3.6-1 depend on the subcarrier spacing configuration μ [6].

用于CA的UE信道安排在TS 38.101-1 [1]中的第5.4A节定义。

5.4A Channel arrangement for CA

5.4A.1 Channel spacing for CA

For intra-band contiguous carrier aggregation with two or more component carriers, the nominal channel spacing between two adjacent NR component carriers is defined as the following unless stated otherwise:

For NR operating bands with a 100 kHz channel raster:

$$\text{Nominal channel spacing} = \left\lfloor \frac{BW_{Channel(1)} + BW_{Channel(2)} - 2\left|GB_{Channel(1)} - GB_{Channel(2)}\right|}{0.6} \right\rfloor 0.3\,[\text{MHz}]$$

while for NR operating bands without a 100 kHz channel raster:

$$\text{Nominal channel spacing} = \left\lfloor \frac{BW_{Channel(1)} + BW_{Channel(2)} - 2\left|GB_{Channel(1)} - GB_{Channel(2)}\right|}{0.015 * 2^{n+1}} \right\rfloor 0.015 * 2^{n}\ [\text{MHz}]$$

with

$$n = \mu_0$$

where $BW_{Channel(1)}$ and $BW_{Channel(2)}$ are the channel bandwidths of the two respective NR component carriers according to Table 5.3.2-1 with values in MHz, μ_0 is the largest μ value among the subcarrier spacing configurations supported in the operating band for both of the channel bandwidths according to Table 5.3.5-1 and $GB_{Channel(i)}$ is the minimum guard band for channel bandwidth i according to Table 5.3.3-1 for the said μ value with μ as defined in TS 38.211. In case there is no common μ value for both of the channel bandwidths, μ_0=1 is selected and $GB_{Channel(i)}$ is the minimum guard band for channel bandwidth i according to Table 5.3.3-1 for μ=1 with μ as defined in TS 38.211.

The channel spacing for intra-band contiguous carrier aggregation can be adjusted to any multiple of least common multiple of channel raster and sub-carrier spacing less than the nominal channel spacing to optimize performance in a particular deployment scenario.

For intra-band non-contiguous carrier aggregation, the channel spacing between two NR component carriers in different sub-blocks shall be larger than the nominal channel spacing defined in this clause.

5.4A.2 Channel raster for CA

For inter-band and intra-band contiguous carrier aggregation, the channel raster requirements in clause 5.4.2 apply for each operating band.

5.4A.3 Synchronization raster for CA

For inter-band and intra-band contiguous carrier aggregation, the synchronization raster requirements in clause 5.4.3 apply for each operating band.

5.4A.4 Tx-Rx frequency separation for CA

For inter-band carrier aggregation, the Tx-Rx frequency separation requirements in clause 5.4.4 apply for each operating band.

For intra-band contiguous carrier aggregation, the same TX-RX frequency separation as specified in Table 5.4.4-1 is applied to PCC and SCC, respectively.

V2X的UE信道安排在TS 38.101-1 [1]中的第5.4节定义。

2.1.4 配置

CA操作频段的UE配置在TS 38.101-1 [1]中的第5.5A节定义。

5.5A Configurations for CA

5.5A.0 General

The configurations for CA operating band including Band n41 also apply for the corresponding CA operating bands with Band n90 replacing Band n41 but with otherwise identical parameters. For brevity the said configuration for CA operating bands with Band n90 are not listed in the tables below but are covered by this specification. For BCS4 and BCS5 combinations with n41, the n90 equivalents also include 5 MHz.

Non-contiguous resource allocation and almost contiguous allocation are not applicable for each NR carrier of intra-band contiguous and non-contiguous CA configurations.

For a CA configuration with one or more operating band supporting asymmetric channel bandwidths as specified in sub-clause 5.3.6, requirements are defined for an asymmetric UL and DL channel bandwidth combination of a supported asymmetric channel bandwidth combination set for an operating band of the CA configuration when the said UL and DL channel bandwidths are also contained in a supported bandwidth combination set of the CA configuration.

For a higher order band combination of which CA_n20-n28 is a subset, the frequency range in band n28 is restricted for the higher order band combination to 703-733 MHz for the UL and 758-788 MHz for the DL.

The configuration tables for CA describe Bandwidth Combination Sets. Bandwidth Combination Set 4 and 5 contain all possible defined channel bandwidths for each band in the combination. The fact that BCS4 and BCS5 contain all channel bandwidths for each band does not alter if a bandwidth is mandatory or optional for a given band. Bandwidths that are identified as optional in Table 5.3.5-1 for a given release are still optional for UEs that support BCS4 or BCS5, where the bandwidths the UE supports for each band, the maximum bandwidth and/or minimum bandwidth for the band in the band combination are indicated in the UE capabilities. Note that the minimum bandwidth is indicated only in BCS5 and BCS5 shall not be indicated together with BCS4 for a CA configuration. For inter-band CA combinations including FR1 intra-band CA and with BCS4 or BCS5, the Bandwidth Combination Sets for the FR1 intra-band CA are BCS4 or BCS5.

5.5A.1 Configurations for intra-band contiguous CA

Power class 3 is supported for all uplinks. Power classes other than power class 3 are supported as indicated in Table 5.5A.1-1.

Table 5.5A.1-1: NR CA configurations and bandwidth combination sets defined for intra-band contiguous CA

NR CA configuration / Bandwidth combination set								
NR CA configuration	**Uplink CA configurations or single uplink carrier[5]**	**Channel bandwidths for carrier (MHz)**	**Channel bandwidths for carrier (MHz)**	**Channel bandwidths for carrier (MHz)**	**Channel bandwidths for carrier (MHz)**	**Channel bandwidths for carrier (MHz)**	**Maximum aggregated bandwidth (MHz)**	**Bandwidth combination set**
CA_n1B	-	10	10,15				40	0
		15	15,20					
		20	20					
CA_n2B	-	5	15				20	0
		10	10					
CA_n3B	-	5	15, 20, 25, 30				60	0
		10	10, 15, 20, 25, 30					
		15, 20, 25, 30	5, 10, 15, 20, 25, 30					
CA_n5B	CA_n5B	5, 10, 15	5, 10, 15				20	0
CA_n7B	CA_n7B	10	10, 15, 20, 30, 40				50	0
		15	15, 20, 30					

		20	20, 30					
CA_n25B	-	5	15				20	0
		10	10					
CA_n38B	-	5	15, 20, 25				50	0
		10	10, 15, 20, 25					
		15, 20, 25	5, 10, 15, 20, 25					
CA_n40B	-	20	80				100	0
		50	50					
	CA_n40B	10,15, 20, 30, 40, 50, 60, 80	10, 15, 20, 30, 40, 50, 60, 80				100	1
CA_n41B	CA_n41B	10, 20, 30, 40, 50	10, 20, 30, 40, 50				100	0
CA_n41C	n41[3,4] CA_n41C	40	80, 100				180	0
		50, 60, 80	60, 80, 100					
		10	100				190	1
		15, 20	90, 100					
		40	80, 90, 100					
		50, 60, 80, 90	60, 80, 90, 100					
		10	100				190	2
		15, 20	90, 100					
		30, 40	80, 90, 100					
		50, 60, 80, 90	60, 80, 90, 100					
		See n41 channel bandwidths in Table 5.3.5-1 for each carrier[2]					190	4 and 5
CA_n46B	-	20, 40, 60	20, 40				100	0
CA_n46C	-	60, 80	60, 80				160	0
CA_n46D	-	60, 80	80	80			240	0
CA_n46M	-	20, 40, 60	20, 40	20, 40			140	0
CA_n46N	-	20, 40, 80	20, 40	20, 40	20, 40		200	0
CA_n46O	-	20, 60	20, 40	20, 40	20, 40	20, 40	220	0
CA_n48B	CA_n48B	5	15, 20				40	0
		10, 15, 20	10, 15, 20					
		15, 20	15, 20					
	-	10	50, 60, 80, 90				100	1
		15, 20	40, 50, 60, 80					
		40	40, 50, 60					
	-	10, 15, 20, 30, 40	10, 15, 20, 30, 40, 50, 60, 70, 80, 90				100	2
CA_n48C	-	10	100				140	0
		15	90,100					
		20	90, 100					

		40	80, 90, 100					
	-	10, 15, 20, 30, 40	70, 80, 90, 100				140	1
CA_n66B	-	5 [1]	20, 40				50	0
		10	15, 20, 40					
		15	15, 20					
CA_n71B	-	5	20				25	0
		10	15					
		10	20				35	1
		15	15, 20					
		5, 10, 15	15, 20				35	2
		See n71 channel bandwidths in Table 5.3.5-1 for each carrier[2]					35	4 and 5
CA_n77B	-	20	25, 30, 40				60	0
		25	30					
CA_n77C	CA_n77C	50	60, 80, 100				200	0
		60	60, 80, 100					
		80	80, 100					
		100	100					
		10	100				200	1
		15, 20	90, 100					
		25, 30	80, 90, 100					
		40	70, 80, 90, 100					
		50, 60, 70, 80, 90, 100	60, 70, 80, 90, 100					
CA_n77D	-	100	100	100			300	0
CA_n78B	-	20	50				70	0
CA_n78C	CA_n78C	50	60, 80, 100				200	0
		60	60, 80, 100					
		80	80, 100					
		100	100					
		10	100				200	1
		15, 20	90, 100					
		25, 30	80, 90, 100					
		40	70, 80, 90, 100					
		50, 60, 70, 80, 90, 100	60, 70, 80, 90, 100					
CA_n78D	-	100	100	100			300	0
CA_n79C	CA_n79C	50	60, 80, 100				200	0
		60	60, 80, 100					
		80	80, 100					
		100	100					
CA_n79D	-	100	100	100			300	0
CA_n96B	CA_n96B	20, 40	20, 40, 60, 80				100	0
CA_n96C	CA_n96C	80	40, 60, 80				160	0

CA_n96D		80	80	60, 80			240	0
CA_n96E		80	80	80	80		320	0

NOTE 1: 5 MHz is not applicable for 30/60 kHz SCS.
NOTE 2: The aggregated bandwidth must be greater than or equal to the minimum for the bandwidth class defined in Table 5.3A.5-1, and smaller than or equal to the maximum aggregated bandwidth.
NOTE 3: Power Class 2 is allowed for this uplink combination or single uplink carrier in this downlink/uplink combination.
NOTE 4: Power Class 1.5 is allowed for this uplink combination or single uplink carrier in this downlink/uplink combination.
NOTE 5: Only single uplink carriers with power class other than PC3 are listed.

Table 5.5A.1-2: Void

5.5A.2 Configurations for intra-band non-contiguous CA

Table 5.5A.2-1: NR CA configurations and bandwidth combination sets defined for intra-band non-contiguous CA

NR CA Configuration	Uplink CA Configurations or single uplink carrier[5]	Channel bandwidths for carrier (MHz)	Channel bandwidths for carrier (MHz)	Channel bandwidths for carrier (MHz)	Channel bandwidths for carrier (MHz)	Maximum Aggregated bandwidth (MHz)	Bandwidth combination set
CA_n1(2A)	-	5, 10, 15, 20	5, 10, 15, 20			40	0
CA_n2(2A)	-	5, 10, 15, 20	5, 10, 15, 20			40	0
CA_n3(2A)	-	5, 10, 15, 20	5, 10, 15, 20			40	0
	-	5, 10, 15, 20, 25, 30	5, 10, 15, 20, 25, 30			60	1
CA_n5(2A)	-	5, 10, 15, 20	5, 10, 15, 20			25	0
CA_n7(2A)	-	5, 10, 15, 20	5, 10, 15, 20			40	0
CA_n12(2A)	-	5	5			10	0
CA_n25(2A)	-	5, 10, 15, 20	5, 10, 15, 20			40	0
		5, 10, 15, 20, 25, 30, 40	5, 10, 15, 20, 25, 30, 40			60	1
		See n25 channel bandwidths in Table 5.3.5-1 for each carrier				60	4 and 5
CA_n25(3A)	-	5, 10, 15, 20, 25, 30, 40	5, 10, 15, 20, 25, 30, 40	5, 10, 15, 20, 25, 30, 40		55	0
		See n25 channel bandwidths in Table 5.3.5-1 for each carrier				55	4 and 5
CA_n41(2A)	n41[3,4] CA_n41(2A)	40, 50, 60, 80, 100	40, 50, 60, 80, 100			180	0
		10, 15, 20, 40, 50, 60, 80, 90, 100	10, 15, 20, 40, 50, 60, 80, 90, 100			190	1
	-	10, 15, 20, 30, 40, 50, 60, 80, 90	15, 20, 30, 40, 50, 60, 80, 90, 100			190	2
		10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100			190	3
		See n41 channel bandwidths in Table 5.3.5-1 for each carrier				190	4 and 5
CA_n41(3A)	n41[3,4]	10, 15, 20, 30, 40, 50,	10, 15, 20, 30, 40, 50,	10, 15, 20, 30, 40, 50,		190	0

		60, 70, 80, 90, 100	60, 70, 80, 90, 100	60, 70, 80, 90, 100			
		See n41 channel bandwidths in Table 5.3.5-1 for each carrier				190	4 and 5
CA_n41(4A)	-	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	190	0
		See n41 channel bandwidths in Table 5.3.5-1 for each carrier				190	4 and 5
CA_n48(2A)		10, 15, 20, 40, 50, 60, 80, 90, 100	10, 15, 20, 40, 50, 60, 80, 90, 100			140[2]	0
		10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100			140[2]	1
CA_n48(3A)	-	10, 15, 20, 40,50, 60, 80, 90, 100	10, 15, 20, 40,50, 60, 80, 90, 100	10, 15, 20, 40,50, 60, 80, 90, 100		140[2]	0
		10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100		140[2]	1
CA_n48(4A)	-	10, 15, 20, 40, 50, 60, 80, 90, 100	10, 15, 20, 40, 50, 60, 80, 90, 100	10, 15, 20, 40, 50, 60, 80, 90, 100	10, 15, 20, 40, 50, 60, 80, 90, 100	135[2]	0
		10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	135[2]	1
CA_n66(2A)	-	5, 10, 15, 20	5, 10, 15, 20, 40			60	0
		5, 10, 15, 20, 25, 30, 40	5, 10, 15, 20, 25, 30, 40			80	1
		5, 10, 15, 20, 40	5, 10, 15, 20, 40			80	2
		See n66 channel bandwidths in Table 5.3.5-1 for each carrier				85	4 and 5
CA_n66(3A)	-	5, 10, 15, 20, 40	5, 10, 15, 20, 40	5, 10, 15, 20, 40		80	0
CA_n71(2A)	-	5, 10, 15, 20	5,10,15, 20			30	0
		See n71 channel bandwidths in Table 5.3.5-1 for each carrier up to 25 MHz per carrier				30	4 and 5
CA_n77(2A)	n77[3,4] CA_n77(2A)	20, 40, 80, 100	20, 40, 80, 100			200	0
		10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100			200	1
		See n77 channel bandwidths in Table 5.3.5-1 for each carrier				200	4 and 5
CA_n77(3A)	-	20, 40, 80, 100	20, 40, 80, 100	20, 40, 80, 100		300	0
		10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100		300	1
CA_n78(2A)	CA_n78(2A)	10, 20, 40, 50, 60, 80, 90, 100	10, 20, 40, 50, 60, 80, 90, 100			200	0

		10, 20, 25, 30, 40, 50, 60, 80, 90, 100	10, 20, 25, 30, 40, 50, 60, 80, 90, 100			200	1
		10, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	10, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100			200	2
CA_n96(2A)	-	20, 40, 60, 80	20, 40, 60, 80			160	0
CA_n96(3A)	-	20, 40, 60, 80	20, 40, 60, 80	20, 40, 60, 80		240	0
CA_n96(4A)	-	20, 40, 60, 80	20, 40, 60, 80	20, 40, 60, 80	20, 40, 60, 80	320	0

NOTE 1: Void.
NOTE 2: Parameter value accounts for both, the maximum frequency range of band n48 (150 MHz), and the minimum frequency gaps in between NR non-contiguous component carriers.
NOTE 3: Power Class 2 is allowed for this uplink combination or single uplink carrier in this downlink/uplink combination.
NOTE 4: Power Class 1.5 is allowed for this uplink combination or single uplink carrier in this downlink/uplink combination.
NOTE 5: Only single uplink carriers with power class other than PC3 are listed.

Table 5.5A.2-2: NR CA configurations and bandwidth combination sets defined for mixed intra-band contiguous and non-contiguous CA

NR CA configuration	Uplink CA configuration or single uplink carrier[4]	NR Band	Channel bandwidth (MHz)													Bandwidth combination set
			5	10	15	20	25	30	40	50	60	70	80	90	100	
CA_n41 (A-C)	n41[2,3]	n41		10	15	20		30	40	50	60	70	80	90	100	0
		n41	See CA_n41C Bandwidth Combination Set 2 in Table 5.5A.1-1													
		n41	See n41 channel bandwidths in Table 5.3.5-1													4 and 5
		n41	See CA_n41C Bandwidth Combination Set 4 and 5 in Table 5.5A.1-1													
CA_n41 (2A-C)	-	n41	See CA_n41(2A) Bandwidth Combination Set 3 in Table 5.5A.2-1													0
		n41	See CA_n41C Bandwidth Combination Set 1 in Table 5.5A.1-1													
		n41	See CA_n41(2A) Bandwidth Combination Set 4 and 5 in Table 5.5A.2-1													4 and 5
		n41	See CA_n41C Bandwidth Combination Set 4 and 5 in Table 5.5A.1-1													
CA_n48 (A-B)	CA_n48B	n48	5	10	15	20			40	50[1]	60[1]		80[1]	90[1]	100[1]	0
		n48	See CA_n48B Bandwidth Combination Set 0 in Table 5.5A.1-1													
	CA_n48B	n48	5	10	15	20		30	40	50[1]	60[1]	70[1]	80[1]	90[1]	100[1]	1
		n48	See CA_n48B Bandwidth Combination Set 2 in Table 5.5A.1-1													
CA_n48 (A-C)	-	n48	5	10	15	20			40	50[1]	60[1]		80[1]	90[1]	100[1]	0
		n48	See CA_n48C Bandwidth Combination Set 0 in Table 5.5A.1-1													
	-	n48	5	10	15	20		30	40	50[1]	60[1]	70[1]	80[1]	90[1]	100[1]	1
		n48	See CA_n48C Bandwidth Combination Set 1 in Table 5.5A.1-1													

NOTE 1: This UE channel bandwidth is applicable only to downlink
NOTE 2: Power Class 2 is allowed for this uplink combination or single uplink carrier in this downlink/uplink combination
NOTE 3: Power Class 1.5 is allowed for this uplink combination or single uplink carrier in this downlink/uplink combination
NOTE 4: Only single uplink carriers with power class other than PC3 are listed.

5.5A.3 Configurations for inter-band CA

Table 5.5A.3-1: Void

Table 5.5A.3-2: Void

Table 5.5A.3-3: Void

5.5A.3.1 Configurations for inter-band CA (two bands)

Table 5.5A.3.1-1a: NR CA configurations and bandwidth combinations sets defined for inter-band CA (two bands)

NR CA configuration	Uplink CA configuration or single uplink carrier[10]	NR Band	Channel bandwidth (MHz) (NOTE 3)	Bandwidth combination set
CA_n1A-n3A	CA_n1A-n3A	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30	
		n1	5, 10, 15, 20, 25, 30, 40, 50	1
		n3	5, 10, 15, 20, 25, 30, 40	
CA_n1A-n3B	-	n1	5, 10, 15, 20	0
		n3	CA_n3B_BCS0	
CA_n1B-n3A	CA_n1A-n3A	n1	CA_n1B_BCS0	0
		n3	5, 10, 15, 20, 25, 30	
		n1	CA_n1B_BCS0	1
		n3	5, 10, 15, 20, 25, 30, 40	
CA_n1A-n3(2A)	CA_n1A-n3A	n1	5, 10, 15, 20	0
		n3	CA_n3(2A)_BCS0	
		n1	5, 10, 15, 20, 25, 30, 40, 50	1
		n3	CA_n3(2A)_BCS0	
		n1	5, 10, 15, 20	2
		n3	CA_n3(2A)_BCS1	
CA_n1(2A)-n3A	-	n1	CA_n1(2A)_BCS0	0
		n3	5, 10, 15, 20, 25, 30, 40	
CA_n1(2A)-n3(2A)	-	n1	CA_n1(2A)_BCS0	0
		n3	CA_n3(2A)_BCS1	
CA_n1(2A)-n3B	-	n1	CA_n1(2A)_BCS0	0
		n3	CA_n3B_BCS0	
CA_n1A-n5A	CA_n1A-n5A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n5	5, 10, 15, 20	
CA_n1(2A)-n5A	-	n1	CA_n1(2A)_BCS0	0
		n5	5, 10, 15, 20	
CA_n1A-n7A	CA_n1A-n7A	n1	5, 10, 15, 20	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n1	5, 10, 15, 20, 25, 30, 40, 50	1
		n7	5, 10, 15, 20, 25, 30, 40, 50	
CA_n1A-n7B	CA_n1A-n7A CA_n7B	n1	5, 10, 15, 20	0
		n7	CA_n7B_BCS0	
CA_n1(2A)-n7A	-	n1	CA_n1(2A)_BCS0	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
CA_n1A-n8A	CA_n1A-n8A	n1	5, 10, 15, 20	0
		n8	5, 10, 15, 20	
		n1	5, 10, 15, 20, 25, 30, 40	1
		n8	5, 10, 15, 20	
CA_n1(2A)-n8A	-	n1	CA_n1(2A)_BCS0	0
		n8	5, 10, 15, 20	
CA_n1A-n18A	CA_n1A-n18A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n18	5, 10, 15	
CA_n1A-n20A	CA_n1A-n20A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n20	5, 10, 15, 20	
CA_n1A-n28A	CA_n1A-n28A	n1	5, 10, 15, 20	0
		n28	5, 10, 15, 20	
		n1	5, 10, 15, 20, 25, 30, 40, 50	1
		n28	5, 10, 15, 20, 30	
CA_n1(2A)-n28A	-	n1	CA_n1(2A)_BCS0	0
		n28	5, 10, 15, 20	
CA_n1A-n38A	-	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n38	5, 10, 15, 20, 25, 30, 40	
CA_n1(2A)-n38A	-	n1	CA_n1(2A)_BCS0	0

		n38	5, 10, 15, 20, 25, 30, 40	
CA_n1A-n40A	CA_n1A-n40A	n1	5, 10, 15, 20	0
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	
CA_n1A-n40B	-	n1	5, 10, 15, 20	0
		n40	CA_n40B_BCS0	
CA_n1A-n41A	CA_n1A-n41A	n1	5, 10, 15, 20	0
		n41	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n1	5, 10, 15, 20, 25, 30, 40, 50	1
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
CA_n1A-n67A	-	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n67	5, 10, 15, 20	
CA_n1A-n74A	CA_n1A-n74A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n74	5, 10, 15, 20	
CA_n1A-n77A	CA_n1A-n77A	n1	5, 10, 15, 20	0
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n1A-n77(2A)	CA_n1A-n77A	n1	5, 10, 15, 20	0
		n77	CA_n77(2A)_BCS0	
CA_n1A-n77(3A)	CA_n1A-n77A	n1	5, 10, 15, 20	0
		n77	CA_n77(3A)_BCS1	
CA_n1A-n78A	n78[8] CA_n1A-n78A[8]	n1	5, 10, 15, 20	0
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n1	5, 10, 15, 20, 25, 30, 40, 50	1
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n1	5, 10, 15, 20, 25, 30, 40	2
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n1	5, 10, 15, 20	3
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n78(2A)	CA_n1A-n78A	n1	5, 10, 15, 20	0
		n78	CA_n78(2A)_BCS0	
		n1	5, 10, 15, 20, 25, 30, 40, 50	1
		n78	CA_n78(2A)_BCS1	
		n1	5, 10, 15, 20	2
		n78	CA_n78(2A)_BCS2	
CA_n1A-n78C	CA_n78C CA_n1A-n78A	n1	5, 10, 15, 20	0
		n78	CA_n78C_BCS0	
		n1	5, 10, 15, 20, 25, 30, 40, 50	1
		n78	CA_n78C_BCS0	
		n1	5, 10, 15, 20, 25, 30, 40	2
		n78	CA_n78C_BCS0	
CA_n1(2A)-n78A	-	n1	CA_n1(2A)_BCS0	0
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n79A	CA_n1A-n79A	n1	5, 10, 15, 20	0
		n79	40, 50, 60, 80, 100	
CA_n1A-n79C	CA_n1A-n79A	n1	5, 10, 15, 20	0
		n79	CA_n79C_BCS0	
CA_n1(2A)-n79A	-	n1	CA_n1(2A)_BCS0	0
		n79	40, 60, 80, 100	
CA_n1(2A)-n79C	-	n1	CA_n1(2A)_BCS0	0
		n79	CA_n79C_BCS0	

Table 5.5A.3.1-1b: NR CA configurations and bandwidth combinations sets defined for inter-band CA (two bands)

NR CA configuration	Uplink CA configuration or single uplink carrier[10]	NR Band	Channel bandwidth (MHz) (NOTE 3)	Bandwidth combination set
CA_n2A-n5A	CA_n2A-n5A	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
CA_n2A-n5B	CA_n2A-n5A	n2	5, 10, 15, 20	0

	CA_n5B			
		n5	CA_n5B_BCS0	
CA_n2(2A)-n5A	CA_n2A-n5A	n2	CA_n2(2A)_BCS0	0
		n5	5, 10, 15, 20	
CA_n2A-n7A	CA_n2A-n7A	n2	5, 10, 15, 20	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
CA_n2A-n7(2A)	CA_n2A-n7A	n2	5, 10, 15, 20	0
		n7	CA_n7(2A)_BCS0	
CA_n2A-n12A	CA_n2A-n12A	n2	5, 10, 15, 20	0
		n12	5, 10, 15	
CA_n2(2A)-n12A	CA_n2A-n12A	n2	CA_n2(2A)_BCS0	0
		n12	5, 10, 15	
CA_n2A-n14A	CA_n2A-n14A	n2	5, 10, 15, 20	0
		n14	5, 10	
CA_n2(2A)-n14A	CA_n2A-n14A	n2	CA_n2(2A)_BCS0	0
		n14	5, 10	
CA_n2A-n29A	-	n2	5, 10, 15, 20	0
		n29	5, 10	
CA_n2(2A)-n29A	-	n2	CA_n2(2A)_BCS0	0
		n29	5, 10	
CA_n2A-n30A	CA_n2A-n30A	n2	5, 10, 15, 20	0
		n30	5, 10	
CA_n2(2A)-n30A	CA_n2A-n30A	n2	CA_n2(2A)_BCS0	0
		n30	5, 10	
CA_n2A-n38A	-	n2	5, 10, 15, 20	0
		n38	5, 10, 15, 20, 40	
CA_n2A-n41A	-	n2	5, 10, 15, 20	0
		n41	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n2A-n48A	CA_n2A-n48A	n2	5, 10, 15, 20	0
		n48	5, 10, 15, 20, 40, 50[1], 60[1], 80[1], 90[1], 100[1]	
CA_n2A-n48B	CA_n2A-n48A	n2	5, 10, 15, 20	0
		n48	CA_n48B_BCS0	
CA_n2A-n48C	CA_n2A-n48A	n2	5, 10, 15, 20	0
		n48	CA_n48C_BCS0	
CA_n2A-n48(2A)	CA_n2A-n48A	n2	5, 10, 15, 20	0
		n48	CA_n48(2A)_BCS0	
CA_n2A-n48(A-B)	CA_n2A-n48A	n2	5, 10, 15, 20	0
		n48	CA_n48(A-B)_BCS0	
		n2	5, 10, 15, 20	1
		n48	CA_n48(A-B)_BCS1	
CA_n2A-n48(A-C)	CA_n2A-n48A	n2	5, 10, 15, 20	0
		n48	CA_n48(A-C)_BCS0	
CA_n2A-n66A	-	n2	5, 10, 15, 20	0
		n66	5, 10, 15, 20, 40	
	CA_n2A-n66A	n2	5, 10, 15, 20	1
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2(2A)-n66A	CA_n2A-n66A	n2	CA_n2(2A)_BCS0	0
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2A-n66(2A)	CA_n2A-n66A	n2	5, 10, 15, 20	0
		n66	CA_n66(2A)_BCS1	
CA_n2(2A)-n66(2A)	CA_n2A-n66A	n2	CA_n2(2A)_BCS0	0
		n66	CA_n66(2A)_BCS1	
CA_n2(2A)-n66(3A)	CA_n2A-n66A	n2	CA_n2(2A)_BCS0	0
		n66	CA_n66(3A)_BCS0	
CA_n2A-n66(3A)	CA_n2A-n66A	n2	5, 10, 15, 20	0
		n66	CA_n66(3A)_BCS0	
CA_n2A-n66B	CA_n2A-n66A	n2	5, 10, 15, 20	0
		n66	CA_n66B_BCS0	
CA_n2A-n71A	-	n2	5, 10, 15, 20	0
		n71	5, 10, 15, 20	
CA_n2A-n77A	n77[8,9] CA_n2A-n77A[8]	n2	5, 10, 15, 20	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n77(2A)	n77[8,9] CA_n2A-n77A[8]	n2	5, 10, 15, 20	0

	CA_n77(2A)[7]			
		n77	CA_n77(2A)_BCS0	
		n2	5, 10, 15, 20	1
		n77	CA_n77(2A)_BCS1	
CA_n2A-n77C	n77[8, 9] CA_n2A-n77A[8]	n2	5, 10, 15, 20	0
		n77	CA_n77C_BCS0	
CA_n2(2A)-n77A	n77[8, 9] CA_n2A-n77A[8]	n2	CA_n2(2A)_BCS0	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2(2A)-n77(2A)	n77[8] CA_n2A-n77A[8] CA_n77(2A)[7]	n2	CA_n2(2A)_BCS0	0
		n77	CA_n77(2A)_BCS1	
CA_n2(2A)-n77C	n77[8, 9] CA_n2A-n77A[8]	n2	CA_n2(2A)_BCS0	0
		n77	CA_n77C_BCS1	
CA_n2A-n78A	n78 CA_n2A-n78A	n2	5, 10, 15, 20	0
		n78	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
		n2	5, 10, 15, 20	1
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n78(2A)	CA_n2A-n78A	n2	5, 10, 15, 20	0
		n78	CA_n78(2A)_BCS1	
		n2	5, 10, 15, 20	1
		n78	CA_n78(2A)_BCS2	

Table 5.5A.3.1-1c: NR CA configurations and bandwidth combinations sets defined for inter-band CA (two bands)

NR CA configuration	Uplink CA configuration or single uplink carrier[10]	NR Band	Channel bandwidth (MHz) (NOTE 3)	Bandwidth combination set
CA_n3A-n5A	CA_n3A-n5A	n3	5, 10, 15, 20, 25, 30, 40, 50	0
		n5	5, 10, 15, 20	
CA_n3(2A)-n5A	-	n3	CA_n3(2A)_BCS0	0
		n5	5, 10, 15, 20	
CA_n3A-n7A	CA_n3A-n7A	n3	5, 10, 15, 20, 25, 30	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n3	5, 10, 15, 20, 25, 30, 40	1
		n7	5, 10, 15, 20, 25, 30, 40, 50	
CA_n3A-n7B	CA_n3A-n7A CA_n7B	n3	5, 10, 15, 20, 25, 30	0
		n7	CA_n7B_BCS0	
		n3	5, 10, 15, 20, 25, 30, 40	1
		n7	CA_n7B_BCS0	
CA_n3(2A)-n7A	-	n3	CA_n3(2A)_BCS0	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n3	CA_n3(2A)_BCS1	1
		n7	5, 10, 15, 20, 25, 30, 40, 50	
CA_n3B-n7A	-	n3	CA_n3B_BCS0	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
CA_n3A-n8A	CA_n3A-n8A	n3	5, 10, 15, 20, 25, 30	0
		n8	5, 10, 15, 20	
		n3	5, 10, 15, 20, 25, 30, 40, 50	1
		n8	5, 10, 15, 20	
CA_n3(2A)-n8A	-	n3	CA_n3(2A)_BCS0	0
		n8	5, 10, 15, 20	
CA_n3A-n18A	CA_n3A-n18A	n3	5, 10, 15, 20, 25, 30, 40	0
		n18	5, 10, 15	
CA_n3A-n20A	CA_n3A-n20A	n3	5, 10, 15, 20, 25, 30, 40	0
		n20	5, 10, 15, 20	
CA_n3A-n28A	CA_n3A-n28A	n3	5, 10, 15, 20, 25, 30	0

		n28	5, 10, 15, 20	
		n3	5, 10, 15, 20, 25, 30, 40	1
		n28	5, 10, 15, 20	
		n3	5, 10, 15, 20, 25, 30, 40, 50	2
		n28	5, 10, 15, 20, 30	
CA_n3(2A)-n28A	-	n3	CA_n3(2A)_BCS0	0
		n28	5, 10, 15, 20	
CA_n3A-n34A	CA_n3A-n34A	n3	5, 10, 15, 20, 25, 30	0
		n34	5, 10, 15	
CA_n3A-n38A	CA_n3A-n38A	n3	5, 10, 15, 20, 25, 30	0
		n38	5, 10, 15, 20, 40	
CA_n3B-n38A	-	n3	CA_n3B_BCS0	0
		n38	5, 10, 15, 20, 25, 30, 40	
CA_n3(2A)-n38A	-	n3	CA_n3(2A)_BCS1	0
		n38	5, 10, 15, 20, 25, 30, 40	
CA_n3A-n40A	CA_n3A-n40A	n3	5, 10, 15, 20, 25, 30	0
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	
CA_n3A-n41A	n41[8] CA_n3A-n41A[8]	n3	5, 10, 15, 20, 25, 30	0
		n41	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n3	5, 10, 15, 20, 25, 30	1
		n41	10, 15, 20, 40, 50, 60	
		n3	5, 10, 15, 20, 25, 30, 40	2
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
CA_n3A-n41B	CA_n3A-n41A	n3	5, 10, 15, 20	0
		n41	CA_n41B_BCS0	
CA_n3A-n41C	CA_n3A-n41A	n3	5, 10, 15, 20, 25, 30	0
		n41	CA_n41C_BCS0	
CA_n3A-n41(2A)	CA_n3A-n41A	n3	5, 10, 15, 20, 25, 30	0
		n41	CA_n41(2A)_BCS0	
CA_n3A-n67A	-	n3	5, 10, 15, 20, 25, 30, 40, 50	0
		n67	5, 10, 15, 20	
CA_n3A-n74A	CA_n3A-n74A	n3	5, 10, 15, 20, 25, 30, 40	0
		n74	5, 10, 15, 20	
CA_n3A-n77A	CA_n3A-n77A	n3	5, 10, 15, 20, 25, 30	0
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n3A-n77(2A)	CA_n77(2A) CA_n3A-n77A	n3	5, 10, 15, 20, 25, 30	0
		n77	CA_n77(2A)_BCS0	
CA_n3A-n77(3A)	CA_n3A-n77A	n3	5, 10, 15, 20, 25, 30, 40	0
		n77	CA_n77(3A)_BCS0	
CA_n3A-n78A	n78[8] CA_n3A-n78A[8]	n3	5, 10, 15, 20, 25, 30	0
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n3	5, 10, 15, 20, 25, 30, 40,	1
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n3A-n78C	CA_n78C CA_n3A-n78A	n3	5, 10, 15, 20, 25, 30	0
		n78	CA_n78C_BCS0	
		n3	5, 10, 15, 20, 25, 30, 40	1
		n78	CA_n78C_BCS0	
CA_n3A-n78(2A)	CA_n3A-n78A CA_n78(2A)	n3	5, 10, 15, 20, 25, 30	0
		n78	CA_n78(2A)_BCS0	
	CA_n3A-n78A	n3	5, 10, 15, 20, 25, 30, 40	1
		n78	CA_n78(2A)_BCS2	
CA_n3(2A)-n78A	-	n3	CA_n3(2A)_BCS0	0
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n3	CA_n3(2A)_BCS1	1
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n3B-n78A	-	n3	CA_n3B_BCS0	0
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	

CA_n3A-n79A	CA_n3A-n79A	n3	5, 10, 15, 20, 25, 30	0
		n79	40, 50, 60, 80, 100	
		n3	5, 10, 15, 20, 25, 30, 40, 50	1
		n79	40, 50, 60, 80, 100	
CA_n3(2A)-n79A	CA_n3A-n79A	n3	CA_n3(2A)_BCS1	0
		n79	40, 50, 60, 80, 100	
CA_n3A-n79C	CA_n79C CA_n3A-n79A	n3	5, 10, 15, 20, 25, 30	0
		n79	CA_n79C_BCS0	
CA_n3(2A)-n79C	CA_n3A-n79A	n3	CA_n3(2A)_BCS1	0
		n79	CA_n79C_BCS0	
CA_n3B-n79A	-	n3	CA_n3B_BCS0	0
		n79	40, 50, 60, 80, 100	
CA_n3B-n79C	-	n3	CA_n3B_BCS0	0
		n79	CA_n79C_BCS0	

Table 5.5A.3.1-1d: NR CA configurations and bandwidth combinations sets defined for inter-band CA (two bands)

NR CA configuration	Uplink CA configuration or single uplink carrier[10]	NR Band	Channel bandwidth (MHz) (NOTE 3)	Bandwidth combination set
CA_n5A-n7A	CA_n5A-n7A	n5	5, 10, 15, 20	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
CA_n5A-n7B	CA_n5A-n7A CA_n7B	n5	5, 10, 15, 20	0
		n7	CA_n7B_BCS0	
CA_n5A-n12A	CA_n5A-n12A	n5	5, 10, 15, 20	0
		n12	5, 10, 15	
CA_n5A-n14A	CA_n5A-n14A	n5	5, 10, 15, 20	0
		n14	5, 10	
CA_n5A-n25A	CA_n5A-n25A	n5	5, 10, 15, 20	0
		n25	5, 10, 15, 20, 25, 30, 40	
CA_n5A-n25(2A)	CA_n5A-n25A	n5	5, 10, 15, 20	0
		n25	CA_n25(2A)_BCS0	
CA_n5A-n28A	-	n5	5, 10, 15, 20	0
		n28	5, 10, 15, 20, 30	
CA_n5A-n29A	-	n5	5, 10, 15, 20	0
		n29	5, 10	
CA_n5A-n30A	CA_n5A-n30A	n5	5, 10, 15, 20	0
		n30	5, 10	
CA_n5A-n40A	CA_n5A-n40A	n5	5, 10, 15, 20, 25[1]	0
		n40	5[5], 10, 15, 20, 25, 30, 40, 50, 60, 70, 80,90,100	
CA_n5A-n48A	CA_n5A-n48A	n5	5, 10, 15, 20	0
		n48	5, 10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n5A-n48(2A)	CA_n5A-n48A	n5	5, 10, 15, 20	0
		n48	CA_n48(2A)_BCS0	
CA_n5A-n48B	CA_n5A-n48A	n5	5, 10, 15, 20	0
		n48	CA_n48B_BCS0	
CA_n5A-n48C	CA_n5A-n48A	n5	5, 10, 15, 20	0
		n48	CA_n48C_BCS0	
CA_n5A-n48(A-B)	CA_n5A-n48A	n5	5, 10, 15, 20	0
		n48	CA_n48(A-B)_BCS0	
		n5	5, 10, 15, 20	1
		n48	CA_n48(A-B)_BCS1	
CA_n5A-n66A	CA_n5A-n66A	n5	5, 10, 15, 20	0
		n66	5, 10, 15, 20, 40	
		n5	5, 10, 15, 20	1
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n5B-n66A	CA_n5A-n66A CA_n5B	n5	CA_n5B_BCS0	0
		n66	5, 10, 15, 20, 25, 30, 40	

CA_n5A-n66(2A)	CA_n5A-n66A	n5	5, 10, 15, 20	0
		n66	CA_n66(2A)_BCS0	
		n5	5, 10, 15, 20	1
		n66	CA_n66(2A)_BCS1	
CA_n5A-n66(3A)	CA_n5A-n66A	n5	5, 10, 15, 20	0
		n66	CA_n66(3A)_BCS0	
CA_n5B-n66(2A)	CA_n5A-n66A CA_n5B	n5	CA_n5B_BCS0	0
		n66	CA_n66(2A)_BCS1	
CA_n5A-n77A	n77[8, 9] CA_n5A-n77A[8]	n5	5, 10, 15, 20	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n77(2A)	n77[8] CA_n5A-n77A[8] CA_n77(2A)	n5	5, 10, 15, 20	0
		n77	CA_n77(2A)_BCS0	
		n5	5, 10, 15, 20	1
		n77	CA_n77(2A)_BCS1	
CA_n5(2A)-n77A	n77[8] CA_n5A-n77A[8]	n5	CA_n5(2A)_BCS0	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n77C	77[8, 9] CA_n5A-n77A[8]	n5	5, 10, 15, 20	0
		n77	CA_n77C_BCS0	
		n5	5, 10, 15, 20	1
		n77	CA_n77C_BCS1	
CA_n5(2A)-n77C	n77[8] CA_n5A-n77A[8]	n5	CA_n5(2A)_BCS0	0
		n77	CA_n77C_BCS0	
		n5	CA_n5(2A)_BCS0	1
		n77	CA_n77C_BCS1	
CA_n5B-n77A	n77[8] CA_n5A-n77A[8] CA_n5B	n5	CA_n5B_BCS0	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5B-n77C	n77[8] CA_n5A-n77A[8] CA_n5B	n5	CA_n5B_BCS0	0
		n77	CA_n77C_BCS0	
		n5	CA_n5B_BCS0	1
		n77	CA_n77C_BCS1	
CA_n5A-n78A	n77[8] CA_n5A-n78A[8]	n5	5, 10, 15, 20	0
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n5	5, 10, 15, 20	1
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n78(2A)	CA_n5A-n78A	n5	5, 10, 15, 20	0
		n78	CA_n78(2A)_BCS2	
CA_n5A-n78C	CA_n5A-n78A	n5	5, 10, 15, 20	0
		n78	CA_n78C_BCS0	
		n5	5, 10, 15, 20	1
		n78	CA_n78C_BCS1	
CA_n5A-n79A	CA_n5A-n79A	n5	5, 10, 15, 20	0
		n79	40, 50, 60, 80, 100	
CA_n5A-n79C	CA_n5A-n79A	n5	5, 10, 15, 20	0
		n79	CA_n79C_BCS0	

Table 5.5A.3.1-1e: NR CA configurations and bandwidth combinations sets defined for inter-band CA (two bands)

NR CA configuration	Uplink CA configuration or single uplink carrier[10]	NR Band	Channel bandwidth (MHz) (NOTE 3)	Bandwidth combination set
CA_n7A-n8A	-	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n8	5, 10, 15, 20	
CA_n7A-n25A	CA_n7A-n25A	n7	5, 10, 15, 20, 25, 30, 40	0
		n25	5, 10, 15, 20, 25, 30, 40	
CA_n7A-n25(2A)	CA_n7A-n25A	n7	5, 10, 15, 20, 25, 30, 40	0
		n25	CA_n25(2A)_BCS0	
CA_n7(2A)-n25A	CA_n7A-n25A	n7	CA_n7(2A)_BCS0	0
		n25	5, 10, 15, 20, 25, 30, 40	
CA_n7(2A)-n25(2A)	CA_n7A-n25A	n7	CA_n7(2A)_BCS0	0
		n25	CA_n25(2A)_BCS0	
CA_n7A-n28A	CA_n7A-n28A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n28	5, 10, 15, 20	
CA_n7B-n28A	CA_n7A-n28A CA_n7B	n7	CA_n7B_BCS0	0
		n28	5, 10, 15, 20	
CA_n7A-n40A	CA_n7A-n40A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n46A	CA_n7A-n46A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n46	20, 40, 60, 80	
CA_n7A-n46C	CA_n7A-n46A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n46	CA_n46C_BCS0	
CA_n7A-n46D	CA_n7A-n46A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n46	CA_n46D_BCS0	
CA_n7A-n66A	CA_n7A-n66A	n7	5, 10, 15, 20	0
		n66	10, 15, 20, 40	
		n7	5, 10, 15, 20, 25, 30, 40	1
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n7A-n66(2A)	CA_n7A-n66A	n7	5, 10, 15, 20, 25, 30, 40	0
		n66	CA_n66(2A)_BCS1	
CA_n7(2A)-n66A	CA_n7A-n66A	n7	CA_n7(2A)_BCS0	0
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n7(2A)-n66(2A)	CA_n7A-n66A	n7	CA_n7(2A)_BCS0	0
		n66	CA_n66(2A)_BCS1	
CA_n7A-n77A	CA_n7A-n77A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7(2A)-n77A	CA_n7A-n77A	n7	CA_n7(2A)_BCS0	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n77(2A)	CA_n7A-n77A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n77	CA_n77(2A)_BCS1	
CA_n7(2A)-n77(2A)	CA_n7A-n77A	n7	CA_n7(2A)_BCS0	0
		n77	CA_n77(2A)_BCS1	
CA_n7A-n78A	n77[8] CA_n7A-n78A[8]	n7	5, 10, 15, 20	0
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n7	5, 10, 15, 20, 25, 30, 40, 50	1
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7B-n78A	n77[8] CA_n7A-n78A[8] CA_n7B	n7	CA_n7B_BCS0	0
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n78(2A)	CA_n7A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n78	CA_n78(2A)_BCS0	
		n7	5, 10, 15, 20, 25, 30, 40, 50	1
		n78	CA_n78(2A)_BCS2	
CA_n7(2A)-n78A	CA_n7A-n78A	n7	CA_n7(2A)_BCS0	0
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n7	CA_n7(2A)_BCS0	1

		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7(2A)-n78(2A)	CA_n7A-n78A	n7	CA_n7(2A)_BCS0	0
		n78	CA_n78(2A)_BCS0	
		n7	CA_n7(2A)_BCS0	1
		n78	CA_n78(2A)_BCS2	
CA_n7A-n79A	-	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n79	40, 50, 60, 80, 100	
CA_n7A-n79C	-	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n79	CA_n79C_BCS0	
CA_n8A-n20A	-	n8	5, 10, 15, 20	0
		n20	5, 10, 15, 20	
CA_n8A-n28A	-	n8	5, 10, 15, 20	0
		n28	5, 10, 15, 20, 30	
CA_n8A-n34A	CA_n8A-n34A	n8	5, 10, 15, 20	0
		n34	5, 10, 15	
CA_n8A-n38A	-	n8	5, 10, 15, 20	0
		n38	5, 10, 15, 20, 25, 30, 40	
CA_n8A-n39A	CA_n8A-n39A	n8	5, 10, 15, 20	0
		n39	5, 10, 15, 20, 25, 30, 40	
CA_n8A-n40A	CA_n8A-n40A	n8	5, 10, 15, 20	0
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	
CA_n8A-n41A	CA_n8A-n41A	n8	5, 10, 15, 20	0
		n41	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n8	5, 10, 15, 20	1
		n41	10, 15, 20, 40, 50, 60	
CA_n8A-n75A	-	n8	5, 10, 15, 20	0
		n75	5, 10, 15, 20	
CA_n8A-n77A	-	n8	5, 10, 15, 20	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n8A-n77(2A)	-	n8	5, 10, 15, 20	0
		n77	CA_n77(2A)_BCS1	
CA_n8A-n78A	CA_n8A-n78A	n8	5, 10, 15, 20	0
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n8	5, 10, 15, 20	1
		n78	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
CA_n8A-n78(2A)	CA_n8A-n78A	n8	5, 10, 15, 20	0
		n78	CA_n78(2A)_BCS1	
CA_n8A-n79A	CA_n8A-n79A	n8	5, 10, 15, 20	0
		n79	10, 20, 40, 50, 60, 80, 100	

Table 5.5A.3.1-1f: NR CA configurations and bandwidth combinations sets defined for inter-band CA (two bands)

NR CA configuration	Uplink CA configuration or single uplink carrier[10]	NR Band	Channel bandwidth (MHz) (NOTE 3)	Bandwidt combinati set
CA_n12A-n25A	-	n12	5, 10, 15	0
		n25	5, 10, 15, 20, 25, 30, 40	
CA_n12A-n30A	CA_n12A-n30A	n12	5, 10, 15	0
		n30	5, 10	
CA_n12A-n48A	-	n12	5, 10, 15	0
		n48	10, 15, 20, 30, 40	
CA_n12A-n66A	CA_n12A-n66A	n12	5, 10, 15	0
		n66	5, 10, 15, 20, 40	
CA_n12A-n66(2A)	CA_n12A-n66A	n12	5, 10, 15	0
		n66	CA_n66(2A)_BCS1	
CA_n12A-n66(3A)	CA_n12A-n66A	n12	5, 10, 15	0
		n66	CA_n66(3A)_BCS0	
CA_n12A-n71A	-	n12	5, 10, 15	0
		n71	5, 10, 15, 20	
CA_n12A-n77A	n77[8, 9]	n12	5, 10, 15	0

	CA_n12A-n77A[8]			
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n12A-n77(2A)	n77[8, 9] CA_n12A-n77A[8]	n12	5, 10, 15	0
		n77	CA_n77(2A)_BCS1	
CA_n13A-n25A	CA_n13A-n25A	n13	5, 10	0
		n25	5, 10, 15, 20, 25, 30, 40	
CA_n13A-n66A	CA_n13A-n66A	n13	5, 10	0
		n66	5, 10, 15, 20, 40	
		n13	5, 10,	1
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n13A-n77A	n77[8, 9] CA_n13A-n77A[8]	n13	5, 10	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n14A-n30A	CA_n14A-n30A	n14	5, 10	0
		n30	5, 10	
CA_n14A-n66A	CA_n14A-n66A	n14	5, 10	0
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n14A-n66(2A)	CA_n14A-n66A	n14	5, 10	0
		n66	CA_n66(2A)_BCS1	
CA_n14A-n66(3A)	CA_n14A-n66A	n14	5, 10	0
		n66	CA_n66(3A)_BCS0	
CA_n14A-n77A	n77[8, 9] CA_n14A-n77A[8]	n14	5, 10	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n14A-n77(2A)	n77[8, 9] CA_n14A-n77A[8]	n14	5, 10	0
		n77	CA_n77(2A)_BCS1	
CA_n18A-n28A	n77[8] CA_n14A-n77A[8]	n18	5, 10, 15	0
		n28	5, 10	
CA_n18A-n41A	CA_n18A-n41A	n18	5, 10, 15	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
CA_n18A-n74A	CA_n18A-n74A	n18	5, 10, 15	0
		n74	5, 10, 15, 20	
CA_n18A-n77A	CA_n18A-n77A	n18	5, 10, 15	0
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n18A-n77(2A)	CA_n18A-n77A	n18	5, 10, 15	0
		n77	CA_n77(2A)_BCS0	
CA_n18A-n77(3A)	CA_n18A-n77A	n18	5, 10, 15	0
		n77	CA_n77(3A)_BCS1	
CA_n18A-n78A	CA_n18A-n78A	n18	5, 10, 15	0
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n18A-n78(2A)	CA_n18A-n78A	n18	5, 10, 15	0
		n78	CA_n78(2A)_BCS2	

Table 5.5A.3.1-1g: NR CA configurations and bandwidth combinations sets defined for inter-band CA (two bands)

NR CA configuration	Uplink CA configuration or single uplink carrier[10]	NR Band	Channel bandwidth (MHz) (NOTE 3)	Bandwidth combination set
CA_n20A-n28A	CA_n20A-n28A	n20	5, 10, 15, 20	0
		n28	5, 10, 15, 20	
		n20	5, 10, 15, 20	1
		n28	5, 10, 15, 20, 30	
CA_n20A-n40A	-	n20	5, 10, 15, 20	0
		n40	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n20A-n67A	-	n20	5, 10, 15, 20	0
		n67	5, 10, 15, 20	
CA_n20A-n75A	-	n20	5, 10, 15, 20	0
		n75	5, 10, 15, 20	
CA_n20A-n78A	CA_n20A-n78A	n20	5, 10, 15, 20	0

		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n24A-n41A	CA_n24A-n41A	n24	5, 10	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
CA_n24A-n41(2A)	CA_n24A-n41A	n24	5, 10	0
		n41	CA_n41(2A)_BCS1	
CA_n24A-n48A	CA_n24A-n48A	n24	5, 10	0
		n48	5, 10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n24A-n48B	CA_n24A-n48A	n24	5, 10	0
		n48	CA_n48B_BCS1	
CA_n24A-n48(2A)	CA_n24A-n48A	n24	5, 10	0
		n48	CA_n48(2A)_BCS0	
CA_n24A-n48(3A)	CA_n24A-n48A	n24	5, 10	0
		n48	CA_n48(3A)_BCS0	
CA_n24A-n77A	CA_n24A-n77A	n24	5, 10	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n24A-n77C	CA_n24A-n77A	n24	5, 10	0
		n77	CA_n77C_BCS1	
CA_n24A-n77(2A)	CA_n24A-n77A	n24	5, 10	0
		n77	CA_n77(2A)_BCS0	
CA_n25A-n29A	-	n25	5, 10, 15, 20, 25, 30, 40	0
		n29	5, 10	
CA_n25A-n38A	CA_n25A-n38A	n25	5, 10, 15, 20, 25, 30, 40	0
		n38	5, 10, 15, 20, 25, 30, 40	
CA_n25(2A)-n38A	CA_n25A-n38A	n25	CA_n25(2A)_BCS0	0
		n38	5, 10, 15, 20, 25, 30, 40	
CA_n25A-n41A	n41[8, 9] CA_n25A-n41A[8]	n25	5, 10, 15, 20	0
		n41	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n25	5, 10, 15, 20, 25, 30, 40	1
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25(2A)-n41A	n41[8, 9] CA_n25A-n41A[8]	n25	CA_n25(2A)_BCS0	0
		n41	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n25	CA_n25(2A)_BCS1	1
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25(2A)-n41C	n41[8, 9] CA_n25A-n41A[8]	n25	CA_n25(2A)_BCS1	0
		n41	CA_n41C_BCS2	
CA_n25(2A)-n41(2A)	n41[8, 9] CA_n25A-n41A [8]	n25	CA_n25(2A)_BCS1	0
		n41	CA_n41(2A)_BCS3	
CA_n25A-n41C	n41[8, 9] CA_n25A-n41A[8] CA_n41C	n25	5, 10, 15, 20	0
		n41	CA_n41C_BCS0	
		n25	5, 10, 15, 20, 25, 30, 40	1
		n41	CA_n41C_BCS1	
CA_n25A-n41(2A)	n41[8, 9] CA_n25A-n41A[8]	n25	5, 10, 15, 20	0
		n41	CA_n41(2A)_BCS1	
		n25	5, 10, 15, 20, 25, 30, 40	1
		n41	CA_n41(2A)_BCS3	
CA_n25A-n41(3A)	n41[8, 9] CA_n25A-n41A[8]	n25	5, 10, 15, 20, 25, 30, 40	0
		n41	CA_n41(3A)_BCS0	
CA_n25A-n41(A-C)	n41[8, 9] CA_n25A-n41A[8]	n25	5, 10, 15, 20, 25, 30, 40	0
		n41	CA_n41(A-C)_BCS0	
CA_n25A-n46A	-	n25	5, 10, 15, 20	0
		n46	20, 40, 60, 80	
CA_n25A-n48A	CA_n25A-n48A	n25	5, 10, 15, 20	0
		n48	5, 10, 15, 20, 40, 50, 60, 80, 90, 100	
		n25	5, 10, 15, 20, 25, 30, 40	1

		n48	5, 10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n25A-n48(2A)	CA_n25A-n48A	n25	5, 10, 15, 20	0
		n48	CA_n48(2A)_BCS0	
		n25	5, 10, 15, 20, 25, 30, 40	1
		n48	CA_n48(2A)_BCS0	
CA_n25A-n48C	CA_n25A-n48A	n25	5, 10, 15, 20	0
		n48	CA_n48C_BCS0	
		n25	5, 10, 15, 20, 25, 30, 40	1
		n48	CA_n48C_BCS0	
CA_n25A-n66A	CA_n25A-n66A	n25	5, 10, 15, 20, 25, 30, 40	0
		n66	5, 10, 15, 20, 30, 40	
		n25	5, 10, 15, 20, 25, 30, 40	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
CA_n25A-n66(2A)	CA_n25A-n66A	n25	5, 10, 15, 20, 25, 30, 40	0
		n66	CA_n66(2A)_BCS0	
		n25	5, 10, 15, 20, 25, 30, 40	1
		n66	CA_n66(2A)_BCS1	
		n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	CA_n66(2A)_BCS 4 and 5	
CA_n25(2A)-n66A	CA_n25A-n66A	n25	CA_n25(2A)_BCS0	0
		n66	10, 15, 20, 30, 40	
		n25	CA_n25(2A)_BCS0	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n25	CA_n25(2A)_BCS1	2
		n66	5, 10, 15, 20, 25, 30, 40	
		n25	CA_n25(2A)_BCS 4 and 5	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
CA_n25(2A)-n66(2A)	CA_n25A-n66A	n25	CA_n25(2A)_BCS0	0
		n66	CA_n66(2A)_BCS0	
		n25	CA_n25(2A)_BCS0	1
		n66	CA_n66(2A)_BCS1	
		n25	CA_n25(2A)_BCS1	2
		n66	CA_n66(2A)_BCS1	
		n25	CA_n25(2A)_BCS 4 and 5	4 and 5
		n66	CA_n66(2A)_BCS 4 and 5	
CA_n25A-n71A	CA_n25A-n71A	n25	5, 10, 15, 20	0
		n71	5, 10, 15, 20	
		n25	5, 10, 15, 20, 25, 30, 40	1
		n71	5, 10, 15, 20	
		n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n71	n71 channel bandwidths in Table 5.3.5-1	
CA_n25A-n71B	CA_n25A-n71A	n25	5, 10, 15, 20, 25, 30, 40	0
		n71	CA_n71B_BCS0	
		n25	5, 10, 15, 20, 25, 30, 40	1
		n71	CA_n71B_BCS2	
		n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n71	CA_n71B_BCS 4 and 5	
CA_n25A-n71(2A)	CA_n25A-n71A	n25	5, 10, 15, 20	0
		n71	CA_n71(2A)_BCS0	
		n25	5, 10, 15, 20, 25, 30, 40	1
		n71	CA_n71(2A)_BCS0	
		n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n71	CA_n71(2A)_BCS 4 and 5	
CA_n25(2A)-n71A	CA_n25A-n71A	n25	CA_n25(2A)_BCS1	0
		n71	5, 10, 15, 20	
		n25	CA_n25(2A)_BCS 4 and 5	4 and 5
		n71	n71 channel bandwidths in Table 5.3.5-1	
CA_n25(2A)-n71(2A)	CA_n25A-n71A	n25	CA_n25(2A)_BCS1	0
		n71	CA_n71(2A)_BCS0	
		n25	CA_n25(2A)_BCS 4 and 5	4 and 5
		n71	CA_n71(2A)_BCS 4 and 5	

CA_n25(2A)-n71B	CA_n25A-n71A	n25	CA_n25(2A)_BCS1	0
		n71	CA_n71B_BCS2	
		n25	CA_n25(2A)_BCS 4 and 5	4 and 5
		n71	CA_n71B_BCS 4 and 5	
CA_n25A-n77A	n77[8,9] CA_n25A-n77A[8]	n25	5, 10, 15, 20	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n25	5, 10, 15, 20, 25, 30, 40	1
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n25A-n77(2A)	n77[8,9] CA_n25A-n77A[8]	n25	5, 10, 15, 20, 25, 30, 40	0
		n77	CA_n77(2A)_BCS1	
		n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n77	CA_n77(2A)_BCS 4 and 5	
CA_n25(2A)-n77A	n77[8,9] CA_n25A-n77A[8]	n25	CA_n25(2A)_BCS1	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n25	CA_n25(2A)_BCS0	1
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n25	CA_n25(2A)_BCS 4 and 5	4 and 5
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n25(2A)-n77(2A)	CA_n25A-n77A	n25	CA_n25(2A)_BCS1	0
		n77	CA_n77(2A)_BCS1	
		n25	CA_n25(2A)_BCS0	1
		n77	CA_n77(2A)_BCS1	
		n25	CA_n25(2A)_BCS 4 and 5	4 and 5
		n77	CA_n77(2A)_BCS 4 and 5	
CA_n25A-n78A	CA_n25A-n78A	n25	5, 10, 15, 20, 25, 30, 40	0
		n78	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
		n25	5, 10, 15, 20, 25, 30, 40	1
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25A-n78(2A)	CA_n25A-n78A	n25	5, 10, 15, 20, 25, 30, 40	0
		n78	CA_n78(2A)_BCS0	
		n25	5, 10, 15, 20, 25, 30, 40	1
		n78	CA_n78(2A)_BCS2	
CA_n25(2A)-n78A	CA_n25A-n78A	n25	CA_n25(2A)_BCS0	0
		n78	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
		n25	CA_n25(2A)_BCS0	1
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25(2A)-n78(2A)	CA_n25A-n78A	n25	CA_n25(2A)_BCS0	0
		n78	CA_n78(2A)_BCS1	
		n25	CA_n25(2A)_BCS0	1
		n78	CA_n78(2A)_BCS2	

Table 5.5A.3.1-1h: NR CA configurations and bandwidth combinations sets defined for inter-band CA (two bands)

NR CA configuration	Uplink CA configuration or single uplink carrier[10]	NR Band	Channel bandwidth (MHz) (NOTE 3)	Bandwidt combinati set
CA_n26A-n66A	CA_n26A-n66A	n26	5, 10, 15, 20	0
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n26A-n66(2A)	CA_n26A-n66A	n26	5, 10, 15, 20	0
		n66	CA_n66(2A)_BCS0	

CA_n26A-n70A	CA_n26A-n70A	n26	5, 10, 15, 20	0
		n70	5, 10, 15, 20[1], 25[1]	
CA_n28A-n34A	CA_n28A-n34A	n28	5, 10, 15, 20, 30	0
		n34	5, 10, 15	
CA_n28A-n38A	-	n28	5, 10, 15, 20, 30	0
		n38	5, 10, 15, 20, 25, 30, 40	
CA_n28A-n39A	CA_n28A-n39A	n28	5, 10, 15, 20, 30	0
		n39	5, 10, 15, 20, 25, 30, 40	
CA_n28A-n40A	CA_n28A-n40A	n28	5, 10, 15, 20	0
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	
CA_n28A-n40B	-	n28	5, 10, 15, 20	0
		n40	CA_n40B_BCS0	
CA_n28A-n41A	n41[8] CA_n28A-n41A[8]	n28	5, 10, 15, 20	0
		n41	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n28	5, 10, 15, 20, 30	1
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
CA_n28A-n41B	CA_n28A-n41A	n28	5, 10	0
		n40	CA_n41B_BCS0	
CA_n28A-n41C	CA_n28A-n41A CA_n41C	n28	5, 10, 15, 20, 30	0
		n41	CA_n41C_BCS1	
CA_n28A-n46A	CA_n28A-n46A	n28	5, 10, 15, 20	0
		n46	20, 40, 60, 80	
CA_n28A-n46C	CA_n28A-n46A	n28	5, 10, 15, 20	0
		n46	CA_n46C_BCS0	
CA_n28A-n46D	CA_n28A-n46A	n28	5, 10, 15, 20	0
		n46	CA_n46D_BCS0	
CA_n28A-n50A	CA_n28A-n50A	n28	5, 10, 15, 20	0
		n50	5, 10, 15, 20, 40, 50, 60, 80[1]	
CA_n28A-n71A	-	n28	5, 10, 15, 20, 30	0
		n71	5, 10, 15, 20	
CA_n28A-n74A	CA_n28A-n74A	n28	5, 10, 15, 20, 30	0
		n74	5, 10, 15, 20	
CA_n28A-n75A	-	n28	5, 10, 15, 20	0
		n75	5, 10, 15, 20	
	-	n28	5, 10, 15, 20	1
		n75	5, 10, 15, 20, 25, 30, 40, 50	
CA_n28A-n77A	CA_n28A-n77A	n28	5, 10, 15, 20	0
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n28A-n77(2A)	CA_n77(2A) CA_n28A-n77A	n28	5, 10, 15, 20	0
		n77	CA_n77(2A)_BCS0	
CA_n28A-n77(3A)	CA_n28A-n77A	n28	5, 10	0
		n77	CA_n77(3A)_BCS0	
CA_n28A-n78A	n77[8] CA_n28A-n78A[8]	n28	5, 10, 15, 20	0
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n28	5, 10, 15, 20, 30	1
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n28A-n78(2A)	CA_n78(2A) CA_n28A-n78A	n28	5, 10, 15, 20	0
		n78	CA_n78(2A)_BCS0	
		n28	5, 10, 15, 20	1
		n78	CA_n78(2A)_BCS2	
CA_n28A-n79A	n79[8] CA_n28A-n79A[8]	n28	5, 10, 15, 20, 30	0
		n79	40, 50, 60, 80, 100	
CA_n28A-n79C	CA_n79C	n28	5, 10, 15, 20, 30	0
		n79	CA_n79C_BCS0	
CA_n29A-n30A	-	n29	5, 10	0
		n30	5, 10	
CA_n29A-n66A	-	n29	5, 10	0
		n66	5, 10, 15, 20, 40	
		n29	5, 10	1

		n66	5, 10, 15, 20, 25, 30, 40	
CA_n29A-n66B	-	n29	5, 10	0
		n66	CA_n66B_BCS0	
CA_n29A-n66(2A)	-	n29	5, 10	0
		n66	CA_n66(2A)_BCS0	
		n29	5, 10	1
		n66	CA_n66(2A)_BCS1	
CA_n29A-n66(3A)	-	n29	5, 10	0
		n66	CA_n66(3A)_BCS0	
CA_n29A-n70A	-	n29	5, 10	0
		n70	5, 10, 15, 20[1], 25[1]	
CA_n29A-n71A	-	n29	5, 10	0
		n71	5, 10, 15, 20	
CA_n29A-n77A	n77[8, 9]	n29	5, 10	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n29A-n77(2A)	n77[8, 9]	n29	5, 10	0
		n77	CA_n77(2A)_BCS1	

Table 5.5A.3.1-1i: NR CA configurations and bandwidth combinations sets defined for inter-band CA (two bands)

NR CA configuration	Uplink CA configuration or single uplink carrier[10]	NR Band	Channel bandwidth (MHz) (NOTE 3)	Bandwidt combinati set
CA_n30A-n66A	CA_n30A-n66A	n30	5, 10	0
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n30A-n66(2A)	CA_n30A-n66A	n30	5, 10	0
		n66	CA_n66(2A)_BCS1	
CA_n30A-n66(3A)	CA_n30A-n66A	n30	5, 10	0
		n66	CA_n66(3A)_BCS0	
CA_n30A-n77A	n77[8, 9] CA_n30A-n77A[8]	n30	5, 10	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n30A-n77(2A)	n77[8, 9] CA_n77(2A) CA_n30A-n77A[8]	n30	5, 10	0
		n77	CA_n77(2A)_BCS1	
CA_n34A-n40A	CA_n34A-n40A	n34	5, 10, 15	0
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	
CA_n34A-n41A	CA_n34A-n41A	n34	5, 10, 15	0
		n41	10, 15, 20, 30 ,40 ,50, 60, 70, 80, 90, 100	
CA_n34A-n41C	CA_n34A-n41A	n34	5, 10, 15	0
		n41	CA_n41C_BCS1	
CA_n34A-n79A	CA_n34A-n79A	n34	5, 10, 15	0
		n79	40, 50, 60, 80, 100	
CA_n34A-n79C	CA_n34A-n79A	n34	5, 10, 15	0
		n79	CA_n79C_BCS0	
CA_n38A-n40A	-	n38	5, 10, 15, 20, 25, 30, 40	0
		n40	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n38A-n66A	CA_n38A-n66A	n38	5, 10, 15, 20	0
		n66	5, 10, 15, 20, 30, 40	
		n38	5, 10, 15, 20, 25, 30, 40	1
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n38A-n66(2A)	CA_n38A-n66A	n38	5, 10, 15, 20	0
		n66	CA_n66(2A)_BCS1	
		n38	5, 10, 15, 20, 25, 30, 40	1
		n66	CA_n66(2A)_BCS1	
CA_n38A-n71A	-	n38	5, 10, 15, 20	0
		n71	5, 10, 15, 20	
CA_n38A-n78A	CA_n38A-n78A	n38	5, 10, 15, 20	0
		n78	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
		n38	5, 10, 15, 20, 25, 30, 40	1
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	

CA_n38A-n78(2A)	CA_n38A-n78A	n38	5, 10, 15, 20	0
		n78	CA_n78(2A)_BCS0	
		n38	5, 10, 15, 20	1
		n78	CA_n78(2A)_BCS2	
CA_n38A-n79A	-	n38	5, 10, 15, 20, 25, 30, 40	0
		n79	40, 50, 60, 80, 100	
CA_n38A-n79C	-	n38	5, 10, 15, 20, 25, 30, 40	0
		n79	CA_n79C_BCS0	
CA_n39A-n40A	CA_n39A-n40A	n39	5, 10, 15, 20, 25, 30, 40	0
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	
CA_n39A-n41A	CA_n39A-n41A	n39	5, 10, 15, 20, 25, 30, 40	0
		n41	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n39A-n41C	CA_n39A-n41A	n39	5, 10, 15, 20, 25, 30, 40	0
		n41	CA_n41C_BCS0	
CA_n39A-n41(2A)	CA_n39A-n41A	n39	5, 10, 15, 20, 25, 30, 40	0
		n41	CA_n41(2A)_BCS0	
CA_n39A-n79A	CA_n39A-n79A	n39	5, 10, 15, 20, 25, 30, 40	0
		n79	40, 50, 60, 80, 100	
CA_n40A-n41A	n41[8] CA_n40A-n41A[8]	n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	0
		n41	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n40	5, 10, 15, 20, 25, 30, 40	1
		n41	10, 15, 20, 40, 50, 60	
CA_n40A-n41C	CA_n41C CA_n40A-n41A	n40	5, 10, 15, 20, 25, 30, 40	0
		n41	CA_n41C_BCS0	
CA_n40A-n77A	CA_n40A-n77A	n40	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70[4], 80, 90[4], 100	
CA_n40A-n77(2A)	CA_n40A-n77A	n40	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	0
		n77	CA_n77(2A)_BCS1	
CA_n40A-n77C	-	n40	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	0
		n77	CA_n77C_BCS1	
CA_n40B-n77A	CA_n40A-n77A	n40	CA_n40B_BCS1	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70[4], 80, 90[4], 100	
CA_n40B-n77(2A)	CA_n40A-n77A	n40	CA_n40B_BCS1	0
		n77	CA_n77(2A)_BCS1	
CA_n40B-n77C	CA_n40A-n77A	n40	CA_n40B_BCS1	0
		n77	CA_n77C_BCS1	
CA_n40A-n78A	CA_n40A-n78A	n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	0
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	1
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n40A-n78(2A)	CA_n40A-n78A	n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	0
		n78	CA_n78(2A)_BCS1	
CA_n40A-n78C	CA_n40A-n78A	n40	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n78	CA_n78C_BCS1	
CA_n40B-n78A	-	n40	CA_n40B_BCS0	0
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
	CA_n40A-n78A	n40	CA_n40B_BCS1	1
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n40B-n78(2A)	CA_n40A-n78A	n40	CA_n40B_BCS1	0
		n78	CA_n78(2A)_BCS2	
CA_n40B-n78C	CA_n40A-n78A	n40	CA_n40B_BCS1	0
		n78	CA_n78C_BCS1	
CA_n40A-n79A	CA_n40A-n79A	n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	0
		n79	40, 50, 60, 80, 100	
		n40	5, 10, 15, 20, 25, 30, 40	1
		n79	40, 50, 60, 80, 100	

Table 5.5A.3.1-1j: NR CA configurations and bandwidth combinations sets defined for inter-band CA (two bands)

NR CA configuration	Uplink CA configuration or single uplink carrier[10]	NR Band	Channel bandwidth (MHz) (NOTE 3)	Bandwidth combination set
CA_n41A-n48A	CA_n41A-n48A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n48	5, 10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n41A-n48B	CA_n41A-n48A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n48	CA_n48B_BCS2	
CA_n41A-n48C	CA_n41A-n48A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n48	CA_n48C_BCS1	
CA_n41A-n48(2A)	CA_n41A-n48A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0
		n48	CA_n48(2A)_BCS0	
CA_n41C-n48A	CA_n41A-n48A	n41	CA_n41C_BCS2	0
		n48	5, 10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n41C-n48B	CA_n41A-n48A	n41	CA_n41C_BCS2	0
		n48	CA_n48B_BCS2	
CA_n41C-n48C	CA_n41A-n48A	n41	CA_n41C_BCS2	0
		n48	CA_n48C_BCS1	
CA_n41(2A)-n48A	CA_n41A-n48A	n41	CA_n41(2A)_BCS3	0
		n48	5, 10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n41(2A)-n48B	CA_n41A-n48A	n41	CA_n41(2A)_BCS3	0
		n48	CA_n48B_BCS2	
CA_n41(2A)-n48C	CA_n41A-n48A	n41	CA_n41(2A)_BCS3	0
		n48	CA_n48C_BCS1	
CA_n41(2A)-n48(2A)	CA_n41A-n48A	n41	CA_n41(2A)_BCS1	0
		n48	CA_n48(2A)_BCS0	
CA_n41A-n50A	CA_n41A-n50A	n41	10, 15, 20, 40, 50, 60, 80, 90, 100	0
		n50	5, 10, 15, 20, 40, 50, 60, 80[1]	
CA_n41A-n66A	n41[8,9] CA_n41A-n66A[8]	n41	10, 15, 20, 40, 50, 60, 80, 90, 100	0
		n66	5, 10, 15, 20, 40	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
CA_n41(2A)-n66A	n41[8, 9]	n41	CA_n41(2A)_BCS1	0
		n66	5, 10, 15, 20, 40	
	n41[8, 9] CA_n41A-n66A[8]	n41	CA_n41(2A)_BCS1	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n41	CA_n41(2A)_BCS 4 and 5	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
CA_n41A-n66(2A)	n41[8, 9] CA_n41A-n66A[8]	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	CA_n66(2A)_BCS1	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	1
		n66	CA_n66(2A)_BCS1	
		n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	CA_n66(2A)_BCS 4 and 5	
CA_n41C-n66A	n41[8, 9]	n41	CA_n41C_BCS0	0
		n66	5, 10, 15, 20, 40	
	n41[8, 9] CA_n41C CA_n41A-n66A[8]	n41	CA_n41C_BCS1	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n41	CA_n41C_BCS 4 and 5	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
CA_n41C-n66(2A)	n41[8, 9] CA_n41A-n66A[8]	n41	CA_n41C_BCS2	0
		n66	CA_n66(2A)_BCS1	
		n41	CA_n41C_BCS 4 and 5	4 and 5
		n66	CA_n66(2A)_BCS 4 and 5	
CA_n41(2A)-n66(2A)	n41[8, 9] CA_n41A-n66A[8]	n41	CA_n41(2A)_BCS3	0

		n66	CA_n66(2A)_BCS1	
		n41	CA_n41(2A)_BCS 4 and 5	4 and 5
		n66	CA_n66(2A)_BCS 4 and 5	
CA_n41(3A)-n66A	n41[8, 9] CA_n41A-n66A[8]	n41	CA_n41(3A)_BCS0	0
		n66	5, 10, 15, 20, 25, 30, 40,	
		n41	CA_n41(3A)_BCS 4 and 5	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
CA_n41(A-C)-n66A	n41[8, 9] CA_n41A-n66A[8]	n41	CA_n41(A-C)_BCS0	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n41	CA_n41(A-C)_BCS 4 and 5	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
CA_n41A-n70A	CA_n41A-n70A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n70	5, 10, 15, 20[1], 25[1]	
CA_n41A-n71A	n41[8,9] CA_n41A-n71A[8]	n41	10, 15, 20, 40, 50, 60, 80, 90, 100	0
		n71	5, 10, 15, 20	
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	1
		n71	5, 10, 15, 20	
		n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5
		n71	n71 channel bandwidths in Table 5.3.5-1	
CA_n41A-n71B	n41[8,9] CA_n41A-n71A[8]	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0
		n71	CA_n71B_BCS0	
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	1
		n71	CA_n71B_BCS2	
		n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5
		n71	CA_n71B_BCS 4 and 5	
CA_n41A-n71(2A)	n41[8,9] CA_n41A-n71A[8]	n41	10, 15, 20, 40, 50, 60, 80, 90, 100	0
		n71	CA_n71(2A)_BCS0	
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	1
		n71	CA_n71(2A)_BCS0	
		n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5
		n71	CA_n71(2A)_BCS 4 and 5	
CA_n41C-n71A	n41[8, 9] CA_n41C CA_n41A-n71A[8]	n41	CA_n41C_BCS0	0
		n71	5, 10, 15, 20	
		n41	CA_n41C_BCS1	1
		n71	5, 10, 15, 20	
		n41	CA_n41C_BCS 4 and 5	4 and 5
		n71	n71 channel bandwidths in Table 5.3.5-1	
CA_n41C-n71(2A)	n41[8,9] CA_n41A-n71A[8]	n41	CA_n41C_BCS1	0
		n71	CA_n71(2A)_BCS0	
		n41	CA_n41C_BCS 4 and 5	4 and 5
		n71	CA_n71(2A)_BCS 4 and 5	
CA_n41(2A)-n71A	n41[8, 9] CA_n41A-n71A[8]	n41	CA_n41(2A)_BCS1	0
		n71	5, 10, 15, 20	
		n41	CA_n41(2A)_BCS3	1
		n71	5, 10, 15, 20	
		n41	CA_n41(2A)_BCS 4 and 5	4 and 5
		n71	n71 channel bandwidths in Table 5.3.5-1	
CA_n41(2A)-n71(2A)	n41[8,9] CA_n41A-n71A[8]	n41	CA_n41(2A)_BCS1	0
		n71	CA_n71(2A)_BCS0	
		n41	CA_n41(2A)_BCS 4 and 5	4 and 5
		n71	CA_n71(2A)_BCS 4 and 5	
CA_n41(2A)-n71B	n41[8,9] CA_n41A-n71A[8]	n41	CA_n41(2A)_BCS1	0
		n71	CA_n71B_BCS0	
		n41	CA_n41(2A)_BCS1	1
		n71	CA_n71B_BCS2	

		n41	CA_n41(2A)_BCS 4 and 5	4 and 5
		n71	CA_n71B_BCS 4 and 5	
CA_n41(3A)-n71A	n41[8,9] CA_n41A-n71A[8]	n41	CA_n41(3A)_BCS0	0
		n71	5, 10, 15, 20	
		n41	CA_n41(3A)_BCS 4 and 5	4 and 5
		n71	n71 channel bandwidths in Table 5.3.5-1	
CA_n41(A-C)-n71A	n41[8,9] CA_n41A-n71A[8]	n41	CA_n41(A-C)_BCS0	0
		n71	5, 10, 15, 20	
		n41	CA_n41(A-C)_BCS 4 and 5	4 and 5
		n71	n71 channel bandwidths in Table 5.3.5-1	
CA_n41C-n71B	n41[8,9] CA_n41A-n71A[8]	n41	CA_n41C_BCS0	0
		n71	CA_n71B_BCS0	
		n41	CA_n41C_BCS1	1
		n71	CA_n71B_BCS2	
		n41	CA_n41C_BCS 4 and 5	4 and 5
		n71	CA_n71B_BCS 4 and 5	
CA_n41A-n74A	CA_n41A-n74A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0
		n74	5, 10, 15, 20	
CA_n41A-n77A	n41[8,9] n77[8,9] CA_n41A-n77A[8]	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	1
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n41B-n77A	CA_n41A-n77A	n41	CA_n41B_BCS0	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n41(2A)-n77A	n41[8,9] n77[8,9] CA_n41A-n77A[8]	n41	CA_n41(2A)_BCS1	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n41	CA_n41(2A)_BCS 4 and 5	4 and 5
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n41(3A)-n77A	n41[8,9] n77[8,9] CA_n41A-n77A[8]	n41	CA_n41(3A)_BCS0	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n41	CA_n41(3A)_BCS 4 and 5	4 and 5
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n41(A-C)-n77A	n41[8,9] n77[8,9] CA_n41A-n77A[8]	n41	CA_n41(A-C)_BCS0	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n41	CA_n41(A-C)_BCS 4 and 5	4 and 5
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n41C-n77A	n41[8,9] n77[8,9] CA_n41A-n77A[8] CA_n41C	n41	CA_n41C_BCS0	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n41	CA_n41C_BCS 4 and 5	4 and 5
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n41A-n77(2A)	n41[8,9] n77[8,9] CA_n41A-n77A[8]	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n77	CA_n77(2A)_BCS1	
		n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5
		n77	CA_n77(2A)_BCS 4 and 5	
CA_n41A-n77(3A)	CA_n41A-n77A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0
		n77	CA_n77(3A)_BCS0	
CA_n41(2A)-n77(2A)	-	n41	CA_n41(2A)_BCS1	0
		n77	CA_n77(2A)_BCS1	

CA_n41A-n77C	CA_n41A-n77A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0
		n77	CA_n77C_BCS0	
CA_n41A-n78A	CA_n41A-n78A	n41	10, 15, 20, 40, 50, 60, 80, 100	0
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	1
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n41A-n78(2A)	CA_n41A-n78A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0
		n78	CA_n78(2A)_BCS2	
CA_n41A-n78C	CA_n41A-n78A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0
		n78	CA_n78C_BCS0	
CA_n41A-n79A	n41[8] n79[8] CA_n41A-n79A[8]	n41	10, 15, 20, 40, 50, 60, 80, 90, 100	0
		n79	40, 50, 60, 80, 100	
		n41	10, 15, 20, 40, 50, 60	1
		n79	40, 50, 60, 80, 100	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	2
		n79	40, 50, 60, 80, 100	
CA_n41C-n79A	CA_n41A-n79A CA_n41C	n41	CA_n41C_BCS0	0
		n79	40, 50, 60, 80, 100	

Table 5.5A.3.1-1k: NR CA configurations and bandwidth combinations sets defined for inter-band CA (two bands)

NR CA configuration	Uplink CA configuration or single uplink carrier[10]	NR Band	Channel bandwidth (MHz) (NOTE 3)	Bandwidth combination set
CA_n46A-n48A	CA_n46A-n48A	n46	20, 40, 60, 80	0
		n48	20	
		n46	20, 40, 60, 80	1
		n48	5, 10, 15, 20, 40, 50[1], 60[1], 80[1], 90[1], 100[1]	
CA_n46A-n48(2A)	CA_n46A-n48A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48(2A)_BCS0	
CA_n46A-n48(3A)	CA_n46A-n48A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48(3A)_BCS0	
CA_n46A-n48(4A)	CA_n46A-n48A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48(4A)_BCS0	
CA_n46A-n48B	CA_n46A-n48A CA_n46A-n48B	n46	20, 40, 60, 80	0
		n48	CA_n48B_BCS0	
CA_n46A-n48C	CA_n46A-n48A CA_n46A-n48B	n46	20, 40, 60, 80	0
		n48	CA_n48C_BCS0	
CA_n46B-n48A	CA_n46A-n48A	n46	CA_n46B_BCS0	0
		n48	20	
		n46	CA_n46B_BCS0	1
		n48	5, 10, 15, 20, 40, 50[1], 60[1], 80[1], 90[1], 100[1]	
CA_n46B-n48(2A)	CA_n46A-n48A	n46	CA_n46B_BCS0	0
		n48	CA_n48(2A)_BCS0	
CA_n46B-n48(3A)	CA_n46A-n48A	n46	CA_n46B_BCS0	0
		n48	CA_n48(3A)_BCS0	
CA_n46B-n48(4A)	CA_n46A-n48A	n46	CA_n46B_BCS0	0
		n48	CA_n48(4A)_BCS0	
CA_n46B-n48B	CA_n46A-n48A CA_n46A-n48B	n46	CA_n46B_BCS0	0
		n48	CA_n48B_BCS0	
CA_n46B-n48C	CA_n46A-n48A CA_n46A-n48B	n46	CA_n46B_BCS0	0
		n48	CA_n48C_BCS0	
CA_n46C-n48A	CA_n46A-n48A	n46	CA_n46C_BCS0	0
		n48	20	
		n46	CA_n46C_BCS0	1

		n48	5, 10, 15, 20, 40, 50[1], 60[1], 80[1], 90[1], 100[1]	
CA_n46C-n48(2A)	CA_n46A-n48A	n46	CA_n46C_BCS0	0
		n48	CA_n48(2A)_BCS0	
CA_n46C-n48(3A)	CA_n46A-n48A	n46	CA_n46C_BCS0	0
		n48	CA_n48(3A)_BCS0	
CA_n46C-n48(4A)	CA_n46A-n48A	n46	CA_n46C_BCS0	0
		n48	CA_n48(4A)_BCS0	
CA_n46C-n48B	CA_n46A-n48A CA_n46A-n48B	n46	CA_n46C_BCS0	0
		n48	CA_n48B_BCS0	
CA_n46C-n48C	CA_n46A-n48A CA_n46A-n48B	n46	CA_n46C_BCS0	0
		n48	CA_n48C_BCS0	
CA_n46D-n48A	CA_n46A-n48A	n46	CA_n46D_BCS0	0
		n48	20	
		n46	CA_n46D_BCS0	1
		n48	5, 10, 15, 20, 40, 50[1], 60[1], 80[1], 90[1], 100[1]	
CA_n46D-n48(2A)	CA_n46A-n48A	n46	CA_n46D_BCS0	0
		n48	CA_n48(2A)_BCS0	
CA_n46D-n48(3A)	CA_n46A-n48A	n46	CA_n46D_BCS0	0
		n48	CA_n48(3A)_BCS0	
CA_n46D-n48(4A)	CA_n46A-n48A	n46	CA_n46D_BCS0	0
		n48	CA_n48(4A)_BCS0	
CA_n46D-n48B	CA_n46A-n48A CA_n46A-n48B	n46	CA_n46D_BCS0	0
		n48	CA_n48B_BCS0	
CA_n46D-n48C	CA_n46A-n48A CA_n46A-n48B	n46	CA_n46D_BCS0	0
		n48	CA_n48C_BCS0	
CA_n46M-n48A	-	n46	CA_n46M_BCS0	0
		n48	20	
CA_n46M-n48(2A)	-	n46	CA_n46M_BCS0	0
		n48	CA_n48(2A)_BCS0	
CA_n46M-n48(3A)	-	n46	CA_n46M_BCS0	0
		n48	CA_n48(3A)_BCS0	
CA_n46M-n48(4A)	-	n46	CA_n46M_BCS0	0
		n48	CA_n48(4A)_BCS0	
CA_n46M-n48B	-	n46	CA_n46M_BCS0	0
		n48	CA_n48B_BCS0	
CA_n46M-n48C	-	n46	CA_n46M_BCS0	0
		n48	CA_n48C_BCS0	
CA_n46N-n48A	CA_n46A-n48A	n46	CA_n46N_BCS0	0
		n48	5, 10, 15, 20, 40, 50[1], 60[1], 80[1], 90[1], 100[1]	
CA_n46N-n48(2A)	CA_n46A-n48A	n46	CA_n46N_BCS0	0
		n48	CA_n48(2A)_BCS0	
CA_n46N-n48(3A)	CA_n46A-n48A	n46	CA_n46N_BCS0	0
		n48	CA_n48(3A)_BCS0	
CA_n46N-n48(4A)	CA_n46A-n48A	n46	CA_n46N_BCS0	0
		n48	CA_n48(4A)_BCS0	
CA_n46N-n48B	CA_n46A-n48A CA_n46A-n48B	n46	CA_n46N_BCS0	0
		n48	CA_n48B_BCS0	
CA_n46N-n48C	CA_n46A-n48A CA_n46A-n48B	n46	CA_n46N_BCS0	0
		n48	CA_n48C_BCS0	
CA_n46A-n66A	-	n46	20, 40, 60, 80	0
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n46A-n78A	CA_n46A-n78A	n46	20, 40, 60, 80	0
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n46C-n78A	CA_n46A-n78A	n46	CA_n46C_BCS0	0
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n46D-n78A	CA_n46A-n78A	n46	CA_n46D_BCS0	0
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n46A-n96A	-	n46	10, 20, 40, 60, 80	0
		n96	20, 40, 60, 80	

CA_n46B-n96A	-	n46	CA_n46B_BCS0	0
		n96	20, 40, 60, 80	
CA_n46C-n96A	-	n46	CA_n46C_BCS0	0
		n96	20, 40, 60, 80	
CA_n46D-n96A	-	n46	CA_n46D_BCS0	0
		n96	20, 40, 60, 80	
CA_n46M-n96A	-	n46	CA_n46M_BCS0	0
		n96	20, 40, 60, 80	
CA_n46N-n96A	-	n46	CA_n46N_BCS0	0
		n96	20, 40, 60, 80	
CA_n46A-n96B	-	n46	10, 20, 40, 60, 80	0
		n96	CA_n96B_BCS0	
CA_n46B-n96B	-	n46	CA_n46B_BCS0	0
		n96	CA_n96B_BCS0	
CA_n46C-n96B	-	n46	CA_n46C_BCS0	0
		n96	CA_n96B_BCS0	
CA_n46D-n96B	-	n46	CA_n46D_BCS0	0
		n96	CA_n96B_BCS0	
CA_n46M-n96B	-	n46	CA_n46M_BCS0	0
		n96	CA_n96B_BCS0	
CA_n46N-n96B	-	n46	CA_n46N_BCS0	0
		n96	CA_n96B_BCS0	
CA_n46A-n96C	-	n46	10, 20, 40, 60, 80	0
		n96	CA_n96C_BCS0	
CA_n46B-n96C	-	n46	CA_n46B_BCS0	0
		n96	CA_n96C_BCS0	
CA_n46C-n96C	-	n46	CA_n46C_BCS0	0
		n96	CA_n96C_BCS0	
CA_n46D-n96C	-	n46	CA_n46D_BCS0	0
		n96	CA_n96C_BCS0	
CA_n46M-n96C	-	n46	CA_n46M_BCS0	0
		n96	CA_n96C_BCS0	
CA_n46N-n96C	-	n46	CA_n46N_BCS0	0
		n96	CA_n96C_BCS0	
CA_n46A-n96D	-	n46	10, 20, 40, 60, 80	0
		n96	CA_n96D_BCS0	
CA_n46B-n96D	-	n46	CA_n46B_BCS0	0
		n96	CA_n96D_BCS0	
CA_n46C-n96D	-	n46	CA_n46C_BCS0	0
		n96	CA_n96D_BCS0	
CA_n46D-n96D	-	n46	CA_n46D_BCS0	0
		n96	CA_n96D_BCS0	
CA_n46M-n96D	-	n46	CA_n46M_BCS0	0
		n96	CA_n96D_BCS0	
CA_n46N-n96D	-	n46	CA_n46N_BCS0	0
		n96	CA_n96D_BCS0	
CA_n46A-n96E	-	n46	10, 20, 40, 60, 80	0
		n96	CA_n96E_BCS0	
CA_n46B-n96E	-	n46	CA_n46B_BCS0	0
		n96	CA_n96E_BCS0	
CA_n46C-n96E	-	n46	CA_n46C_BCS0	0
		n96	CA_n96E_BCS0	
CA_n46D-n96E	-	n46	CA_n46D_BCS0	0
		n96	CA_n96E_BCS0	
CA_n46M-n96E	-	n46	CA_n46M_BCS0	0
		n96	CA_n96E_BCS0	
CA_n46N-n96E	-	n46	CA_n46N_BCS0	0
		n96	CA_n96E_BCS0	

Table 5.5A.3.1-1l: NR CA configurations and bandwidth combinations sets defined for inter-band CA (two bands)

NR CA configuration	Uplink CA configuration or single uplink carrier[10]	NR Band	Channel bandwidth (MHz) (NOTE 3)	Bandwidth combination set
CA_n48A-n53A	-	n48	5, 10, 15, 20, 40, 50, 60, 80, 90, 100	0
		n53	5, 10	
CA_n48(2A)-n53A	-	n48	CA_n48(2A)_BCS0	0
		n53	5, 10	
CA_n48A-n66A	CA_n48A-n66A	n48	5, 10, 15, 20, 40, 50[1], 60[1], 80[1], 90[1], 100[1]	0
		n66	5, 10, 15, 20, 40	
		n48	5, 10, 15, 20, 40, 50[1], 60[1], 80[1], 90[1], 100[1]	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n48	5, 10, 15, 20, 30, 40, 50[1], 60[1], 70[1] , 80[1], 90[1], 100[1]	2
		n66	5, 10, 15, 20, 25, 30, 40,	
CA_n48A-n66(2A)	CA_n48A-n66A	n48	5, 10, 15, 20, 30, 40, 50[1], 60[1], 70[1] , 80[1], 90[1], 100[1]	0
		n66	CA_n66(2A)_BCS0	
CA_n48B-n66A	CA_n48A-n66A	n48	CA_n48B_BCS0	0
		n66	5, 10, 15, 20, 40	
		n48	CA_n48B_BCS1	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n48	CA_n48B_BCS2	2
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n48B-n66(2A)	CA_n48A-n66A	n48	CA_n48B_BCS2	0
		n66	CA_n66(2A)_BCS0	
CA_n48C-n66A	CA_n48A-n66A	n48	CA_n48C_BCS0	0
		n66	5, 10, 15, 20, 40	
		n48	CA_n48C_BCS0	1
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n48(2A)-n66A	CA_n48A-n66A	n48	CA_n48(2A)_BCS0	0
		n66	5, 10, 15, 20, 40	
		n48	CA_n48(2A)_BCS0	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n48	CA_n48(2A)_BCS1	2
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n48(2A)-n66(2A)	CA_n48A-n66A	n48	CA_n48(2A)_BCS1	0
		n66	CA_n66(2A)_BCS0	
CA_n48(A-B)-n66A	CA_n48A-n66A	n48	CA_n48(A-B)_BCS0	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n48	CA_n48(A-B)_BCS1	1
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n48(A-C)-n66A	CA_n48A-n66A	n48	CA_n48(A-C)_BCS0	0
		n66	5, 10, 15, 20, 40	
		n48	CA_n48(A-C)_BCS0	1
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n48A-n70A	CA_n48A-n70A	n48	5, 10, 15, 20, 30, 40, 50[1], 60[1], 70[1] , 80[1], 90[1], 100[1]	0
		n70	5, 10, 15, 20[1], 25[1]	
CA_n48(2A)-n70A	CA_n48A-n70A	n48	CA_n48(2A)_BCS1	0
		n70	5, 10, 15, 20, 25	
CA_n48B-n70A	CA_n48A-n70A	n48	CA_n48B_BCS2	0
		n70	5, 10, 15, 20[1], 25[1]	
CA_n48A-n71A	CA_n48A-n71A	n48	5, 10, 15, 20, 30, 40, 50[1], 60[1], 70[1], 80[1], 90[1], 100[1]	0
		n71	5, 10, 15, 20	
CA_n48A-n71(2A)	CA_n48A-n71A	n48	5, 10, 15, 20, 30, 40, 50[1], 60[1], 70[1] , 80[1], 90[1], 100[1]	0
		n71	CA_n71(2A)_BCS0	
CA_n48(2A)-n71A	CA_n48A-n71A	n48	CA_n48(2A)_BCS1	0
		n71	5, 10, 15, 20	
CA_n48(2A)-n71(2A)	CA_n48A-n71A	n48	CA_n48(2A)_BCS1	0
		n71	CA_n71(2A)_BCS0	
CA_n48(3A)-n71A	CA_n48A-n71A	n48	CA_n48(3A)_BCS0	0

		n71	5, 10, 15, 20	
CA_n48(4A)-n71A	CA_n48A-n71A	n48	CA_n48(4A)_BCS0	0
		n71	5, 10, 15, 20	
CA_n48B-n71A	CA_n48A-n71A	n48	CA_n48B_BCS2	0
		n71	5, 10, 15, 20	
CA_n48B-n71(2A)	CA_n48A-n71A	n48	CA_n48B_BCS2	0
		n71	CA_n71(2A)_BCS0	
CA_n48C-n71A	CA_n48A-n71A	n48	CA_n48C_BCS0	0
		n71	5, 10, 15, 20	
CA_n48A-n77A	n77[8,9]	n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n48A-n77C	n77[8,9]	n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n77	CA_n77C_BCS0	
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	1
		n77	CA_n77C_BCS1	
CA_n48A-n77(2A)	-	n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n77	CA_n77(2A)_BCS0	
CA_n48(2A)-n77A	n77[8,9]	n48	CA_n48(2A)_BCS0	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n48	CA_n48(2A)_BCS1	1
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n48(2A)-n77C	n77[8,9]	n48	CA_n48(2A)_BCS0	0
		n77	CA_n77C_BCS0	
		n48	CA_n48(2A)_BCS0	1
		n77	CA_n77C_BCS1	
		n48	CA_n48(2A)_BCS1	2
		n77	CA_n77C_BCS0	
		n48	CA_n48(2A)_BCS1	3
		n77	CA_n77C_BCS1	
CA_n48(2A)-n77(2A)	-	n48	CA_n48(2A)_BCS0	0
		n77	CA_n77(2A)_BCS0	
CA_n48B-n77A	n77[8,9]	n48	CA_n48B_BCS0	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n48	CA_n48B_BCS1	1
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n48	CA_n48B_BCS2	2
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n48B-n77C	n77[8,9]	n48	CA_n48B_BCS0	0
		n77	CA_n77C_BCS0	
		n48	CA_n48B_BCS0	1
		n77	CA_n77C_BCS1	
		n48	CA_n48B_BCS2	2
		n77	CA_n77C_BCS0	
		n48	CA_n48B_BCS2	3
		n77	CA_n77C_BCS1	
CA_n48(A-B)-n77A	n77[8,9]	n48	CA_n48(A-B)_BCS0	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n48	CA_n48(A-B)_BCS1	1
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n48A-n96A	CA_n48A-n96A	n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n96	20, 40, 60, 80	
CA_n48(2A)-n96A	CA_n48A-n96A	n48	CA_n48(2A)_BCS0	0
		n96	20, 40, 60, 80	
CA_n48(2A)-n96B	CA_n48A-n96B	n48	CA_n48(2A)_BCS0	0
		n96	CA_n96B_BCS0	
CA_n48(2A)-n96C	CA_n48A-n96A	n48	CA_n48(2A)_BCS0	0
		n96	CA_n96C_BCS0	
CA_n48(2A)-n96D	CA_n48A-n96A	n48	CA_n48(2A)_BCS0	0
		n96	CA_n96D_BCS0	
CA_n48(2A)-n96E	CA_n48A-n96A	n48	CA_n48(2A)_BCS0	0
		n96	CA_n96E_BCS0	
CA_n48(3A)-n96A	CA_n48A-n96A	n48	CA_n48(3A)_BCS0	0
		n96	20, 40, 60, 80	
CA_n48(3A)-n96B	CA_n48A-n96B	n48	CA_n48(3A)_BCS0	0
		n96	CA_n96B_BCS0	

CA_n48(3A)-n96C	CA_n48A-n96A	n48	CA_n48(3A)_BCS0	0
		n96	CA_n96C_BCS0	
CA_n48(3A)-n96D	CA_n48A-n96A	n48	CA_n48(3A)_BCS0	0
		n96	CA_n96D_BCS0	
CA_n48(3A)-n96E	CA_n48A-n96A	n48	CA_n48(3A)_BCS0	0
		n96	CA_n96E_BCS0	
CA_n48(4A)-n96A	CA_n48A-n96A	n48	CA_n48(4A)_BCS0	0
		n96	20, 40, 60, 80	
CA_n48(4A)-n96B	CA_n48A-n96A	n48	CA_n48(4A)_BCS0	0
		n96	CA_n96B_BCS0	
CA_n48(4A)-n96C	CA_n48A-n96A	n48	CA_n48(4A)_BCS0	0
		n96	CA_n96C_BCS0	
CA_n48(4A)-n96D	CA_n48A-n96A	n48	CA_n48(4A)_BCS0	0
		n96	CA_n96D_BCS0	
CA_n48(4A)-n96E	CA_n48A-n96A	n48	CA_n48(4A)_BCS0	0
		n96	CA_n96E_BCS0	
CA_n48A-n96B	CA_n48A-n96A	n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n96	CA_n96B_BCS0	
CA_n48A-n96C	CA_n48A-n96A	n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n96	CA_n96C_BCS0	
CA_n48A-n96D	CA_n48A-n96A	n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n96	CA_n96D_BCS0	
CA_n48A-n96E	CA_n48A-n96A	n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n96	CA_n96E_BCS0	
CA_n48B-n96A	CA_n48A-n96A CA_n48B-n96A	n48	CA_n48B_BCS0	0
		n96	20, 40, 60, 80	
CA_n48B-n96B	CA_n48A-n96A CA_n48B-n96A	n48	CA_n48B_BCS0	0
		n96	CA_n96B_BCS0	
CA_n48B-n96C	CA_n48A-n96A CA_n48B-n96A	n48	CA_n48B_BCS0	0
		n96	CA_n96C_BCS0	
CA_n48B-n96D	CA_n48A-n96A CA_n48B-n96A	n48	CA_n48B_BCS0	0
		n96	CA_n96D_BCS0	
CA_n48B-n96E	CA_n48A-n96A CA_n48B-n96A	n48	CA_n48B_BCS0	0
		n96	CA_n96E_BCS0	
CA_n48C-n96A	CA_n48A-n96A	n48	CA_n48C_BCS0	0
		n96	20, 40, 60, 80	
CA_n48C-n96B	CA_n48A-n96A	n48	CA_n48C_BCS0	0
		n96	CA_n96B_BCS0	
CA_n48C-n96C	CA_n48A-n96A	n48	CA_n48C_BCS0	0
		n96	CA_n96C_BCS0	
CA_n48C-n96D	CA_n48A-n96A	n48	CA_n48C_BCS0	0
		n96	CA_n96D_BCS0	
CA_n48C-n96E	CA_n48A-n96A	n48	CA_n48C_BCS0	0
		n96	CA_n96E_BCS0	
CA_n50A-n78A	CA_n50A-n78A	n50	5, 10, 15, 20, 30, 40, 50, 60, 80[1]	0
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	

Table 5.5A.3.1-1m: NR CA configurations and bandwidth combinations sets defined for inter-band CA (two bands)

NR CA configuration	Uplink CA configuration or single uplink carrier[10]	NR Band	Channel bandwidth (MHz) (NOTE 3)	Bandwidth combination set
CA_n66A-n70A	-	n66	5, 10, 15, 20, 40	0
		n70	5, 10, 15, 20[1], 25[1]	
CA_n66B-n70A	-	n66	CA_n66B_BCS0	0
		n70	5, 10, 15, 20[1], 25[1]	
CA_n66(2A)-n70A	-	n66	CA_n66(2A)_BCS0	0

		n70	5, 10, 15, 20[1], 25[1]	
CA_n66A-n71A	CA_n66A-n71A	n66	5, 10, 15, 20, 40	0
		n71	5, 10, 15, 20	
		n66	5, 10, 15, 20, 25, 30, 40	1
		n71	5, 10, 15, 20	
		n66	n66 channel bandwidths in Table 5.3.5-1	4 and 5
		n71	n71 channel bandwidths in Table 5.3.5-1	
CA_n66A-n71B	CA_n66A-n71A	n66	5, 10, 15, 20, 25, 30, 40	0
		n71	CA_n71B_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	1
		n71	CA_n71B_BCS2	
		n66	n66 channel bandwidths in Table 5.3.5-1	4 and 5
		n71	CA_n71B_BCS 4 and 5	
CA_n66A-n71(2A)	-	n66	5, 10, 15, 20, 40	0
		n71	CA_n71(2A)_BCS0	
	CA_n66A-n71A	n66	5, 10, 15, 20, 25, 30, 40	1
		n71	CA_n71(2A)_BCS0	
		n66	n66 channel bandwidths in Table 5.3.5-1	4 and 5
		n71	CA_n71(2A)_BCS 4 and 5	
CA_n66(2A)-n71A	CA_n66A-n71A	n66	CA_n66(2A)_BCS0	0
		n71	5, 10, 15, 20	
		n66	CA_n66(2A)_BCS1	1
		n71	5, 10, 15, 20	
		n66	CA_n66(2A)_BCS 4 and 5	4 and 5
		n71	n71 channel bandwidths in Table 5.3.5-1	
CA_n66(2A)-n71B	CA_n66A-n71A	n66	CA_n66(2A)_BCS1	0
		n71	CA_n71B_BCS2	
		n66	CA_n66(2A)_BCS 4 and 5	4 and 5
		n71	CA_n71B_BCS 4 and 5	
CA_n66(2A)-n71(2A)	CA_n66A-n71A	n66	CA_n66(2A)_BCS1	0
		n71	CA_n71(2A)_BCS0	
		n66	CA_n66(2A)_BCS 4 and 5	4 and 5
		n71	CA_n71(2A)_BCS 4 and 5	
CA_n66B-n71A	CA_n66A-n71A	n66	CA_n66B_BCS0	0
		n71	5, 10, 15, 20	
CA_n66A-n77A	n77[8,9] CA_n66A-n77A[8]	n66	5, 10, 15, 20, 40	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	5, 10, 15, 20, 25, 30, 40	1
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	n66 channel bandwidths in Table 5.3.5-1	4 and 5
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n66(2A)-n77A	n77[8,9] CA_n66A-n77A[8]	n66	CA_n66(2A)_BCS1	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	CA_n66(2A)_BCS1	1
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	CA_n66(2A)_BCS 4 and 5	4 and 5
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n66A-n77(2A)	n77[8,9] CA_n66A-n77A[8] CA_n77(2A)	n66	5, 10, 15, 20, 40	0
		n77	CA_n77(2A)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	1
		n77	CA_n77(2A)_BCS1	
		n66	n66 channel bandwidths in Table 5.3.5-1	4 and 5
		n77	CA_n77(2A)_BCS 4 and 5	
CA_n66(3A)-n77A	n77[8] CA_n66A-n77A[8]	n66	CA_n66(3A)_BCS0	0

		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n66(2A)-n77(2A)	n77[8] CA_n66A-n77A[8] CA_n77(2A)	n66	CA_n66(2A)_BCS0	0
		n77	CA_n77(2A)_BCS0	
		n66	CA_n66(2A)_BCS1	1
		n77	CA_n77(2A)_BCS1	
		n66	CA_n66(2A)_BCS 4 and 5	4 and 5
		n77	CA_n77(2A)_BCS 4 and 5	
CA_n66A-n77C	n77[8,9] CA_n66A-n77A[8]	n66	5, 10, 15, 20, 25, 30, 40	0
		n77	CA_n77C_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	1
		n77	CA_n77C_BCS1	
CA_n66(2A)-n77C	n77[8,9] CA_n66A-n77A[8]	n66	CA_n66(2A)_BCS0	0
		n77	CA_n77C_BCS1	
		n66	CA_n66(2A)_BCS1	1
		n77	CA_n77C_BCS1	
CA_n66B-n77A	n77[8,9] CA_n66A-n77A[8]	n66	CA_n66B_BCS0	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n66B-n77C	n77[8,9] CA_n66A-n77A[8]	n66	CA_n66B_BCS0	0
		n77	CA_n77C_BCS0	
		n66	CA_n66B_BCS0	1
		n77	CA_n77C_BCS1	
CA_n66A-n78A	CA_n66A-n78A	n66	5, 10, 15, 20, 40	0
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n66	5, 10, 15, 20, 25, 30, 40	1
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n66A-n78(2A)	CA_n66A-n78A	n66	5, 10, 15, 20, 30, 40	0
		n78	CA_n78(2A)_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	1
		n78	CA_n78(2A)_BCS2	
CA_n66(2A)-n78A	CA_n66A-n78A	n66	CA_n66(2A)_BCS0	0
		n78	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
		n66	CA_n66(2A)_BCS1	1
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n66(2A)-n78(2A)	CA_n66A-n78A	n66	CA_n66(2A)_BCS0	0
		n78	CA_n78(2A)_BCS1	
		n66	CA_n66(2A)_BCS1	1
		n78	CA_n78(2A)_BCS2	

Table 5.5A.3.1-1n: NR CA configurations and bandwidth combinations sets defined for inter-band CA (two bands)

NR CA configuration	Uplink CA configuration or single uplink carrier[10]	NR Band	Channel bandwidth (MHz) (NOTE 3)	Bandwidth combination set
CA_n70A-n71A	CA_n70A-n71A	n70	5, 10, 15, 20[1], 25[1]	0
		n71	5, 10, 15, 20	
CA_n70A-n71(2A)	CA_n70A-n71A	n70	5, 10, 15, 20[1], 25[1]	0
		n71	CA_n71(2A)_BCS0	
CA_n70A-n78A	CA_n70A-n78A	n70	5, 10, 15, 20[1], 25[1]	0
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n71A-n77A	n77[8, 9] CA_n71A-n77A[8]	n71	5, 10, 15, 20	0

		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n71	n71 channel bandwidths in Table 5.3.5-1	4 and 5
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n71A-n77(2A)	n77[8, 9] CA_n71A-n77A[8]	n71	5, 10, 15, 20	0
		n77	CA_n77(2A)_BCS1	
		n71	n71 channel bandwidths in Table 5.3.5-1	4 and 5
		n77	CA_n77(2A)_BCS 4 and 5	
CA_n71B-n77A	n77[8, 9] CA_n71A-n77A[8]	n71	CA_n71B_BCS2	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n71	CA_n71B_BCS 4 and 5	4 and 5
		n77	CA_n77(2A)_BCS 4 and 5	
CA_n71B-n77(2A)	CA_n71A-n77A	n71	CA_n71B_BCS2	0
		n77	CA_n77(2A)_BCS1	
		n71	CA_n71B_BCS 4 and 5	4 and 5
		n77	CA_n77(2A)_BCS 4 and 5	
CA_n71(2A)-n77A	n77[8, 9] CA_n71A-n77A[8]	n71	CA_n71(2A)_BCS0	0
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n71	CA_n71(2A)_BCS 4 and 5	4 and 5
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n71(2A)-n77(2A)	CA_n71A-n77A	n71	CA_n71(2A)_BCS0	0
		n77	CA_n77(2A)_BCS1	
		n71	CA_n71(2A)_BCS 4 and 5	4 and 5
		n77	CA_n77(2A)_BCS 4 and 5	
CA_n71A-n78A	CA_n71A-n78A	n71	5, 10, 15, 20	0
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n71A-n78(2A)	CA_n71A-n78A	n71	10, 15, 20	0
		n78	CA_n78(2A)_BCS2	
CA_n74A-n77A	CA_n74A-n77A	n74	5, 10, 15, 20	0
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n74A-n78A	CA_n74A-n78A	n74	5, 10, 15, 20	0
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n75A-n78A	-	n75	5, 10, 15, 20	0
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n75A-n78(2A)	-	n75	5, 10, 15, 20	0
		n78	CA_n78(2A)_BCS1	
CA_n76A-n78A	-	n76	5	0
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n77A-n78A[2]		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	0
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n77A-n79A	CA_n77A-n79A	n77	10, 15, 20, 40, 50, 60, 80, 90, 100	0
		n79	40, 50, 60, 80, 100	
CA_n77(2A)-n79A	CA_n77A-n79A	n77	CA_n77(2A)_BCS1	0
		n79	40, 50, 60, 80, 100	
CA_n77(3A)-n79A	CA_n77A-n79A	n77	CA_n77(3A)_BCS1	0
		n79	40, 50, 60, 80, 100	
CA_n78A-n79A	CA_n78A-n79A	n78	10, 15, 20, 40, 50, 60, 80, 90, 100	0
		n79	40, 50, 60, 80, 100	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	1
		n79	40, 50, 60, 80, 100	
CA_n78A-n79C	-	n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	0
		n79	CA_n79C_BCS0	
CA_n78(2A)-n79A	CA_n78A-n79A	n78	CA_n78(2A)_BCS1	0
		n79	40, 50, 60, 80, 100	
CA_n78A-n92A	CA_n78A-n92A	n78	10, 15, 20, 40, 50, 60, 80, 90, 100	0
		n92	5, 10, 15, 20	
CA_n78(2A)-n92A	CA_n78A-n92A	n78	CA_n78(2A)_BCS0	0
		n92	5, 10, 15, 20	

The following notes are applied to the above tables:

NOTE 1: This UE channel bandwidth is applicable only to downlink.
NOTE 2: The minimum requirements for intra-band contiguous or non-contiguous CA apply.
NOTE 3: The SCS of each channel bandwidth for NR band refers to Table 5.3.5-1.
NOTE 4: This UE channel bandwidth is optional in this release of the specification.
NOTE 5: For this bandwidth, the minimum requirements are restricted to operation when carrier is configured as an SCell part of DC or CA configuration.
NOTE 6: For this bandwidth, the minimum requirements are restricted to operation when carrier is configured as an downlink SCell part of CA configuration
NOTE 7: Limited to operation at 3 450-3 550 MHz and 3 700-3 980 MHz.
NOTE 8: Power Class 2 is allowed for this uplink combination or single uplink carrier in this downlink/uplink combination
NOTE 9: Power Class 1.5 is allowed for this uplink combination or single uplink carrier in this downlink/uplink combination
NOTE 10: Only single uplink carriers with power class other than PC3 are listed.
NOTE 11: The CA configurations are given in Table 5.5A.1-1 or Table 5.5A.2-1 in this specification

5.5A.3.2 Configurations for inter-band CA (three bands)

Table 5.5A.3.2-1: NR CA configurations and bandwidth combinations sets defined for inter-band CA (three bands)

NR CA configuration	Uplink CA configuration or single uplink carrier[6]	NR Band	Channel bandwidth (MHz) (NOTE 3)	Bandwidth combination set
CA_n1A-n3A-n5A	CA_n1A-n3A CA_n1A-n5A CA_n3A-n5A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n3	5, 10, 15, 20, 25, 30, 40, 50	
		n5	5, 10, 15, 20	
CA_n1A-n3A-n7A	-	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30	
		n7	5, 10, 15, 20, 25, 30, 40, 50	
	CA_n1A-n3A CA_n1A-n7A CA_n3A-n7A	n1	5, 10, 15, 20, 25, 30, 40, 50	1
		n3	5, 10, 15, 20, 25, 30, 40	
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n1	5, 10, 15, 20	2
		n3	5, 10, 15, 20, 25, 30, 40	
		n7	5, 10, 15, 20, 25, 30, 40, 50	
CA_n1A-n3A-n7B	-	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30	
		n7	CA_n7B_BCS0	
	CA_n1A-n3A CA_n1A-n7A CA_n3A-n7A CA_n7B	n1	5, 10, 15, 20, 25, 30, 40, 50	1
		n3	5, 10, 15, 20, 25, 30, 40, 50	
		n7	CA_n7B_BCS0	
CA_n1A-n3(2A)-n7A	-	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n3	CA_n3(2A)_BCS1	
		n7	5, 10, 15, 20, 25, 30, 40, 50	
CA_n1(2A)-n3A-n7A	-	n1	CA_n1(2A)_BCS0	0
		n3	5, 10, 15, 20, 25, 30, 40, 50	
		n7	5, 10, 15, 20, 25, 30, 40, 50	
CA_n1(2A)-n3B-n7A	-	n1	CA_n1(2A)_BCS0	0
		n3	CA_n3B_BCS0	
		n7	5, 10, 15, 20, 25, 30, 40, 50	

CA_n1(2A)-n3(2A)-n7A	-	n1	CA_n1(2A)_BCS0	0
		n3	CA_n3(2A)_BCS1	
		n7	5, 10, 15, 20, 25, 30, 40, 50	
CA_n1A-n3A-n8A	-	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30	
		n8	5, 10, 15, 20	
CA_n1A-n3A-n18A	CA_n1A-n3A CA_n1A-n18A CA_n3A-n18A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n3	5, 10, 15, 20, 25, 30, 40	
		n18	5, 10, 15	
CA_n1A-n3A-n20A	CA_n1A-n3A CA_n1A-n20A CA_n3A-n20A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n3	5, 10, 15, 20, 25, 30, 40	
		n20	5, 10, 15, 20	
CA_n1A-n3A-n28A	-	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30	
		n28	5, 10, 15, 20[2]	
	CA_n1A-n3A CA_n1A-n28A CA_n3A-n28A	n1	5, 10, 15, 20	1
		n3	5, 10, 15, 20, 25, 30, 40	
		n28	5, 10, 15, 20	
		n1	5, 10, 15, 20, 25, 30, 40, 50	2
		n3	5, 10, 15, 20, 25, 30, 40, 50	
		n28	5, 10, 15, 20[1], 30[1]	
CA_n1A-n3A-n41A	CA_n1A-n3A CA_n1A-n41A CA_n3A-n41A	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
CA_n1A-n3A-n67A	CA_n1A-n3A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n3	5, 10, 15, 20, 25, 30, 40	
		n67	5, 10, 15, 20	
CA_n1A-n3A-n77A	CA_n1A-n3A CA_n1A-n77A CA_n3A-n77A	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30	
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n1	5, 10, 15, 20, 25, 30, 40, 50	1
		n3	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n1A-n3A-n77(2A)	CA_n1A-n3A CA_n1A-n77A CA_n3A-n77A	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30	
		n77	CA_n77(2A)_BCS1	
CA_n1A-n3A-n78A	CA_n1A-n3A CA_n1A-n78A[7] CA_n3A-n78A[7]	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30	
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n1	5, 10, 15, 20, 25, 30, 40, 50	1
		n3	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 40, 50, 60, 70, 80, 90, 100	
		n1	5, 10, 15, 20	2
		n3	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n3A-n78(2A)	CA_n1A-n3A CA_n1A-n78A CA_n3A-n78A	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	

CA_n1A-n3A-n79A	CA_n1A-n3A CA_n1A-n79A CA_n3A-n79A	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30	
		n79	40, 50, 60, 80, 100	
CA_n1A-n5A-n7A	CA_n1A-n5A CA_n1A-n7A CA_n5A-n7A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n5	5, 10, 15, 20	
		n7	5, 10, 15, 20, 25, 30, 40, 50	
CA_n1A-n5A-n7B	CA_n1A-n5A CA_n1A-n7A CA_n5A-n7A CA_n7B	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n5	5, 10, 15, 20	
		n7	CA_n7B_BCS0	
CA_n1A-n5A-n28A	-	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n5	5, 10, 15, 20	
		28	5, 10, 15, 20, 30	
CA_n1A-n5A-n78A	CA_n1A-n5A CA_n1A-n78A CA_n5A-n78A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n5	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70[4], 80, 90, 100	
CA_n1A-n7A-n8A	CA_n1A-n7A CA_n1A-n8A CA_n7A-n8A	n1	5, 10, 15, 20, 25, 30, 40	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n8	5, 10, 15, 20	
CA_n1A-n7A-n40A	CA_n1A-n7A CA_n1A-n40A CA_n7A-n40A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	
CA_n1A-n7A-n79A	-	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n79	40, 50, 60, 80, 100	
CA_n1A-n7A-n79C	-	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n79	CA_n79C_BCS0	
CA_n1(2A)-n7A-n79A	-	n1	CA_n1(2A)_BCS0	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n79	40, 50, 60, 80, 100	
CA_n1(2A)-n7A-n79C	-	n1	CA_n1(2A)_BCS0	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n79	CA_n79C_BCS0	
CA_n1A-n8A-n28A	-	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n8	5, 10, 15, 20	
		n28	10, 15, 20	
CA_n1A-n8A-n40A	CA_n1A-n8A CA_n1A-n40A CA_n8A-n40A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n8	5, 10, 15, 20	
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	
CA_n1A-n8A-n77A	-	n1	5, 10, 15, 20	0
		n8	5, 10, 15, 20	
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n1A-n8A-n77(2A)	-	n1	5, 10, 15, 20	0
		n8	5, 10, 15, 20	
		n77	CA_n77(2A)_BCS1	
CA_n1A-n7A-n28A	CA_n1A-n7A CA_n1A-n28A	n1	5, 10, 15, 20	0

	CA_n7A-n28A			
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n28	5, 10, 15, 20	
CA_n1A-n7B-n28A	CA_n1A-n28A CA_n1A-n7A CA_n7A-n28A CA_n7B	n1	5, 10, 15, 20	0
		n7	CA_n7B_BCS0	
		n28	5, 10, 15, 20	
CA_n1A-n7A-n78A	CA_n1A-n7A CA_n1A-n78A CA_n7A-n78A	n1	5, 10, 15, 20	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n78	10, 15, 20, 40, 50, 60, 80, 90[1], 100	
		n1	5, 10, 15, 20	1
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90[1], 100	
CA_n1A-n7B-n78A	CA_n1A-n78A CA_n1A-n7A CA_n7A-n78A CA_n7B	n1	5, 10, 15, 20	0
		n7	CA_n7B_BCS0	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70[4], 80, 90, 100	
CA_n1A-n7A-n78(2A)	CA_n1A-n7A CA_n1A-n78A CA_n7A-n78A	n1	5, 10, 15, 20	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n78	CA_n78(2A)_BCS0	
		n1	5, 10, 15, 20	1
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n78	CA_n78(2A)_BCS2	
CA_n1A-n8A-n78A	CA_n1A-n8A CA_n1A-n78A CA_n8A-n78A	n1	5, 10, 15, 20	0
		n8	5, 10, 15, 20	
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
	-	n1	5, 10, 15, 20	1
		n8	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
CA_n1A-n8A-n78(2A)	-	n1	5, 10, 15, 20	0
		n8	5, 10, 15, 20	
		n78	CA_n78(2A)_BCS1	
CA_n1A-n8A-n79A	-	n1	5, 10, 15, 20	0
		n8	5, 10, 15, 20	
		n79	40, 50, 60, 80, 100	
CA_n1A-n18A-n28A	CA_n1A-n18A CA_n1A-n28A CA_n18A-n28A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n18	5, 10, 15	
		n28	5, 10	
CA_n1A-n18A-n41A	CA_n1A-n18A CA_n1A-n41A CA_n18A-n41A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n18	5, 10, 15	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
CA_n1A-n18A-n77A	CA_n1A-n18A CA_n1A-n77A CA_n18A-n77A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n18	5, 10, 15	
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n1A-n18A-n77(2A)	CA_n1A-n18A CA_n1A-n77A	n1	5, 10, 15, 20	0

	CA_n18A-n77A			
		n18	5, 10, 15	
		n77	CA_n77(2A)_BCS1	
CA_n1A-n20A-n67A	CA_n1A-n20A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n20	5, 10, 15, 20	
		n67	5, 10, 15, 20	
CA_n1A-n20A-n78A	-	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n20	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n28A-n38A	-	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n28	5, 10, 15, 20, 30	
		n38	5, 10, 15, 20, 25, 30, 40	
CA_n1A-n28A-n40A	-	n1	5, 10, 15, 20	0
		n28	5, 10, 15, 20	
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	
CA_n1A-n28A-n40B	-	n1	5, 10, 15, 20	0
		n28	5, 10, 15, 20	
		n40	CA_n40B_BCS0	
CA_n1A-n28A-n41A	CA_n1A-n28A CA_n1A-n41A CA_n28A-n41A	n1	5, 10, 15, 20	0
		n28	5, 10, 15, 20	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
CA_n1A-n28A-n77A	CA_n1A-n28A CA_n1A-n77A CA_n28A-n77A	n1	5, 10, 15, 20	0
		n28	5, 10, 15, 20	
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n1A-n28A-n77(2A)	CA_n1A-n28A CA_n1A-n77A CA_n28A-n77A	n1	5, 10, 15, 20	0
		n28	5, 10, 15, 20	
		n77	CA_n77(2A)_BCS0	
		n1	5, 10, 15, 20	1
		n28	5, 10	
		n77	CA_n77(2A)_BCS1	
CA_n1A-n28A-n78A	CA_n1A-n28A CA_n1A-n78A CA_n28A-n78A	n1	5, 10, 15, 20	0
		n28	5, 10, 15, 20[2]	
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n1	5, 10, 15, 20	1
		n28	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n1	5, 10, 15, 20, 25, 30, 40, 50	2
		n28	5, 10, 15, 20, 30	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n28A-n78(2A)	CA_n1A-n28A CA_n1A-n78A CA_n28A-n78A	n1	5, 10, 15, 20	0
		n28	5, 10, 15, 20	
		n78	CA_n78(2A)_BCS2	
CA_n1A-n28A-n79A	CA_n1A-n28A CA_n1A-n79A CA_n28A-n79A	n1	5, 10, 15, 20	0
		n28	5, 10, 15, 20	
		n79	40, 50, 60, 80, 100	

CA_n1A-n38A-n78A	-	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n38	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n40A-n78A	CA_n1A-n40A CA_n1A-n78A CA_n40A-n78A	n1	5, 10, 15, 20	0
		n40	5, 10, 15, 20, 25, 30, 40, 50	
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
	CA_n1A-n40A CA_n1A-n78A CA_n40A-n78A	n1	5, 10, 15, 20	1
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
	CA_n1A-n40A CA_n1A-n78A CA_n40A-n78A	n1	5, 10, 15, 20	2
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n40B-n78A	-	n1	5, 10, 15, 20	0
		n40	CA_n40B_BCS0	
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n1A-n41A-n77A	CA_n1A-n41A CA_n1A-n77A CA_n41A-n77A	n1	5, 10, 15, 20	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n1A-n41A-n77(2A)	CA_n1A-n41A CA_n1A-n77A CA_n41A-n77A	n1	5, 10, 15, 20	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n77	CA_n77(2A)_BCS1	
CA_n1A-n77A-n79A[4]	CA_n1A-n77A CA_n1A-n79A CA_n77A-n79A	n1	5, 10, 15, 20	0
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n79	40, 50, 60, 80, 100	
CA_n1A-n77(2A)-n79A[4]	CA_n1A-n77A CA_n1A-n79A CA_n77A-n79A	n1	5, 10, 15, 20	0
		n77	CA_n77(2A)_BCS0	
		n79	40, 50, 60, 80, 100	
CA_n1A-n78A-n79A[5]	CA_n1A-n78A CA_n1A-n79A CA_n78A-n79A	n1	5, 10, 15, 20	0
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n79	40, 50, 60, 80, 100	
		n1	5, 10, 15, 20	1
		n78	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
		n79	40, 50, 60, 80, 100	
CA_n1A-n78(2A)-n79A	-	n1	5, 10, 15, 20	0
		n78	CA_n78(2A)_BCS1	
		n79	40, 50, 60, 80, 100	
CA_n2A-n5A-n30A	CA_n2A-n5A CA_n2A-n30A CA_n5A-n30A	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n30	5, 10	
CA_n2A-n5A-n48A	CA_n2A-n5A CA_n2A-n48A	n2	5, 10, 15, 20	0

	CA_n5A-n48A			
		n5	5, 10, 15, 20	
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n5A-n48B	CA_n2A-n5A CA_n2A-n48A CA_n5A-n48A	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n48	CA_n48B_BCS0	
		n2	5, 10, 15, 20	1
		n5	5, 10, 15, 20	
		n48	CA_n48B_BCS1	
		n2	5, 10, 15, 20	2
		n5	5, 10, 15, 20	
		n48	CA_n48B_BCS2	
CA_n2A-n5A-n48(2A)	CA_n2A-n5A CA_n2A-n48A CA_n5A-n48A	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n48	CA_n48(2A)_BCS0	
		n2	5, 10, 15, 20	1
		n5	5, 10, 15, 20	
		n48	CA_n48(2A)_BCS1	
CA_n2A-n5A-n48(A-B)	CA_n2A-n5A CA_n2A-n48A CA_n5A-n48A	n2	5, 10, 15, 20, 25, 30, 40	0
		n5	5, 10, 15, 20, 25[1]	
		n48	CA_n48(A-B)_BCS0	
		n2	5, 10, 15, 20, 25, 30, 40	1
		n5	5, 10, 15, 20, 25[1]	
		n48	CA_n48(A-B)_BCS1	
CA_n2(2A)-n5A-n30A	CA_n2A-n5A CA_n2A-n30A CA_n5A-n30A	n2	CA_n2(2A)_BCS0	0
		n5	5, 10, 15, 20	
		n30	5, 10	
CA_n2A-n5A-n66A	CA_n2A-n5A CA_n2A-n66A CA_n5A-n66A	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2(2A)-n5A-n66A	CA_n2A-n5A CA_n2A-n66A CA_n5A-n66A	n2	CA_n2(2A)_BCS0	0
		n5	5, 10, 15, 20	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2(2A)-n5A-n66(2A)	CA_n2A-n5A CA_n2A-n66A CA_n5A-n66A	n2	CA_n2(2A)_BCS0	0
		n5	5, 10, 15, 20	
		n66	CA_n66(2A)_BCS1	
CA_n2A-n5A-n66(2A)	CA_n2A-n5A CA_n2A-n66A CA_n5A-n66A	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n66	CA_n66(2A)_BCS0	
CA_n2A-n5A-n66(3A)	CA_n2A-n5A CA_n2A-n66A CA_n5A-n66A	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n66	CA_n66(3A)_BCS0	
CA_n2A-n5A-n77A	n77[7, 9] CA_n2A-n5A CA_n2A-n77A[7] CA_n5A-n77A[7]	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	

		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n5A-n77C	CA_n2A-n5A CA_n2A-n77A CA_n5A-n77A	n2	5, 10, 15, 20, 25, 30, 40	0
		n5	5, 10, 15, 20, 25[1]	
		n77	CA_n77C_BCS0	
		n2	5, 10, 15, 20, 25, 30, 40	1
		n5	5, 10, 15, 20, 25[1]	
		n77	CA_n77C_BCS1	
CA_n2A-n5A-n77(2A)	n77[7] CA_n2A-n5A CA_n2A-n77A[7] CA_n5A-n77A[7]	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n77	CA_n77(2A)_BCS1	
CA_n2(2A)-n5A-n77A	n77[7] CA_n2A-n5A CA_n2A-n77A[7] CA_n5A-n77A[7]	n2	CA_n2(2A)_BCS0	0
		n5	5, 10, 15, 20	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n12A-n30A	CA_n2A-n12A CA_n2A-n30A CA_n12A-n30A	n2	5, 10, 15, 20	0
		n12	5, 10, 15	
		n30	5, 10	
CA_n2(2A)-n12A-n30A	CA_n2A-n12A CA_n2A-n30A CA_n12A-n30A	n2	CA_n2(2A)_BCS0	0
		n12	5, 10, 15	
		n30	5, 10	
CA_n2A-n12A-n66A	CA_n2A-n12A CA_n2A-n66A CA_n12A-n66A	n2	5, 10, 15, 20	0
		n12	5, 10, 15	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2(2A)-n12A-n66A	CA_n2A-n12A CA_n2A-n66A CA_n12A-n66A	n2	CA_n2(2A)_BCS0	0
		n12	5, 10, 15	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2A-n12A-n66(2A)	CA_n2A-n12A CA_n2A-n66A CA_n12A-n66A	n2	5, 10, 15, 20	0
		n12	5, 10, 15	
		n66	CA_n66(2A)_BCS1	
CA_n2(2A)-n12A-n66(2A)	CA_n2A-n12A CA_n2A-n66A CA_n12A-n66A	n2	CA_n2(2A)_BCS0	0
		n12	5, 10, 15	
		n66	CA_n66(2A)_BCS1	
CA_n2A-n12A-n66(3A)	CA_n2A-n12A CA_n2A-n66A CA_n12A-n66A	n2	5, 10, 15, 20	0
		n12	5, 10, 15	
		n66	CA_n66(3A)_BCS0	
CA_n2A-n12A-n77A	n77[7] CA_n2A-n12A CA_n2A-n77A[7] CA_n12A-n77A[7]	n2	5, 10, 15, 20	0
		n12	5, 10, 15	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2(2A)-n12A-n77A	n77[7] CA_n2A-n12A	n2	CA_n2(2A)_BCS0	0

	CA_n2A-n77A[7] CA_n12A-n77A[7]			
		n12	5, 10, 15	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n12A-n77(2A)	n77[7] CA_n2A-n12A CA_n2A-n77A[7] CA_n12A-n77A[7]	n2	5, 10, 15, 20	0
		n12	5, 10, 15	
		n77	CA_n77(2A)_BCS1	
CA_n2A-n14A-n30A	CA_n2A-n14A CA_n2A-n30A CA_n14A-n30A	n2	5, 10, 15, 20	0
		n14	5, 10	
		n30	5, 10	
CA_n2(2A)-n14A-n30A	CA_n2A-n14A CA_n2A-n30A CA_n14A-n30A	n2	CA_n2(2A)_BCS0	0
		n14	5, 10	
		n30	5, 10	
CA_n2A-n14A-n66A	CA_n2A-n14A CA_n2A-n66A CA_n14A-n66A	n2	5, 10, 15, 20	0
		n14	5, 10	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2(2A)-n14A-n66A	CA_n2A-n14A CA_n2A-n66A CA_n14A-n66A	n2	CA_n2(2A)_BCS0	0
		n14	5, 10	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2(2A)-n14A-n66(2A)	CA_n2A-n14A CA_n2A-n66A CA_n14A-n66A	n2	CA_n2(2A)_BCS0	0
		n14	5, 10	
		n66	CA_n66(2A)_BCS1	
CA_n2A-n14A-n66(2A)	CA_n2A-n14A CA_n2A-n66A CA_n14A-n66A	n2	5, 10, 15, 20	0
		n14	5, 10	
		n66	CA_n66(2A)_BCS1	
CA_n2A-n14A-n66(3A)	CA_n2A-n14A CA_n2A-n66A CA_n14A-n66A	n2	5, 10, 15, 20	0
		n14	5, 10	
		n66	CA_n66(3A)_BCS0	
CA_n2A-n14A-n77A	n77[7] CA_n2A-n14A CA_n2A-n77A[7] CA_n14A-n77A[7]	n2	5, 10, 15, 20	0
		n14	5, 10	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n14A-n77(2A)	n77[7] CA_n2A-n14A CA_n2A-n77A[7] CA_n14A-n77A[7]	n2	5, 10, 15, 20	0
		n14	5, 10	
		n77	CA_n77(2A)_BCS1	
CA_n2(2A)-n14A-n77A	n77[7] CA_n2A-n14A CA_n2A-n77A[7] CA_n14A-n77A[7]	n2	CA_n2(2A)_BCS0	0
		n14	5, 10	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	

CA_n2A-n29A-n30A	CA_n2A-n30A	n2	5, 10, 15, 20	0
		n29	5, 10	
		n30	5, 10	
CA_n2(2A)-n29A-n30A	CA_n2A-n30A	n2	CA_n2(2A)_BCS0	0
		n29	5, 10	
		n30	5, 10	
CA_n2A-n29A-n66A	CA_n2A-n66A	n2	5, 10, 15, 20	0
		n29	5, 10	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2(2A)-n29A-n66A	CA_n2A-n66A	n2	CA_n2(2A)_BCS0	0
		n29	5, 10	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2A-n29A-n66(2A)	CA_n2A-n66A	n2	5, 10, 15, 20	0
		n29	5, 10	
		n66	CA_n66(2A)_BCS1	
CA_n2(2A)-n29A-n66(2A)	CA_n2A-n66A	n2	CA_n2(2A)_BCS0	0
		n29	5, 10	
		n66	CA_n66(2A)_BCS1	
CA_n2A-n29A-n77A	n77[7] CA_n2A-n77A[7]	n2	5, 10, 15, 20	0
		n29	5, 10	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2(2A)-n29A-n77A	n77[7] CA_n2A-n77A[7]	n2	CA_n2(2A)_BCS0	0
		n29	5, 10	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n29A-n77(2A)	n77[7] CA_n2A-n77A[7]	n2	5, 10, 15, 20	0
		n29	5, 10	
		n77	CA_n77(2A)_BCS1	
CA_n2A-n30A-n66A	CA_n2A-n30A CA_n30A-n66A CA_n2A-n66A	n2	5, 10, 15, 20	0
		n30	5, 10	
		n66	5, 10, 15, 20, 40	
CA_n2(2A)-n30A-n66A	CA_n2A-n30A CA_n30A-n66A CA_n2A-n66A	n2	CA_n2(2A)_BCS0	0
		n30	5, 10	
		n66	5, 10, 15, 20, 40	
CA_n2(2A)-n30A-n66(2A)	CA_n2A-n30A CA_n30A-n66A CA_n2A-n66A	n2	CA_n2(2A)_BCS0	0
		n30	5, 10	
		n66	CA_n66(2A)_BCS1	
CA_n2A-n30A-n66(2A)	CA_n2A-n30A CA_n30A-n66A CA_n2A-n66A	n2	5, 10, 15, 20	0
		n30	5, 10	
		n66	CA_n66(2A)_BCS0	
CA_n2A-n30A-n66(3A)	CA_n2A-n30A CA_n30A-n66A CA_n2A-n66A	n2	5, 10, 15, 20	0
		n30	5, 10	
		n66	CA_n66(3A)_BCS0	
CA_n2A-n30A-n77A	n77[7] CA_n2A-n30A CA_n2A-n77A[7]	n2	5, 10, 15, 20	0

	CA_n30A-n77A[7]			
		n30	5, 10	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n30A-n77(2A)	n77[7] CA_n2A-n30A CA_n2A-n77A[7] CA_n30A-n77A[7]	n2	5, 10, 15, 20	0
		n30	5, 10	
		n77	CA_n77(2A)_BCS1	
CA_n2(2A)-n30A-n77A	n77[7] CA_n2A-n30A CA_n2A-n77A[7] CA_n30A-n77A[7]	n2	CA_n2(2A)_BCS0	0
		n30	5, 10	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n48A-n66A	CA_n2A-n48A CA_n2A-n66A CA_n48A-n66A	n2	5, 10, 15, 20	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2A-n48(A-B)-n66A	CA_n2A-n48A CA_n2A-n66A CA_n48A-n66A	n2	5, 10, 15, 20, 25, 30, 40	0
		n48	CA_n48(A-B)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n2	5, 10, 15, 20, 25, 30, 40	1
		n48	CA_n48(A-B)_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2A-n48B-n66A	CA_n2A-n48A CA_n2A-n66A CA_n48A-n66A	n2	5, 10, 15, 20	0
		n48	CA_n48B_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n2	5, 10, 15, 20	1
		n48	CA_n48B_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
		n2	5, 10, 15, 20	2
		n48	CA_n48B_BCS2	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2A-n48(2A)-n66A	CA_n2A-n48A CA_n2A-n66A CA_n48A-n66A	n2	5, 10, 15, 20	0
		n48	CA_n48(2A)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n2	5, 10, 15, 20	1
		n48	CA_n48(2A)_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2A-n48A-n77A	n77[7, 9] CA_n2A-n48A CA_n2A-n77A	n2	5, 10, 15, 20	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n48A-n77C	CA_n2A-n48A CA_n2A-n77A CA_n77C	n2	5, 10, 15, 20, 25, 30, 40	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n77	CA_n77C_BCS0	
		n2	5, 10, 15, 20, 25, 30, 40	1
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	

		n77	CA_n77C_BCS1	
CA_n2A-n48B-n77A	CA_n2A-n48A CA_n2A-n77A	n2	5, 10, 15, 20	0
		n48	CA_n48B_BCS0	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n2	5, 10, 15, 20	1
		n48	CA_n48B_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n2	5, 10, 15, 20	2
		n48	CA_n48B_BCS2	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n48(2A)-n77A	CA_n2A-n48A CA_n2A-n77A	n2	5, 10, 15, 20	0
		n48	CA_n48(2A)_BCS0	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n2	5, 10, 15, 20	1
		n48	CA_n48(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n66A-n71A	-	n2	5, 10, 15, 20	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	
CA_n2A-n66A-n77A	n77[7, 9] CA_n2A-n66A CA_n66A-n77A[7] CA_n2A-n77A[7]	n2	5, 10, 15, 20	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2(2A)-n66A-n77A	n77[7] CA_n2A-n66A CA_n66A-n77A[7] CA_n2A-n77A[7]	n2	CA_n2(2A)_BCS0	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n66(2A)-n77A	n77[7] CA_n2A-n66A CA_n66A-n77A[7] CA_n2A-n77A[7]	n2	5, 10, 15, 20	0
		n66	CA_n66(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n66A-n77C	CA_n2A-n66A CA_n66A-n77A CA_n2A-n77A	n2	5, 10, 15, 20, 25, 30, 40	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77C_BCS0	
		n2	5, 10, 15, 20, 25, 30, 40	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77C_BCS1	
CA_n2A-n66A-n77(2A)	n77[7] CA_n2A-n66A CA_n66A-n77A[7] CA_n2A-n77A[7]	n2	5, 10, 15, 20	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
CA_n2A-n66A-n78A	-	n2	5, 10, 15, 20	0
		n66	5, 10, 15, 20, 25, 30, 40	

		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n66A-n78(2A)	-	n2	5, 10, 15, 20	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	
CA_n2A-n71A-n78A	-	n2	5, 10, 15, 20	0
		n71	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n71A-n78(2A)	-	n2	5, 10, 15, 20	0
		n71	5, 10, 15, 20	
		n78	CA_n78(2A)_BCS2	
CA_n3A-n5A-n7A	-	n3	5, 10, 15, 20, 25, 30	0
		n5	5, 10, 15, 20	
		n7	5, 10, 15, 20, 25, 30, 40	
	CA_n3A-n5A CA_n3A-n7A CA_n5A-n7A	n3	5, 10, 15, 20, 25, 30, 40, 50	1
		n5	5, 10, 15, 20	
		n7	5, 10, 15, 20, 25, 30, 40, 50	
CA_n3A-n5A-n7B	-	n3	5, 10, 15, 20, 25, 30	0
		n5	5, 10, 15, 20	
		n7	CA_n7B_BCS0	
	CA_n3A-n5A CA_n3A-n7A CA_n5A-n7A CA_n7B	n3	5, 10, 15, 20, 25, 30, 40, 50	1
		n5	5, 10, 15, 20	
		n7	CA_n7B_BCS0	
CA_n3A-n5A-n28A	-	n3	5, 10, 15, 20, 25, 30, 40, 50	0
		n5	5, 10, 15, 20	
		n28	5, 10, 15, 20, 30	
CA_n3A-n5A-n78A	CA_n3A-n5A CA_n3A-n78A CA_n5A-n78A	n3	5, 10, 15, 20, 25, 30, 40, 50	0
		n5	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n3A-n7A-n8A	-	n3	5, 10, 15, 20, 25, 30, 35, 40, 50	0
		n7	5, 10, 15, 20, 25, 30, 35, 40, 50	
		n8	5, 10, 15, 20, 35	
CA_n3A-n7A-n28A	-	n3	5, 10, 15, 20, 25, 30	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n28	5, 10, 15, 20	
	CA_n3A-n7A CA_n3A-n28A CA_n7A-n28A	n3	5, 10, 15, 20, 25, 30, 40	1
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n28	5, 10, 15, 20	
		n3	5, 10, 15, 20, 25, 30, 40, 50	2
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n28	5, 10, 15, 20	
CA_n3A-n7B-n28A	-	n3	5, 10, 15, 20, 25, 30	0
		n7	CA_n7B_BCS0	
		n28	5, 10, 15, 20	
	CA_n3A-n7A CA_n3A-n28A CA_n7A-n28A CA_n7B	n3	5, 10, 15, 20, 25, 30, 40, 50	1
		n7	CA_n7B_BCS0	
		n28	5, 10, 15, 20	
CA_n3A-n7A-n78A	-	n3	5, 10, 15, 20, 25, 30	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	

		n78	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
	CA_n3A-n7A CA_n3A-n78A CA_n7A-n78A	n3	5, 10, 15, 20, 25, 30, 40	1
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70[4], 80, 90, 100	
CA_n3A-n7B-n78A	-	n3	5, 10, 15, 20, 25, 30	0
		n7	CA_n7B_BCS0	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
	CA_n3A-n7A CA_n3A-n78A CA_n7A-n78A CA_n7B	n3	5, 10, 15, 20, 25, 30, 40	1
		n7	CA_n7B_BCS0	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70[4], 80, 90, 100	
CA_n3A-n7A-n78(2A)	CA_n3A-n7A CA_n3A-n78A CA_n7A-n78A	n3	5, 10, 15, 20, 25, 30, 40	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n78	CA_n78(2A)_BCS2	
CA_n3A-n8A-n28A	-	n3	5, 10, 15, 20, 25, 30, 35, 40, 50	0
		n8	5, 10, 15, 20, 35	
		n28	5, 10, 15, 20, 30	
CA_n3A-n8A-n41A	-	n3	5, 10, 15, 20, 25, 30	0
		n8	5, 10, 15, 20	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
CA_n3A-n8A-n77A	-	n3	5, 10, 15, 20, 25, 30	0
		n8	5, 10, 15, 20	
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n3A-n8A-n77(2A)	-	n3	5, 10, 15, 20, 25, 30	0
		n8	5, 10, 15, 20	
		n77	CA_n77(2A)_BCS1	
CA_n3A-n8A-n78A	CA_n3A-n8A CA_n3A-n78A CA_n8A-n78A	n3	5, 10, 15, 20, 25, 30	0
		n8	5, 10, 15, 20	
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n3A-n18A-n28A	CA_n3A-n18A CA_n3A-n28A CA_n18A-n28A	n3	5, 10, 15, 20, 25, 30, 40	0
		n18	5, 10, 15	
		n28	5, 10	
CA_n3A-n18A-n41A	CA_n3A-n41A CA_n3A-n18A CA_n18A-n41A	n3	5, 10, 15, 20, 25, 30, 40	0
		n18	5, 10, 15	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
CA_n3A-n28A-n41B	-	n3	5, 10, 15, 20	0
		n28	5, 10	
		n41	CA_n41B_BCS0	
CA_n3A-n18A-n77A	CA_n3A-n18A CA_n3A-n77A CA_n18A-n77A	n3	5, 10, 15, 20, 25, 30, 40	0
		n18	5, 10, 15	
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n3A-n18A-n77(2A)	CA_n3A-n18A CA_n3A-n77A CA_n18A-n77A	n3	5, 10, 15, 20	0
		n18	5, 10, 15	
		n77	CA_n77(2A)_BCS1	

CA_n3A-n20A-n67A	CA_n3A-n20A	n3	5, 10, 15, 20, 25, 30, 40	0
		n20	5, 10, 15, 20	
		n67	5, 10, 15, 20	
CA_n3A-n20A-n78A	-	n3	5, 10, 15, 20, 25, 30, 40	0
		n20	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n3A-n28A-n41A	CA_n3A-n28A CA_n3A-n41A CA_n28A-n41A	n3	5, 10, 15, 20, 25, 30, 40	0
		n28	5, 10, 15, 20, 30	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
CA_n3A-n28A-n41B	CA_n3An28A CA_n3A-n41A CA_n28A-n41A	n3	5, 10, 15, 20	0
		n28	5, 10	
		n41	CA_n41B_BCS0	
CA_n3A-n28A-n77A	CA_n3A-n28A CA_n3A-n77A CA_n28A-n77A	n3	5, 10, 15, 20, 25, 30	0
		n28	5, 10, 15, 20	
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n3	5, 10, 15, 20, 25, 30, 40	1
		n28	5, 10, 15, 20, 30	
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n3A-n28A-n77(2A)	CA_n3A-n28A CA_n3A-n77A CA_n28A-n77A CA_n77(2A)	n3	5, 10, 15, 20, 25, 30	0
		n28	5, 10, 15, 20	
		n77	CA_n77(2A)_BCS0	
		n3	5, 10, 15, 20, 25, 30, 40	1
		n28	5, 10, 15, 20, 30	
		n77	CA_n77(2A)_BCS0	
CA_n3A-n28A-n77(3A)	CA_n3A-n28A CA_n3A-n77A CA_n28A-n77A	n3	5, 10, 15, 20, 25, 30	0
		n28	5, 10, 15, 20	
		n77	CA_n77(3A)_BCS0	
CA_n3A-n28A-n78A	CA_n3A-n28A CA_n3A-n78A CA_n28A-n78A	n3	5, 10, 15, 20	0
		n28	5, 10, 15, 20[2]	
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n3	5, 10, 15, 20, 25, 30, 40	1
		n28	5, 10, 15, 20[2]	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n3	5, 10, 15, 20, 25, 30, 40	2
		n28	5, 10	
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n3A-n28A-n78(2A)	CA_n3A-n28A CA_n3A-n78A CA_n28A-n78A	n3	5, 10, 15, 20	0
		n28	5, 10, 15, 20[2]	
		n78	CA_n78(2A)_BCS0	
		n3	5, 10, 15, 20, 25, 30, 40	1
		n28	5, 10	
		n78	CA_n78(2A)_BCS2	
		n3	5, 10, 15, 20, 25, 30, 40	2
		n28	5, 10, 15, 20	
		n78	CA_n78(2A)_BCS2	
CA_n3A-n28A-n79A	CA_n3A-n28A CA_n3A-n79A CA_n28A-n79A	n3	5, 10, 15, 20, 25, 30	0
		n28	5, 10, 15, 20	
		n79	40, 50, 80, 100	

CA_n3A-n38A-n40A	-	n3	5, 10, 15, 20, 25, 30, 40, 50	0
		n38	5, 10, 15, 20, 25, 30, 40	
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n3A-n77A-n79A[4]	CA_n3A-n77A CA_n3A-n79A CA_n77A-n79A	n3	5, 10, 15, 20, 25, 30	0
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n79	40, 50, 60, 80, 100	
CA_n3A-n77(2A)-n79A[4]	CA_n3A-n77A CA_n3A-n79A CA_n77A-n79A	n3	5, 10, 15, 20, 25, 30	0
		n77	CA_n77(2A)_BCS0	
		n79	40, 50, 60, 80, 100	
CA_n3A-n40A-n41A	CA_n3A-n40A CA_n3A-n41A CA_n40A-n41A	n3	5, 10, 15, 20, 25, 30	0
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	
		n41	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n3A-n41A-n77A	CA_n3A-n41A	n3	5, 10, 15, 20, 25, 30, 40	0
	CA_n3A-n77A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
	CA_n41A-n77A	n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n3A-n41B-n77A	CA_n3A-n41A CA_n3A-n77A CA_n41A-n77A	n3	5, 10, 15, 20	0
		n41	CA_n41B_BCS0	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n3A-n41A-n77(2A)	CA_n3A-n41A	n3	5, 10, 15, 20, 25, 30, 40	0
	CA_n3A-n77A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
	CA_n41A-n77A	n77	CA_n77(2A)_BCS0	
CA_n3A-n41A-n77(3A)	CA_n3A-n41A CA_n3A-n77A CA_n41A-n77A	n3	5, 10, 15, 20	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n77	CA_n77(3A)_BCS1	
CA_n3A-n41A-n78A	-	n3	5, 10, 15, 20, 25, 30, 40	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n3A-n41A CA_n3A-n78A CA_n41A-n78A	n3	5, 10, 15, 20, 25, 30, 40	1
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n3A-n41A-n78(2A)	CA_n3A-n41A	n3	5, 10, 15, 20, 25, 30, 40	0
	CA_n3A-n78A CA_n41A-n78A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n78	CA_n78(2A)_BCS2	
CA_n3A-n41A-n79A	-	n3	5, 10, 15, 20, 25, 30	0
		n41	10, 15, 20, 40, 50, 60, 80, 100	
		n79	40, 50, 60, 80, 100	
		n3	5, 10, 15, 20, 25, 30	1
		n41	10, 15, 20, 40, 50, 60, 80	
		n79	40, 50, 60, 80, 100	
CA_n5A-n7A-n28A	-	n5	5, 10, 15, 20	0
		n7	5, 10, 15, 25, 30, 40, 50	
		n28	5, 10, 15, 20, 30	
CA_n5A-n7A-n78A	CA_n5A-n78A[7] CA_n7A-n78A[7]	n5	5, 10, 15, 20	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	

		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n5A-n7A CA_n5A-n78A CA_n7A-n78A	n5	5, 10, 15, 20	1
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70[4], 80, 90, 100	
CA_n5A-n7B-n78A	CA_n5A-n78A[7] CA_n7A-n78A[7]	n5	5, 10, 15, 20	0
		n7	CA_n7B_BCS0	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n5A-n7A CA_n5A-n78A CA_n7A-n78A CA_n7B	n5	5, 10, 15, 20	1
		n7	CA_n7B_BCS0	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70[4], 80, 90, 100	
CA_n5A-n12A-n77A	n77[7] CA_n5A-n12A CA_n5A-n77A[7] CA_n12A-n77A[7]	n5	5, 10, 15, 20	0
		n12	5, 10, 15	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n12A-n77(2A)	n77[7] CA_n5A-n12A CA_n5A-n77A[7] CA_n12A-n77A[7]	n5	5, 10, 15, 20	0
		n12	5, 10, 15	
		n77	CA_n77(2A)_BCS1	
CA_n5A-n14A-n77A	n77[7] CA_n5A-n14A CA_n5A-n77A[7] CA_n14A-n77A[7]	n5	5, 10, 15, 20	0
		n14	5, 10	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n14A-n77(2A)	n77[7] CA_n5A-n14A CA_n5A-n77A[7] CA_n14A-n77A[7]	n5	5, 10, 15, 20	0
		n14	5, 10	
		n77	CA_n77(2A)_BCS1	
CA_n5A-n25A-n66A	CA_n5A-n25A CA_n5A-n66A CA_n25A-n66A	n5	5, 10, 15, 20	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n5A-n25(2A)-n66A	CA_n5A-n25A CA_n5A-n66A CA_n25A-n66A	n5	5, 10, 15, 20	0
		n25	CA_n25(2A)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n5A-n25A-n66(2A)	CA_n5A-n25A CA_n5A-n66A CA_n25A-n66A	n5	5, 10, 15, 20	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	CA_n66(2A)_BCS1	
CA_n5A-n25(2A)-n66(2A)	CA_n5A-n25A CA_n5A-n66A CA_n25A-n66A	n5	5, 10, 15, 20	0
		n25	CA_n25(2A)_BCS0	
		n66	CA_n66(2A)_BCS1	

CA_n5A-n25A-n77A	CA_n5A-n25A CA_n5A-n77A CA_n25A-n77A	n5	5, 10, 15, 20	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n25(2A)-n77A	CA_n5A-n25A CA_n5A-n77A CA_n25A-n77A	n5	5, 10, 15, 20	0
		n25	CA_n25(2A)_BCS0	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n25A-n77(2A)	CA_n5A-n25A CA_n5A-n77A CA_n25A-n77A	n5	5, 10, 15, 20	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
CA_n5A-n25(2A)-n77(2A)	CA_n5A-n25A CA_n5A-n77A CA_n25A-n77A	n5	5, 10, 15, 20	0
		n25	CA_n25(2A)_BCS0	
		n77	CA_n77(2A)_BCS1	
CA_n5A-n25A-n78A	CA_n5A-n25A CA_n5A-n78A CA_n25A-n78A	n5	5, 10, 15, 20	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n25(2A)-n78A	CA_n5A-n25A CA_n5A-n78A CA_n25A-n78A	n5	5, 10, 15, 20	0
		n25	CA_n25(2A)_BCS0	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n25A-n78(2A)	CA_n5A-n25A CA_n5A-n78A CA_n25A-n78A	n5	5, 10, 15, 20	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	
CA_n5A-n25(2A)-n78(2A)	CA_n5A-n25A CA_n5A-n78A CA_n25A-n78A	n5	5, 10, 15, 20	0
		n25	CA_n25(2A)_BCS0	
		n78	CA_n78(2A)_BCS2	
CA_n5A-n29A-n77A	n77[7] CA_n5A-n77A[7]	n5	5, 10, 15, 20	0
		n29	5, 10	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n29A-n77(2A)	n77[7] CA_n5A-n77A[7]	n5	5, 10, 15, 20	0
		n29	5, 10	
		n77	CA_n77(2A)_BCS1	
CA_n5A-n30A-n66A	CA_n5A-n30A CA_n30A-n66A CA_n5A-n66A	n5	5, 10, 15, 20	0
		n30	5, 10	
		n66	5, 10, 15, 20, 40	
CA_n5A-n30A-n66(2A)	CA_n5A-n30A CA_n30A-n66A CA_n5A-n66A	n5	5, 10, 15, 20	0
		n30	5, 10	
		n66	CA_n66(2A)_BCS0	
CA_n5A-n30A-n66(3A)	CA_n5A-n30A CA_n30A-n66A CA_n5A-n66A	n5	5, 10, 15, 20	0
		n30	5, 10	

		n66	CA_n66(3A)_BCS0	
CA_n5A-n30A-n77A	n77[7] CA_n5A-n30A CA_n5A-n77A[7] CA_n30A-n77A[7]	n5	5, 10, 15, 20	0
		n30	5, 10	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n30A-n77(2A)	n77[7] CA_n5A-n30A CA_n5A-n77A[7] CA_n30A-n77A[7]	n5	5, 10, 15, 20	0
		n30	5, 10	
		n77	CA_n77(2A)_BCS1	
CA_n5A-n40A-n78A	CA_n5A-n40A CA_n5A-n78A CA_n40A-n78A	n5	5, 10, 15, 20, 25[1]	0
		n40	5[8], 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90,100	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90,100	
CA_n5A-n48A-n66A	CA_n5A-n48A CA_n5A-n66A CA_n48A-n66A	n5	5, 10, 15, 20	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n5A-n48(A-B)-n66A	CA_n5A-n48A CA_n5A-n66A CA_n48A-n66A	n5	5, 10, 15, 20, 25[1]	0
		n48	CA_n48(A-B)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n5	5, 10, 15, 20, 25[1]	1
		n48	CA_n48(A-B)_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n5A-n48B-n66A	CA_n5A-n48A CA_n5A-n66A CA_n48A-n66A	n5	5, 10, 15, 20	0
		n48	CA_n48B_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n5	5, 10, 15, 20	1
		n48	CA_n48B_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
		n5	5, 10, 15, 20	2
		n48	CA_n48B_BCS2	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n5A-n48(2A)-n66A	CA_n5A-n48A CA_n5A-n66A CA_n48A-n66A	n5	5, 10, 15, 20	0
		n48	CA_n48(2A)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n5	5, 10, 15, 20	1
		n48	CA_n48(2A)_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n5A-n48A-n77A	n77[7, 9] CA_n5A-n48A CA_n5A-n77A	n5	5, 10, 15, 20	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n48A-n77C	CA_n5A-n48A CA_n5A-n77A CA_n77C	n5	5, 10, 15, 20, 25[1]	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	

		n77	CA_n77C_BCS0	
		n5	5, 10, 15, 20, 25[1]	1
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n77	CA_n77C_BCS1	
CA_n5A-n48B-n77A	CA_n5A-n48A CA_n5A-n77A	n5	5, 10, 15, 20	0
		n48	CA_n48B_BCS0	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n5	5, 10, 15, 20	1
		n48	CA_n48B_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n5	5, 10, 15, 20	2
		n48	CA_n48B_BCS2	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n48B-n77C	CA_n5A-n48A CA_n5A-n77A	n5	5, 10, 15, 20	0
		n48	CA_n48B_BCS0	
		n77	CA_n77C_BCS0	
		n5	5, 10, 15, 20	1
		n48	CA_n48B_BCS0	
		n77	CA_n77C BCS1	
		n5	5, 10, 15, 20	2
		n48	CA_n48B_BCS1	
		n77	CA_n77C BCS0	
		n5	5, 10, 15, 20	3
		n48	CA_n48B_BCS1	
		n77	CA_n77C BCS1	
CA_n5A-n48(2A)-n77A	CA_n5A-n48A CA_n5A-n77A	n5	5, 10, 15, 20	0
		n48	CA_n48(2A)_BCS0	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n5	5, 10, 15, 20	1
		n48	CA_n48(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n48(2A)-n77C	CA_n5A-n48A CA_n5A-n77A	n5	5, 10, 15, 20	0
		n48	CA_n48(2A)_BCS0	
		n77	CA_n77C_BCS0	
		n5	5, 10, 15, 20	1
		n48	CA_n48(2A)_BCS0	
		n77	CA_n77C_BCS1	
		n5	5, 10, 15, 20	2
		n48	CA_n48(2A)_BCS1	
		n77	CA_n77C_BCS0	
		n5	5, 10, 15, 20	3
		n48	CA_n48(2A)_BCS1	
		n77	CA_n77C_BCS1	
CA_n5A-n66A-n77A	n77[7, 9] CA_n5A-n66A CA_n66A-n77A[7] CA_n5A-n77A[7]	n5	5, 10, 15, 20	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n66(2A)-n77A	n77[7] CA_n5A-n66A CA_n66A-n77A[7] CA_n5A-n77A[7]	n5	5, 10, 15, 20	0
		n66	CA_n66(2A)_BCS1	

		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n66(2A)-n77(2A)	CA_n5A-n66A CA_n66A-n77A CA_n5A-n77A	n5	5, 10, 15, 20	0
		n66	CA_n66(2A)_BCS1	
		n77	CA_n77(2A)_BCS1	
CA_n5A-n66A-n77C	CA_n5A-n66A CA_n66A-n77A CA_n5A-n77A	n5	5, 10, 15, 20, 25[1]	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77C_BCS0	
		n5	5, 10, 15, 20, 25[1]	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77C_BCS1	
CA_n5A-n66A-n77(2A)	n77[7] CA_n5A-n66A CA_n66A-n77A[7] CA_n5A-n77A[7]	n5	5, 10, 15, 20	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
CA_n5A-n66A-n78A	CA_n5A-n66A CA_n5A-n78A CA_n66A-n78A	n5	5, 10, 15, 20	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
		n5	5, 10, 15, 20	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n66(2A)-n78A	CA_n5A-n66A CA_n5A-n78A CA_n66A-n78A	n5	5, 10, 15, 20	0
		n66	CA_n66(2A)_BCS1	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n66A-n78(2A)	CA_n5A-n66A CA_n5A-n78A CA_n66A-n78A	n5	5, 10, 15, 20	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	
CA_n5A-n66(2A)-n78(2A)	CA_n5A-n66A CA_n5A-n78A CA_n66A-n78A	n5	5, 10, 15, 20	0
		n66	CA_n66(2A)_BCS1	
		n78	CA_n78(2A)_BCS2	
CA_n7A-n8A-n28A	-	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n8	5, 10, 15, 20	
		n28	5, 10, 15, 20, 30	
CA_n7A-n8A-n40A	CA_n7A-n8A CA_n7A-n40A CA_n8A-n40A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n8	5, 10, 15, 20	
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	
CA_n7A-n8A-n78A	CA_n7A-n8A CA_n7A-n78A CA_n8A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n8	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n25A-n66A	CA_n7A-n25A CA_n7A-n66A CA_n25A-n66A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	

CA_n7A-n25(2A)-n66A	CA_n7A-n25A CA_n7A-n66A CA_n25A-n66A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	CA_n25(2A)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n7A-n25(2A)-n66(2A)	CA_n7A-n25A CA_n7A-n66A CA_n25A-n66A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	CA_n25(2A)_BCS0	
		n66	CA_n66(2A)_BCS1	
CA_n7A-n25A-n66(2A)	CA_n7A-n25A CA_n7A-n66A CA_n25A-n66A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	CA_n66(2A)_BCS1	
CA_n7(2A)-n25A-n66A	CA_n7A-n25A CA_n7A-n66A CA_n25A-n66A	n7	CA_n7(2A)_BCS0	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n7(2A)-n25(2A)-n66A	CA_n7A-n25A CA_n7A-n66A CA_n25A-n66A	n7	CA_n7(2A)_BCS0	0
		n25	CA_n25(2A)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n7(2A)-n25A-n66(2A)	CA_n7A-n25A CA_n7A-n66A CA_n25A-n66A	n7	CA_n7(2A)_BCS0	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	CA_n66(2A)_BCS1	
CA_n7(2A)-n25(2A)-n66(2A)	CA_n7A-n25A CA_n7A-n66A CA_n25A-n66A	n7	CA_n7(2A)_BCS0	0
		n25	CA_n25(2A)_BCS0	
		n66	CA_n66(2A)_BCS1	
CA_n7A-n25A-n77A	CA_n7A-n25A CA_n7A_n77A CA_n25A-n77A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n25(2A)-n77A	CA_n7A-n25A CA_n7A_n77A CA_n25A-n77A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	CA_n25(2A)_BCS0	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n25A-n77(2A)	CA_n7A-n25A CA_n7A_n77A CA_n25A-n77A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
CA_n7A-n25(2A)-n77(2A)	CA_n7A-n25A CA_n7A_n77A CA_n25A-n77A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	CA_n25(2A)_BCS0	
		n77	CA_n77(2A)_BCS1	
CA_n7(2A)-n25A-n77A	CA_n7A-n25A CA_n7A_n77A CA_n25A-n77A	n7	CA_n7(2A)_BCS0	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7(2A)-n25(2A)-n77A	CA_n7A-n25A CA_n7A_n77A CA_n25A-n77A	n7	CA_n7(2A)_BCS0	0
		n25	CA_n25(2A)_BCS0	

		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7(2A)-n25A-n77(2A)	CA_n7A-n25A CA_n7A_n77A CA_n25A-n77A	n7	CA_n7(2A)_BCS0	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
CA_n7(2A)-n25(2A)-n77(2A)	CA_n7A-n25A CA_n7A_n77A CA_n25A-n77A	n7	CA_n7(2A)_BCS0	0
		n25	CA_n25(2A)_BCS0	
		n77	CA_n77(2A)_BCS1	
CA_n7A-n25A-n78A	CA_n7A-n25A CA_n7A-n78A CA_n25A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70[4], 80, 90[4], 100	
CA_n7(2A)-n25A-n78A	-	n7	CA_n7(2A)_BCS0	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70[4], 80, 90[4], 100	
CA_n7A-n25(2A)-n78A	-	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	CA_n25(2A)_BCS0	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70[4], 80, 90[4], 100	
CA_n7(2A)-n25(2A)-n78A	-	n7	CA_n7(2A)_BCS0	0
		n25	CA_n25(2A)_BCS0	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70[4], 80, 90[4], 100	
CA_n7A-n25A-n78(2A)	CA_n7A-n25A CA_n7A-n78A CA_n25A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS0	
		n7	5, 10, 15, 20, 25, 30, 40, 50	1
		n25	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	
CA_n7(2A)-n25A-n78(2A)	-	n7	CA_n7(2A)_BCS0	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS0	
CA_n7A-n25(2A)-n78(2A)	-	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	CA_n25(2A)_BCS0	
		n78	CA_n78(2A)_BCS0	
CA_n7(2A)-n25(2A)-n78(2A)	-	n7	CA_n7(2A)_BCS0	0
		n25	CA_n25(2A)_BCS0	
		n78	CA_n78(2A)_BCS0	
CA_n7A-n28A-n78(2A)	CA_n7A-n28A CA_n7A-n78A CA_n28A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n28	5, 10, 15, 20	
		n78	CA_n78(2A)_BCS2	
CA_n7A-n28A-n78A	CA_n7A-n78A[7] CA_n28A-n78A[7]	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n28	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
	CA_n7A-n28A CA_n7A-n78A CA_n28A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	1

		n28	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70[4], 80, 90, 100	
CA_n7B-n28A-n78A	CA_n7A-n78A[7] CA_n28A-n78A[7]	n7	CA_n7B_BCS0	0
		n28	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
	CA_n7A-n28A CA_n7A-n78A CA_n28A-n78A CA_n7B	n7	CA_n7B_BCS0	1
		n28	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70[4], 80, 90, 100	
CA_n7A-n40A-n78A	CA_n7A-n40A CA_n7A-n78A CA_n40A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n40	5, 10, 15, 20, 30, 40, 50, 60, 80	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n46A-n78A	CA_n7A-n46A CA_n7A-n78A CA_n46A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n46	20, 40, 60, 80	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n46C-n78A	CA_n7A-n46A CA_n7A-n78A CA_n46A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n46	CA_n46C_BCS0	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n46D-n78A	CA_n7A-n46A CA_n7A-n78A CA_n46A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n46	CA_n46D_BCS0	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n66A-n77A	CA_n7A-n66A CA_n7A-n77A CA_n66A-n77A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n66(2A)-n77A	CA_n7A-n66A CA_n7A-n77A CA_n66A-n77A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n66	CA_n66(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n66A-n77(2A)	CA_n7A-n66A CA_n7A-n77A CA_n66A-n77A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
CA_n7A-n66(2A)-n77(2A)	CA_n7A-n66A CA_n7A-n77A CA_n66A-n77A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n66	CA_n66(2A)_BCS1	
		n77	CA_n77(2A)_BCS1	
CA_n7(2A)-n66A-n77A	CA_n7A-n66A CA_n7A-n77A CA_n66A-n77A	n7	CA_n7(2A)_BCS0	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	

CA_n7(2A)-n66(2A)-n77A	CA_n7A-n66A CA_n7A-n77A CA_n66A-n77A	n7	CA_n7(2A)_BCS0	0
		n66	CA_n66(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7(2A)-n66A-n77(2A)	CA_n7A-n66A CA_n7A-n77A CA_n66A-n77A	n7	CA_n7(2A)_BCS0	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
CA_n7(2A)-n66(2A)-n77(2A)	CA_n7A-n66A CA_n7A-n77A CA_n66A-n77A	n7	CA_n7(2A)_BCS0	0
		n66	CA_n66(2A)_BCS1	
		n77	CA_n77(2A)_BCS1	
CA_n7A-n66A-n78A	CA_n7A-n66A CA_n7A-n78A CA_n66A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
		n7	5, 10, 15, 20, 25, 30, 40, 50	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n66A-n78(2A)	CA_n7A-n66A CA_n7A-n78A CA_n66A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS1	
		n7	5, 10, 15, 20, 25, 30, 40, 50	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	
CA_n7(2A)-n66A-n78A	CA_n7A-n66A CA_n7A-n78A CA_n66A-n78A	n7	CA_n7(2A)_BCS0	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n66(2A)-n78A	CA_n7A-n66A CA_n7A-n78A CA_n66A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n66	CA_n66(2A)_BCS1	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7(2A)-n66(2A)-n78A	CA_n7A-n66A CA_n7A-n78A CA_n66A-n78A	n7	CA_n7(2A)_BCS0	0
		n66	CA_n66(2A)_BCS1	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n66(2A)-n78(2A)	-	n7	CA_n7(2A)_BCS0	0
		n66	CA_n66(2A)_BCS1	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7(2A)-n66A-n78(2A)	CA_n7A-n66A CA_n7A-n78A CA_n66A-n78A	n7	CA_n7(2A)_BCS0	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	
CA_n7(2A)-n66(2A)-n78(2A)	CA_n7A-n66A CA_n7A-n78A CA_n66A-n78A	n7	CA_n7(2A)_BCS0	0
		n66	CA_n66(2A)_BCS1	

		n78	CA_n78(2A)_BCS2	
CA_n8A-n28A-n78A	-	n8	5, 10, 15, 20	0
		n28	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n8A-n38A-n40A	-	n8	5, 10, 15, 20	0
		n38	5, 10, 15, 20, 25, 30, 40	
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n8A-n39A-n41A	-	n8	5, 10, 15, 20	0
		n39	5, 10, 15, 20, 25, 30, 40	
		n41	10, 15, 20, 40, 50, 60, 80, 100	
		n8	5, 10, 15, 20	1
		n39	5, 10, 15, 20, 25, 30, 40	
		n41	10, 15, 20, 40, 50, 60	
CA_n8A-n39A-n79A	-	n8	5, 10, 15, 20	0
		n39	5, 10, 15, 20, 25, 30, 40	
		n79	40, 50, 60, 80, 100	
CA_n8A-n40A-n41A	CA_n8A-n40A CA_n8A-n41A CA_n40A-n41A	n8	5, 10, 15, 20	0
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	
		n41	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n8A-n40A-n78A	CA_n8A-n40A CA_n8A-n78A CA_n40A-n78A	n8	5, 10, 15, 20	0
		n40	5, 10, 15, 20, 30, 40, 50, 60, 80	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n8A-n41A-n79A	-	n8	5, 10, 15, 20	0
		n41	10, 15, 20, 40, 50, 60, 80, 100	
		n79	40, 50, 60, 80, 100	
		n8	5, 10, 15, 20	1
		n41	10, 15, 20, 40, 50, 60	
		n79	40, 50, 60, 80, 100	
CA_n8A-n78A-n79A	-	n8	5, 10, 15, 20	0
		n78	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
		n79	40, 50, 60, 80, 100	
CA_n8A-n78(2A)-n79A	-	n8	5, 10, 15, 20	0
		n78	CA_n78(2A)_BCS1	
		n79	40, 50, 60, 80, 100	
CA_n12A-n30A-n66A	CA_n12A-n30A CA_n12A-n66A CA_n30A-n66A	n12	5, 10, 15	0
		n30	5, 10	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n12A-n30A-n66(2A)	CA_n12A-n30A CA_n12A-n66A CA_n30A-n66A	n12	5, 10, 15	0
		n30	5, 10	
		n66	CA_n66(2A)_BCS1	
CA_n12A-n30A-n66(3A)	CA_n12A-n30A CA_n12A-n66A CA_n30A-n66A	n12	5, 10, 15	0
		n30	5, 10	
		n66	CA_n66(3A)_BCS0	
CA_n12A-n30A-n77A	n77[7] CA_n12A-n30A, CA_n12A-n77A[7]	n12	5, 10	0

	CA_n30A-n77A[7]			
		n30	5, 10	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n12A-n30A-n77(2A)	n77[7] CA_n12A-n30A CA_n12A-n77A[7] CA_n30A-n77A[7]	n12	5, 10	0
		n30	5, 10	
		n77	CA_n77(2A)_BCS1	
CA_n12A-n66A-n77A	n77[7] CA_n12A-n66A CA_n12A-n77A[7] CA_n66A-n77A[7]	n12	5, 10, 15	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n12A-n66(2A)-n77A	n77[7] CA_n12A-n66A CA_n12A-n77A[7] CA_n66A-n77A[7]	n12	5, 10, 15	0
		n66	CA_n66(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n12A-n66A-n77(2A)	n77[7] CA_n12A-n66A CA_n12A-n77A[7] CA_n66A-n77A[7]	n12	5, 10, 15	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
CA_n13A-n25A-n66A	CA_n13A-n25A CA_n13A-n66A CA_n25A-n66A	n13	5, 10	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n13A-n25A-n77A	-	n13	5, 10	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n13A-n66A-n77A	n77[7, 9]	n13	5, 10	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n14A-n30A-n66A	CA_n14A-n30A CA_n14A-n66A CA_n30A-n66A	n14	5, 10	0
		n30	5, 10	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n14A-n30A-n66(2A)	CA_n14A-n30A CA_n14A-n66A CA_n30A-n66A	n14	5, 10	0
		n30	5, 10	
		n66	CA_n66(2A)_BCS1	
CA_n14A-n30A-n66(3A)	CA_n14A-n30A CA_n14A-n66A CA_n30A-n66A	n14	5, 10	0
		n30	5, 10	
		n66	CA_n66(3A)_BCS0	
CA_n14A-n30A-n77A	n77[7] CA_n14A-n30A CA_n14A-n77A[7] CA_n30A-n77A[7]	n14	5, 10	0
		n30	5, 10	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	

CA_n14A-n30A-n77(2A)	n77[7] CA_n14A-n30A CA_n14A-n77A[7] CA_n30A-n77A[7]	n14	5, 10	0
		n30	5, 10	
		n77	CA_n77(2A)_BCS1	
CA_n14A-n66A-n77A	n77[7] CA_n14A-n66A CA_n14A-n77A[7] CA_n66A-n77A[7]	n14	5, 10	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n14A-n66(2A)-n77A	n77[7] CA_n14A-n66A CA_n14A-n77A[7] CA_n66A-n77A[7]	n14	5, 10	0
		n66	CA_n66(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n14A-n66A-n77(2A)	n77[7] CA_n14A-n66A CA_n14A-n77A[7] CA_n66A-n77A[7]	n14	5, 10	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
CA_n18A-n28A-n41A	CA_n18A-n28A CA_n18A-n41A CA_n28A-n41A	n18	5, 10, 15	0
		n28	5, 10	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
CA_n18A-n28A-n77A	CA_n18A-n28A CA_n18A-n41A CA_n28A-n41A	n18	5, 10, 15	0
		n28	5, 10	
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n18A-n28A-n77(2A)	CA_n18A-n28A CA_n18A-n77A CA_n28A-n77A	n18	5, 10, 15	0
		n28	5, 10	
		n77	CA_n77(2A)_BCS1	
CA_n18A-n41A-n77A	CA_n18A-n28A CA_n18A-n41A CA_n28A-n41A	n18	5, 10, 15	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n18A-n41A-n77(2A)	CA_n18A-n41A CA_n18A-n77A CA_n41A-n77A	n18	5, 10, 15	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n77	CA_n77(2A)_BCS1	
CA_n20A-n28A-n78A	-	n20	5, 10, 15, 20	0
		n28	5, 10, 15, 20	
		n78	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
CA_n24A-n41A-n48A	CA_n24A-n41A CA_n24A_n48A CA_n41A_n48A	n24	5, 10	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n48	5, 10, 15, 20, 40, 50, 60, 70, 80, 90, 100	
CA_n24A-n41(2A)-n48A	CA_n24A-n41A CA_n24A_n48A CA_n41A_n48A	n24	5, 10	0
		n41	CA_n41(2A) BCS1	

		n48	5, 10, 15, 20, 40, 50, 60, 70, 80, 90, 100	
CA_n24A-n41A-n48(2A)	CA_n24A-n41A CA_n24A_n48A CA_n41A_n48A	n24	5, 10	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n48	CA_n48(2A) BCS0	
CA_n24A-n41(2A)-n48(2A)	CA_n24A-n41A CA_n24A_n48A CA_n41A_n48A	n24	5, 10	0
		n41	CA_n41(2A) BCS1	
		n48	CA_n48(2A) BCS0	
CA_n24A-n41A-n77A	CA_n24A-n41A CA_n24A_n77A CA_n41A_n77A	n24	5, 10	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n24A-n41(2A)-n77A	CA_n24A-n41A CA_n24A_n77A CA_n41A_n77A	n24	5, 10	0
		n41	CA_n41(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n24	5, 10	1
		n41	CA_n41(2A) BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n24A-n41A-n77(2A)	CA_n24A-n41A CA_n24A_n77A CA_n41A_n77A	n24	5, 10	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n77	CA_n77(2A)_BCS0	
		n24	5, 10	1
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n77	CA_n77(2A) BCS0	
CA_n24A-n41(2A)-n77(2A)	CA_n24A-n41A CA_n24A_n77A CA_n41A_n77A	n24	5, 10	0
		n41	CA_n41(2A)_BCS1	
		n77	CA_n77(2A)_BCS0	
		n24	5, 10	1
		n41	CA_n41(2A) BCS1	
		n77	CA_n77(2A) BCS0	
CA_n24A-n48A-n77A		n24	5, 10	0
		n48	5, 10, 15, 20, 40, 50, 60, 80, 90, 100	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n24A-n48(2A)-n77A		n24	5, 10	0
		n48	CA_n48(2A) BCS0	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n24A-n48A-n77(2A)		n24	5, 10	0
		n48	5, 10, 15, 20, 40, 50, 60, 70, 80, 90, 100	
		n77	CA_n77(2A) BCS0	
CA_n24A-n48(2A)-n77(2A)		n24	5, 10	0
		n48	CA_n48(2A) BCS0	
		n77	CA_n77(2A) BCS0	
CA_n25A-n29A-n66A	CA_n25A-n66A	n25	5, 10, 15, 20, 25, 30, 40	0
		n29	5, 10	

		n66	5, 10, 15, 20, 25, 30, 40	
CA_n25A-n38A-n66A	CA_n25A-n38A CA_n25A-n66A CA_n38A-n66A	n25	5, 10, 15, 20, 25, 30, 40	0
		n38	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n25(2A)-n38A-n66A	CA_n25A-n38A CA_n25A-n66A CA_n38A-n66A	n25	CA_n25(2A)_BCS0	0
		n38	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n25(2A)-n38A-n66(2A)	CA_n25A-n38A CA_n25A-n66A CA_n38A-n66A	n25	CA_n25(2A)_BCS0	0
		n38	5, 10, 15, 20, 25, 30, 40	
		n66	CA_n66(2A)_BCS1	
CA_n25A-n38A-n66(2A)	CA_n25A-n38A CA_n25A-n66A CA_n38A-n66A	n25	5, 10, 15, 20, 25, 30, 40	0
		n38	5, 10, 15, 20	
		n66	CA_n66(2A)_BCS1	
CA_n25A-n38A-n78A	CA_n25A-n38A CA_n25A-n78A CA_n38A-n78A	n25	5, 10, 15, 20, 25, 30, 40	0
		n38	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25A-n38A-n78(2A)	CA_n25A-n38A CA_n25A-n78A CA_n38A-n78A	n25	5, 10, 15, 20, 25, 30, 40	0
		n38	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	
CA_n25(2A)-n38A-n78A	CA_n25A-n38A CA_n25A-n78A CA_n38A-n78A	n25	CA_n25(2A)_BCS0	0
		n38	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25(2A)-n38A-n78(2A)	CA_n25A-n38A CA_n25A-n78A CA_n38A-n78A	n25	CA_n25(2A)_BCS0	0
		n38	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	
CA_n25A-n41A-n66A	-	n25	5, 10, 15, 20	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n66	5, 10, 15, 20, 40	
	CA_n25A-n41A CA_n25A-n66A CA_n41A-n66A	n25	5, 10, 15, 20, 25, 30, 40	1
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	5, 10, 15, 20, 25, 30, 40	
	CA_n25A-n41A CA_n25A-n66A CA_n41A-n66A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	n41 channel bandwidths in Table 5.3.5-1	
		n66	n66 channel bandwidths in Table 5.3.5-1	
CA_n25A-n41A-n66(2A)	-	n25	5, 10, 15, 20	0
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	CA_n66(2A)_BCS1	
	CA_n25A-n41A CA_n25A-n66A	n25	5, 10, 15, 20, 25, 30, 40	1

	CA_n41A-n66A			
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	CA_n66(2A)_BCS1	
	CA_n25A-n41A CA_n25A-n66A CA_n41A-n66A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	n41 channel bandwidths in Table 5.3.5-1	
		n66	CA_n66(2A) BCS 4 and 5	
CA_n25A-n41C-n66A	-	n25	5, 10, 15, 20	0
		n41	CA_n41C_BCS0	
		n66	5, 10, 15, 20, 40	
	CA_n25A-n41A CA_n25A-n66A CA_n41A-n66A	n25	5, 10, 15, 20, 25, 30, 40	1
		n41	CA_n41C_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
	CA_n25A-n41A CA_n25A-n66A CA_n41A-n66A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	CA_n41C BCS 4 and 5	
		n66	n66 channel bandwidths in Table 5.3.5-1	
CA_n25A-n41(2A)-n66A	-	n25	5, 10, 15, 20	0
		n41	CA_n41(2A)_BCS1	
		n66	5, 10, 15, 20, 40	
	CA_n25A-n41A CA_n25A-n66A CA_n41A-n66A	n25	5, 10, 15, 20, 25, 30, 40	1
		n41	CA_n41(2A)_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
	CA_n25A-n41A CA_n25A-n66A CA_n41A-n66A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	CA_n41(2A) BCS 4 and 5	
		n66	n66 channel bandwidths in Table 5.3.5-1	
CA_n25(2A)-n41A-n66A	-	n25	CA_n25(2A)_BCS1	0
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	5, 10, 15, 20, 40	
	CA_n25A-n41A CA_n25A-n66A CA_n41A-n66A	n25	CA_n25(2A)_BCS1	1
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	5, 10, 15, 20, 30, 40	
	CA_n25A-n41A CA_n25A-n66A CA_n41A-n66A	n25	CA_n25(2A) BCS 4 and 5	4 and 5
		n41	n41 channel bandwidths in Table 5.3.5-1	
		n66	n66 channel bandwidths in Table 5.3.5-1	
CA_n25A-n41A-n71A	-	n25	5, 10, 15, 20	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n71	5, 10, 15, 20	
	CA_n25A-n41A CA_n41A-n71A CA_n25A-n71A	n25	5, 10, 15, 20, 25, 30, 40	1
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n71	5, 10, 15, 20	

	CA_n25A-n41A CA_n41A-n71A CA_n25A-n71A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	n41 channel bandwidths in Table 5.3.5-1	
		n71	n77 channel bandwidths in Table 5.3.5-1	
CA_n25A-n41A-n71B	-	n25	5, 10, 15, 20	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n71	CA_n71B_BCS2	
	CA_n25A-n41A CA_n41A-n71A CA_n25A-n71A	n25	5, 10, 15, 20, 30, 40	1
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n71	CA_n71B_BCS2	
	CA_n25A-n41A CA_n41A-n71A CA_n25A-n71A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	n41 channel bandwidths in Table 5.3.5-1	
		n71	CA_n71B BCS 4 and 5	
CA_n25A-n41A-n71(2A)	-	n25	5, 10, 15, 20	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n71	CA_n71(2A)_BCS0	
	CA_n25A-n41A CA_n41A-n71A CA_n25A-n71A	n25	5, 10, 15, 20, 30, 40	1
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n71	CA_n71(2A)_BCS0	
	CA_n25A-n41A CA_n41A-n71A CA_n25A-n71A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	n41 channel bandwidths in Table 5.3.5-1	
		n71	CA_n71(2A) BCS 4 and 5	
CA_n25A-n41(2A)-n71A	-	n25	5, 10, 15, 20	0
		n41	CA_n41(2A)_BCS1	
		n71	5, 10, 15, 20	
	CA_n25A-n41A CA_n41A-n71A CA_n25A-n71A	n25	5, 10, 15, 20, 25, 30, 40	1
		n41	CA_n41(2A)_BCS1	
		n71	5, 10, 15, 20	
	CA_n25A-n41A CA_n41A-n71A CA_n25A-n71A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	CA_n41(2A) BCS 4 and 5	
		n71	n71 channel bandwidths in Table 5.3.5-1	
CA_n25A-n41C-n71A	-	n25	5, 10, 15, 20	0
		n41	CA_n41C_BCS0	
		n71	5, 10, 15, 20	
	CA_n25A-n41A CA_n41A-n71A CA_n25A-n71A	n25	5, 10, 15, 20, 25, 30, 40	1
		n41	CA_n41C_BCS1	
		n71	5, 10, 15, 20	
	CA_n25A-n41A CA_n41A-n71A CA_n25A-n71A CA_n41C	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	CA_n41C BCS 4 and 5	

		n71	n71 channel bandwidths in Table 5.3.5-1	
CA_n25(2A)-n41A-n71A	-	n25	CA_n25(2A)_BCS1	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n71	5, 10, 15, 20	
	CA_n25A-n41A CA_n41A-n71A CA_n25A-n71A	n25	CA_n25(2A)_BCS1	1
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n71	5, 10, 15, 20	
	CA_n25A-n41A CA_n41A-n71A CA_n25A-n71A	n25	CA_n25(2A) BCS 4 and 5	4 and 5
		n41	n41 channel bandwidths in Table 5.3.5-1	
		n71	n71 channel bandwidths in Table 5.3.5-1	
CA_n25A-n41A-n77A	CA_n25A-n41A CA_n25A-n77A CA_n41A-n77A	n25	5, 10, 15, 20, 25, 30, 40	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
		n25	5, 10, 15, 20, 25, 30, 40	1
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n25A-n41A CA_n25A-n77A CA_n41A-n77A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	n41 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n25A-n41(2A)-n77A	CA_n25A-n41A CA_n25A-n77A CA_n41A-n77A	n25	5, 10, 15, 20, 25, 30, 40	0
		n41	CA_n41(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n25	5, 10, 15, 20, 25, 30, 40	1
		n41	CA_n41(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
	CA_n25A-n41A CA_n25A-n77A CA_n41A-n77A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	CA_n41(2A) BCS 4 and 5	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n25A-n41A-n77(2A)	CA_n25A-n41A CA_n25A-n77A CA_n41A-n77A	n25	5, 10, 15, 20, 25, 30, 40	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n77	CA_n77(2A)_BCS1	
	CA_n25A-n41A CA_n25A-n77A CA_n41A-n77A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	n41 channel bandwidths in Table 5.3.5-1	
		n77	CA_n77(2A) BCS 4 and 5	
CA_n25A-n41(2A)-n77(2A)	CA_n25A-n41A CA_n25A-n77A CA_n41A-n77A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	CA_n41(2A) BCS 4 and 5	

		n77	CA_n77(2A) BCS 4 and 5	
CA_n25(2A)-n41A-n77A	CA_n25A-n41A CA_n25A-n77A CA_n41A-n77A	n25	CA_n25(2A)_BCS1	0
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n25A-n41A CA_n25A-n77A CA_n41A-n77A	n25	CA_n25(2A) BCS 4 and 5	4 and 5
		n41	n41 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n25A-n41C-n77A	CA_n41C CA_n25A-n41A CA_n25A-n77A CA_n41A-n77A	n25	5, 10, 15, 20, 25, 30, 40	0
		n41	CA_n41C_BCS0	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n25	5, 10, 15, 20, 25, 30, 40	1
		n41	CA_n41C_BCS2	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n41C CA_n25A-n41A CA_n25A-n77A CA_n41A-n77A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	CA_n41C BCS 4 and 5	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n25A-n41C-n77(2A)	CA_n41C CA_n25A-n41A CA_n25A-n77A CA_n41A-n77A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	CA_n41C BCS 4 and 5	
		n77	CA_n77(2A) BCS 4 and 5	
CA_n25A-n41A-n78A	CA_n25A-n41A CA_n25A-n78A CA_n41A-n78A	n25	5, 10, 15, 20, 25, 30, 40	0
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25A-n41A-n78(2A)	CA_n25A-n41A CA_n25A-n78A CA_n41A-n78A	n25	5, 10, 15, 20, 25, 30, 40	0
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n78	CA_n78(2A)_BCS2	
CA_n25A-n48A-n66A	CA_n25A-n48A CA_n25A-n66A CA_n48A-n66A	n25	5, 10, 15, 20	0
		n48	5, 10, 15, 20, 40, 50	
		n66	5, 10, 15, 20, 40	
		n25	5, 10, 15, 20, 25, 30, 40	1
		n48	5, 10, 15, 20, 40, 50, 60, 80, 90, 100	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n25A-n48(2A)-n66A	CA_n25A-n48A CA_n25A-n66A CA_n48A-n66A	n25	5, 10, 15, 20	0
		n48	CA_n48(2A)_BCS0	
		n66	5, 10, 15, 20, 40	
		n25	5, 10, 15, 20, 25, 30, 40	1
		n48	CA_n48(2A)_BCS0	

		n66	5, 10, 15, 20, 25, 30, 40	
CA_n25A-n48C-n66A	CA_n25A-n48A CA_n25A-n66A CA_n48A-n66A	n25	5, 10, 15, 20	0
		n48	CA_n48C_BCS0	
		n66	5, 10, 15, 20, 40	
		n25	5, 10, 15, 20, 25, 30, 40	1
		n48	CA_n48C_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n25A-n66A-n71A	-	n25	5, 10, 15, 20	0
		n66	5, 10, 15, 20, 40	
		n71	5, 10, 15, 20	
	CA_n25A-n66A CA_n25A-n71A CA_n66A-n71A	n25	5, 10, 15, 20, 25, 30, 40	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	
	CA_n25A-n66A CA_n25A-n71A CA_n66A-n71A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n71	n71 channel bandwidths in Table 5.3.5-1	
CA_n25A-n66A-n71B	CA_n25A-n66A CA_n25A-n71A CA_n66A-n71A	n25	5, 10, 15, 20, 25, 30, 40	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	CA_n71B_BCS2	
	CA_n25A-n66A CA_n25A-n71A CA_n66A-n71A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n71	CA_n71B BCS 4 and 5	
CA_n25A-n66A-n71(2A)	CA_n25A-n66A CA_n25A-n71A CA_n66A-n71A	n25	5, 10, 15, 20, 25, 30, 40	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	CA_n71(2A)_BCS0	
	CA_n25A-n66A CA_n25A-n71A CA_n66A-n71A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n71	CA_n71(2A) BCS 4 and 5	
CA_n25A-n66(2A)-n71A	CA_n25A-n66A CA_n25A-n71A CA_n66A-n71A	n25	5, 10, 15, 20, 25, 30, 40	0
		n66	CA_n66(2A)_BCS1	
		n71	5, 10, 15, 20	
	CA_n25A-n66A CA_n25A-n71A CA_n66A-n71A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	CA_n66(2A) BCS 4 and 5	
		n71	n71 channel bandwidths in Table 5.3.5-1	
CA_n25(2A)-n66A-n71A	CA_n25A-n66A CA_n25A-n71A CA_n66A-n71A	n25	CA_n25(2A)_BCS1	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	
	CA_n25A-n66A CA_n25A-n71A CA_n66A-n71A	n25	CA_n25(2A) BCS 4 and 5	4 and 5

		n66	n66 channel bandwidths in Table 5.3.5-1	
		n71	n71 channel bandwidths in Table 5.3.5-1	
CA_n25A-n66A-n77A	CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n25	5, 10, 15, 20, 25, 30, 40	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n25A-n66(2A)-n77A	CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n25	5, 10, 15, 20, 25, 30, 40	0
		n66	CA_n66(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	CA_n66(2A) BCS 4 and 5	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n25A-n66A-n77(2A)	CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n25	5, 10, 15, 20, 25, 30, 40	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
	CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n77	CA_n77(2A) BCS 4 and 5	
CA_n25A-n66(2A)-n77(2A)	CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n25	5, 10, 15, 20, 25, 30, 40	0
		n66	CA_n66(2A)_BCS1	
		n77	CA_n77(2A)_BCS1	
CA_n25(2A)-n66A-n77A	CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n25	CA_n25(2A)_BCS0	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n25	CA_n25(2A) BCS 4 and 5	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n25(2A)-n66(2A)-n77A	CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n25	CA_n25(2A)_BCS0	0
		n66	CA_n66(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25(2A)-n66A-n77(2A)	CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n25	CA_n25(2A)_BCS0	0

		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
CA_n25(2A)-n66(2A)-n77(2A)	CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n25	CA_n25(2A)_BCS0	0
		n66	CA_n66(2A)_BCS1	
		n77	CA_n77(2A)_BCS1	
CA_n25A-n66A-n78A	CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n25	5, 10, 15, 20, 25, 30, 40	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
		n25	5, 10, 15, 20, 25, 30, 40	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25(2A)-n66A-n78A	CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n25	CA_n25(2A)_BCS0	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25A-n66(2A)-n78A	CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n25	5, 10, 15, 20, 25, 30, 40	0
		n66	CA_n66(2A)_BCS1	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25A-n66A-n78(2A)	CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n25	5, 10, 15, 20, 25, 30, 40	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	
CA_n25(2A)-n66(2A)-n78A	CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n25	CA_n25(2A)_BCS0	0
		n66	CA_n66(2A)_BCS1	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25(2A)-n66A-n78(2A)	CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n25	CA_n25(2A)_BCS0	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	
CA_n25A-n66(2A)-n78(2A)	CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n25	5, 10, 15, 20, 25, 30, 40	0
		n66	CA_n66(2A)_BCS1	
		n78	CA_n78(2A)_BCS2	
CA_n25(2A)-n66(2A)-n78(2A)	CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n25	CA_n25(2A)_BCS0	0
		n66	CA_n66(2A)_BCS1	
		n78	CA_n78(2A)_BCS2	
CA_n25A-n71A-n77A	CA_n25A-n71A CA_n25A-n77A CA_n71A-n77A	n25	5, 10, 15, 20, 25, 30, 40	0
		n71	5, 10, 15, 20	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n25A-n71A CA_n25A-n77A CA_n71A-n77A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n71	n71 channel bandwidths in Table 5.3.5-1	

		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n25A-n71B-n77A	CA_n25A-n71A CA_n25A-n77A CA_n71A-n77A	n25	5, 10, 15, 20, 25, 30, 40	0
		n71	CA_n71B_BCS2	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n25A-n71A CA_n25A-n77A CA_n71A-n77A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n71	CA_n71B BCS 4 and 5	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n25A-n71(2A)-n77A	CA_n25A-n71A CA_n25A-n77A CA_n71A-n77A	n25	5, 10, 15, 20, 25, 30, 40	0
		n71	CA_n71(2A)_BCS0	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n25A-n71A CA_n25A-n77A CA_n71A-n77A	n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n71	CA_n71(2A) BCS 4 and 5	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n25(2A)-n71A-n77A	CA_n25A-n71A CA_n25A-n77A CA_n71A-n77A	n25	CA_n25(2A)_BCS1	0
		n71	5, 10, 15, 20	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n25A-n71A CA_n25A-n77A CA_n71A-n77A	n25	CA_n25(2A) BCS 4 and 5	4 and 5
		n71	n71 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n25A-n71A-n78A	CA_n25A-n71A CA_n25A-n78A CA_n71A-n78A	n25	5, 10, 15, 20, 25, 30, 40	0
		n71	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25A-n71A-n78(2A)	CA_n25A-n71A CA_n25A-n78A CA_n71A-n78A	n25	5, 10, 15, 20, 25, 30, 40	0
		n71	5, 10, 15, 20	
		n78	CA_n78(2A)_BCS2	
CA_n26A-n66A-n70A	CA_n26A-n66A CA_n26A-n70A	n26	5, 10, 15, 20	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n70	5, 10, 15, 20[1], 25[1]	
CA_n26A-n66(2A)-n70A	CA_n26A-n66A CA_n26A-n70A	n26	5, 10, 15, 20	0
		n66	CA_n66(2A)_BCS0	
		n70	5, 10, 15, 20[1], 25[1]	
CA_n28A-n38A-n78A	-	n28	5, 10, 15, 20, 30	0
		n38	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n28A-n39A-n40A	-	n28	5, 10, 15, 20, 30	0
		n39	5, 10, 15, 20, 25, 30, 40	

		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100	
CA_n28A-n39A-n41A	CA_n28A-n39A CA_n28A-n41A CA_n39A-n41A	n28	5, 10, 15, 20, 30	0
		n39	5, 10, 15, 20, 25, 30, 40	
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n28A-n39A-n41C	CA_n28A-n39A CA_n28A-n41A CA_n39A-n41A	n28	5, 10, 15, 20, 30	0
		n39	5, 10, 15, 20, 25, 30, 40	
		n41	CA_n41C_BCS1	
CA_n28A-n39A-n79A	-	n28	5, 10, 15, 20, 30	0
		n39	5, 10, 15, 20, 25, 30, 40	
		n79	40, 50, 60, 80, 100	
CA_n28A-n40A-n41A	CA_n28A-n40A CA_n28A-n41A CA_n40A-n41A	n28	5, 10, 15, 20, 30	0
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n28A-n40A-n78A	CA_n28A-n40A CA_n28A-n78A CA_n40A-n78A	n28	5, 10, 15, 20	0
		n40	5, 10, 15, 20, 25, 30, 40, 50	
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
	CA_n28A-n40A CA_n28A-n78A CA_n40A-n78A	n28	5, 10, 15, 20	1
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100	
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n28A-n40B-n78A	-	n28	5, 10, 15, 20	0
		n40	CA_n40_BCS0	
		n78	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n28A-n40A-n79A	CA_n28A-n40A CA_n28A-n79A CA_n40A-n79A	n28	5, 10, 15, 20, 30	0
		n40	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
		n79	40, 50, 60, 80, 100	
CA_n28A-n41A-n77A	CA_n28A-n41A	n28	5, 10, 15, 20, 30	0
	CA_n28A-n77A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
	CA_n41A-n77A	n77	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n28A-n41B-n77A	CA_n28A-n41A CA_n28A-n77A CA_n41A-n77A	n28	5, 10	0
		n41	CA_n41B_BCS0	
		n77	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n28A-n41A-n77(2A)	CA_n28A-n41A	n28	5, 10, 15, 20, 30	0
	CA_n28A-n77A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
	CA_n41A-n77A	n77	CA_n77(2A)_BCS0	
CA_n28A-n41A-n77(3A)	CA_n28A-n41A CA_n28A-n77A CA_n41A-n77A	n28	5, 10	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n77	CA_n77(3A)_BCS1	
CA_n28A-n41A-n78A	CA_n28A-n41A CA_n41A-n78A	n28	5, 10, 15, 20	0

	CA_n28A-n78A			
		n41	10, 15, 20, 30, 40, 50, 60, 90, 100	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
CA_n28A-n41A-n78(2A)	CA_n78(2A)	n28	5, 10, 15, 20, 30	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n78	CA_n78(2A)_BCS2	
CA_n28A-n41A-n79A	CA_n28A-n41A CA_n28A-n79A CA_n41A-n79A	n28	5, 10, 15, 20, 30	0
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n79	40, 50, 60, 80, 100	
CA_n28A-n41C-n79A	CA_n28A-n41A CA_n28A-n79A CA_n41A-n79A	n28	5, 10, 15, 20, 30	0
		n41	CA_n41C_BCS1	
		n79	40, 50, 60, 80, 100	
CA_n28A-n46A-n78A	CA_n28A-n46A CA_n28A-n78A CA_n46A-n78A	n28	5, 10, 15, 20	0
		n46	20, 40, 60, 80	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n28A-n46C-n78A	CA_n28A-n46A CA_n28A-n78A CA_n46A-n78A	n28	5, 10, 15, 20	0
		n46	CA_n46C_BCS0	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n28A-n46D-n78A	CA_n28A-n46A CA_n28A-n78A CA_n46A-n78A	n28	5, 10, 15, 20	0
		n46	CA_n46D_BCS0	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n28A-n77A-n79A[4]	CA_n28A-n77A CA_n28A-n79A CA_n77A-n79A	n28	5, 10, 15, 20	0
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n79	40, 50, 60, 80, 100	
CA_n28A-n77(2A)-n79A[4]	CA_n28A-n77A CA_n28A-n79A CA_n77A-n79A	n28	5, 10, 15, 20	0
		n77	CA_n77(2A)_BCS1	
		n79	40, 50, 60, 80, 100	
CA_n28A-n78A-n79A	CA_n28A-n78A CA_n28A-n79A CA_n78A-n79A	n28	5, 10, 15, 20	0
		n78	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	
		n79	40, 50, 60, 80, 100	
CA_n29A-n30A-n66A	CA_n30A-n66A	n29	5, 10	0
		n30	5, 10	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n29A-n30A-n66(2A)	CA_n30A-n66A	n29	5, 10	0
		n30	5, 10	
		n66	CA_n66(2A)_BCS1	
CA_n29A-n30A-n77A	n77[7] CA_n30A-n77A[7]	n29	5, 10	0
		n30	5, 10	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	

CA_n29A-n30A-n77(2A)	n77[7] CA_n30A-n77A[7]	n29	5, 10	0
		n30	5, 10	
		n77	CA_n77(2A)_BCS1	
CA_n29A-n66A-n70A	-	n29	5, 10	0
		n66	5, 10, 15, 20, 40	
		n70	5, 10, 15, 20[1], 25[1]	
CA_n29A-n66B-n70A	-	n29	5, 10	0
		n66	CA_n66B_BCS0.	
		n70	5, 10, 15, 20[1], 25[1]	
CA_n29A-n66(2A)-n70A	-	n29	5, 10	0
		n66	CA_n66(2A)_BCS0	
		n70	5, 10, 15, 20[1], 25[1]	
CA_n29A-n66A-n77A	n77[7] CA_n66A-n77A[7]	n29	5, 10	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n29A-n66(2A)-n77A	n77[7] CA_n66A-n77A[7]	n29	5, 10	0
		n66	CA_n66(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n29A-n66A-n77(2A)	n77[7] CA_n66A-n77A[7]	n29	5, 10	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
CA_n30A-n66A-n77A	n77[7] CA_n30A-n66A CA_n30A-n77A[7] CA_n66A-n77A[7]	n30	5, 10	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n30A-n66(2A)-n77A	n77[7] CA_n30A-n66A CA_n30A-n77A[7] CA_n66A-n77A[7]	n30	5, 10	0
		n66	CA_n66(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n30A-n66A-n77(2A)	n77[7] CA_n30A-n66A CA_n30A-n77A[7] CA_n66A-n77A[7]	n30	5, 10	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
CA_n38A-n66A-n78A	CA_n38A-n66A CA_n38A-n78A CA_n66A-n78A	n38	5, 10, 15, 20, 25, 30, 40	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n38A-n66A-n78(2A)	CA_n38A-n66A CA_n38A-n78A CA_n66A-n78A	n38	5, 10, 15, 20, 25, 30, 40	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	
CA_n38A-n66(2A)-n78A	CA_n38A-n66A CA_n38A-n78A CA_n66A-n78A	n38	5, 10, 15, 20, 25, 30, 40	0
		n66	CA_n66(2A)_BCS1	

		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n38A-n66(2A)-n78(2A)	CA_n38A-n66A CA_n38A-n78A CA_n66A-n78A	n38	5, 10, 15, 20, 25, 30, 40	0
		n66	CA_n66(2A)_BCS1	
		n78	CA_n78(2A)_BCS2	
CA_n39A-n40A-n41A	CA_n39A-n40A CA_n39A-n41A CA_n40A-n41A	n39	5, 10, 15, 20, 25, 30, 40	0
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	
		n41	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n39A-n40A-n79A	CA_n39A-n40A CA_n40A-n79A CA_n39A-n79A	n39	5, 10, 15, 20, 25, 30, 40	0
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	
		n79	40, 50, 60, 80, 100	
CA_n39A-n41A-n79A	-	n39	5, 10, 15, 20, 25, 30, 40	0
		n41	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n79	40, 50, 60, 80, 100	
		n39	5, 10, 15, 20, 25, 30, 40	1
		n41	10, 15, 20, 40, 50, 60	
		n79	40, 50, 60, 80, 100	
CA_n40A-n41A-n79A	CA_n40A-n41A CA_n40A-n79A CA_n41A-n79A	n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	0
		n41	10, 15, 20, 40, 50, 60, 80, 100	
		n79	, 40, 50, 60, 80, 100	
		n40	5, 10, 15, 20, 25, 30, 40	1
		n41	10, 15, 20, 40, 50, 60	
		n79	, 40, 50, 60, 80, 100	
CA_n41A-n66A-n70A	CA_n41A-n66A CA_n41A-n70A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	10, 15, 20, 25, 30, 40	
		n70	5, 10, 15, 20[1], 25[1]	
CA_n41A-n66A-n71A	-	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0
		n66	5, 10, 15, 20, 40	
		n71	5, 10, 15, 20	
	CA_n41A-n71A CA_n66A-n71A CA_n41A-n66A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	
	CA_n41A-n71A CA_n66A-n71A CA_n41A-n66A	n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n71	n77 channel bandwidths in Table 5.3.5-1	
CA_n41A-n66A-n71B	CA_n41A-n66A CA_n41A-n71A CA_n66A-n71A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	CA_n71B_BCS2	
	CA_n41A-n66A CA_n41A-n71A CA_n66A-n71A	n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n71	CA_n71B BCS 4 and 5	
CA_n41A-n66A-n71(2A)	CA_n41A-n66A CA_n41A-n71A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0

	CA_n66A-n71A			
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n71(2A)_BCS0	
	CA_n41A-n66A CA_n41A-n71A CA_n66A-n71A	n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n71	CA_n71(2A) BCS 4 and 5	
CA_n41A-n66(2A)-n71A	CA_n41A-n66A CA_n66A-n71A CA_n41A-n71A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	CA_n66(2A)_BCS1	
		n71	5, 10, 15, 20	
	CA_n41A-n66A CA_n66A-n71A CA_n41A-n71A	n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	CA_n66(2A) BCS 4 and 5	
		n71	n71 channel bandwidths in Table 5.3.5-1	
CA_n41(2A)-n66A-n71A	-	n41	CA_n41(2A)_BCS1	0
		n66	5, 10, 15, 20, 40	
		n71	5, 10, 15, 20	
	CA_n41A-n71A CA_n66A-n71A CA_n41A-n66A	n41	CA_n41(2A)_BCS1	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	
	CA_n41A-n71A CA_n66A-n71A CA_n41A-n66A	n41	CA_n41(2A) BCS 4 and 5	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n71	n71 channel bandwidths in Table 5.3.5-1	
CA_n41C-n66A-n71A	-	n41	CA_n41C_BCS0	0
		n66	5, 10, 15, 20, 40	
		n71	5, 10, 15, 20	
	CA_n41A-n71A CA_n66A-n71A CA_n41A-n66A	n41	CA_n41C_BCS1	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	
	CA_n41A-n71A CA_n66A-n71A CA_n41A-n66A CA_n41C	n41	CA_n41C BCS 4 and 5	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n71	n71 channel bandwidths in Table 5.3.5-1	
CA_n41A-n66A-n77A	CA_n41A-n66A CA_n41A-n77A CA_n66A-n77A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n41A-n66A CA_n41A-n77A CA_n66A-n77A	n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5

		n66	n66 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n41A-n66A-n77(2A)	CA_n41A-n77A CA_n66A-n77A CA_n41A-n66A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
	CA_n41A-n77A CA_n66A-n77A CA_n41A-n66A	n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n77	CA_n77(2A) BCS 4 and 5	
CA_n41A-n66(2A)-n77A	CA_n41A-n66A CA_n41A-n77A CA_n66A-n77A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	CA_n66(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n41A-n66A CA_n41A-n77A CA_n66A-n77A	n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	CA_n66(2A) BCS 4 and 5	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n41A-n66(2A)-n77(2A)	CA_n41A-n66A CA_n41A-n77A CA_n66A-n77A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	CA_n66(2A)_BCS1	
		n77	CA_n77(2A)_BCS1	
	CA_n41A-n66A CA_n41A-n77A CA_n66A-n77A	n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	CA_n66(2A) BCS 4 and 5	
		n77	CA_n77(2A) BCS 4 and 5	
CA_n41(2A)-n66A-n77A	CA_n41A-n66A CA_n41A-n77A CA_n66A-n77A	n41	CA_n41(2A)_BCS1	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n41A-n66A CA_n41A-n77A CA_n66A-n77A	n41	CA_n41(2A) BCS 4 and 5	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n41(2A)-n66A-n77(2A)	CA_n41A-n66A CA_n41A-n77A CA_n66A-n77A	n41	CA_n41(2A) BCS 4 and 5	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n77	CA_n77(2A) BCS 4 and 5	
CA_n41C-n66A-n77A	CA_41C CA_n41A-n66A CA_n41A-n77A CA_n66A-n77A	n41	CA_n41C_BCS0	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_41C CA_n41A-n66A CA_n41A-n77A CA_n66A-n77A	n41	CA_n41C BCS 4 and 5	4 and 5

		n66	n66 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n41C-n66A-n77(2A)	CA_41C CA_n41A-n66A CA_n41A-n77A CA_n66A-n77A	n41	CA_n41C BCS 4 and 5	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n77	CA_n77(2A) BCS 4 and 5	
CA_n41A-n66A-n78A	CA_n41A-n66A CA_n41A-n78A CA_n66A-n78A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n41A-n66A-n78(2A)	CA_n41A-n66A CA_n41A-n78A CA_n66A-n78A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	
CA_n41A-n66(2A)-n78A	CA_n41A-n66A CA_n41A-n78A CA_n66A-n78A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	CA_n66(2A)_BCS1	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n41A-n66(2A)-n78(2A)	CA_n41A-n66A CA_n41A-n78A CA_n66A-n78A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	CA_n66(2A)_BCS1	
		n78	CA_n78(2A)_BCS2	
CA_n41A-n70A-n78A	CA_n41A-n70A CA_n41A-n78A CA_n70A-n78A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n70	5, 10, 15, 20, 25	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n41A-n71A-n77A	CA_n41A-n71A CA_n41A-n77A CA_n71A-n77A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0
		n71	5, 10, 15, 20	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	1
		n71	5, 10, 15, 20	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5
		n71	n71 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n41A-n71B-n77A	CA_n41A-n71A CA_n41A-n77A CA_n71A-n77A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n71	CA_n71B_BCS2	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n41A-n71A CA_n41A-n77A CA_n71A-n77A	n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5
		n71	CA_n71B BCS 4 and 5	

		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n41A-n71(2A)-n77A	CA_n41A-n71A CA_n41A-n77A CA_n71A-n77A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n71	CA_n71(2A)_BCS0	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n41A-n71A CA_n41A-n77A CA_n71A-n77A	n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5
		n71	CA_n71(2A) BCS 4 and 5	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n41A-n71A-n77(2A)	CA_n41A-n71A CA_n41A-n77A CA_n71A-n77A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n71	5, 10, 15, 20	
		n77	CA_n77(2A)_BCS1	
	CA_n41A-n71A CA_n41A-n77A CA_n71A-n77A	n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5
		n71	n71 channel bandwidths in Table 5.3.5-1	
		n77	CA_n77(2A) BCS 4 and 5	
CA_n41(2A)-n71A-n77A	CA_n41A-n71A CA_n41A-n77A CA_n71A-n77A	n41	CA_n41(2A)_BCS1	0
		n71	5, 10, 15, 20	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n41A-n71A CA_n41A-n77A CA_n71A-n77A	n41	CA_n41(2A) BCS 4 and 5	4 and 5
		n71	n71 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n41(2A)-n71A-n77(2A)		n41	CA_n41(2A) BCS 4 and 5	4 and 5
		n71	n71 channel bandwidths in Table 5.3.5-1	
		n77	CA_n77(2A) BCS 4 and 5	
CA_n41C-n71A-n77A	CA_41C CA_n41A-n71A CA_n41A-n77A CA_n71A-n77A	n41	CA_n41C_BCS0	0
		n71	5, 10, 15, 20	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_41C CA_n41A-n71A CA_n41A-n77A CA_n71A-n77A	n41	CA_n41C BCS 4 and 5	4 and 5
		n71	n71 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n41C-n71A-n77(2A)	CA_41C CA_n41A-n71A CA_n41A-n77A CA_n71A-n77A	n41	CA_n41C BCS 4 and 5	4 and 5
		n71	n71 channel bandwidths in Table 5.3.5-1	
		n77	CA_n77(2A) BCS 4 and 5	
CA_n41A-n71A-n78A	CA_n41A-n71A CA_n41A-n78A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0

	CA_n71A-n78A			
		n71	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n41A-n71A-n78(2A)	CA_n41A-n71A CA_n41A-n78A CA_n71A-n78A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n71	5, 10, 15, 20	
		n78	CA_n78(2A)_BCS2	
CA_n46A-n48A-n96A	CA_n46A-n48A CA_n48A-n96A	n46	10, 20, 40, 60, 80	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	20, 40, 60, 80	
CA_n46B-n48A-n96A	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46B_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	20, 40, 60, 80	
CA_n46C-n48A-n96A	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46C_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	20, 40, 60, 80	
CA_n46D-n48A-n96A	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46D_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	20, 40, 60, 80	
CA_n46M-n48A-n96A	-	n46	CA_n46M_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	20, 40, 60, 80	
CA_n46N-n48A-n96A	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46N_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	20, 40, 60, 80	
CA_n46A-n48B-n96A	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48B_BCS0	
		n96	20, 40, 60, 80	
CA_n46B-n48B-n96A	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	CA_n46B_BCS0	0
		n48	CA_n48B_BCS0	
		n96	20, 40, 60, 80	
CA_n46C-n48B-n96A	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	CA_n46C_BCS0	0
		n48	CA_n48B_BCS0	
		n96	20, 40, 60, 80	
CA_n46D-n48B-n96A	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	CA_n46D_BCS0	0
		n48	CA_n48B_BCS0	
		n96	20, 40, 60, 80	

CA_n46M-n48B-n96A		n46	CA_n46M_BCS0	0
		n48	CA_n48B_BCS0	
		n96	20, 40, 60, 80	
CA_n46N-n48B-n96A	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	CA_n46N_BCS0	0
		n48	CA_n48B_BCS0	
		n96	20, 40, 60, 80	
CA_n46A-n48C-n96A	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48C_BCS0	
		n96	20, 40, 60, 80	
CA_n46B-n48C-n96A	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	CA_n46B_BCS0	0
		n48	CA_n48C_BCS0	
		n96	20, 40, 60, 80	
CA_n46C-n48C-n96A	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	CA_n46C_BCS0	0
		n48	CA_n48C_BCS0	
		n96	20, 40, 60, 80	
CA_n46D-n48C-n96A	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	CA_n46D_BCS0	0
		n48	CA_n48C_BCS0	
		n96	20, 40, 60, 80	
CA_n46M-n48C-n96A	-	n46	CA_n46M_BCS0	0
		n48	CA_n48C_BCS0	
		n96	20, 40, 60, 80	
CA_n46N-n48C-n96A	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	CA_n46N_BCS0	0
		n48	CA_n48C_BCS0	
		n96	20, 40, 60, 80	
CA_n46A-n48A-n96B	CA_n46A-n48A CA_n48A-n96A	n46	10, 20, 40, 60, 80	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96B_BCS0	
CA_n46B-n48A-n96B	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46B_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96B_BCS0	
CA_n46C-n48A-n96B	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46C_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96B_BCS0	
CA_n46D-n48A-n96B	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46D_BCS0	0

		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96B_BCS0	
CA_n46M-n48A-n96B	-	n46	CA_n46M_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96B_BCS0	
CA_n46N-n48A-n96B	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46N_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96B_BCS0	
CA_n46A-n48A-n96C	-	n46	10, 20, 40, 60, 80	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96C_BCS0	
CA_n46B-n48A-n96C	-	n46	CA_n46B_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96C_BCS0	
CA_n46C-n48A-n96C	-	n46	CA_n46C_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96C_BCS0	
CA_n46D-n48A-n96C	-	n46	CA_n46D_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96C_BCS0	
CA_n46M-n48A-n96C	-	n46	CA_n46M_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96C_BCS0	
CA_n46N-n48A-n96C	-	n46	CA_n46N_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96C_BCS0	
CA_n46A-n48B-n96C	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48B_BCS0	
		n96	CA_n96C_BCS0	
CA_n46B-n48B-n96C	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	CA_n46B_BCS0	0
		n48	CA_n48B_BCS0	
		n96	CA_n96C_BCS0	
CA_n46C-n48B-n96C	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	CA_n46C_BCS0	0
		n48	CA_n48B_BCS0	
		n96	CA_n96C_BCS0	
CA_n46D-n48B-n96C	CA_n48B CA_n46A-n48A CA_n48A-n96A	n46	CA_n46D_BCS0	0

	CA_n46A-n48B CA_n48B-n96A			
		n48	CA_n48B_BCS0	
		n96	CA_n96C_BCS0	
CA_n46M-n48B-n96C	-	n46	CA_n46M_BCS0	0
		n48	CA_n48B_BCS0	
		n96	CA_n96C_BCS0	
CA_n46N-n48B-n96C	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	CA_n46N_BCS0	0
		n48	CA_n48B_BCS0	
		n96	CA_n96C_BCS0	
CA_n46A-n48C-n96C	-	n46	10, 20, 40, 60, 80	0
		n48	CA_n48C_BCS0	
		n96	CA_n96C_BCS0	
CA_n46B-n48C-n96C	-	n46	CA_n46B_BCS0	0
		n48	CA_n48C_BCS0	
		n96	CA_n96C_BCS0	
CA_n46C-n48C-n96C	-	n46	CA_n46C_BCS0	0
		n48	CA_n48C_BCS0	
		n96	CA_n96C_BCS0	
CA_n46D-n48C-n96C	-	n46	CA_n46D_BCS0	0
		n48	CA_n48C_BCS0	
		n96	CA_n96C_BCS0	
CA_n46M-n48C-n96C	-	n46	CA_n46M_BCS0	0
		n48	CA_n48C_BCS0	
		n96	CA_n96C_BCS0	
CA_n46N-n48C-n96C	-	n46	CA_n46N_BCS0	0
		n48	CA_n48C_BCS0	
		n96	CA_n96C_BCS0	
CA_n46A-n48A-n96D	-	n46	10, 20, 40, 60, 80	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96D_BCS0	
CA_n46B-n48A-n96D	-	n46	CA_n46B_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96D_BCS0	
CA_n46C-n48A-n96D	-	n46	CA_n46C_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96D_BCS0	
CA_n46D-n48A-n96D	-	n46	CA_n46D_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96D_BCS0	
CA_n46M-n48A-n96D	-	n46	CA_n46M_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96D_BCS0	
CA_n46N-n48A-n96D	-	n46	CA_n46N_BCS0	0

		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96D_BCS0	
CA_n46A-n48C-n96D	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48C_BCS0	
		n96	CA_n96D_BCS0	
CA_n46B-n48C-n96D	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	CA_n46B_BCS0	0
		n48	CA_n48C_BCS0	
		n96	CA_n96D_BCS0	
CA_n46C-n48C-n96D	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	CA_n46C_BCS0	0
		n48	CA_n48C_BCS0	
		n96	CA_n96D_BCS0	
CA_n46D-n48C-n96D	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	CA_n46D_BCS0	0
		n48	CA_n48C_BCS0	
		n96	CA_n96D_BCS0	
CA_n46M-n48C-n96D	-	n46	CA_n46M_BCS0	0
		n48	CA_n48C_BCS0	
		n96	CA_n96D_BCS0	
CA_n46N-n48C-n96D	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	CA_n46N_BCS0	0
		n48	CA_n48C_BCS0	
		n96	CA_n96D_BCS0	
CA_n46A-n48A-n96E	-	n46	10, 20, 40, 60, 80	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96E_BCS0	
CA_n46B-n48A-n96E	-	n46	CA_n46B_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96E_BCS0	
CA_n46C-n48A-n96E	-	n46	CA_n46C_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96E_BCS0	
CA_n46D-n48A-n96E	-	n46	CA_n46D_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96E_BCS0	
CA_n46M-n48A-n96E	-	n46	CA_n46M_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96E_BCS0	

CA_n46N-n48A-n96E	-	n46	CA_n46N_BCS0	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n96	CA_n96E_BCS0	
CA_n46A-n48C-n96E	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48C_BCS0	
		n96	CA_n96E_BCS0	
CA_n46B-n48C-n96E	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	CA_n46B_BCS0	0
		n48	CA_n48C_BCS0	
		n96	CA_n96E_BCS0	
CA_n46C-n48C-n96E	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	CA_n46C_BCS0	0
		n48	CA_n48C_BCS0	
		n96	CA_n96E_BCS0	
CA_n46D-n48C-n96E	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	CA_n46D_BCS0	0
		n48	CA_n48C_BCS0	
		n96	CA_n96E_BCS0	
CA_n46M-n48C-n96E	-	n46	CA_n46M_BCS0	0
		n48	CA_n48C_BCS0	
		n96	CA_n96E_BCS0	
CA_n46N-n48C-n96E	CA_n48B CA_n46A-n48A CA_n48A-n96A CA_n46A-n48B CA_n48B-n96A	n46	CA_n46N_BCS0	0
		n48	CA_n48C_BCS0	
		n96	CA_n96E_BCS0	
CA_n46A-n48(2A)-n96A	CA_n46A-n48A CA_n48A-n96A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48(2A)_BCS0	
		n96	20, 40, 60, 80	
CA_n46B-n48(2A)-n96A	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46B_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	20, 40, 60, 80	
CA_n46C-n48(2A)-n96A	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46C_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	20, 40, 60, 80	
CA_n46D-n48(2A)-n96A	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46D_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	20, 40, 60, 80	
CA_n46M-n48(2A)-n96A	-	n46	CA_n46M_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	20, 40, 60, 80	
CA_n46N-n48(2A)-n96A	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46N_BCS0	0
		n48	CA_n48(2A)_BCS0	

		n96	20, 40, 60, 80	
CA_n46A-n48(2A)-n96B	CA_n46A-n48A CA_n48A-n96A	n46	20, 40, 60, 80	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96B_BCS0	
CA_n46B-n48(2A)-n96B	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46B_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96B_BCS0	
CA_n46C-n48(2A)-n96B	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46C_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96B_BCS0	
CA_n46D-n48(2A)-n96B	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46D_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96B_BCS0	
CA_n46M-n48(2A)-n96B	-	n46	CA_n46M_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96B_BCS0	
CA_n46N-n48(2A)-n96B	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46N_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96B_BCS0	
CA_n46A-n48(2A)-n96C	CA_n46A-n48A CA_n48A-n96A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96C_BCS0	
CA_n46B-n48(2A)-n96C	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46B_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96C_BCS0	
CA_n46C-n48(2A)-n96C	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46C_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96C_BCS0	
CA_n46D-n48(2A)-n96C	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46D_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96C_BCS0	
CA_n46M-n48(2A)-n96C	-	n46	CA_n46M_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96C_BCS0	
CA_n46N-n48(2A)-n96C	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46N_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96C_BCS0	
CA_n46A-n48(2A)-n96D	CA_n46A-n48A CA_n48A-n96A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96D_BCS0	
CA_n46B-n48(2A)-n96D	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46B_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96D_BCS0	
CA_n46C-n48(2A)-n96D	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46C_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96D_BCS0	
CA_n46D-n48(2A)-n96D	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46D_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96D_BCS0	

CA_n46M-n48(2A)-n96D	-	n46	CA_n46M_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96D_BCS0	
CA_n46N-n48(2A)-n96D	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46N_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96D_BCS0	
CA_n46A-n48(2A)-n96E	CA_n46A-n48A CA_n48A-n96A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96E_BCS0	
CA_n46B-n48(2A)-n96E	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46B_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96E_BCS0	
CA_n46C-n48(2A)-n96E	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46C_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96E_BCS0	
CA_n46D-n48(2A)-n96E	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46D_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96E_BCS0	
CA_n46M-n48(2A)-n96E	-	n46	CA_n46M_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96E_BCS0	
CA_n46N-n48(2A)-n96E	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46N_BCS0	0
		n48	CA_n48(2A)_BCS0	
		n96	CA_n96E_BCS0	
CA_n46A-n48(3A)-n96A	CA_n46A-n48A CA_n48A-n96A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48(3A)_BCS0	
		n96	20, 40, 60, 80	
CA_n46B-n48(3A)-n96A	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46B_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	20, 40, 60, 80	
CA_n46C-n48(3A)-n96A	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46C_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	20, 40, 60, 80	
CA_n46D-n48(3A)-n96A	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46D_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	20, 40, 60, 80	
CA_n46M-n48(3A)-n96A	-	n46	CA_n46M_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	20, 40, 60, 80	
CA_n46N-n48(3A)-n96A	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46N_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	20, 40, 60, 80	
CA_n46A-n48(3A)-n96B	CA_n46A-n48A CA_n48A-n96A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96B_BCS0	
CA_n46B-n48(3A)-n96B	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46B_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96B_BCS0	
CA_n46C-n48(3A)-n96B	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46C_BCS0	0

		n48	CA_n48(3A)_BCS0	
		n96	CA_n96B_BCS0	
CA_n46D-n48(3A)-n96B	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46D_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96B_BCS0	
CA_n46M-n48(3A)-n96B	-	n46	CA_n46M_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96B_BCS0	
CA_n46N-n48(3A)-n96B	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46N_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96B_BCS0	
CA_n46A-n48(3A)-n96C	CA_n46A-n48A CA_n48A-n96A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96C_BCS0	
CA_n46B-n48(3A)-n96C	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46B_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96C_BCS0	
CA_n46C-n48(3A)-n96C	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46C_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96C_BCS0	
CA_n46D-n48(3A)-n96C	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46D_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96C_BCS0	
CA_n46M-n48(3A)-n96C	-	n46	CA_n46M_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96C_BCS0	
CA_n46N-n48(3A)-n96C	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46N_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96C_BCS0	
CA_n46A-n48(3A)-n96D	CA_n46A-n48A CA_n48A-n96A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96D_BCS0	
CA_n46B-n48(3A)-n96D	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46B_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96D_BCS0	
CA_n46C-n48(3A)-n96D	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46C_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96D_BCS0	
CA_n46D-n48(3A)-n96D	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46D_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96D_BCS0	
CA_n46M-n48(3A)-n96D	-	n46	CA_n46M_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96D_BCS0	
CA_n46N-n48(3A)-n96D	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46N_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96D_BCS0	
CA_n46A-n48(3A)-n96E	CA_n46A-n48A CA_n48A-n96A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96E_BCS0	

CA_n46B-n48(3A)-n96E	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46B_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96E_BCS0	
CA_n46C-n48(3A)-n96E	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46C_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96E_BCS0	
CA_n46D-n48(3A)-n96E	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46D_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96E_BCS0	
CA_n46M-n48(3A)-n96E	-	n46	CA_n46M_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96E_BCS0	
CA_n46N-n48(3A)-n96E	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46N_BCS0	0
		n48	CA_n48(3A)_BCS0	
		n96	CA_n96E_BCS0	
CA_n46A-n48(4A)-n96A	CA_n46A-n48A CA_n48A-n96A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48(4A)_BCS0	
		n96	20, 40, 60, 80	
CA_n46B-n48(4A)-n96A	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46B_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	20, 40, 60, 80	
CA_n46C-n48(4A)-n96A	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46C_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	20, 40, 60, 80	
CA_n46D-n48(4A)-n96A	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46D_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	20, 40, 60, 80	
CA_n46M-n48(4A)-n96A	-	n46	CA_n46M_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	20, 40, 60, 80	
CA_n46N-n48(4A)-n96A	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46N_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	20, 40, 60, 80	
CA_n46A-n48(4A)-n96B	CA_n46A-n48A CA_n48A-n96A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96B_BCS0	
CA_n46B-n48(4A)-n96B	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46B_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96B_BCS0	
CA_n46C-n48(4A)-n96B	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46C_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96B_BCS0	
CA_n46D-n48(4A)-n96B	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46D_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96B_BCS0	
CA_n46M-n48(4A)-n96B	-	n46	CA_n46M_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96B_BCS0	
CA_n46N-n48(4A)-n96B	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46N_BCS0	0

		n48	CA_n48(4A)_BCS0	
		n96	CA_n96B_BCS0	
CA_n46A-n48(4A)-n96C	CA_n46A-n48A CA_n48A-n96A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96C_BCS0	
CA_n46B-n48(4A)-n96C	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46B_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96C_BCS0	
CA_n46C-n48(4A)-n96C	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46C_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96C_BCS0	
CA_n46D-n48(4A)-n96C	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46D_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96C_BCS0	
CA_n46M-n48(4A)-n96C	-	n46	CA_n46M_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96C_BCS0	
CA_n46N-n48(4A)-n96C	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46N_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96C_BCS0	
CA_n46A-n48(4A)-n96D	CA_n46A-n48A CA_n48A-n96A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96D_BCS0	
CA_n46B-n48(4A)-n96D	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46B_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96D_BCS0	
CA_n46C-n48(4A)-n96D	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46C_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96D_BCS0	
CA_n46D-n48(4A)-n96D	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46D_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96D_BCS0	
CA_n46M-n48(4A)-n96D		n46	CA_n46M_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96D_BCS0	
CA_n46N-n48(4A)-n96D	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46N_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96D_BCS0	
CA_n46A-n48(4A)-n96E	CA_n46A-n48A CA_n48A-n96A	n46	10, 20, 40, 60, 80	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96E_BCS0	
CA_n46B-n48(4A)-n96E	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46B_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96E_BCS0	
CA_n46C-n48(4A)-n96E	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46C_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96E_BCS0	
CA_n46D-n48(4A)-n96E	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46D_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96E_BCS0	

CA_n46M-n48(4A)-n96E	-	n46	CA_n46M_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96E_BCS0	
CA_n46N-n48(4A)-n96E	CA_n46A-n48A CA_n48A-n96A	n46	CA_n46N_BCS0	0
		n48	CA_n48(4A)_BCS0	
		n96	CA_n96E_BCS0	
CA_n48A-n66A-n70A	CA_n48A-n66A CA_n48A-n70A	n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n70	5, 10, 15, 20[1], 25[1]	
CA_n48A-n66(2A)-n70A	CA_n48A-n66A CA_n48A-n70A	n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	CA_n66(2A)_BCS0	
		n70	5, 10, 15, 20[1], 25[1]	
CA_n48(2A)-n66A-n70A	CA_n48A-n66A CA_n48A-n70A	n48	CA_n48(2A)_BCS1	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n70	5, 10, 15, 20[1], 25[1]	
CA_n48B-n66A-n70A	CA_n48A-n66A CA_n48A-n70A	n48	CA_n48B_BCS2	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n70	5, 10, 15, 20[1], 25[1]	
CA_n48A-n66A-n71A	CA_n48A-n71A CA_n66A-n71A CA_n48A-n66A	n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	
CA_n48A-n66(2A)-n71A	CA_n48A-n71A CA_n66A-n71A CA_n48A-n66A	n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	CA_n66(2A)_BCS0	
		n71	5, 10, 15, 20	
CA_n48(2A)-n66A-n71A	CA_n48A-n71A CA_n66A-n71A CA_n48A-n66A	n48	CA_n48(2A)_BCS1	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	
CA_n48B-n66A-n71A	CA_n48A-n71A CA_n66A-n71A CA_n48A-n66A	n48	CA_n48B_BCS2	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	
CA_n48A-n66A-n71(2A)	CA_n48A-n71A CA_n66A-n71A CA_n48A-n66A	n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	CA_n71(2A)_BCS0	
CA_n48A-n66A-n77A	n77[7, 9] CA_n48A-n66A CA_n66A-n77A	n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n48A-n66A-n77C	CA_n48A-n66A CA_n66A-n77A CA_n77C	n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77C_BCS0	
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77C_BCS1	
CA_n48B-n66A-n77A	CA_n48A-n66A CA_n66A-n77A	n48	CA_n48B_BCS0	0

		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n48	CA_n48B_BCS1	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n48	CA_n48B_BCS2	2
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n48(2A)-n66A-n77A	CA_n48A-n66A CA_n66A-n77A	n48	CA_n48(2A)_BCS0	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n48	CA_n48(2A)_BCS1	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n48(2A)-n66A-n77C	CA_n48A-n66A CA_n66A-n77A	n48	CA_n48(2A)_BCS0	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77C_BCS0	
		n48	CA_n48(2A)_BCS0	1
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77C_BCS1	
		n48	CA_n48(2A)_BCS1	2
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77C_BCS0	
		n48	CA_n48(2A)_BCS1	3
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77C_BCS1	
CA_n48A-n70A-n71A	CA_n48A-n71A CA_n70A-n71A CA_n48A-n70A	n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n70	5, 10, 15, 20[1], 25[1]	
		n71	5, 10, 15, 20	
CA_n48(2A)-n70A-n71A	CA_n48A-n71A CA_n70A-n71A CA_n48A-n70A	n48	CA_n48(2A)_BCS1	0
		n70	5, 10, 15, 20[1], 25[1]	
		n71	5, 10, 15, 20	
CA_n48B-n70A-n71A	CA_n48A-n71A CA_n70A-n71A CA_n48A-n70A	n48	CA_n48B_BCS2	0
		n70	5, 10, 15, 20[1], 25[1]	
		n71	5, 10, 15, 20	
CA_n48A-n70A-n71(2A)	CA_n48A-n71A CA_n70A-n71A CA_n48A-n70A	n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n70	5, 10, 15, 20[1], 25[1]	
		n71	CA_n71(2A)_BCS0	
CA_n66A-n70A-n71A	CA_n66A-n71A CA_n70A-n71A	n66	5, 10, 15, 20, 40	0
		n70	5, 10, 15, 20[1], 25[1]	
		n71	5, 10, 15, 20	
CA_n66A-n70A-n78A	CA_n66A-n78A CA_n70A-n78A	n66	10, 15, 20, 25, 30, 40	0
		n70	5, 10, 15, 20[1], 25[1]	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n66A-n70A-n71(2A)	CA_n66A-n71A CA_n70A-n71A	n66	5, 10, 15, 20, 25, 30, 40	0
		n70	5, 10, 15, 20[1], 25[1]	
		n71	CA_n71(2A)_BCS0	

CA_n66B-n70A-n71A	CA_n66A-n71A CA_n70A-n71A	n66	CA_n66B_BCS0	0
		n70	5, 10, 15, 20[1], 25[1]	
		n71	5, 10, 15, 20	
CA_n66(2A)-n70A-n71A	CA_n66A-n71A CA_n70A-n71A	n66	CA_n66(2A)_BCS0	0
		n70	5, 10, 15, 20[1], 25[1]	
		n71	5, 10, 15, 20	
CA_n66A-n71A-n77A	CA_n66A-n71A CA_n66A-n77A CA_n71A-n77A	n66	5, 10, 15, 20, 25, 30, 40	0
		n71	5, 10, 15, 20	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n66A-n71A CA_n66A-n77A CA_n71A-n77A	n66	n66 channel bandwidths in Table 5.3.5-1	4 and 5
		n71	n71 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n66A-n71B-n77A	CA_n66A-n71A CA_n66A-n77A CA_n71A-n77A	n66	5, 10, 15, 20, 25, 30, 40	0
		n71	CA_n71B_BCS2	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n66A-n71A CA_n66A-n77A CA_n71A-n77A	n66	n66 channel bandwidths in Table 5.3.5-1	4 and 5
		n71	CA_n71B BCS 4 and 5	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n66A-n71(2A)-n77A	CA_n66A-n71A CA_n66A-n77A CA_n71A-n77A	n66	5, 10, 15, 20, 25, 30, 40	0
		n71	CA_n71(2A)_BCS0	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	n66 channel bandwidths in Table 5.3.5-1	4 and 5
		n71	CA_n71(2A) BCS 4 and 5	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n66(2A)-n71A-n77A	CA_n66A-n71A CA_n66A-n77A CA_n71A-n77A	n66	CA_n66(2A)_BCS1	0
		n71	5, 10, 15, 20	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n66A-n71A CA_n66A-n77A CA_n71A-n77A	n66	CA_n66(2A) BCS 4 and 5	4 and 5
		n71	n71 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n66A-n71A-n77(2A)	CA_n66A-n71A CA_n66A-n77A CA_n71A-n77A	n66	5, 10, 15, 20, 25, 30, 40	0
		n71	5, 10, 15, 20	
		n77	CA_n77(2A)_BCS1	
	CA_n66A-n71A CA_n66A-n77A CA_n71A-n77A	n66	n66 channel bandwidths in Table 5.3.5-1	4 and 5
		n71	n71 channel bandwidths in Table 5.3.5-1	

		n77	CA_n77(2A) BCS 4 and 5	
CA_n66(2A)-n71A-n77(2A)	CA_n66A-n71A CA_n66A-n77A CA_n71A-n77A	n66	CA_n66(2A)_BCS1	0
		n71	5, 10, 15, 20	
		n77	CA_n77(2A)_BCS1	
	CA_n66A-n71A CA_n66A-n77A CA_n71A-n77A	n66	CA_n66(2A) BCS 4 and 5	4 and 5
		n71	n71 channel bandwidths in Table 5.3.5-1	
		n77	CA_n77(2A) BCS 4 and 5	
CA_n66A-n71A-n78A	CA_n66A-n78A CA_n66A-n71A CA_n71A-n78A	n66	5, 10, 15, 20, 25, 30, 40	0
		n71	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n66A-n71A-n78(2A)	CA_n66A-n78A CA_n66A-n71A CA_n71A-n78A	n66	5, 10, 15, 20, 25, 30, 40	0
		n71	5, 10, 15, 20	
		n78	CA_n78(2A)_BCS2	
CA_n66(2A)-n71A-n78A	CA_n66A-n78A CA_n66A-n71A CA_n71A-n78A	n66	CA_n66(2A)_BCS1	0
		n71	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n66(2A)-n71A-n78(2A)	CA_n66A-n78A CA_n66A-n71A CA_n71A-n78A	n66	CA_n66(2A)_BCS1	0
		n71	5, 10, 15, 20	
		n78	CA_n78(2A)_BCS2	

NOTE 1: This UE channel bandwidth is applicable only to downlink
NOTE 2: For the 20 MHz bandwidth, the minimum requirements are specified for NR UL carrier frequencies confined to either 713-723 MHz or 728-738 MHz.
NOTE 3: The SCS of each channel bandwidth for NR band refers to Table 5.3.5-1.
NOTE 4: The minimum requirements only apply for non-simultaneous Tx/Rx between all carriers for TDD combinations.
NOTE 5: Simultaneous Rx/Tx capability for TDD combinations does not apply for UEs supporting band n78 with an n77 implementation.
NOTE 6: Only single uplink carriers with power class other than PC3 are listed.
NOTE 7: Power Class 2 is allowed for this uplink combination or single uplink carrier in this downlink/uplink combination
NOTE 8: For this bandwidth, the minimum requirements are restricted to operation when carrier is configured as an SCell part of DC or CA configuration.
NOTE 9: Power Class 1.5 is allowed for single uplink carrier in this downlink/uplink combination

5.5A.3.3 Configurations for inter-band CA (four bands)

Table 5.5A.3.3-1: NR CA configurations and bandwidth combinations sets defined for inter-band CA (four bands)

NR CA configuration	Uplink CA configuration or single uplink carrier [4]	NR Band	Channel bandwidth (MHz) (NOTE 3)	Bandwidth combination set
CA_n1A-n3A-n5A-n7A	CA_n1A-n3A CA_n1A-n5A CA_n1A-n7A CA_n3A-n5A CA_n3A-n7A CA_n5A-n7A	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30, 40, 50	

		n5	5, 10, 15, 20	
		n7	5, 10, 15, 20, 25, 30, 40, 50	
CA_n1A-n3A-n5A-n7B	CA_n1A-n3A CA_n1A-n5A CA_n1A-n7A CA_n3A-n5A CA_n3A-n7A CA_n5A-n7A CA_n7B	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30, 40, 50	
		n5	5, 10, 15, 20	
		n7	CA_n7B_BCS0	
CA_n1A-n3A-n5A-n78A	CA_n1A-n3A CA_n1A-n5A CA_n1A-n78A CA_n3A-n5A CA_n3A-n78A CA_n5A-n78A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n3	5, 10, 15, 20, 25, 30, 40, 50	
		n5	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n3A-n7A-n28A	-	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30	
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n28	5, 10, 15, 20	
	CA_n1A-n3A CA_n1A-n7A CA_n1A-n28A CA_n3A-n7A CA_n3A-n28A CA_n7A-n28A	n1	5, 10, 15, 20	1
		n3	5, 10, 15, 20, 25, 30, 40	
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n28	5, 10, 15, 20[2]	
CA_n1A-n3A-n7B-n28A	-	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30	
		n7	CA_n7B_BCS0	
		n28	5, 10, 15, 20	
	CA_n1A-n3A CA_n1A-n7A CA_n1A-n28A CA_n3A-n7A CA_n3A-n28A CA_n7B CA_n7A-n28A	n1	5, 10, 15, 20	1
		n3	5, 10, 15, 20, 25, 30, 40	
		n7	CA_n7B_BCS0	
		n28	5, 10, 15, 20	
CA_n1A-n3A-n7A-n78A		n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30	
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n1A-n3A CA_n1A-n7A CA_n1A-n78A CA_n3A-n7A CA_n3A-n78A CA_n7A-n78A	n1	5, 10, 15, 20	1
		n3	5, 10, 15, 20, 25, 30, 40	
		n7	5, 10, 15, 20, 25, 30, 40, 50	

		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n1	5, 10, 15, 20, 25, 30, 40, 50	2
		n3	5, 10, 15, 20, 25, 30, 40, 50	
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n3A-n7A-n78(2A)	CA_n1A-n3A CA_n1A-n7A CA_n1A-n78A CA_n3A-n7A CA_n3A-n78A CA_n7A-n78A	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30, 40	
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n78	CA_n78(2A)_BCS2	
CA_n1A-n3A-n7B-n78A	-	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30	
		n7	CA_n7B_BCS0	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n1A-n3A CA_n1A-n7A CA_n1A-n78A CA_n3A-n7A CA_n3A-n78A CA_n7A-n78A CA_n7B	n1	5, 10, 15, 20, 25, 30, 40, 50	1
		n3	5, 10, 15, 20, 25, 30, 40, 50	
		n7	CA_n7B_BCS0	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n3A-n8A-n77A	-	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30	
		n8	5, 10, 15, 20	
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
CA_n1A-n3A-n8A-n77(2A)	-	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30	
		n8	5, 10, 15, 20	
		n77	CA_n77(2A)_BCS1	
CA_n1A-n3A-n8A-n78A	-	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30	
		n8	5, 10, 15, 20	
		n78	10, 15, 20, 40, 50, 60, 80, 90[1], 100	
CA_n1A-n3A-n18A-n28A	CA_n1A-n3A CA_n1A-n18A CA_n1A-n28A CA_n3A-n18A CA_n3A-n28A	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20	
		n18	5, 10, 15	
		n28	5, 10	
CA_n1A-n3A-n18A-n41A	CA_n1A-n3A CA_n1A-n18A CA_n1A-n41A CA_n3A-n18A CA_n3A-n41A CA_n18A-n41A	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20	
		n18	5, 10, 15	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	

CA_n1A-n3A-n18A-n77A	CA_n1A-n3A CA_n1A-n18A CA_n1A-n77A CA_n3A-n18A CA_n3A-n77A CA_n18A-n77A	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20	
		n18	5, 10, 15	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n3A-n28A-n41A	CA_n1A-n3A CA_n1A-n28A CA_n1A-n41A CA_n3A-n28A CA_n3A-n41A CA_n28A-n41A	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20	
		n28	5, 10	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
CA_n1A-n3A-n28A-n77A	CA_n1A-n3A CA_n1A-n28A CA_n1A-n77A CA_n3A-n28A CA_n3A-n77A CA_n28A-n77A	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30	
		n28	5, 10, 15, 20	
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
	CA_n1A-n3A CA_n1A-n28A CA_n1A-n77A CA_n3A-n28A CA_n3A-n77A CA_n28A-n77A	n1	5, 10, 15, 20	1
		n3	5, 10, 15, 20	
		n28	5, 10	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n3A-n28A-n78A	-	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30	
		n28	5, 10, 15, 20[2]	
		n78	10, 15, 20, 40, 50, 60, 80, 90[1], 100	
	CA_n1A-n3A CA_n1A-n28A CA_n1A-n78A CA_n3A-n28A CA_n3A-n78A CA_n28A-n78A	n1	5, 10, 15, 20	1
		n3	5, 10, 15, 20, 25, 30, 40	
		n28	5, 10, 15, 20[2]	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n1	5, 10, 15, 20, 25, 30, 40, 50	2
		n3	5, 10, 15, 20, 25, 30, 40, 50	
		n28	5, 10, 15, 20[2],30[2]	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n3A-n28A-n78(2A)	CA_n1A-n3A CA_n1A-n28A CA_n1A-n78A CA_n3A-n28A CA_n3A-n78A CA_n28A-n78A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n3	5, 10, 15, 20, 25, 30, 40, 50	
		n28	5, 10, 15, 20[2], 30[2]	

		n78	CA_n78(2A)_BCS2	
CA_n1A-n3A-n28A-n79A	CA_n1A-n3A CA_n1A-n28A CA_n1A-n79A CA_n3A-n28A CA_n3A-n79A CA_n28A-n79A	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25,30	
		n28	5, 10, 15, 20	
		n79	40, 50, 60, 80, 100	
CA_n1A-n3A-n41A-n77A	CA_n1A-n3A CA_n1A-n41A CA_n1A-n77A CA_n3A-n41A CA_n3A-n77A CA_n41A-n77A	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n3A-n77A-n79A	CA_n1A-n3A CA_n1A-n77A CA_n1A-n79A CA_n3A-n77A CA_n3A-n79A CA_n77A-n79A	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25,30	
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n79	40, 50, 60, 80, 100	
CA_n1A-n5A-n7A-n78A	CA_n1A-n5A CA_n1A-n7A CA_n1A-n78A CA_n5A-n7A CA_n5A-n78A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n5	5, 10, 15, 20	
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n5A-n7B-n78A	CA_n1A-n5A CA_n1A-n7A CA_n1A-n78A CA_n5A-n7A CA_n5A-n78A CA_n7A-n78A CA_n7B	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n5	5, 10, 15, 20	
		n7	CA_n7B_BCS0	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n7A-n8A-n40A	CA_n1A-n7A CA_n1A-n8A CA_n1A-n40A CA_n7A-n8A CA_n7A-n40A CA_n8A-n40A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n8	5, 10, 15, 20	
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	
CA_n1A-n7A-n8A-n78A	CA_n1A-n7A CA_n1A-n8A CA_n1A-n78A CA_n7A-n8A CA_n7A-n78A CA_n8A-n78A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	

		n8	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n7A-n28A-n78A	CA_n1A-n7A CA_n1A-n28A CA_n1A-n78A CA_n7A-n28A CA_n7A-n78A CA_n28A-n78A	n1	5, 10, 15, 20	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n28	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n7B-n28A-n78A	CA_n1A-n7A CA_n1A-n28A CA_n1A-n78A CA_n7A-n28A CA_n7A-n78A CA_n7B CA_n28A-n78A	n1	5, 10, 15, 20	0
		n7	CA_n7B_BCS0	
		n28	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n7A-n28A-n78(2A)	CA_n1A-n7A CA_n1A-n28A CA_n1A-n78A CA_n7A-n28A CA_n7A-n78A CA_n28A-n78A	n1	5, 10, 15, 20	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n28	5, 10, 15, 20[2]	
		n78	CA_n78(2A)_BCS2	
CA_n1A-n7A-n40A-n78A	CA_n1A-n7A CA_n1A-n40A CA_n1A-n78A CA_n7A-n40A CA_n7A-n78A CA_n40A-n78A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n8A-n40A-n78A	CA_n1A-n8A CA_n1A-n40A CA_n1A-n78A CA_n8A-n40A CA_n8A-n78A CA_n40A-n78A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n8	5, 10, 15, 20	
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n8A-n78A-n79A	-	n1	5, 10, 15, 20	0
		n8	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n79	40, 50, 60, 80, 100	
CA_n1A-n8A-n78(2A)-n79A	-	n1	5, 10, 15, 20	0
		n8	5, 10, 15, 20	
		n78	CA_n78(2A)_BCS1	
		n79	40, 50, 60, 80, 100	
CA_n1A-n18A-n28A-n41A	CA_n1A-n18A CA_n1A-n28A	n1	5, 10, 15, 20	0

	CA_n1A-n41A CA_n18A-n28A CA_n18A-n41A CA_n28A-n41A			
		n18	5, 10, 15	
		n28	5, 10	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
CA_n1A-n18A-n28A-n77A	CA_n1A-n18A CA_n1A-n28A CA_n1A-n77A CA_n18A-n28A CA_n18A-n77A CA_n28A-n77A	n1	5, 10, 15, 20	0
		n18	5, 10, 15	
		n28	5, 10	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n18A-n41A-n77A	CA_n1A-n18A CA_n1A-n41A CA_n1A-n77A CA_n18A-n41A CA_n18A-n77A CA_n41A-n77A	n1	5, 10, 15, 20	0
		n18	5, 10, 15	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n28A-n40A-n78A	CA_n1A-n28A CA_n1A-n40A CA_n1A-n78A CA_n28A-n40A CA_n28A-n78A CA_n40A-n78A	n1	5, 10, 15, 20	0
		n28	5, 10, 15, 20	
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n28A-n40B-n78A	CA_n1A-n28A CA_n1A-n40A CA_n1A-n78A CA_n28A-n40A CA_n28A-n78A CA_n40A-n78A	n1	5, 10, 15, 20	0
		n28	5, 10, 15, 20	
		n40	CA_n40B_BCS0	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n28A-n41A-n77A	CA_n1A-n28A CA_n1A-n41A CA_n1A-n77A CA_n28A-n41A CA_n28A-n77A CA_n41A-n77A	n1	5, 10, 15, 20	0
		n28	5, 10	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n28A-n77A-n79A	CA_n1A-n28A CA_n1A-n77A CA_n1A-n79A CA_n28A-n77A CA_n28A-n79A CA_n77A-n79A	n1	5, 10, 15, 20	0
		n28	5, 10, 15, 20	

		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n79	40, 50, 60, 80, 100	
CA_n2A-n5A-n30A-n66A	CA_n2A-n5A CA_n2A-n30A CA_n2A-n66A CA_n5A-n30A CA_n5A-n66A CA_n30A-n66A	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n30	5, 10	
		n66	10, 15, 20, 25, 30, 40	
CA_n2(2A)-n5A-n30A-n66A	CA_n2A-n5A CA_n2A-n30A CA_n2A-n66A CA_n5A-n30A CA_n5A-n66A CA_n30A-n66A	n2	CA_n2(2A)_BCS0	0
		n5	5, 10, 15, 20	
		n30	5, 10	
		n66	10, 15, 20, 25, 30, 40	
CA_n2A-n5A-n30A-n66(2A)	CA_n2A-n5A CA_n2A-n30A CA_n2A-n66A CA_n5A-n30A CA_n5A-n66A CA_n30A-n66A	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n30	5, 10	
		n66	CA_n66(2A)_BCS1	
CA_n2A-n5A-n30A-n77A	n77[5] CA_n2A-n5A CA_n2A-n30A CA_n2A-n77A[5] CA_n5A-n30A CA_n5A-n77A[5] CA_n30A-n77A[5]	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n30	5, 10	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n5A-n30A-n77(2A)	n77[5] CA_n2A-n5A CA_n2A-n30A CA_n2A-n77A[5] CA_n5A-n30A CA_n5A-n77A[5] CA_n30A-n77A[5]	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n30	5, 10	
		n77	CA_n77(2A)_BCS1	
CA_n2A-n5A-n48A-n66A	-	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	10, 15, 20, 25, 30, 40	
	CA_n2A-n5A CA_n2A-n48A CA_n2A-n66A CA_n5A-n48A CA_n5A-n66A CA_n48A-n66A	n2	5, 10, 15, 20, 25, 30, 40	1
		n5	5, 10, 15, 20, 25	
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	5, 10, 15, 20, 25, 30, 40	

CA_n2A-n5A-n48B-n66A	-	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n48	CA_n48B_BCS2	
		n66	10, 15, 20, 25, 30, 40	
	CA_n2A-n5A CA_n2A-n48A CA_n2A-n66A CA_n5A-n48A CA_n5A-n66A CA_n48A-n66A	n2	5, 10, 15, 20, 25, 30, 40	1
		n5	5, 10, 15, 20, 25	
		n48	CA_n48B_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n2	5, 10, 15, 20, 25, 30, 40	2
		n5	5, 10, 15, 20, 25	
		n48	CA_n48B_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
		n2	5, 10, 15, 20, 25, 30, 40	3
		n5	5, 10, 15, 20, 25	
		n48	CA_n48B_BCS2	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2A-n5A-n48(2A)-n66A	-	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n48	CA_n48(2A)_BCS1	
		n66	10, 15, 20, 25, 30, 40	
	CA_n2A-n5A CA_n2A-n48A CA_n2A-n66A CA_n5A-n48A CA_n5A-n66A CA_n48A-n66A	n2	5, 10, 15, 20, 25, 30, 40	1
		n5	5, 10, 15, 20, 25	
		n48	CA_n48(2A)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n2	5, 10, 15, 20, 25, 30, 40	2
		n5	5, 10, 15, 20, 25	
		n48	CA_n48(2A)_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2A-n5A-n48(A-B)-n66A	-	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n48	CA_n48(A-B)_BCS1	
		n66	10, 15, 20, 25, 30, 40	
CA_n2A-n5A-n48A-n77A	-	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n2A-n48A CA_n2A-n5A CA_n2A-n77A CA_n5A-n48A CA_n5A-n77A	n2	5, 10, 15, 20, 25, 30, 40	1
		n5	5, 10, 15, 20, 25	
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n5A-n48A-n77C	CA_n2A-n5A CA_n2A-n48A CA_n2A-n77A CA_n5A-n48A	n2	5, 10, 15, 20, 25, 30, 40	0

	CA_n5A-n77A			
		n5	5, 10, 15, 20, 25	
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n77	CA_n77C_BCS0	
		n2	5, 10, 15, 20, 25, 30, 40	1
		n5	5, 10, 15, 20, 25	
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n77	CA_n77C_BCS1	
CA_n2A-n5A-n48B-n77A	-	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n48	CA_n48B_BCS2	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n2A-n5A CA_n2A-n48A CA_n2A-n77A CA_n5A-n48A CA_n5A-n77A	n2	5, 10, 15, 20, 25, 30, 40	1
		n5	5, 10, 15, 20, 25	
		n48	CA_n48B_BCS0	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n2	5, 10, 15, 20, 25, 30, 40	2
		n5	5, 10, 15, 20, 25	
		n48	CA_n48B_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n2	5, 10, 15, 20, 25, 30, 40	3
		n5	5, 10, 15, 20, 25	
		n48	CA_n48B_BCS2	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n5A-n48(2A)-n77A	-	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n48	CA_n48(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n2A-n5A CA_n2A-n48A CA_n2A-n77A CA_n5A-n48A CA_n5A-n77A	n2	5, 10, 15, 20, 25, 30, 40	1
		n5	5, 10, 15, 20, 25	
		n48	CA_n48(2A)_BCS0	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n2	5, 10, 15, 20, 25, 30, 40	2
		n5	5, 10, 15, 20, 25	
		n48	CA_n48(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n5A-n66A-n77A	n77[5] CA_n2A-n5A CA_n2A-n66A CA_n2A-n77A[5] CA_n5A-n66A CA_n5A-n77A[5] CA_n66A-n77A[5]	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	

CA_n2A-n5A-n66A-n77(2A)	n77[5] CA_n2A-n5A CA_n2A-n66A CA_n2A-n77A[5] CA_n5A-n66A CA_n5A-n77A[5] CA_n66A-n77A[5]	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
CA_n2A-n5A-n66A-n77C	CA_n2A-n5A CA_n2A-n77A CA_n2A-n66A CA_n5A-n77A CA_n5A-n66A CA_n66A-n77A	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77C_BCS1	
CA_n2A-n12A-n30A-n66A	CA_n2A-n12A CA_n2A-n30A CA_n2A-n66A CA_n12A-n30A CA_n12A-n66A CA_n30A-n66A	n2	5, 10, 15, 20	0
		n12	5, 10, 15	
		n30	5, 10	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2(2A)-n12A-n30A-n66A	CA_n2A-n12A CA_n2A-n30A CA_n2A-n66A CA_n12A-n30A CA_n12A-n66A CA_n30A-n66A	n2	CA_n2(2A)_BCS0	0
		n12	5, 10, 15	
		n30	5, 10	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2A-n12A-n30A-n66(2A)	CA_n2A-n12A CA_n2A-n30A CA_n2A-n66A CA_n12A-n30A CA_n12A-n66A CA_n30A-n66A	n2	5, 10, 15, 20	0
		n12	5, 10, 15	
		n30	5, 10	
		n66	CA_n66(2A)_BCS1	
CA_n2A-n12A-n30A-n77A	CA_n2A-n12A CA_n2A-n30A CA_n2A-n77A CA_n12A-n30A CA_n12A-n77A CA_n30A-n77A	n2	5, 10, 15, 20	0
		n12	5, 10, 15	
		n30	5, 10	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n12A-n66A-n77A	CA_n2A-n12A CA_n2A-n66A CA_n2A-n77A CA_n12A-n66A CA_n12A-n77A CA_n66A-n77A	n2	5, 10, 15, 20	0
		n12	5, 10, 15	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	

CA_n2A-n14A-n30A-n66A	CA_n2A-n14A CA_n2A-n30A CA_n2A-n66A CA_n14A-n30A CA_n14A-n66A CA_n30A-n66A	n2	5, 10, 15, 20	0
		n14	5, 10	
		n30	5, 10	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2(2A)-n14A-n30A-n66A	CA_n2A-n14A CA_n2A-n30A CA_n2A-n66A CA_n14A-n30A CA_n14A-n66A CA_n30A-n66A	n2	CA_n2(2A)_BCS0	0
		n14	5, 10	
		n30	5, 10	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2A-n14A-n30A-n66(2A)	CA_n2A-n14A CA_n2A-n30A CA_n2A-n66A CA_n14A-n30A CA_n14A-n66A CA_n30A-n66A	n2	5, 10, 15, 20	0
		n14	5, 10	
		n30	5, 10	
		n66	CA_n66(2A)_BCS1	
CA_n2A-n14A-n30A-n77A	n77[5] CA_n2A-n14A CA_n2A-n30A CA_n2A-n77A[5] CA_n14A-n30A CA_n14A-n77A[5] CA_n30A-n77A[5]	n2	5, 10, 15, 20	0
		n14	5, 10	
		n30	5, 10	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n14A-n30A-n77(2A)	n77[5] CA_n2A-n14A CA_n2A-n30A CA_n2A-n77A[5] CA_n14A-n30A CA_n14A-n77A[5] CA_n30A-n77A[5]	n2	5, 10, 15, 20	0
		n14	5, 10	
		n30	5, 10	
		n77	CA_n77(2A)_BCS1	
CA_n2A-n14A-n66A-n77A	n77[5] CA_n2A-n14A CA_n2A-n66A CA_n2A-n77A[5] CA_n14A-n66A CA_n14A-n77A[5] CA_n66A-n77A[5]	n2	5, 10, 15, 20	0
		n14	5, 10	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n14A-n66A-n77(2A)	n77[5] CA_n2A-n14A CA_n2A-n66A CA_n2A-n77A[5] CA_n14A-n66A CA_n14A-n77A[5] CA_n66A-n77A[5]	n2	5, 10, 15, 20	0
		n14	5, 10	

		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
CA_n2A-n29A-n30A-n66A	CA_n2A-n30A CA_n2A-n66A CA_n30A-n66A	n2	5, 10, 15, 20	0
		n29	5, 10	
		n30	5, 10	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2(2A)-n29A-n30A-n66A	CA_n2A-n30A CA_n2A-n66A CA_n30A-n66A	n2	CA_n2(2A)_BCS0	0
		n29	5, 10	
		n30	5, 10	
		n66	5, 10, 15, 20, 25, 30, 40	
CA_n2A-n29A-n30A-n66(2A)	CA_n2A-n30A CA_n2A-n66A CA_n30A-n66A	n2	5, 10, 15, 20	0
		n29	5, 10	
		n30	5, 10	
		n66	CA_n66(2A)_BCS1	
CA_n2A-n29A-n30A-n77A	CA_n2A-n30A CA_n2A-n77A CA_n30A-n77A	n2	5, 10, 15, 20	0
		n29	5, 10	
		n30	5, 10	
		n77	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n29A-n66A-n77A	CA_n2A-n66A CA_n2A-n77A CA_n66A-n77A	n2	5, 10, 15, 20	0
		n29	5, 10	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n48A-n66A-n77A	-	n2	5, 10, 15, 20	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n2A-n48A CA_n2A-n66A CA_n2A-n77A CA_n48A-n66A CA_n66A-n77A	n2	5, 10, 15, 20, 25, 30, 40	1
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n48B-n66A-n77A	-	n2	5, 10, 15, 20	0
		n48	CA_n48B_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n2A-n48A CA_n2A-n66A CA_n2A-n77A CA_n48A-n66A CA_n66A-n77A	n2	5, 10, 15, 20, 25, 30, 40	1
		n48	CA_n48B_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	

		n2	5, 10, 15, 20, 25, 30, 40	2
		n48	CA_n48B_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n2	5, 10, 15, 20, 25, 30, 40	3
		n48	CA_n48B_BCS2	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n48(2A)-n66A-n77A	-	n2	5, 10, 15, 20	0
		n48	CA_n48(2A)_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n2A-n48A CA_n2A-n66A CA_n2A-n77A CA_n48A-n66A CA_n66A-n77A	n2	5, 10, 15, 20, 25, 30, 40	1
		n48	CA_n48(2A)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n2	5, 10, 15, 20, 25, 30, 40	2
		n48	CA_n48(2A)_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n48A-n66A-n77C	-	n2	5, 10, 15, 20	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77C_BCS1	
	CA_n2A-n48A CA_n2A-n66A CA_n2A-n77A CA_n48A-n66A CA_n66A-n77A	n2	5, 10, 15, 20, 25, 30, 40	1
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77C_BCS0	
		n2	5, 10, 15, 20, 25, 30, 40	2
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77C_BCS1	
CA_n2A-n66A-n71A-n78A	-	n2	5, 10, 15, 20, 25, 30, 40	0
		n66	10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n3A-n5A-n7A-n78A	-	n3	5, 10, 15, 20, 25, 30, 40	0
		n5	5, 10, 15, 20	
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n3A-n5A CA_n3A-n7A CA_n3A-n78A CA_n5A-n7A	n3	5, 10, 15, 20, 25, 30, 40, 50	1

	CA_n5A-n78A CA_n7A-n78A			
		n5	5, 10, 15, 20	
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n3A-n5A-n7B-n78A	-	n3	5, 10, 15, 20, 25, 30, 40	0
		n5	5, 10, 15, 20	
		n7	CA_n7B_BCS0	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n3A-n5A CA_n3A-n7A CA_n3A-n78A CA_n5A-n7A CA_n5A-n78A CA_n7A-n78A CA_n7B	n3	5, 10, 15, 20, 25, 30, 40, 50	1
		n5	5, 10, 15, 20	
		n7	CA_n7B_BCS0	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n3A-n7A-n28A-n78A	-	n3	5, 10, 15, 20, 25, 30	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n28	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n3A-n7A CA_n3A-n28A CA_n3A-n78A CA_n7A-n28A CA_n7A-n78A CA_n28A-n78A	n3	5, 10, 15, 20, 25, 30, 40	1
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n28	5, 10, 15, 20[2]	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n3A-n7A-n28A-n78(2A)	CA_n3A-n7A CA_n3A-n28A CA_n3A-n78A CA_n7A-n28A CA_n7A-n78A CA_n28A-n78A	n3	5, 10, 15, 20, 25, 30, 40	0
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n28	5, 10, 15, 20[2]	
		n78	CA_n78(2A)_BCS2	
CA_n3A-n7B-n28A-n78A	-	n3	5, 10, 15, 20, 25, 30	0
		n7	CA_n7B_BCS0	
		n28	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n3A-n7A CA_n3A-n28A CA_n3A-n78A CA_n7A-n28A CA_n7A-n78A CA_n28A-n78A CA_n7B	n3	5, 10, 15, 20, 25, 30, 40	1
		n7	CA_n7B_BCS0	
		n28	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n3A-n18A-n28A-n41A	CA_n3A-n18A CA_n3A-n28A	n3	5, 10, 15, 20	0

	CA_n3A-n41A CA_n18A-n28A CA_n18A-n41A CA_n28A-n41A			
		n18	5, 10, 15	
		n28	5, 10	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
CA_n3A-n18A-n28A-n77A	CA_n3A-n18A CA_n3A-n28A CA_n3A-n77A CA_n18A-n28A CA_n18A-n77A CA_n28A-n77A	n3	5, 10, 15, 20	0
		n18	5, 10, 15	
		n28	5, 10	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n3A-n18A-n41A-n77A	CA_n3A-n18A CA_n3A-n41A CA_n3A-n77A CA_n18A-n41A CA_n18A-n77A CA_n41A-n77A	n3	5, 10, 15, 20	0
		n18	5, 10, 15	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n3A-n28A-n41A-n77A	CA_n3A-n28A CA_n3A-n41A CA_n3A-n77A CA_n28A-n41A CA_n28A-n77A CA_n41A-n77A	n3	5, 10, 15, 20, 25, 30, 40	0
		n28	5, 10, 15, 20, 30	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n3A-n28A-n41A-n77(2A)	CA_n3A-n28A CA_n3A-n41A CA_n3A-n77A CA_n28A-n41A CA_n28A-n77A CA_n41A-n77A	n3	5, 10, 15, 20, 25, 30, 40	0
		n28	5, 10	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n77	CA_n77(2A)_BCS0	
	CA_n3A-n28A CA_n3A-n41A CA_n3A-n77A CA_n28A-n41A CA_n28A-n77A CA_n41A-n77A	n3	5, 10, 15, 20	1
		n28	5, 10	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n77	CA_n77(2A)_BCS1	
CA_n3A-n28A-n41A-n78A	CA_n3A-n28A CA_n3A-n41A CA_n3A-n78A CA_n28A-n41A CA_n28A-n78A CA_n41A-n78A	n3	5, 10, 15, 20, 25, 30, 40	0
		n28	5, 10, 15, 20	

		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n3A-n28A-n41A-n78(2A)	CA_n3A-n28A CA_n3A-n41A CA_n3A-n78A CA_n28A-n41A CA_n28A-n78A CA_n41A-n78A	n3	5, 10, 15, 20, 25, 30, 40	0
		n28	5, 10	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n78	CA_n78(2A)_BCS2	
CA_n3A-n28A-n77A-n79A	CA_n3A-n28A CA_n3A-n77A CA_n3A-n79A CA_n28A-n77A CA_n28A-n79A CA_n77A-n79A	n3	5, 10, 15, 20, 25, 30	0
		n28	5, 10, 15, 20	
		n77	10, 15, 20, 40, 50, 60, 80, 90, 100	
		n79	40, 50, 80, 100	
CA_n3A-n28A-n77(2A)-n79A	CA_n3A-n28A CA_n3A-n77A CA_n3A-n79A CA_n28A-n77A CA_n28A-n79A CA_n77A-n79A	n3	5, 10, 15, 20, 25, 30	0
		n28	5, 10, 15, 20	
		n77	CA_n77(2A)_BCS0	
		n79	40, 50, 80, 100	
CA_n5A-n25A-n66A-n77A	CA_n5A-n25A CA_n5A-n66A CA_n5A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n5	5, 10, 15, 20	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n25(2A)-n66A-n77A	CA_n5A-n25A CA_n5A-n66A CA_n5A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n5	5, 10, 15, 20	0
		n25	CA_n25(2A)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n25A-n66(2A)-n77A	CA_n5A-n25A CA_n5A-n66A CA_n5A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n5	5, 10, 15, 20	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	CA_n66(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n25A-n66A-n77(2A)	CA_n5A-n25A CA_n5A-n66A CA_n5A-n77A CA_n25A-n66A CA_n25A-n77A	n5	5, 10, 15, 20	0

	CA_n66A-n77A			
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
CA_n5A-n25(2A)-n66(2A)-n77A	CA_n5A-n25A CA_n5A-n66A CA_n5A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n5	5, 10, 15, 20	0
		n25	CA_n25(2A)_BCS0	
		n66	CA_n66(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n25(2A)-n66A-n77(2A)	CA_n5A-n25A CA_n5A-n66A CA_n5A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n5	5, 10, 15, 20	0
		n25	CA_n25(2A)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
CA_n5A-n25A-n66(2A)-n77(2A)	CA_n5A-n25A CA_n5A-n66A CA_n5A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n5	5, 10, 15, 20	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	CA_n66(2A)_BCS1	
		n77	CA_n77(2A)_BCS1	
CA_n5A-n25(2A)-n66(2A)-n77(2A)	CA_n5A-n25A CA_n5A-n66A CA_n5A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n5	5, 10, 15, 20	0
		n25	CA_n25(2A)_BCS0	
		n66	CA_n66(2A)_BCS1	
		n77	CA_n77(2A)_BCS1	
CA_n5A-n25A-n66A-n78A	CA_n5A-n25A CA_n5A-n66A CA_n5A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n5	5, 10, 15, 20	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n25(2A)-n66A-n78A	CA_n5A-n25A CA_n5A-n66A CA_n5A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n5	5, 10, 15, 20	0
		n25	CA_n25(2A)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n25A-n66(2A)-n78A	CA_n5A-n25A CA_n5A-n66A CA_n5A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n5	5, 10, 15, 20	0

		n25	5, 10, 15, 20, 25, 30, 40	
		n66	CA_n66(2A)_BCS1	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n25A-n66A-n78(2A)	CA_n5A-n25A CA_n5A-n66A CA_n5A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n5	5, 10, 15, 20	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	
CA_n5A-n25(2A)-n66(2A)-n78A	CA_n5A-n25A CA_n5A-n66A CA_n5A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n5	5, 10, 15, 20	0
		n25	CA_n25(2A)_BCS0	
		n66	CA_n66(2A)_BCS1	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n25(2A)-n66A-n78(2A)	CA_n5A-n25A CA_n5A-n66A CA_n5A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n5	5, 10, 15, 20	0
		n25	CA_n25(2A)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	
CA_n5A-n25A-n66(2A)-n78(2A)	CA_n5A-n25A CA_n5A-n66A CA_n5A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n5	5, 10, 15, 20	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	CA_n66(2A)_BCS1	
		n78	CA_n78(2A)_BCS2	
CA_n5A-n25(2A)-n66(2A)-n78(2A)	CA_n5A-n25A CA_n5A-n66A CA_n5A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n5	5, 10, 15, 20	0
		n25	CA_n25(2A)_BCS0	
		n66	CA_n66(2A)_BCS1	
		n78	CA_n78(2A)_BCS2	
CA_n5A-n30A-n66A-n77A	n77[5] CA_n5A-n30A CA_n5A-n66A CA_n5A-n77A[5] CA_n30A-n66A CA_n30A-n77A[5] CA_n66A-n77A[5]	n5	5, 10, 15, 20	0
		n30	5, 10	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n30A-n66A-n77(2A)	n77[5] CA_n5A-n30A CA_n5A-n66A CA_n5A-n77A[5] CA_n30A-n66A CA_n30A-n77A[5]	n5	5, 10, 15, 20	0

	CA_n66A-n77A[5]			
		n30	5, 10	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
CA_n5A-n48A-n66A-n77A	-	n5	5, 10, 15, 20	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n5A-n48A CA_n5A-n66A CA_n5A-n77A CA_n48A-n66A CA_n66A-n77A	n5	5, 10, 15, 20, 25	1
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n48A-n66A-n77C	CA_n5A-n48A CA_n5A-n66A CA_n5A-n77A CA_n48A-n66A CA_n66A-n77A	n5	5, 10, 15, 20	0
		n48	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77C_BCS1	
CA_n5A-n48B-n66A-n77A	-	n5	5, 10, 15, 20	0
		n48	CA_n48B_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n5A-n48A CA_n5A-n66A CA_n5A-n77A CA_n48A-n66A CA_n66A-n77A	n5	5, 10, 15, 20, 25	1
		n48	CA_n48B_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n5	5, 10, 15, 20, 25	2
		n48	CA_n48B_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n5	5, 10, 15, 20, 25	3
		n48	CA_n48B_BCS2	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n5A-n48(2A)-n66A-n77A	-	n5	5, 10, 15, 20	0
		n48	CA_n48(2A)_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n5A-n48A CA_n5A-n66A CA_n5A-n77A CA_n48A-n66A CA_n66A-n77A	n5	5, 10, 15, 20, 25	1
		n48	CA_n48(2A)_BCS0	

		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n5	5, 10, 15, 20, 25	2
		n48	CA_n48(2A)_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n8A-n40A-n78A	CA_n7A-n8A CA_n7A-n40A CA_n7A-n78A CA_n8A-n40A CA_n8A-n78A CA_n40A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n8	5, 10, 15, 20	
		n40	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n25A-n66A-n77A	CA_n7A-n25A CA_n7A-n66A CA_n7A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7(2A)-n25A-n66A-n77A	CA_n7A-n25A CA_n7A-n66A CA_n7A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n7	CA_n7(2A)_BCS0	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n25(2A)-n66A-n77A	CA_n7A-n25A CA_n7A-n66A CA_n7A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	CA_n25(2A)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n25A-n66(2A)-n77A	CA_n7A-n25A CA_n7A-n66A CA_n7A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	CA_n66(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n25A-n66A-n77(2A)	CA_n7A-n25A CA_n7A-n66A CA_n7A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	

CA_n7(2A)-n25(2A)-n66A-n77A	CA_n7A-n25A CA_n7A-n66A CA_n7A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n7	CA_n7(2A)_BCS0	0
		n25	CA_n25(2A)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7(2A)-n25A-n66(2A)-n77A	CA_n7A-n25A CA_n7A-n66A CA_n7A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n7	CA_n7(2A)_BCS0	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	CA_n66(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7(2A)-n25A-n66A-n77(2A)	CA_n7A-n25A CA_n7A-n66A CA_n7A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n7	CA_n7(2A)_BCS0	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
CA_n7A-n25(2A)-n66(2A)-n77A	CA_n7A-n25A CA_n7A-n66A CA_n7A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	CA_n25(2A)_BCS0	
		n66	CA_n66(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n25(2A)-n66A-n77(2A)	CA_n7A-n25A CA_n7A-n66A CA_n7A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	CA_n25(2A)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
CA_n7A-n25A-n66(2A)-n77(2A)	CA_n7A-n25A CA_n7A-n66A CA_n7A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	CA_n66(2A)_BCS1	
		n77	CA_n77(2A)_BCS1	
CA_n7(2A)-n25(2A)-n66(2A)-n77A	CA_n7A-n25A CA_n7A-n66A CA_n7A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n7	CA_n7(2A)_BCS0	0
		n25	CA_n25(2A)_BCS0	
		n66	CA_n66(2A)_BCS1	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	

CA_n7(2A)-n25A-n66(2A)-n77(2A)	CA_n7A-n25A CA_n7A-n66A CA_n7A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n7	CA_n7(2A)_BCS0	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	CA_n66(2A)_BCS1	
		n77	CA_n77(2A)_BCS1	
CA_n7(2A)-n25(2A)-n66A-n77(2A)	CA_n7A-n25A CA_n7A-n66A CA_n7A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n7	CA_n7(2A)_BCS0	0
		n25	CA_n25(2A)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
CA_n7A-n25(2A)-n66(2A)-n77(2A)	CA_n7A-n25A CA_n7A-n66A CA_n7A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	CA_n25(2A)_BCS0	
		n66	CA_n66(2A)_BCS1	
		n77	CA_n77(2A)_BCS1	
CA_n7(2A)-n25(2A)-n66(2A)-n77(2A)	CA_n7A-n25A CA_n7A-n66A CA_n7A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A	n7	CA_n7(2A)_BCS0	0
		n25	CA_n25(2A)_BCS0	
		n66	CA_n66(2A)_BCS1	
		n77	CA_n77(2A)_BCS1	
CA_n7A-n25A-n66A-n78A	CA_n7A-n25A CA_n7A-n66A CA_n7A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n25(2A)-n66A-n78A	CA_n7A-n25A CA_n7A-n66A CA_n7A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	CA_n25(2A)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n25A-n66(2A)-n78A	CA_n7A-n25A CA_n7A-n66A CA_n7A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	CA_n66(2A)_BCS1	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	

CA_n7A-n25A-n66A-n78(2A)	CA_n7A-n25A CA_n7A-n66A CA_n7A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	
CA_n7(2A)-n25A-n66A-n78A	CA_n7A-n25A CA_n7A-n66A CA_n7A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n7	CA_n7(2A)_BCS0	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n25(2A)-n66A-n78(2A)	CA_n7A-n25A CA_n7A-n66A CA_n7A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	CA_n25(2A)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	
CA_n7A-n25(2A)-n66(2A)-n78A	CA_n7A-n25A CA_n7A-n66A CA_n7A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	CA_n25(2A)_BCS0	
		n66	CA_n66(2A)_BCS1	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7A-n25A-n66(2A)-n78(2A)	CA_n7A-n25A CA_n7A-n66A CA_n7A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	CA_n66(2A)_BCS1	
		n78	CA_n78(2A)_BCS2	
CA_n7(2A)-n25(2A)-n66A-n78A	CA_n7A-n25A CA_n7A-n66A CA_n7A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n7	CA_n7(2A)_BCS0	0
		n25	CA_n25(2A)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7(2A)-n25A-n66(2A)-n78A	CA_n7A-n25A CA_n7A-n66A CA_n7A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n7	CA_n7(2A)_BCS0	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	CA_n66(2A)_BCS1	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	

CA_n7(2A)-n25A-n66A-n78(2A)	CA_n7A-n25A CA_n7A-n66A CA_n7A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n7	CA_n7(2A)_BCS0	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	
CA_n7A-n25(2A)-n66(2A)-n78(2A)	CA_n7A-n25A CA_n7A-n66A CA_n7A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n7	5, 10, 15, 20, 25, 30, 40, 50	0
		n25	CA_n25(2A)_BCS0	
		n66	CA_n66(2A)_BCS1	
		n78	CA_n78(2A)_BCS2	
CA_n7(2A)-n25(2A)-n66A-n78(2A)	CA_n7A-n25A CA_n7A-n66A CA_n7A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n7	CA_n7(2A)_BCS0	0
		n25	CA_n25(2A)_BCS0	
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	
CA_n7(2A)-n25(2A)-n66(2A)-n78A	CA_n7A-n25A CA_n7A-n66A CA_n7A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n7	CA_n7(2A)_BCS0	0
		n25	CA_n25(2A)_BCS0	
		n66	CA_n66(2A)_BCS1	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n7(2A)-n25A-n66(2A)-n78(2A)	CA_n7A-n25A CA_n7A-n66A CA_n7A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n7	CA_n7(2A)_BCS0	0
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	CA_n66(2A)_BCS1	
		n78	CA_n78(2A)_BCS2	
CA_n7(2A)-n25(2A)-n66(2A)-n78(2A)	CA_n7A-n25A CA_n7A-n66A CA_n7A-n78A CA_n25A-n66A CA_n25A-n78A CA_n66A-n78A	n7	CA_n7(2A)_BCS0	0
		n25	CA_n25(2A)_BCS0	
		n66	CA_n66(2A)_BCS1	
		n78	CA_n78(2A)_BCS2	
CA_n12A-n30A-n66A-n77A	CA_n12A-n30A CA_n12A-n66A CA_n12A-n77A CA_n30A-n66A CA_n30A-n77A CA_n66A-n77A	n12	5, 10,15	0
		n30	5, 10	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n13A-n25A-n66A-n77A	CA_n13A-n25A CA_n13A-n66A	n13	5, 10	0

	CA_n13A-n77A CA_n25A-n66A CA_n25A-n77A CA_n66A-n77A			
		n25	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n14A-n30A-n66A-n77A	n77[5] CA_n14A-n30A CA_n14A-n66A CA_n14A-n77A[5] CA_n30A-n66A CA_n30A-n77A[5] CA_n66A-n77A[5]	n14	5, 10	0
		n30	5, 10	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n14A-n30A-n66A-n77(2A)	n77[5] CA_n14A-n30A CA_n14A-n66A CA_n14A-n77A[5] CA_n30A-n66A CA_n30A-n77A[5] CA_n66A-n77A[5]	n14	5, 10	0
		n30	5, 10	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
CA_n18A-n28A-n41A-n77A	CA_n18A-n28A CA_n18A-n41A CA_n18A-n77A CA_n28A-n41A CA_n28A-n77A CA_n41A-n77A	n18	5, 10, 15	0
		n28	5, 10	
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25A-n38A-n66A-n78A	CA_n25A-n38A CA_n25A-n66A CA_n25A-n78A CA_n38A-n66A CA_n38A-n78A CA_n66A-n78A	n25	5, 10, 15, 20, 25, 30, 40	0
		n38	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25(2A)-n38A-n66A-n78A	CA_n25A-n38A CA_n25A-n66A CA_n25A-n78A CA_n38A-n66A CA_n38A-n78A CA_n66A-n78A	n25	CA_n25(2A)_BCS0	0
		n38	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25A-n38A-n66(2A)-n78A	CA_n25A-n38A CA_n25A-n66A CA_n25A-n78A CA_n38A-n66A CA_n38A-n78A CA_n66A-n78A	n25	5, 10, 15, 20, 25, 30, 40	0
		n38	5, 10, 15, 20, 25, 30, 40	

		n66	CA_n66(2A)_BCS1	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25A-n38A-n66A-n78(2A)	CA_n25A-n38A CA_n25A-n66A CA_n25A-n78A CA_n38A-n66A CA_n38A-n78A CA_n66A-n78A	n25	5, 10, 15, 20, 25, 30, 40	0
		n38	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	
CA_n25(2A)-n38A-n66(2A)-n78A	CA_n25A-n38A CA_n25A-n66A CA_n25A-n78A CA_n38A-n66A CA_n38A-n78A CA_n66A-n78A	n25	CA_n25(2A)_BCS0	0
		n38	5, 10, 15, 20, 25, 30, 40	
		n66	CA_n66(2A)_BCS1	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25(2A)-n38A-n66A-n78(2A)	CA_n25A-n38A CA_n25A-n66A CA_n25A-n78A CA_n38A-n66A CA_n38A-n78A CA_n66A-n78A	n25	CA_n25(2A)_BCS0	0
		n38	5, 10, 15, 20, 25, 30, 40	
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	
CA_n25A-n38A-n66(2A)-n78(2A)	CA_n25A-n38A CA_n25A-n66A CA_n25A-n78A CA_n38A-n66A CA_n38A-n78A CA_n66A-n78A	n25	5, 10, 15, 20, 25, 30, 40	0
		n38	5, 10, 15, 20, 25, 30, 40	
		n66	CA_n66(2A)_BCS1	
		n78	CA_n78(2A)_BCS2	
CA_n25(2A)-n38A-n66(2A)-n78(2A)	CA_n25A-n38A CA_n25A-n66A CA_n25A-n78A CA_n38A-n66A CA_n38A-n78A CA_n66A-n78A	n25	CA_n25(2A)_BCS0	0
		n38	5, 10, 15, 20, 25, 30, 40	
		n66	CA_n66(2A)_BCS1	
		n78	CA_n78(2A)_BCS2	
CA_n25A-n41A-n66A-n71A	-	n25	5, 10, 15, 20	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n66	5, 10, 15, 20, 40	
		n71	5, 10, 15, 20	
	CA_n25A-n41A CA_n25A-n66A CA_n25A-n71A CA_n41A-n66A CA_n41A-n71A CA_n66A-n71A	n25	5, 10, 15, 20, 25, 30, 40	1
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	

		n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	n41 channel bandwidths in Table 5.3.5-1	
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n71	n71 channel bandwidths in Table 5.3.5-1	
CA_n25A-n41(2A)-n66A-n71A	-	n25	5, 10, 15, 20	0
		n41	CA_n41(2A)_BCS0	
		n66	5, 10, 15, 20	
		n71	5, 10, 15, 20	
	CA_n25A-n41A CA_n25A-n66A CA_n25A-n71A CA_n41A-n66A CA_n41A-n71A CA_n66A-n71A	n25	5, 10, 15, 20, 25, 30, 40	1
		n41	CA_n41(2A)_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	
		n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	See CA_n41(2A) Bandwidth Combination Set 4 and 5 in Table 5.5A.2-1	
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n71	n71 channel bandwidths in Table 5.3.5-1	
CA_n25A-n41C-n66A-n71A	-	n25	5, 10, 15, 20	0
		n41	CA_n41C_BCS0	
		n66	5, 10, 15, 20, 40	
		n71	5, 10, 15, 20	
	CA_n25A-n41A CA_n25A-n66A CA_n25A-n71A CA_n41A-n66A CA_n41A-n71A CA_n66A-n71A	n25	5, 10, 15, 20, 25, 30, 40	1
		n41	CA_n41C_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	
		n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	See CA_n41C Bandwidth Combination Set 4 and 5 in Table 5.5A.1-1	
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n71	n71 channel bandwidths in Table 5.3.5-1	
CA_n25A-n41A-n66A-n77A	CA_n25A-n41A CA_n25A-n66A CA_n25A-n77A CA_n41A-n66A CA_n41A-n77A CA_n66A-n77A	n25	5, 10, 15, 20, 25, 30, 40	0
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	

		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	n41 channel bandwidths in Table 5.3.5-1	
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n25A-n41C-n66A-n77A	CA_n25A-n41A CA_n25A-n66A CA_n25A-n77A CA_n41A-n66A CA_n41A-n77A CA_n66A-n77A	n25	5, 10, 15, 20, 25, 30, 40	0
		n41	CA_n41C_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	See CA_n41C Bandwidth Combination Set 4 and 5 in Table 5.5A.1-1	
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n25A-n41(2A)-n66A-n77A	CA_n25A-n41A CA_n25A-n66A CA_n25A-n77A CA_n41A-n66A CA_n41A-n77A CA_n66A-n77A	n25	5, 10, 15, 20, 25, 30, 40	0
		n41	CA_n41(2A)_BCS1	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	See CA_n41(2A) Bandwidth Combination Set 4 and 5 in Table 5.5A.1-2	
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n25A-n41A-n66A-n77(2A)	-	n25	5, 10, 15, 20, 25, 30, 40	0
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	CA_n77(2A)_BCS1	
		n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	n41 channel bandwidths in Table 5.3.5-1	
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n77	See CA_n77(2A) Bandwidth Combination Set 4 and 5 in Table 5.5A.2-1	
CA_n25A-n41A-n66A-n78A	CA_n25A-n41A CA_n25A-n66A	n25	5, 10, 15, 20, 25, 30, 40	0

	CA_n25A-n78A CA_n41A-n66A CA_n41A-n78A CA_n66A-n78A			
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25A-n41A-n66A-n78(2A)	CA_n25A-n41A CA_n25A-n66A CA_n25A-n78A CA_n41A-n66A CA_n41A-n78A CA_n66A-n78A	n25	5, 10, 15, 20, 25, 30, 40	0
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n66	5, 10, 15, 20, 25, 30, 40	
		n78	CA_n78(2A)_BCS2	
CA_n25A-n41A-n71A-n77A	CA_n25A-n41A CA_n25A-n71A CA_n25A-n77A CA_n41A-n71A CA_n41A-n77A CA_n71A-n77A	n25	5, 10, 15, 20, 25, 30, 40	0
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n71	5, 10, 15, 20	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	n41 channel bandwidths in Table 5.3.5-1	
		n71	n71 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n25A-n41C-n71A-n77A	CA_n25A-n41A CA_n25A-n71A CA_n25A-n77A CA_n41A-n71A CA_n41A-n77A CA_n71A-n77A	n25	5, 10, 15, 20, 25, 30, 40	0
		n41	CA_n41C_BCS1	
		n71	5, 10, 15, 20	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	See CA_n41C Bandwidth Combination Set 4 and 5 in Table 5.5A.1-1	
		n71	n71 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n25A-n41(2A)-n71A-n77A	CA_n25A-n41A CA_n25A-n71A CA_n25A-n77A CA_n41A-n71A CA_n41A-n77A CA_n71A-n77A	n25	5, 10, 15, 20, 25, 30, 40	0
		n41	CA_n41(2A)_BCS1	
		n71	5, 10, 15, 20	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	

		n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n41	See CA_n41(2A) Bandwidth Combination Set 4 and 5 in Table 5.5A.1-2	
		n71	n71 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n25A-n41A-n71A-n78A	-	n25	5, 10, 15, 20, 25, 30, 40	0
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n71	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25A-n66A-n71A-n77A	CA_n25A-n66A CA_n25A-n71A CA_n25A-n77A CA_n66A-n71A CA_n66A-n77A	n25	5, 10, 15, 20, 25, 30, 40	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n25	n25 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n71	n71 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n25A-n66A-n71A-n78A	CA_n25A-n66A CA_n25A-n71A CA_n25A-n78A CA_n66A-n71A CA_n66A-n78A CA_n71A-n78A	n25	5, 10, 15, 20, 25, 30, 40	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25A-n66(2A)-n71A-n78A	CA_n25A-n66A CA_n25A-n71A CA_n25A-n78A CA_n66A-n71A CA_n66A-n78A CA_n71A-n78A	n25	5, 10, 15, 20, 25, 30, 40	0
		n66	CA_n66(2A)_BCS1	
		n71	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n25A-n66A-n71A-n78(2A)	CA_n25A-n66A CA_n25A-n71A CA_n25A-n78A CA_n66A-n71A CA_n66A-n78A CA_n71A-n78A	n25	5, 10, 15, 20, 25, 30, 40	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	
		n78	CA_n78(2A)_BCS2	
CA_n25A-n66(2A)-n71A-n78(2A)	CA_n25A-n66A CA_n25A-n71A CA_n25A-n78A CA_n66A-n71A CA_n66A-n78A	n25	5, 10, 15, 20, 25, 30, 40	0

	CA_n71A-n78A			
		n66	CA_n66(2A)_BCS1	
		n71	5, 10, 15, 20	
		n78	CA_n78(2A)_BCS2	
CA_n29A-n30A-n66A-n77A	CA_n30A-n66A CA_n30A-n77A CA_n66A-n77A	n29	5, 10	0
		n30	5, 10	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n41A-n66A-n70A-n78A	CA_n41A-n66A CA_n41A-n70A CA_n41A-n78A CA_n66A-n78A CA_n70A-n78A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	10, 15, 20, 25, 30, 40	
		n70	5, 10, 15, 20, 25	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n41A-n66A-n71A-n77A	CA_n41A-n66A CA_n66A-n71A CA_n66A-n77A CA_n71A-n77A CA_n41A-n71A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n71	n71 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n41C-n66A-n71A-n77A	CA_n41A-n66A CA_n66A-n71A CA_n66A-n77A CA_n71A-n77A CA_n41A-n71A	n41	CA_n41C_BCS1	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n41	See CA_n41C Bandwidth Combination Set 4 and 5 in Table 5.5A.1-1	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n71	n71 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n41(2A)-n66A-n71A-n77A	CA_n41A-n66A CA_n66A-n71A CA_n66A-n77A CA_n71A-n77A CA_n41A-n71A	n41	CA_n41(2A)_BCS1	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n41	See CA_n41(2A) Bandwidth Combination Set 4 and 5 in Table 5.5A.2-1	4 and 5

		n66	n66 channel bandwidths in Table 5.3.5-1	
		n71	n71 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n41A-n66(2A)-n71A-n77A	CA_n41A-n66A CA_n66A-n71A CA_n71A-n77A CA_n41A-n71A CA_n66A-n77A CA_n41A-n77A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	CA_n66(2A)_BCS1	
		n71	5, 10, 15, 20	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	See CA_n66(2A) Bandwidth Combination Set 4 and 5 in Table 5.5A.2-1	
		n71	n71 channel bandwidths in Table 5.3.5-1	
		n77	n77 channel bandwidths in Table 5.3.5-1	
CA_n41A-n66A-n71A-n77(2A)	CA_n41A-n66A CA_n66A-n71A CA_n71A-n77A CA_n41A-n71A CA_n66A-n77A CA_n41A-n77A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	
		n77	CA_n77(2A)_BCS1	
		n41	n41 channel bandwidths in Table 5.3.5-1	4 and 5
		n66	n66 channel bandwidths in Table 5.3.5-1	
		n71	n71 channel bandwidths in Table 5.3.5-1	
		n77	See CA_n77(2A) Bandwidth Combination Set 4 and 5 in Table 5.5A.2-1	
CA_n41A-n66(2A)-n71A-n77(2A)	CA_n41A-n66A CA_n66A-n71A CA_n71A-n77A CA_n41A-n71A CA_n66A-n77A CA_n41A-n77A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	CA_n66(2A)_BCS1	
		n71	5, 10, 15, 20	
		n77	CA_n77(2A)_BCS1	
CA_n41A-n66A-n71A-n78A	CA_n41A-n66A CA_n41A-n71A CA_n41A-n78A CA_n66A-n71A CA_n66A-n78A CA_n71A-n78A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n41A-n66(2A)-n71A-n78A	CA_n41A-n66A CA_n41A-n71A CA_n41A-n78A CA_n66A-n71A CA_n66A-n78A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0

	CA_n71A-n78A			
		n66	CA_n66(2A)_BCS1	
		n71	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n41A-n66A-n71A-n78(2A)	CA_n41A-n66A CA_n41A-n71A CA_n41A-n78A CA_n66A-n71A CA_n66A-n78A CA_n71A-n78A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	5, 10, 15, 20, 25, 30, 40	
		n71	5, 10, 15, 20	
		n78	CA_n78(2A)_BCS2	
CA_n41A-n66(2A)-n71A-n78(2A)	CA_n41A-n66A CA_n41A-n71A CA_n41A-n78A CA_n66A-n71A CA_n66A-n78A CA_n71A-n78A	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	0
		n66	CA_n66(2A)_BCS1	
		n71	5, 10, 15, 20	
		n78	CA_n78(2A)_BCS2	

NOTE 1: This UE channel bandwidth is optional in this release of the specification.
NOTE 2: For the 20 MHz bandwidth, the minimum requirements are specified for NR UL carrier frequencies confined to either 713-723 MHz or 728-738 MHz. For the 30 MHz bandwidth, the minimum requirements are specified for NR UL transmission bandwidth configuration confined to either 703-733 or 718-748 MHz.
NOTE 3: The SCS of each channel bandwidth for NR band refers to Table 5.3.5-1.
NOTE 4: Only single uplink carriers with power class other than PC3 are listed.
NOTE 5: Power Class 2 is allowed for this uplink combination or single uplink carrier in this downlink/uplink combination.

5.5A.3.4 Configurations for inter-band CA (five bands)

Table 5.5A.3.4-1: NR CA configurations and bandwidth combinations sets defined for inter-band CA (five bands)

NR CA configuration	Uplink configuration	NR Band	Channel bandwidth (MHz) (NOTE 1)	Bandwidth combination set
CA_n1A-n3A-n5A-n7A-n78A	CA_n1A-n3A CA_n1A-n5A CA_n1A-n7A CA_n1A-n78A CA_n3A-n5A CA_n3A-n7A CA_n3A-n78A CA_n5A-n7A CA_n5A-n78A CA_n7A-n78A	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30, 40	
		n5	5, 10, 15, 20	
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n3A-n5A-n7B-n78A	CA_n1A-n3A CA_n1A-n5A CA_n1A-n7A CA_n1A-n78A CA_n3A-n5A CA_n3A-n7A CA_n3A-n78A CA_n5A-n7A CA_n5A-n78A CA_n7A-n78A CA_n7B	n1	5, 10, 15, 20	0
		n3	5, 10, 15, 20, 25, 30, 40	
		n5	5, 10, 15, 20	
		n7	See CA_n7B bandwidth combination set 0 in Table 5.5A.1-1	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n3A-n7A-n28A-n78A	-	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n3	5, 10, 15, 20, 25, 30, 40	
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n28	5, 10, 15, 20, 30	

		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	CA_n1A-n3A CA_n1A-n7A CA_n1A-n28A CA_n1A-n78A CA_n3A-n7A CA_n3A-n28A CA_n3A-n78A CA_n7A-n28A CA_n7A-n78A CA_n28A-n78A	n1	5, 10, 15, 20	1
		n3	5, 10, 15, 20, 25, 30, 40	
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n28	5, 10, 15, 20	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n3A-n7B-n28A-n78A	CA_n1A-n3A CA_n1A-n7A CA_n1A-n28A CA_n1A-n78A CA_n3A-n7A CA_n3A-n28A CA_n3A-n78A CA_n7A-n28A CA_n7A-n78A CA_n28A-n78A CA_n7B	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n3	5, 10, 15, 20, 25, 30, 40	
		n7	See CA_n7B bandwidth combination set 0 in Table 5.5A.1-1	
		n28	5, 10, 15, 20, 30	
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n1A-n3A-n7A-n28A-n78(2A)	CA_n1A-n3A CA_n1A-n7A CA_n1A-n28A CA_n1A-n78A CA_n3A-n7A CA_n3A-n28A CA_n3A-n78A CA_n7A-n28A CA_n7A-n78A CA_n28A-n78A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n3	5, 10, 15, 20, 25, 30, 40, 50	
		n7	5, 10, 15, 20, 25, 30, 40, 50	
		n28	5, 10, 15, 20, 30	
		n78	See CA_n78(2A) Bandwidth Combination Set 2 in Table 5.5A.2-1	
CA_n2A-n5A-n48A-n66A-n77A	CA_n2A-n5A CA_n2A-n48A CA_n2A-n66A CA_n2A-n77A CA_n5A-n48A CA_n5A-n66A CA_n5A-n77A CA_n48A-n66A CA_n66A-n77A	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n48	5, 10, 15, 20, 40, 50, 60, 70, 80, 90, 100	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n5A-n48B-n66A-n77A	CA_n2A-n5A CA_n2A-n48A CA_n2A-n66A CA_n2A-n77A CA_n5A-n48A CA_n5A-n66A CA_n5A-n77A CA_n48A-n66A CA_n66A-n77A CA_n48B	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	

		n48	See CA_n48B Bandwidth Combination Set 2 in Table 5.5A.1-1	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n2A-n5A-n48A-n66A-n77C	CA_n2A-n5A CA_n2A-n48A CA_n2A-n66A CA_n2A-n77A CA_n5A-n48A CA_n5A-n66A CA_n5A-n77A CA_n48A-n66A CA_n66A-n77A CA_n77C	n2	5, 10, 15, 20	0
		n5	5, 10, 15, 20	
		n48	5, 10, 15, 20, 40, 50, 60, 70, 80, 90, 100	
		n66	5, 10, 15, 20, 25, 30, 40	
		n77	See CA_n77C Bandwidth Combination Set 1 in Table 5.5A.1-1	
NOTE 1: The SCS of each channel bandwidth for NR FR1 and NR FR2 band refers to Table 5.3.5-1 of TS 38.101-1 and TS 38.101-2 respectively.				

DC操作频段的UE配置在TS 38.101-1 [1]中的第5.5B节定义。

5.5B Configurations for DC

For an NR DC configuration specified in 5.5B.1-1, the bandwidth combination sets for the corresponding NR CA configuration in 5.5A.3,i.e.,dual uplink inter-band carrier aggregation with uplink assigned to two NR bands, are applicable to Dual Connectivity.

Table 5.5B.1-1: Inter-band NR DC configurations (two bands)

NR DC configuration	Uplink NR DC configuration
DC_n1A-n3A	DC_n1A-n3A
DC_n1A-n7A	DC_n1A-n7A
DC_n1A-n28A	DC_n1A-n28A
DC_n1A-n41A	DC_n1A-n41A
DC_n1A-n77A[2]	DC_n1A-n77A
DC_n1A-n78A	DC_n1A-n78A
DC_n1A-n79A[2]	DC_n1A-n79A
DC_n2A-n5A DC_n2A-n5B	DC_n2A-n5A
DC_n2A-n48A DC_n2A-n48B DC_n2A-n48C	DC_n2A-n48A
DC_n2A-n48(2A) DC_n2A-n48(A-C)	DC_n2A-n48A
DC_n2A-n66A DC_n2A-n66B	DC_n2A-n66A
DC_n2A-n77A DC_n2A-n77C	DC_n2A-n77A
DC_n2A-n77(2A) DC_n2(2A)-n77A DC_n2(2A)-n77C	DC_n2A-n77A
DC_n3A-n28A	DC_n3A-n28A
DC_n3A-n41A	DC_n3A-n41A
DC_n3A-n77A[2]	DC_n3A-n77A
DC_n3A-n77(2A)[2]	DC_n3A-n77A
DC_n3A-n78A[2]	DC_n3A-n78A

	DC_n3A-n79A	DC_n3A-n79A	
	DC_n5A-n48A DC_n5A-n48B DC_n5A-n48C	DC_n5A-n48A	
	DC_n5A-n48(2A)	DC_n5A-n48A	
	DC_n5A-n66A DC_n5B-n66A	DC_n5A-n66A	
	DC_n5A-n66(2A) DC_n5B-n66(2A)	DC_n5A-n66A	
	DC_n5A-n77A DC_n5A-n77C	DC_n5A-n77A	
	DC_n5A-n77(2A) DC_n5(2A)-n77A DC_n5(2A)-n77C	DC_n5A-n77A	
	DC_n7A-n46A DC_n7A-n46C DC_n7A-n46D	DC_n7A-n46A	
	DC_n7A-n78A	DC_n7A-n78A	
	DC_n12A-n77A	DC_n12A-n77A	
	DC_n12A-n77(2A)	DC_n12A-n77A	
	DC_n28A-n41A	DC_n28A-n41A	
	DC_n28A-n46A DC_n28A-n46C DC_n28A-n46D	DC_n28A-n46A	
	DC_n28A-n77A[2]	DC_n28A-n77A	
	DC_n28A-n77(2A)	DC_n28A-n77A	
	DC_n28A-n78A[2]	DC_n28A-n78A	
	DC_n28A-n79A	DC_n28A-n79A	
	DC_n41A-n77A	DC_n41A-n77A	
	DC_n41A-n78A	DC_n41A-n78A	
	DC_n46A-n48A DC_n46A-n48B DC_n46A-n48C DC_n46B-n48A DC_n46B-n48B DC_n46B-n48C DC_n46C-n48A DC_n46C-n48B DC_n46C-n48C DC_n46D-n48A DC_n46D-n48B DC_n46D-n48C DC_n46N-n48A DC_n46N-n48B DC_n46N-n48C	DC_n46A-n48A DC_n46A-n48B	
	DC_n46A-n78A DC_n46C-n78A DC_n46D-n78A	DC_n46A-n78A	
	DC_n48A-n66A DC_n48B-n66A DC_n48C-n66A	DC_n48A-n66A	
	DC_n48A-n66(2A) DC_n48B-n66(2A) DC_n48(2A)-n66A DC_n48(2A)-n66(2A) DC_n48(A-C)-n66A	DC_n48A-n66A	
	DC_n48A-n70A DC_n48B-n70A	DC_n48A-n70A	
	DC_n48(2A)-n70A	DC_n48A-n70A	
	DC_n48A-n71A DC_n48B-n71A DC_n48C-n71A	DC_n48A-n71A	

DC_n48A-n71(2A) DC_n48(2A)-n71A DC_n48(2A)-n71(2A) DC_n48(3A)-n71A DC_n48(4A)-n71A DC_n48B-n71(2A)	DC_n48A-n71A
DC_n48A-n96A DC_n48B-n96A DC_n48C-n96A DC_n48A-n96B DC_n48B-n96B DC_n48C-n96B DC_n48A-n96C DC_n48B-n96C DC_n48C-n96C DC_n48A-n96D DC_n48B-n96D DC_n48C-n96D DC_n48A-n96E DC_n48B-n96E DC_n48C-n96E	DC_n48A-n96A DC_n48B-n96A
DC_n66A-n77A DC_n66A-n77C DC_n66B-n77A DC_n66B-n77C	DC_n66A-n77A
DC_n66A-n77(2A)	DC_n66A-n77A
DC_n66(2A)-n77(2A) DC_n66(2A)-n77C	DC_n66A-n77A
DC_n71A-n77A	DC_n71A-n77A
DC_n71A-n77(2A)	DC_n71A-n77A
DC_n77A-n79A[1]	DC_n77A-n79A
DC_n77(2A)-n79A[1]	DC_n77A-n79A
NOTE 1: The minimum requirements apply only when there is non-simultaneous Rx/Tx operation between n77-n79 NR carriers. This restriction applies also for these carriers when applicable NR DC configuration is part of a higher order configuration. NOTE 2: Applicable for UE supporting inter-band NR DC with mandatory simultaneous Rx/Tx capability.	

Table 5.5B.1-2: Inter-band NR DC configurations (three bands)

NR DC configuration	Uplink NR DC configuration
DC_n1A-n3A-n28A	DC_n1A-n3A DC_n1A-n28A DC_n3A-n28A
DC_n1A-n3A-n41A	DC_n1A-n3A DC_n1A-n41A DC_n3A-n41A
DC_n1A-n3A-n77A	DC_n1A-n3A DC_n3A-n77A DC_n1A-n77A
DC_n1A-n3A-n78A	DC_n1A-n3A DC_n3A-n78A DC_n1A-n78A
DC_n1A-n3A-n79A	DC_n1A-n3A DC_n3A-n79A DC_n1A-n79A
DC_n1A-n7A-n78A	DC_n1A-n7A DC_n7A-n78A DC_n1A-n78A
DC_n1A-n28A-n41A	DC_n1A-n28A DC_n1A-n41A DC_n28A-n41A
DC_n1A-n28A-n77A	DC_n1A-n28A

	DC_n1A-n77A DC_n28A-n77A
DC_n1A-n28A-n78A	DC_n1A-n28A DC_n1A-n78A DC_n28A-n78A
DC_n1A-n28A-n79A	DC_n1A-n28A DC_n1A-n79A DC_n28A-n79A
DC_n1A-n41A-n77A	DC_n1A-n41A DC_n1A-n77A DC_n41A-n77A
DC_n1A-n77A-n79A	DC_n1A-n77A DC_n1A-n79A DC_n77A-n79A
DC_n3A-n28A-n41A	DC_n3A-n28A DC_n3A-n41A DC_n28A-n41A
DC_n3A-n28A-n77A	DC_n3A-n28A DC_n3A-n77A DC_n28A-n77A
DC_n3A-n28A-n77(2A)	DC_n3A-n28A DC_n3A-n77A DC_n28A-n77A
DC_n3A-n28A-n78A	DC_n3A-n28A DC_n3A-n78A DC_n28A-n78A
DC_n3A-n28A-n79A	DC_n3A-n28A DC_n3A-n79A DC_n28A-n79A
DC_n3A-n41A-n77A	DC_n3A-n41A DC_n3A-n77A DC_n41A-n77A
DC_n28A-n41A-n77A	DC_n28A-n41A DC_n28A-n77A DC_n41A-n77A
DC_n3A-n77A-n79A	DC_n3A-n77A DC_n3A-n79A DC_n77A-n79A
DC_n3A-n77(2A)-n79A	DC_n3A-n77A DC_n3A-n79A DC_n77A-n79A
DC_n7A-n46A-n78A	DC_n7A-n46A DC_n7A-n78A DC_n46A-n78A
DC_n7A-n46C-n78A	DC_n7A-n46A DC_n7A-n78A DC_n46A-n78A
DC_n7A-n46D-n78A	DC_n7A-n46A DC_n7A-n78A DC_n46A-n78A
DC_n28A-n46A-n78A DC_n28A-n46C-n78A DC_n28A-n46D-n78A	DC_n28A-n46A DC_n28A-n78A DC_n46A-n78A
DC_n28A-n77A-n79A	DC_n28A-n77A DC_n28A-n79A DC_n77A-n79A
DC_n28A-n77(2A)-n79A	DC_n28A-n77A DC_n28A-n79A DC_n77A-n79A

Table 5.5B.1-3: Inter-band NR DC configurations (four bands)

NR DC configuration	Uplink NR DC configuration
DC_n1A-n3A-n28A-n77A	DC_n1A-n3A DC_n1A-n28A

		DC_n1A-n77A DC_n3A-n28A DC_n3A-n77A DC_n28A-n77A
	DC_n1A-n3A-n28A-n79A	DC_n1A-n3A DC_n1A-n28A DC_n1A-n79A DC_n3A-n28A DC_n3A-n79A DC_n28A-n79A
	DC_n1A-n3A-n77A-n79A	DC_n1A-n3A DC_n1A-n77A DC_n1A-n79A DC_n3A-n77A DC_n3A-n79A DC_n77A-n79A
	DC_n1A-n28A-n77A-n79A	DC_n1A-n28A DC_n1A-n77A DC_n1A-n79A DC_n28A-n77A DC_n28A-n79A DC_n77A-n79A
	DC_n3A-n28A-n41A-n77A	DC_n3A-n28A DC_n3A-n41A DC_n3A-n77A DC_n28A-n41A DC_n28A-n77A DC_n41A-n77A
	DC_n3A-n28A-n77A-n79A	DC_n3A-n28A DC_n3A-n77A DC_n3A-n79A DC_n28A-n77A DC_n28A-n79A DC_n77A-n79A
	DC_n3A-n28A-n77(2A)-n79A	DC_n3A-n28A DC_n3A-n77A DC_n3A-n79A DC_n28A-n77A DC_n28A-n79A DC_n77A-n79A

用于SUL操作频段的UE配置在TS 38.101-1 [1]中的第5.5C节定义。

5.5C Configurations for SUL

The configuration tables for SUL describe Bandwidth Combination Sets. Bandwidth Combination Set 4 and 5 contains all possible defined channel bandwidths for each band in the combination. The fact that BCS4 and BCS5 contains all channel bandwidths for each band does not alter if a bandwidth is mandatory or optional for a given band. Bandwidths that are identified as optional in Table 5.3.5-1 for a given release are still optional for UEs that support BCS4 or BCS5. , where the bandwidths the UE supports for each band, the maximum bandwidth and/or minimum bandwidth for the band in the band combination are indicated in the UE capabilities. Note that the minimum bandwidth is indicated only in BCS5 and BCS5 shall not be indicated together with BCS4 for a SUL configuration. For SUL band combinations including FR1 intra-band CA and with BCS4 or BCS5, the Bandwidth Combination Sets for the FR1 intra-band CA are BCS4 or BCS5.

Table 5.5C-1: Supported channel bandwidths per SUL band combination

SUL configuration	NR Band	Channel bandwidth (MHz) (NOTE 1)	Bandwidth combination set
SUL_n24A-n99A	n24	5, 10	0
	n99	5, 10	

	SUL_n41A-n80A	n41	10, 15, 20, 40, 50, 60, 80, 90, 100	0	
		n80	5, 10, 15, 20, 25, 30		
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	1	
		n80	5, 10, 15, 20, 25, 30, 40		
	SUL_n41A-n81A	n41	10, 15, 20, 40, 50, 60, 80, 90, 100	0	
		n81	5, 10, 15, 20		
	SUL_n41A-n83A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0	
		n83	5, 10, 15, 20, 30		
	SUL_n41A-n95A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0	
		n95	5, 10, 15		
	SUL_n41A-n97A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0	
		n97	5, 10, 15, 20, 25, 30, 40, 50, 60, 80		
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	1	
		n97	5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100		
	SUL_n41A-n98A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0	
		n98	5, 10, 15, 20, 25, 30, 40		
	SUL_n41A-n99A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0	
		n99	5, 10		
	SUL_n48A-n99A	n48	5, 10, 15, 20, 40, 50, 60, 80, 90, 100	0	
		n99	5, 10		
	SUL_n77A-n80A	n77	10, 15, 20, 40, 50, 60, 80, 90, 100	0	
		n80	5, 10, 15, 20, 25, 30		
	SUL_n77A-n84A	n77	10, 15, 20, 40, 50, 60, 80, 90, 100	0	
		n84	5, 10, 15, 20		
	SUL_n77A-n99A	n77	10, 15, 20, 40, 50, 60, 80, 90, 100	0	
		n99	5, 10		
	SUL_n78A-n80A	n77	10, 15, 20, 40, 50, 60, 80, 90, 100	0	
		n80	5, 10, 15, 20, 25, 30		
		n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	1	
		n80	5, 10, 15, 20, 25, 30, 40		
	SUL_n78A-n81A	n78	10, 15, 20, 40, 50, 60, 80, 90, 100	0	
		n81	5, 10, 15, 20		
	SUL_n78A-n82A	n78	10, 15, 20, 40, 50, 60, 80, 90, 100	0	
		n82	5, 10, 15, 20		
	SUL_n78A-n83A	n78	10, 15, 20, 40, 50, 60, 80, 90, 100	0	
		n83	5, 10, 15, 20		
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	1	
		n83	5, 10, 15, 20, 30		
	SUL_n78A-n84A	n78	10, 15, 20, 40, 50, 60, 80, 90, 100	0	
		n84	5, 10, 15, 20		
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	1	
		n84	5, 10, 15, 20, 25, 30, 40, 50		
	SUL_n78A-n86A	n78	10, 15, 20, 40, 50, 60, 70, 80, 90, 100	0	
		n86	5, 10, 15, 20		
	SUL_n79A-n80A	n79	40, 50, 60, 80, 100	0	
		n80	5, 10, 15, 20, 25, 30		
		n79	40, 50, 60, 80, 100	1	
		n80	5, 10, 15, 20, 25, 30, 40		
	SUL_n79A-n81A	n79	40, 50, 60, 80, 100	0	
		n81	5, 10, 15, 20		
	SUL_n79A-n83A	n79	40, 50, 60, 80, 100	0	
		n83	5, 10, 15, 20, 30		
	SUL_n79A-n84A	n79	40, 50, 60, 80, 100	0	
		n84	5, 10, 15, 20		
	SUL_n79A-n95A	n79	40, 50, 60, 80, 100	0	
		n95	5, 10, 15		
	SUL_n79A-n97A	n79	40, 50, 60, 80, 100	0	
		n97	5, 10, 15, 20, 25, 30, 40, 50, 60, 80		
		n79	40, 50, 60, 80, 100	1	

	n97	5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
	n79	See n79 channel bandwidths in Table 5.3.5-1 for each carrier	BCS4 and BCS5
	n97	See n97 channel bandwidths in Table 5.3.5-1 for each carrier	
SUL_n79A-n98A	n79	40, 50, 60, 80, 100	0
	n98	5, 10, 15, 20, 25, 30, 40	
NOTE 1: The SCS of each channel bandwidth for NR band refers to Table 5.3.5-1.			

Table 5.5C-2: Supported channel bandwidths per SUL band combination with intra-band non-contiguous CA

SUL band combination with intra-band non-contiguous CA	SUL configuration	NR Band	Channel bandwidth (MHz) (NOTE 1)	Bandwidth combination set
SUL_n41(2A)-n99A	SUL_n41A-n99A	n41	See CA_n41(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1	0
		n99	5, 10	
SUL_n48(2A)-n99A	SUL_n48A-n99A	n48	See CA_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1	0
		n99	5, 10	
SUL_n77(2A)-n99A	SUL_n77A-n99A	n77	See CA_n77(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1	0
		n99	5, 10	
SUL_n78(2A)-n86A	SUL_n78A-n86A	n78	See CA_n78(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1	0
		n86	5, 10, 15, 20	
NOTE 1: The SCS of each channel bandwidth for NR band refers to Table 5.3.5-1.				

Table 5.5C-3: Supported channel bandwidths per SUL band combination with intra-band contiguous CA

SUL band combination with CA	SUL configuration	NR Band	Channel bandwidth (MHz) (NOTE 1)	Bandwidth combination set
SUL_n41C-n80A	SUL_n41A-n80A	n41	See CA_n41C Bandwidth Combination Set 1 in Table 5.5A.1-1	0
	SUL_n41C-n80A	n80	5, 10, 15, 20, 25, 30, 40	
SUL_n41C-n83A	SUL_n41A-n83A	n41	See CA_n41C Bandwidth Combination Set 1 in Table 5.5A.1-1	0
	SUL_n41C-n83A	n83	5, 10, 15, 20, 30	
SUL_n41C-n95A	SUL_n41A-n95A	n41	See CA_n41C Bandwidth Combination Set 1 in Table 5.5A.1-1	0
	SUL_n41C-n95A	n95	5, 10, 15	
SUL_n78C-n80A	SUL_n78A-n80A	n78	See CA_n78C Bandwidth Combination Set 1 in Table 5.5A.1-1	0
	SUL_n78C-n80A	n80	5, 10, 15, 20, 25, 30, 40	
SUL_n78C-n84A	SUL_n78A-n84A	n78	See CA_n78C Bandwidth Combination Set 1 in Table 5.5A.1-1	0

	SUL_n78C-n84A	n84	5, 10, 15, 20, 25, 30, 40, 50	
SUL_n79C-n80A	SUL_n79A-n80A	n79	See CA_n79C Bandwidth Combination Set 0 in Table 5.5A.1-1	0
	SUL_n79C-n80A	n80	5, 10, 15, 20, 25, 30, 40	
SUL_n79C-n83A	SUL_n79A-n83A	n79	See CA_n79C Bandwidth Combination Set 0 in Table 5.5A.1-1	0
	SUL_n79C-n83A	n83	5, 10, 15, 20, 30	
SUL_n79C-n95A	SUL_n79A-n95A	n79	See CA_n79C Bandwidth Combination Set 0 in Table 5.5A.1-1	0
	SUL_n79C-n95A	n95	5, 10, 15	
NOTE 1: The SCS of each channel bandwidth for NR band refers to Table 5.3.5-1.				

Table 5.5C-4: Supported channel bandwidths per SUL band combination with inter-band CA

SUL band combination with CA	SUL configuration	NR Band	Channel bandwidth (MHz) (NOTE 1)	Bandwidth combination set
CA_n1A_SUL_n78A-n80A	SUL_n78A-n80A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n80	5, 10, 15, 20, 25, 30, 40	
CA_n1A_SUL_n78A-n84A	SUL_n78A-n84A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n84	5, 10, 15, 20, 25, 30, 40, 50	
CA_n1A_SUL_n78C-n84A	SUL_n78A-n84A	n1	5, 10, 15, 20, 25, 30, 40, 50	0
	SUL_n78C-n84A	n78	See CA_n78C Bandwidth Combination Set 1 in Table 5.5A.1-1	
		n84	5, 10, 15, 20, 25, 30, 40, 50	
CA_n3A_SUL_n41A-n80A	SUL_n41A-n80A	n3	5, 10, 15, 20, 25, 30, 40	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n80	5, 10, 15, 20, 25, 30, 40	
CA_n3A_SUL_n41C-n80A	SUL_n41A-n80A	n3	5, 10, 15, 20, 25, 30, 40	0
		n41	See CA_n41C Bandwidth Combination Set 1 in Table 5.5A.1-1	
		n80	5, 10, 15, 20, 25, 30, 40	
CA_n3A_SUL_n78A-n80A	SUL_n78A-n80A	n3	5, 10, 15, 20, 25, 30, 40	0
		n78	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
		n80	5, 10, 15, 20, 25, 30, 40	
CA_n3A_SUL_n78C-n80A	SUL_n78A-n80A	n3	5, 10, 15, 20, 25, 30, 40	0
	SUL_n78C-n80A	n78	See CA_n78C Bandwidth Combination Set 1 in Table 5.5A.1-1	
		n80	5, 10, 15, 20, 25, 30, 40	
CA_n3A_SUL_n79A-n80A	SUL_n79A-n80A	n3	5, 10, 15, 20, 25, 30, 40	0
		n79	40, 50, 60, 80, 100	
		n80	5, 10, 15, 20, 25, 30, 40	
CA_n3A_SUL_n79C-n80A	SUL_n79A-n80A	n3	5, 10, 15, 20, 25, 30, 40	0
	SUL_n79C-n80A	n79	See CA_n79C Bandwidth Combination Set 0 in Table 5.5A.1-1	
		n80	5, 10, 15, 20, 25, 30, 40	
CA_n28A_SUL_n41A-n83A	SUL_n41A-n83A	n28	5, 10, 15, 20, 30	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n83	5, 10, 15, 20, 30	

CA_n28A_SUL_n41C-n83A	SUL_n41A-n83A SUL_n41C-n83A	n28	5, 10, 15, 20, 30	0
		n41	See CA_n41C Bandwidth Combination Set 1 in Table 5.5A.1-1	
		n83	5, 10, 15, 20, 30	
CA_n28A_SUL_n79A-n83A	SUL_n79A-n83A	n28	5, 10, 15, 20, 30	0
		n79	40, 50, 60, 80, 100	
		n83	5, 10, 15, 20, 30	
CA_n28A_SUL_n79C-n83A	SUL_n79A-n83A SUL_n79C-n83A	n28	5, 10, 15, 20, 30	0
		n79	See CA_n79C Bandwidth Combination Set 0 in Table 5.5A.1-1	
		n83	5, 10, 15, 20, 30	
CA_n41A_SUL_n79A-n80A	SUL_n79A-n80A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0
		n79	40, 50, 60, 80, 100	
		n80	5, 10, 15, 20, 25, 30, 40	
CA_n41A_SUL_n79A-n83A	SUL_n79A-n83A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0
		n79	40, 50, 60, 80, 100	
		n83	5, 10, 15, 20, 30	
CA_n41A_SUL_n79A-n97A	SUL_n79A-n97A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0
		n79	40, 50, 60, 80, 100	
		n97	5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n79A_SUL_n41A-n80A	SUL_n41A-n80A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0
		n79	40, 50, 60, 80, 100	
		n80	5, 10, 15, 20, 25, 30, 40	
CA_n79A_SUL_n41A-n83A	SUL_n41A-n83A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0
		n79	40, 50, 60, 80, 100	
		n83	5, 10, 15, 20, 30	
CA_n79A_SUL_n41A-n97A	SUL_n41A-n97A	n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	0
		n79	40, 50, 60, 80, 100	
		n97	5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
CA_n28A-n79A_SUL_n41A-n83A	SUL_n41A-n83A	n28	5, 10, 15, 20, 30	0
		n41	10, 15, 20, 30, 40, 50, 60, 80, 90, 100	
		n79	40, 50, 60, 80, 100	
		n83	5, 10, 15, 20, 30	
CA_n28A-n41A_SUL_n79A-n83A	SUL_n79A-n83A	n28	5, 10, 15, 20, 30	0
		n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
		n79	40, 50, 60, 80, 100	
		n83	5, 10, 15, 20, 30	
NOTE 1: The SCS of each channel bandwidth for NR band refers to Table 5.3.5-1.				

2.1.5 定义、符号和缩写

2.1.5.1 定义

载波聚合：两个或多个分量载波的聚合，以支持更宽的传输带宽。

信道带宽：支持具有小区上行链路或下行链路中配置的传输带宽的单个E-UTRA射频载波的射频段宽。信道带宽以MHz为单位测量，用作发射机和接收机射频要求的参考。

2.1.5.2 符号

F_{DL_low} 下行链路操作频段的最低频率

F_{DL_high} 下行链路操作频段的最高频率

F_{UL_low} 上行链路操作频段的最低频率

F_{UL_high} 上行链路操作频段的最高频率

2.1.5.3 缩略语

ACLR 相邻信道泄漏比
CA 载波聚合
DC 双连接
FDD 频分双工
FR 频率范围
NR 新空中接口
NS 网络信令
SUL 补充上行链路
FDD 时分双工
UE 用户设备
V2X 车联网

2.2 射频频谱发射

其他发射要求可由网络发出信号。每个附加的发射要求都与一个独特的NS标签相关联。NS标签及其相应的NR频段列表在TS 38.521-1 [1]的表6.2.3.3.1-1中定义。

Table 6.2.3.3.1-1: Additional maximum power reduction (A-MPR)

Network signalling label	Requirements (subclause)	NR Band	Channel bandwidth (MHz)	Resources blocks (N_{RB})	A-MPR (dB)
NS_01		Table 5.2-1 (NOTE 8)	5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	Table 5.3.2-1	N/A
NS_03	6.5.2.3.3.3	n2, n25, n66, n70, n86			Clause 6.2.3.3.7
NS_03U	6.5.2.3.3.3, 6.5.2.4.2.3	n2, n25, n66, n86			Clause 6.2.3.3.7
NS_04	6.5.2.3.3.2, 6.5.3.3.3.1	n41	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100		Clause 6.2.3.3.2
NS_05	6.5.3.3.3.4	n1, n65, n84	5, 10, 15, 20 (Note 2)		Clause 6.2.3.3.4 (NOTE 7)
NS_05U	6.5.3.3.3.4, 6.5.2.4.2.3	n1, n65, n84	5, 10, 15, 20		Clause 6.2.3.3.4 (NOTE 7)
NS_06	6.5.2.3.3.4	n12	5, 10, 15		N/A
		n14	5, 10		
NS_10		n20	15, 20	Table 6.2.3.3.3-1	Table 6.2.3.3.3-1
NS_12	6.5.3.3.17	n26	5, 10	Table 6.2.3.3.21-1	Table 6.2.3.3.21-2
NS_13	6.5.3.3.18	n26	5	Table 6.2.3.3.22-1	Table 6.2.3.3.22-2
NS_14	6.5.3.3.19	n26	10, 15, 20	Table 6.2.3.3.23-1	Table 6.2.3.3.23-2
NS_15	6.5.3.3.20	n26	5, 10, 15, 20	Table 6.2.3.3.24-1	Table 6.2.3.3.24-2
NS_17	6.5.3.3.3.2	n28, n83	5, 10	Table 5.3.2-1	N/A
NS_18	6.5.3.3.3.3	n28, n83	5		Table 6.2.3.3.13-1, A1
			10, 15, 20		Table 6.2.3.3.13-1, A2
			30		Table 6.2.3.3.13-1, A3, A4, A5
NS_21	6.5.3.3.3.12	n30	5,10		Table 6.5.3.3.3.12-1

	NS_24	6.5.3.3.3.13	n65 (Note 4)	5, 10, 15, 20	Table 6.2.3.3.15-1	Subclause 6.2.3.3.15	
	NS_27	6.5.2.3.3.8 6.5.3.3.3.14	n48	5, 10, 15, 20, 40	Table 6.2.3.3.16-1	Table 6.2.3.3.16-2	
	NS_35	6.5.2.3.3.1	n71	5, 10, 15, 20	Table 5.3.2-1	N/A	
	NS_37	6.5.3.3.3.6	n74 (Note 3)	10, 15	Table 6.2.3.3.8-1	Table 6.2.3.3.8-1	
	NS_38	6.5.3.3.3.7	n74	5, 10, 15, 20	Table 6.2.3.3.9-1	Table 6.2.3.3.9-1	
	NS_39	6.5.3.3.3.8	n74	10, 15, 20	Table 6.2.3.3.10-1	Table 6.2.3.3.10-1	
	NS_40	6.5.3.3.3.9	n51	5		Table 6.2.3.3.5-1	
	NS_41	6.5.3.3.3.10	n50	5, 10, 15, 20, 40, 50, 60		Table 6.2.3.3.11-1	
	NS_42	6.5.3.3.3.11	n50	5, 10, 15, 20, 40, 50, 60		Table 6.2.3.3.12-1	
	NS_43	6.5.3.3.3.5	n8, n81	5, 10, 15		Clause 6.2.3.3.6	
	NS_43U	6.5.3.3.3.5, 6.5.2.4.2.3	n8, n81	5, 10, 15		Clause 6.2.3.3.6	
	NS_44	6.5.3.3.24	n38	25,30,40	Table 6.2.3.3.20-1	Table 6.2.3.3.20-1	
	NS_45	6.5.3.3.3.21	n53	5, 10		Clause 6.2.3.3.25	
	NS_46	6.5.3.3.3.25	n7	25, 30, 40, 50	Table 6.2.3.3.17-1	Table 6.2.3.3.17-2	
	NS_47	6.5.3.3.3.15	n41 (Note 5)	30	Table 6.2.3.3.18-1	Table 6.2.3.3.18-2	
	NS_48	6.5.3.3.3.22	n1 and n84	10, 15, 20, 25, 30, 40, 45, 50	Table 6.2.3.3.26-1, Table 6.2.3.3.26-3	Table 6.2.3.3.26-2, Table 6.2.3.3.26-4 (NOTE 7)	
	NS_49	6.5.3.3.3.23	n1 and n84	25, 30, 40, 50	Table 6.2.3.3.27-1	Table 6.2.3.3.27-1	
	NS_50	6.5.3.3.3.16	n39	10, 15, 20, 25, 30, 40		Clause 6.2.3.3.19	
	NS_55	NOTE 6	n77	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100		N/A	
	NS_56	6.5.3.3.3.27	n24, n99	5, 10	Table 6.2.3.3.30	Clause 6.2.3.3.30	
	NS_100	6.5.2.4.2.3	n1, n2, n3, n5, n8, n25, n26, n66, n80, n81,			Table 6.2.3.3.1-2	

		n84, n86 (Note 1)			

NOTE 1: This NS can be signalled for NR bands that have UTRA services deployed.
NOTE 2: No A-MPR is applied for 5 MHz $BW_{channel}$ where the lower channel edge is ≥1 930 MHz, 10 MHz $BW_{channel}$ where the lower channel edge is ≥1 950 MHz and 15 MHz $BW_{channel}$ where the lower channel edge is ≥1 955 MHz.
NOTE 3: Applicable when the NR carrier is within 1 447.9-1 462.9 MHz.
NOTE 4: Applicable when the upper edge of the channel bandwidth frequency is greater than 1 980 MHz.
NOTE 5: Applicable when the NR carrier is within 2 545-2 575 MHz.
NOTE 6: This NS value is applicable for cells in the range 3 450-3 550 MHz for operations in the USA. This NS value does not indicate any additional spurious emission and maximum output power reduction requirements.
NOTE 7: The 1Tx architecture is assumed. For power class 2 UE indicating *txDiversity-r16* TS 38.306, the additional relaxation of 2 dB is applicable.
NOTE 8: The NS_01 label with the field *additionalPmax* [7] absent is default for all NR bands.

2.2.1 带外发射

2.2.1.1 频谱发射掩模

一般NR频谱发射掩模限值在TS 38.521-1 [1]的表6.5.2.2.5-1中定义，测试容限在表6.5.2.2.5-2中定义。

Table 6.5.2.2.5-1: General NR spectrum emission mask

Spectrum emission limit (dBm) / Channel bandwidth														
Δf_{OOB} (MHz)	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**25 MHz**	**30 MHz**	**40 MHz**	**50 MHz**	**60 MHz**	**70 MHz**	**80 MHz**	**90 MHz**	**100 MHz**	**Measurement bandwidth**
± 0-1	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT							1 % channel bandwidth
± 0-1								-24 + TT	-24 + TT	-24 + TT	-24 + TT	-24 + TT	-24 + TT	30 kHz
± 1-5	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	1 MHz
± 5-6	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	
± 6-10	-25 + TT													
± 10-15		-25 + TT												
± 15-20			-25 + TT											
± 20-25				-25 + TT										
± 25-30					-25 + TT									
± 30-35						-25 + TT								
± 35-40														
± 40-45							-25 + TT							
± 45-50														
± 50-55								-25 + TT						
± 55-60														
± 60-65									-25 + TT					
± 65-70														
± 70-75										-25 + TT				
± 75-80														
± 80-85											-25 + TT			
± 85-90														
± 90-95												-25 + TT		
± 95-100														
± 100-105													-25 + TT	

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: TT for each frequency and channel bandwidth is specified in Table 6.5.2.2.5-2.

Table 6.5.2.2.5-2: Test Tolerance (Spectrum Emission Mask)

	f ≤ 3.0GHz	3.0GHz < f ≤ 4.2GHz	4.2GHz < f ≤ 6.0GHz
BW ≤ 100 MHz	1.5 dB	1.8 dB	1.8 dB

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

2.2.1.2 附加频谱发射掩模

网络会通过信令方式指示附加频谱发射要求，以表明UE在特定部署场景下应满足额外要求；该信息作为小区切换消息或广播消息的一部分进行传送。

TS 38.521-1 [1]的表6.5.2.3.5.1-1定义了网络信令标签“NS_35”的附加频谱发射要求，表6.5.2.3.5.5-1中给出了测试容限。

Table 6.5.2.3.5.1-1: Additional test requirements "NS_35"

Spectrum emission limit (dBm) / Channel bandwidth					
Δf_{OOB} (MHz)	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth (unless otherwise stated)**
± 0-0.1	-15.0 + TT	-18.0 + TT	-20.0 + TT	-21.0 + TT	30 kHz
± 0.1-6	-13.0 + TT-	-13.0 + TT	-13.0 + TT	-13.0 + TT	100 kHz
± 6-10	-25 [1] + TT	-13.0 + TT	-13.0 + TT	-13.0 + TT	100 kHz
± 10-15		-25[1] 0 + TT	-13.0 + TT	-13.0 + TT	100 kHz
± 15-20			-25 [1]0 + TT	-13.0 + TT	100 kHz
± 20-25				-25 + TT	1 MHz
NOTE 1: The measurement bandwidth shall be 1 MHz. NOTE 2: TT for each frequency and channel bandwidth is specified in Table 6.5.2.3.5-1.					

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

Table 6.5.2.3.5-1: Test Tolerance (Additional spectrum emission mask)

	f ≤ 3.0GHz	3.0GHz < f ≤ 4.2GHz	4.2GHz < f ≤ 6.0GHz
BW ≤ 100 MHz	1.5 dB	1.8 dB	1.8 dB

TS 38.521-1 [1]的表6.5.2.3.5.2-1定义了网络信令标签“NS_04”的附加频谱发射要求，表6.5.2.3.5.5-1中给出了测试容限。

Table 6.5.2.3.5.2-1: Additional test requirements for "NS_04"

Δf_{OOB} MHz	Spectrum emission limit (dBm) / measurement bandwidth for each channel bandwidth (MHz)											Measurement bandwidth
	10	15	20	30	40	50	60	70	80	90	100	
± 0 - 1	-10+TT	-10+TT	-10+TT	-10+TT	-10+TT							2 % channel bandwidth
						-10						1 MHz
± 1 - 5	-10 + TT											1 MHz
± 5 - X	-13 + TT											
± X - ($BW_{Channel}$ + 5 MHz)	-25 + TT											
NOTE 1: X is defined in Table 6.5.2.3.3.2-1 for CP-OFDM and 6.5.2.3.3.2-2 for DFT-S-OFDM. NOTE 2: TT for each frequency and channel bandwidth is specified in Table 6.5.2.3.5-1.												

TS 38.521-1 [1]的表6.5.2.3.5.3-1定义了网络信令标签“NS_03”和“NS_21”的附加频谱发射要求，表6.5.2.3.5.5-1中给出了测试容限。

Table 6.5.2.3.5.3-1: Additional requirements for "NS_03" and “NS_21”

Δf_{OOB} MHz	Channel bandwidth (MHz) / Spectrum emission limit (dBm)							Measurement bandwidth
	5	10	15	20	25	30	40	
± 0-1	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	1 % of channel BW
± 1-6	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	1 MHz
± 6-10	-25 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	1 MHz
± 10-15		-25 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	1 MHz
± 15-20			-25 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	1 MHz
± 20-25				-25 + TT	-13 + TT	-13 + TT	-13 + TT	1 MHz
± 25-30					-25 + TT	-13 + TT	-13 + TT	1 MHz
± 30-35						-25 + TT	-13 + TT	1 MHz
± 35-40							-13 + TT	1 MHz
± 40-45							-25 + TT	1 MHz
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5.2.3.5-1.								

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

TS 38.521-1 [1]的表6.5.2.3.5.4-1定义了网络信令标签“NS_06”的附加频谱发射要求，表6.5.2.3.5.5-1中给出了测试容限。

Table 6.5.2.3.5.4-1: Additional requirements for "NS_06"

Spectrum emission limit (dBm) / Channel bandwidth				
Δf_{OOB} (MHz)	5 MHz	10 MHz	15 MHz	Measurement bandwidth
± 0 – 0.1	-15 + TT	-18 + TT	-20 + TT	30 kHz
± 0.1 – 1	-13 + TT	-13 + TT	-13 + TT	100 kHz
± 1 – 6	-13 + TT	-13 + TT	-13 + TT	1 MHz
± 6 – 10	-25 + TT	-13 + TT	-13 + TT	1 MHz
± 10 – 15		-25 + TT	-13 + TT	1 MHz
± 15 – 20			-25 + TT	1 MHz
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5.2.3.5-1.				

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

2.2.1.3 相邻信道泄漏比

相邻信道泄漏比（ACLR）是以指配信道频率为中心的滤波平均功率与以相邻信道频率为中心的滤波平均功率之比。

NR ACLR要求在TS 38.521-1 [1]中的第6.5.2.4.1.5节定义。

6.5.2.4.1.5 Test requirement

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in clause 6.2.2.5 as appropriate, and if the measured adjacent channel power is greater than –50 dBm then the measured NR ACLR, derived in step 6, shall be higher than the limits in Table 6.5.2.4.1.5-2.

The measured UE mean power in the channel bandwidth, derived in step 7, shall fulfil power class 3 requirements in Tables 6.2.2.5-1 and 6.2.2.5-3 as appropriate, and if the measured adjacent channel power is greater than –50 dBm then the measured NR ACLR, derived in step 7, shall be higher than the power class 3 limits in Table 6.5.2.4.1.5-2.

Table 6.5.2.4.1.5-1: NR ACLR measurement bandwidth

NR channel bandwidth / NR ACLR measurement bandwidth													
	5 MHz	10 MHz	15 MHz	20 MHz	25 MHz	30 MHz	40 MHz	50 MHz	60 MHz	70 MHz	80 MHz	90 MHz	100 MHz
NR ACLR measurement bandwidth (MHz)	4.515	9.375	14.235	19.095	23.955	28.815	38.895	48.615	58.35	68.07	78.15	88.23	98.31

Table 6.5.2.4.1.5-2: NR ACLR requirement

	Power class 1[2]	Power class 1.5	Power class 2	Power class 3
NR ACLR	37 - TT dB[2]	31 - TT dB	31 - TT dB	30 - TT dB
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5.2.4.1.5-3. NOTE 2: Applicable for power class 1 UE operating in Band n14.				

Table 6.5.2.4.1.5-3: Test Tolerance (NR ACLR)

	f ≤ 3.0GHz	3.0GHz < f ≤ 4.2GHz	4.2GHz < f ≤ 6.0GHz
BW ≤ 100 MHz	0.8 dB	0.8 dB	0.8 dB

UTRA ACLR要求在TS 38.521-1 [1]中的第6.5.2.4.2.5节定义。

6.5.2.4.2.5 Test requirement

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements described in 6.2.3.5 as appropriate, and if the measured adjacent channel power is greater than –50 dBm then the measured UTRA ACLR, derived in step 6, shall be higher than the limits in table 6.5.2.4.2.5-2.

Table 6.5.2.4.2.5-1: Void

Table 6.5.2.4.2.5-2: UTRA ACLR requirement

	Power class 3
$UTRA_{ACLR1}$	33 dB -TT
$UTRA_{ACLR2}$	36 dB - TT
NOTE 1: TT = 0.8 dB	

2.2.2 发射机杂散发射

杂散发射是由无用发射机效应引起的发射，如谐波发射、寄生发射、互调产物和变频产物，但带外发射除外（除非另有说明）。杂散发射限值是根据ITU-RSM.329建议书的一般要求和NR操作频段要求规定的，用于解决UE共存问题。

为提高测量精确度、敏感度和效率，分辨带宽可以小于测量带宽。当分辨带宽小于测量带宽时，结果应在测量带宽上进行积分处理，以获得测量带宽的等效噪声带宽。

2.2.2.1 杂散发射要求

通用NR杂散发射限值在TS 38.521-1 [1]的表6.5.3.1.5-1中定义。

Table 6.5.3.1.5-1: General spurious emissions test requirements

Frequency Range	Maximum Level	Measurement bandwidth	NOTE
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	4
	–25 dBm	1 MHz	3
12.75 GHz ≤ f < 5th harmonic of the upper frequency edge of the UL operating band in GHz	–30 dBm	1 MHz	1
12.75 GHz < f < 26 GHz	–30 dBm	1 MHz	2

NOTE 1: Applies for Band for which the upper frequency edge of the UL Band is greater than 2.55 GHz and less than or equal to 5.2 GHz
NOTE 2: Applies for Band that the upper frequency edge of the UL Band more than 5.2 GHz
NOTE 3: Applies for Band n41, CA configurations including Band n41, and EN-DC configurations that include n41 specified in sub-clause 5.2B of 38.101-3 [4] when NS_04 is signalled.
NOTE 4: Does not apply for Band n41, CA configurations including Band n41, and EN-DC configurations that include n41 specified in subclause 5.2B of TS 38.101-3 [4] when NS_04 is signalled.

2.2.2.2 UE共存的杂散发射

UE的共存要求因版本而异。版本15和版本16的要求可以在TS 38.521-1 [1]的表6.5.3.2.5-1中找到。

Table 6.5.3.2.5-1: UE Requirements according to UE NR release and supported E-UTRA and NR band

	UE Requirements per release		
NR Band	Rel-15	Rel-16	R17
n1	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n2	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n3	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n5	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n7	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n8	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n12	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n14	Table 6.5.3.2.3-2	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n18	Table 6.5.3.2.3-2	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n20	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n24	Table 6.5.3.2.3-3	Table 6.5.3.2.3-3	Table 6.5.3.2.3-3
n25	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n26	Table 6.5.3.2.3-2	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n28	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n30	Table 6.5.3.2.3-2	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n34	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n38	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n39	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n40	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n41	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3

n48	Table 6.5.3.2.3-2	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n50	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n51	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n53	Table 6.5.3.2.3-2	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n65	Table 6.5.3.2.3-2	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n66	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n70	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n71	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n74	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n77, n78	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n79	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
NOTE 1: The frequency range applicable with network signalling values of NS_04, NS_17, NS_18, NS_05, NS_43, NS_37, NS_38, NS_39, NS_40, NS_41, NS_42, NS_45 and NS_56 are covered in subclause 6.5.3.3 Additional Spurious Emissions NOTE 2: The restriction on the maximum uplink transmission to 54 RB in Notes 21 and 22 of Tables 6.5.3.2.3-1 to 6.5.3.2.3-3 is intended for conformance testing and may be applied to network operation to facilitate coexistence when the aggressor and victim bands are deployed in the same geographical area. The applicable spurious emission requirement of -15.5 dBm/5 MHz is a least restrictive technical condition for FDD/TDD coexistence and may have to be revised in the future.			

2.2.2.3 附加杂散发射

上述要求以附加频谱发射要求的形式规定。网络通过信令机制通知附加杂散发射要求，用于指示UE在特定网络部署场景中需满足额外的发射限制。该信息作为小区切换消息或系统广播消息的一部分进行传输。

TS 38.521-1 [1]的表6.5.3.3.5.1-1定义了网络信令标签“NS_04”的附加杂散发射要求。

Table 6.5.3.3.5.1-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 (MHz)	
2 495 ≤ f < 2 496	–13	1% of Channel BW
2 490.5 ≤ f < 2 495	–13	1 MHz
0.009 < f < 2 490.5	–25	1 MHz

TS 38.521-1 [1]的表6.5.3.3.5.2-1定义了网络信令标签“NS_17”的附加杂散发射要求。

Table 6.5.3.3.5.2-1: Additional requirements for "NS_17"

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	NOTE
	5, 10 MHz		
470 ≤ f ≤ 710	–26.2	6 MHz	1
NOTE 1: Applicable when the assigned E-UTRA carrier is confined within 718 MHz and 748 MHz and when the channel bandwidth used is 5 or 10 MHz.			

TS 38.521-1 [1]的表6.5.3.3.5.3-1定义了网络信令标签“NS_18”的附加杂散发射要求。

Table 6.5.3.3.5.3-1: Additional requirements for "NS_18"

Frequency range (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	
	5, 10, 15, 20, 30 MHz		
692-698	–26.2	6 MHz	

TS 38.521-1 [1]的表6.5.3.3.5.4-1定义了网络信令标签“NS_05”的附加杂散发射要求。

Table 6.5.3.3.5.4-1: Additional requirements for "NS_05"

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	
	5, 10, 15, 20 MHz		
1 884.5 ≤ f ≤ 1 915.7	–41	300 kHz	

TS 38.521-1 [1]的表6.5.3.3.5.5-1定义了网络信令标签“NS_43”的附加杂散发射要求。

Table 6.5.3.3.5.5-1: Additional requirement for "NS_43"

Frequency range (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5, 10, 15 MHz	
860 ≤ f ≤ 890	–40	1 MHz
NOTE 1: Applicable for 5 MHz and 15 MHz channel BW confined between 900 MHz and 915 MHz and for 10 MHz channel BW confined between 905 MHz and 915 MHz		

TS 38.521-1 [1]的表6.5.3.3.5.6-1定义了网络信令标签“NS_37”的附加杂散发射要求。

Table 6.5.3.3.5.6-1: Additional requirement for "NS_37"

Frequency band (MHz)	Channel bandwidth (MHz) / Spectrum emission limit (dBm)	Measurement bandwidth
	5, 10, 15, 20	
1 475.9 ≤ f ≤ 1 510.9	–35	1 MHz

TS 38.521-1 [1]的表6.5.3.3.5.12-1定义了网络信令标签“NS_21”的附加杂散发射要求。

Table 6.5.3.3.5.12-1: Additional requirements for "NS_21"

Frequency band (MHz)	Channel bandwidth (MHz) / Spectrum emission limit (dBm)	Measurement bandwidth
	5, 10	
2 200 ≤ f < 2 288	–40	1 MHz
2 288 ≤ f < 2 292	–37	1 MHz
2 292 ≤ f < 2 296	–31	1 MHz
2 296 ≤ f < 2 300	–25	1 MHz
2 320 ≤ f < 2 324	–25	1 MHz
2 324 ≤ f < 2 328	–31	1 MHz
2 328 ≤ f < 2 332	–37	1 MHz
2 332 ≤ f ≤ 2 395	–40	1 MHz

TS 38.521-1 [1]的表6.5.3.3.5.13-1定义了网络信令标签“NS_24”的附加杂散发射要求。

Table 6.5.3.3.5.13-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5 MHz, 10 MHz, 15 MHz, 20 MHz	
2 010 ≤ f ≤ 2 025	–50	1 MHz
NOTE 1: This requirement applies at a frequency offset equal or larger than 5 MHz from the upper edge of the channel bandwidth, whenever these frequencies overlap with the specified frequency band.		

TS 38.521-1 [1]的表6.5.3.3.5.14-1定义了网络信令标签“NS_27”的附加杂散发射要求。

Table 6.5.3.3.5.14-1: Additional requirement for "NS_27"

Frequency range (MHz)	Channel bandwidth (MHz) / Spectrum emission limit (dBm)	Measurement bandwidth
	5, 10, 15, 20, 40	
9 kHz – 3 530 MHz	–40	1 MHz
3 530 MHz – 3 540 MHz	–25	
3 710 MHz – 3 720 MHz	–25	
3 720 MHz – 12.75 GHz	–40	

TS 38.521-1 [1]的表6.5.3.3.5.15-1定义了网络信令标签“NS_47的附加杂散发射要求。

Table 6.5.3.3.5.15-1: Additional requirement for "NS_47"

Frequency band (MHz)	Channel bandwidth (MHz) / Spectrum emission limit (dBm)	Measurement bandwidth
	30	
2 530 ≤ f ≤ 2 535	–25	1 MHz
2 505 ≤ f ≤ 2 530	–30	1 MHz

TS 38.521-1 [1]的表6.5.3.3.5.16-1定义了网络信令标签“NS_50”的附加杂散发射要求。

Table 6.5.3.3.5.16-1: Additional requirements for "NS_50"

Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
Frequency range	1 805	-	1 855	–40	1	1
Frequency range	1 855	-	1 880	–15.5	5	1, 2, 3
NOTE 1: This requirement is applicable for carriers with aggregated channel bandwidths confined in 1885-1920 MHz for ≤ 30MHz channel BWs and confined in 1 880-1 920 MHz for 40 MHz channel BW. NOTE 2: The requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth. NOTE 3: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.						

TS 38.521-1 [1]的表6.5.3.3.5.17-1定义了网络信令标签“NS_12”的附加杂散发射要求。

Table 6.5.3.3.5.17-1: Additional requirements for “NS_12”

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5 MHz, 10 MHz	
806 ≤ f ≤ 813.5	–42	6.25 kHz
NOTE 1: The requirement applies for E-UTRA carriers with lower channel edge at or above 814 MHz. NOTE 2: The emissions measurement shall be sufficiently power averaged to ensure a standard deviation < 0.5 dB.		

TS 38.521-1 [1]的表6.5.3.3.5.18-1定义了网络信令标签“NS_13”附加杂散发射要求。

Table 6.5.3.3.5.18-1: Additional requirements for “NS_13”

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5 MHz	
806 ≤ f ≤ 816	–42	6.25 kHz
NOTE 1: The requirement applies for E-UTRA carriers with lower channel edge at or above 817 MHz. NOTE 2: The emissions measurement shall be sufficiently power averaged to ensure a standard deviation < 0.5 dB.		

TS 38.521-1 [1]的表6.5.3.3.5.19-1定义了网络信令标签“NS_14”的附加杂散发射要求。

Table 6.5.3.3.5.19-1: Additional requirements for “NS_14”

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	10 MHz, 15 MHz, 20MHz	
806 ≤ f ≤ 816	–42	6.25 kHz
NOTE 1: The requirement applies for E-UTRA carriers with lower channel edge at or above 817 MHz. NOTE 2: The emissions measurement shall be sufficiently power averaged to ensure a standard deviation < 0.5 dB.		

TS 38.521-1 [1]的表6.5.3.3.5.20-1定义了网络信令标签“NS_15”的附加杂散发射要求。

Table 6.5.3.3.5.20-1: Additional requirements for “NS_15”

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5 MHz, 10 MHz, 15 MHz, 20 MHz	
851 ≤ f ≤ 859	–53	6.25 kHz
NOTE 1: The emissions measurement shall be sufficiently power averaged to ensure a standard deviation < 0.5 dB.		

TS 38.521-1 [1]的表6.5.3.3.5.21-1定义了网络信令标签“NS_45”的附加杂散发射要求。

Table 6.5.3.3.5.21-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)		Measurement bandwidth
	5 MHz	10 MHz	
0.009 < f ≤ 2 473.5	–25	–25	1 MHz
2 473.5 < f ≤ 2 477.5	–25	–13	1 MHz
2 477.5 < f ≤ 2 478.5	–13	–13	1 MHz
2 478.5< f ≤ 2 483.5	–10	–10	1 MHz
2 495 ≤ f < 2 496	–13	–13	1% of Channel Bandwidth
2 496 ≤ f < 2 501	–13	–13	1 MHz
2 501 < f ≤ 2 505	–25	–13	1 MHz
2 505 ≤ f ≤ 5th harmonic of the upper frequency edge of the UL operating band	–25	–25	1 MHz

TS 38.521-1 [1]的表6.5.3.3.5.22-1定义了网络信令标签“NS_48”的附加杂散发射要求。

Table 6.5.3.3.5.22-1: Additional requirements

Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
E-UTRA band 34 – NR band n34	F_{DL_low}	-	F_{DL_high}	-50	1	
Frequency range	1 900	-	1 915	–15.5	5	1
Frequency range	1 915	-	1 920	+1.6	5	1
NOTE 1: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.						

TS 38.521-1 [1]的表6.5.3.3.5.23-1定义了网络信令标签“NS_49”的附加杂散发射要求。

Table 6.5.3.3.5.23-1: Additional requirements

Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
E-UTRA band 34 - NR band n34	F_{DL_low}	-	F_{DL_high}	–50	1	
Frequency range	1 880	-	1 895	–40	1	
Frequency range	1 895		1 915	–15.5	5	1
Frequency range	1 915	-	1 920	1.6	5	1
NOTE 1: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.						

TS 38.521-1 [1]的表6.5.3.3.5.24-1定义了网络信令标签“NS_44”的附加杂散发射要求。

Table 6.5.3.3.5.24-1: Additional requirements

Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
Frequency range	2 620	-	2 645	–15.5	5	1, 2
Frequency range	2 645	-	2 690	–40	1	1
NOTE 1: This requirement is applicable for carriers confined in 2 570-2 615 MHz. NOTE 2: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.						

TS 38.521-1 [1]的表6.5.3.3.5.25-1定义了网络信令标签“NS_46”的附加杂散发射要求。

Table 6.5.3.3.25-1: Additional requirements for “NS_46”

Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
Frequency range	2 570	-	2 575	+1.6	5	1, 2
Frequency range	2 575	-	2 595	–15.5	5	1, 2
Frequency range	2 595	-	2 620	–40	1	1
NOTE 1: This requirement is applicable for all carriers confined in 2 500-2 570 MHz. Special restrictions apply for channel bandwidths up to 20 MHz: For carriers of 15 MHz bandwidth when carrier centre frequency is within the range 2 560.5-2 562.5 MHz and for carriers of 20 MHz bandwidth when carrier centre frequency is within the range 2 552-2 560 MHz the requirement is applicable only for an uplink transmission bandwidth less than or equal to 54 RB with the minimum supported SCS of 15 KHz. NOTE 2: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.						

TS 38.521-1 [1]的表6.5.3.3.5.27-1定义了网络信令标签“NS_56”的附加杂散发射要求。

Table 6.5.3.3.5.27-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit[1] (dBm)	Measurement bandwidth	NOTE
	5 MHz, 10MHz		
1 541 ≤ f ≤ 1 559	–102	2 kHz	Averaged over any 2millisecond active transmission interval
1 559≤ f ≤ 1 608	–85	700 Hz	
1 608≤ f ≤ 1 610	–85 +5/2 (f-1608)	700 Hz	
1 610≤ f ≤ 1 625	–80+ 66/15 (f-1610)	700 Hz	
1 541 ≤ f ≤ 1 608	–75	1 MHz	Averaged over any 2millisecond active transmission interval
1 608≤ f ≤ 1 610	–75 + 5/2 (f-1608)	1 MHz	
1 610≤ f ≤ 1 627.5	–70+ 57/17.5 (f-1610)	1 MHz	
1 627.5	–37	4 kHz	
1 638.5 ≤f ≤ 1 645.5	–28	4 kHz	
1 657.5 ≤f ≤ 1 660.5	–28	4 kHz	
NOTE 1: The EIRP requirement in regulation is converted to conducted requirement using a 0 dBi antenna.			

2.2.3 接收机杂散发射

一般接收机杂散发射要求在TS 38.521-1 [1]的表7.9.51中定义。

CA的接收机杂散发射要求在TS 38.521-1 [1]的表7.9.51中定义。

Table 7.9.5-1: General receiver spurious emission requirements

Frequency range	Measurement bandwidth	Maximum level	NOTE
30 MHz ≤ f < 1 GHz	100 kHz	–57 dBm	
1 GHz ≤ f ≤ 12.75 GHz	1 MHz	–47 dBm	
12.75 GHz ≤ f ≤ 5th harmonic of the upper frequency edge of the DL operating band in GHz	1 MHz	–47 dBm	2
12.75 GHz – 26 GHz	1 MHz	–47 dBm	3
NOTE 1: Unused PDCCH resources are padded with resource element groups with power level given by PDCCH as defined in Annex C.3.1. NOTE 2: Applies for Band that the upper frequency edge of the DL Band more than 2.69 GHz. NOTE 3: Applies for Band that the upper frequency edge of the DL Band more than 5.2 GHz.			

2.2A CA的输出RF频谱发射

2.2A.1 带外发射

对于将一个上行链路载波指配给一个NR频段的频段间载波聚合，适用第2.2节中的输出RF频谱发射要求。

2.2A.1.1 频谱发射掩模

TS 38.521-1 [1]中的第6.5A.2.2.1.5节定义了带内CA的一般NR频谱发射掩模限值。

6.5A.2.2.1.5 Test requirement

The measured UE mean power in the channel bandwidth for each CC, derived in step 6, shall fulfil requirements in clause 6.2A.2 as appropriate, and the power of any UE emission for each CC, derived in step 7, shall fulfil requirements in Table 6.5A.2.2.1.5-1 for inter-band CA and Table 6.5A.2.2.1.5-3 for intra-band contiguous CA. If for some frequency spectrum emission masks of component carriers overlap then spectrum emission mask allowing higher power spectral density applies for that frequency. If for some frequency a component carrier spectrum emission mask overlaps with the channel bandwidth of another component carrier, then the emission mask does not apply for that frequency.

Table 6.5A.2.2.1.5-1: NR General spectrum emission mask

Spectrum emission limit (dBm) / Channel bandwidth														
Δf_{OOB} (MHz)	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**25 MHz**	**30 MHz**	**40 MHz**	**50 MHz**	**60 MHz**	**70 MHz**	**80 MHz**	**90 MHz**	**100 MHz**	**Measurement bandwidth**
± 0-1	-13	-13	-13	-13	-13	-13	-13							1 % channel bandwidth
± 0-1								-24	-24	-24	-24	-24	-24	30 kHz
± 1-5	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	1 MHz
± 5-6	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	
± 6-10	-25													
± 10-15		-25												
± 15-20			-25											
± 20-25				-25										
± 25-30					-25									
± 30-35						-25								
± 35-40														
± 40-45							-25							
± 45-50														
± 50-55								-25						
± 55-60														
± 60-65									-25					
± 65-70														
± 70-75										-25				
± 75-80														
± 80-85											-25			
± 85-90														
± 90-95												-25		
± 95-100														
± 100-105													-25	

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and –0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.

Table 6.5A.2.2.1.5-2: Test Tolerance for Spectrum emission mask

	f ≤ 3.0 GHz	**3.0 GHz < f ≤ 6 GHz**
BW ≤ 40 MHz	1.5 dB	1.8 dB
40 MHz < BW ≤ 100 MHz	1.5 dB	1.8 dB

Table 6.5A.2.2.1.5-3: NR General spectrum emission mask for intra-band contiguous CA

Δf_{OOB} (MHz)	Spectrum emission limit (dBm)	MBW (MHz)
± 0 - 1	–13	Min(0.01*$BW_{channel_CA}$, 0.4)
± 1 - 5	–10	1 MHz
± 5 – $BW_{channel_CA}$	–13	1 MHz
±$BW_{channel_CA}$- $BW_{channel_CA}$+5	–25	1 MHz

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

2.2A.1.2 无效

2.2A.1.3 相邻信道泄漏比

CA的一般NR ACLR限值在TS 38.521-1 [1]中的第6.5A.2.4.1.1.5节定义。

6.5A.2.4.1.1.5 Test requirement

The measured UE mean power in the channel bandwidth, derived in step 6, shall fulfil requirements in clause 6.2A.2.1 as appropriate, and if the measured adjacent channel power is greater than –50 dBm, then the measured NR ACLR derived in step 7c, step 8e, step 6c and step 9f, shall be higher than the limits in Table 6.5A.2.4.1.1.5-1, 6.5A.2.4.1.1.5-2 and 6.5A.2.4.1.1.5-3 respectively.

Table 6.5A.2.4.1.1.5-1: General requirements for intra-band contiguous CA ACLR

	ACLR / Measurement bandwidth
CA ACLR	30 - TT dB
CA Measurement bandwidth (NOTE 1)	Nominal channel space+$MBW_{ACLR,low}$/2+ $MBW_{ACLR,high}$/2
Adjacent channel centre frequency offset (in MHz)	+ $BW_{Channel_CA}$ / - $BW_{Channel_CA}$
Difference between ACLR MBW center and $F_{c,low}$	MBW_{shift}= (MBW_{ACLR_CA}-$MBW_{ACLR,low}$)/2
NOTE 1: $MBW_{ACLR,low}$ and $MBW_{ACLR,high}$ are the single-channel ACLR measurement bandwidths specified for channel bandwidths $BW_{channel(low)}$ and $BW_{channel(high)}$ in 6.5.2.4.1, respectively.	

Table 6.5A.2.4.1.1.5-2: General requirements for intra-band non-contiguous CA ACLR

	ACLR / Measurement bandwidth
CA ACLR	30 - TT dB
CA Measurement bandwidth for each sub block (NOTE 1)	MBW_{ACLR}

Adjacent channel centre frequency offset (in MHz)	+ $BW_{Channel}$ / - $BW_{Channel}$
NOTE 1: MBW_{ACLR} is the single-channel ACLR measurement bandwidths specified in 6.5.2.4.1.	

Table 6.5A.2.4.1.1.5-3: General requirements for inter-band CA ACLR

	Power class 1	Power class 2	Power class 3
NR ACLR		31 - TT dB	30 - TT dB

Table 6.5A.2.4.1.1.5-4: NR ACLR measurement bandwidth for inter-band CA

NR channel bandwidth / NR ACLR measurement bandwidth												
	5 MHz	**10 MHz**	**15 MHz**	**20 MHz**	**25 MHz**	**30 MHz**	**40 MHz**	**50 MHz**	**60 MHz**	**80 MHz**	**90 MHz**	**100 MHz**
NR ACLR measurement bandwidth	4.515	9.375	14.235	19.095	23.955	28.815	38.895	48.615	58.35	78.15	88.23	98.31

Table 6.5A.2.4.1.1.5-5: Test Tolerance for NR ACLR

	f ≤ 3.0 GHz	3.0 GHz < f ≤ 6 GHz
BW ≤ 100 MHz	0.8 dB	0.8 dB

用于CA的一般UTRA频谱发射掩模限值在TS 38.521-1 [1]中的第6.5A.2.4.2.1.5节定义。

6.5A.2.4.2.1.5 Test requirement

The measured UE mean power in the channel bandwidth, derived in step 6, shall fulfil requirements in clause 6.2A.3.1 as appropriate, and if the measured adjacent channel power is greater than –50 dBm, then the measured UTRA ACLR for each CC, derived in step 9 and step 13, shall be higher than the limits in Table 6.5A.2.4.2.1.5-2.

Table 6.5A.2.4.2.1.5-1: Measurement bandwidth for NR carrier

	NR channel bandwidth / UTRA ACLR measurement bandwidth												
	5 MHz	10 MHz	15 MHz	20 MHz	25 MHz	30 MHz	40 MHz	50 MHz	60 MHz	70 MHz	80 MHz	90 MHz	100 MHz
NR channel measurement bandwidth (MHz)	4.515	9.375	14.235	19.095	23.955	28.815	38.895	48.615	58.35	68.07	78.15	88.23	98.31
UTRA channel Measurement bandwidth (MHz)	3.84												
1st Adjacent channel centre frequency offset	± 2.5 MHz from NR channel edge												
2nd Adjacent channel centre frequency offset	± 7.5 MHz from NR channel edge												

Table 6.5A.2.4.2.1.5-2: UTRA ACLR requirement

	Power class 3
$UTRA_{ACLR1}$	33 dB -TT
$UTRA_{ACLR2}$	36 dB - TT

Table 6.5A.2.4.2.1.5-3: Test Tolerance for UTRA ACLR

	f ≤ 3.0 GHz	3.0 GHz < f ≤ 6 GHz
BW ≤ 100 MHz	0.8 dB	0.8 dB

2.2A.2 CA的发射机杂散发射

CA的一般杂散发射限值在TS 38.521-1 [1]中的第6.5A.3.1.1.5节定义。

6.5A.3.1.1.5 Test requirement

This clause specifies the requirements for the specified NR band for Transmitter Spurious emissions requirement with frequency range as indicated in Table 6.5A.3.1.1.5-1. The test requirement of configurations for CA operating band including Band n41 also apply for the corresponding CA operating bands with Band n90 replacing Band n41.

Unless otherwise stated, the spurious emission limits apply for the frequency ranges that are more than Δf_{OOB} (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth. If for some frequency a spurious emission requirement

of individual component carrier overlaps with the spectrum emission mask or channel bandwidth of another component carrier then it does not apply.

The measured average power of spurious emission, derived in step 6, shall not exceed the described value in Table 6.5A.3.1.1.5-1.

Table 6.5A.3.1.1.5-1: General spurious emissions test requirements

Frequency Range	Maximum Level	Measurement Bandwidth	Notes
Test requirements for CA_n3A-n78A Configuration			
270 MHz ≤ f ≤ 380 MHz	–36 dBm+TT	100 kHz	
1 515 MHz ≤ f ≤ 2 090 MHz 3 270 MHz ≤ f ≤ 3 830 MHz 4 815 MHz ≤ f ≤ 5 890 MHz 6 720 MHz ≤ f ≤ 7 370 MHz 8 310 MHz ≤ f ≤ 9 385 MHz	–30 dBm+TT	1 MHz	
Test requirements for CA_n8A-n78A Configuration			
780 MHz ≤f ≤1 000 MHz	–36 dBm+TT	100 kHz	
1 000MHz £ f £ 1 015 MHz 1 470 MHz £ f £ 2 040 MHz 2 385 MHz ≤ f ≤ 2 920 MHz 3 290 MHz ≤ f ≤ 3 810 MHz 4 180 MHz ≤ f ≤ 4 715 MHz 5 060 MHz ≤ f ≤ 5 630 MHz 5 685 MHz ≤ f ≤ 6 720 MHz 7 480 MHz ≤ f ≤ 8 515 MHz	–30 dBm+TT	1 MHz	
Test requirements for CA_n24A-n41A Configuration			
563 MHz ≤ f ≤ 825 MHz 835.5 MHz ≤ f ≤ 1 000 MHz	–36 dBm+TT	100 kHz	
1 000 MHz ≤ f ≤ 1 063.5 MHz 3 331.5 MHz ≤ f ≤ 3 753.5 MHz 4 122.5 MHz ≤ f ≤ 4 350.5 MHz 5 749 MHz ≤ f ≤ 6 011 MHz 6 618.5 MHz ≤ f ≤ 7 040.5 MHz	–25 dBm+TT	1 MHz	
Test requirements for CA_n24A-n48A Configuration			
229 MHz ≤ f ≤ 447 MHz	–36 dBm+TT	100 kHz	
1 889.5 MHz ≤ f ≤ 2 073.5 MHz 5 176.5 MHz ≤ f ≤ 5 360.5 MHz 5 439.5 MHz ≤ f ≤ 5 773.5 MHz 6 803 MHz ≤ f ≤ 7 021 MHz 8 726.5 MHz ≤ f ≤ 9 060.5 MHz	–30 dBm+TT	1 MHz	
Test requirements for CA_n24A-n77A Configuration			
21 MHz ≤ f < 30 MHz	–36 dBm+TT	10 kHz	
30 MHz ≤ f < 947 MHz	–36 dBm+TT	100 kHz	
1 639.5 MHz ≤ f ≤ 2 573.5 MHz 4 926.5 MHz ≤ f ≤ 7 521 MHz 8 226.5 MHz ≤ f ≤ 10 060.5 MHz	–30 dBm+TT	1 MHz	
Test requirements for CA_n28A-n41A Configuration			

1 000MHz ≤ f ≤ 1 284 MHz 1 748MHz ≤ f ≤ 1 987 MHz 3 199MHz ≤ f ≤ 3 438 MHz 3 902MHz ≤ f ≤ 4 186 MHz 4 244MHz ≤ f ≤ 4 677 MHz 5 695MHz ≤ f ≤ 6 128MHz	–25 dBm+TT	1MHz	
Test requirements for CA_n41A-n79A Configuration			
8 MHz ≤ f ≤ 30 MHz	–36 dBm+TT	10kHz	
30 MHz ≤ f ≤ 980 MHz	–36 dBm+TT	100kHz	
1 710MHz ≤ f ≤ 2 504MHz	–30 dBm+TT	1MHz	
6 110MHz ≤ f ≤ 7 690MHz			
9 392MHz ≤ f ≤ 10 380MHz			
11 296MHz ≤ f ≤ 12 690MHz			

Table 6.5A.3.1.1.5-2: Test Tolerance for General spurious emissions

	f ≤ 3.0 GHz	**3.0 GHz < f ≤ 6 GHz**
BW ≤ 40 MHz	0	0
40MHz < BW ≤ 100 MHz	0	0

用于UE共存的杂散发射CA限值在TS 38.521-1 [1]中的第6.5A.3.2.1.5节定义。

6.5A.3.2.1.5 Test requirement

Test requirements for Spurious Emissions UE Co-existence are the same as the minimum requirements. The measured average power of spurious emission, derived in step 6, shall not exceed the described value in Tables 6.5A.3.2.1.5-1, 6.5A.3.2.1.5-1a (Rel-16) and 6.5A.3.2.1.5-1 (Rel-17). The test requirement of configurations for CA operating band including Band n41 also apply for the corresponding CA operating bands with Band n90 replacing Band n41.

Table 6.5A.3.2.1.5-1: Requirements for uplink inter-band carrier aggregation (two bands) Rel-15

NR CA Configuration	**Spurious emission**						
	Protected Band	**Frequency range (MHz)**			**Maximum Level (dBm)**	**MBW (MHz)**	**NOTE**
CA_n1-n28	E-UTRA Band 5, 7, 8, 18, 19, 20, 26, 27, 31, 38, 40, 41, 72, 73 NR band n79	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	E-UTRA Band 1, 22, 32, 42, 43, 50, 51, 52, 65, 74, 75, 76 NR band n77, n78	F_{DL_low}	-	F_{DL_high}	-50+TT	1	2
	E-UTRA Band 3, 34	F_{DL_low}	-	F_{DL_high}	-50+TT	1	4
	E-UTRA Band 11, 21	F_{DL_low}	-	F_{DL_high}	-50+TT	1	11, 12
	E-UTRA Band 1, 65	F_{DL_low}	-	F_{DL_high}	-50+TT	1	11, 15
	Frequency range	470	-	694	-42+TT	8	4, 14
	Frequency range	470	-	710	-26.2+TT	6	15
	Frequency range	758	-	773	-30+TT	1	4
	Frequency range	773	-	803	-50+TT	1	
	Frequency range	662	-	694	-26.2+TT	6	4
	Frequency range	1 880	-	1 895	-40+TT	1	4, 6
	Frequency range	1 895	-	1 915	-15.5+TT	5	4, 6, 7
	Frequency range	1 915	-	1 920	+1.6+TT	5	4, 6, 7

CA_n1-n40	E-UTRA Band 1, 5, 7, 8, 11, 18, 19, 20, 21, 22, 26, 27, 28, 31, 32, 38, 41, 42, 43, 44, 45, 50, 51, 52, 65, 67, 68, 69, 72, 73, 74, 75, 76 NR band n78	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	Band 3, 34	F_{DL_low}	-	F_{DL_high}	-50+TT	1	4
	NR band n77, n79	F_{DL_low}	-	F_{DL_high}	-50+TT	1	2
	Frequency range	1 880		1 895	-40+TT	1	4, 14
	Frequency range	1 895		1 915	-15.5+TT	5	4, 7, 14
	Frequency range	1 915		1 920	+1.6+TT	5	4, 7, 14
	Frequency range	1 884.5	-	1 915.7	-41+TT	0.3	3
CA_n1-n78	E-UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 20, 21, 26, 28, 34, 40, 41, 65, 74	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	Frequency range	1 880	-	1 895	-40+TT	1	4, 6
	Frequency range	1 895	-	1 915	-15.5+TT	5	4, 6, 7
	Frequency range	1 915	-	1 920	+1.6+TT	5	4, 6, 7
CA_n1-n79	E-UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 21, 26, 28, 34, 40, 41, 42, 65, 74	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	Frequency range	1 880	-	1 895	-40+TT	1	4, 6
	Frequency range	1 895	-	1 915	-15.5+TT	5	4, 6, 7
	Frequency range	1 915	-	1 920	+1.6+TT	5	4, 6, 7
CA_n3-n28	E-UTRA Band 5, 7, 8, 18, 19, 20, 26, 27, 31 38, 40, 41, 72	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	E-UTRA Band 32, 42, 43, 50, 51, 74, 75, 76 NR band n77, n78, n79	F_{DL_low}	-	F_{DL_high}	-50+TT	1	2
	E-UTRA Band 3, 34	F_{DL_low}	-	F_{DL_high}	-50+TT	1	4
	E-UTRA Band 11, 21	F_{DL_low}	-	F_{DL_high}	-50+TT	1	11, 12
	E-UTRA Band 1, 65	F_{DL_low}	-	F_{DL_high}	-50+TT	1	11, 15
	Frequency range	470	-	694	-42+TT	8	4, 14
	Frequency range	470	-	710	-26.2+TT	6	15
	Frequency range	758	-	773	-30+TT	1	4
	Frequency range	773	-	803	-50+TT	1	
	Frequency range	662	-	694	-26.2+TT	6	4
	Frequency range	1 880	-	1 895	-40+TT	1	4, 6
	Frequency range	1 895	-	1 915	-15.5+TT	5	4, 6, 7
	Frequency range	1 915	-	1 920	+1.6+TT	5	4, 6, 7
	Frequency range	1 839.9	-	1 879.9	-50+TT	1	4
	Frequency range	1 884.5	-	1 915.7	-41+TT	0.3	3, 11
CA_n3-n40	E-UTRA Band 1, 5, 7, 8, 11, 18, 19, 20, 21, 26, 27, 28, 31, 32, 33, 34, 38, 39, 41, 43, 44. 45, 50, 51, 65, 67, 68, 69, 72, 73, 74, 75, 76	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	E-UTRA Band 3	F_{DL_low}	-	F_{DL_high}	-50+TT	1	4
	UTRA Band 22, 42, 52 NR Band n77, n78, n79	F_{DL_low}	-	F_{DL_high}	-50+TT	1	2
	Frequency range	1884.5	-	1915.7	-41+TT	0.3	3
CA_n3-n78	E-UTRA Band 3, 34, 39	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	Frequency range	1 884.5	-	1 915.7	-41+TT	0.3	3
CA_n8-n78	E-UTRA Band 8, 20, 28, 34, 39, 40	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	E-UTRA Band 3, 7,41	F_{DL_low}	-	F_{DL_high}	-50+TT	1	2
	Frequency range	1 884.5	-	1 915.7	-41+TT	0.3	3
CA_n40-n78	UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 20, 21, 26, 27, 28, 31, 32, 33, 34, 38, 39, 41, 44, 45, 50, 51, 65, 67, 68, 69, 72, 73, 74, 75, 76	F_{DL_low}	-	F_{DL_high}	-50+TT	1	

	NR Band n79	F_{DL_low}	-	F_{DL_high}	-50+TT	1	2
	Frequency range	1 884.5	-	1 915.7	-41+TT	0.3	3
CA_n40-n79	E-UTRA Band 1, 3, 5, 8, 11, 18, 19, 21, 26, 28, 34, 39, 41, 42, 65, 74, NR band n78	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	Frequency range	1 884.5	-	1 915.7	-41+TT	0.3	3
CA_n78-n79	E-UTRA Band 1, 3, 5, 8, 11, 18, 19, 21, 28, 34, 40, 41, 65, 74	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	Frequency range	1 884.5	-	1 915.7	-41+TT	0.3	3

NOTE 1: FDL_low and FDL_high refer to each frequency band specified in Table 5.2-1 or Table 5.5-1 in TS 36.101

NOTE 2: As exceptions, measurements with a level up to the applicable requirements defined in Table 6.5.3.1-2 are permitted for each assigned NR carrier used in the measurement due to 2nd, 3rd, 4th or 5th harmonic spurious emissions. Due to spreading of the harmonic emission the exception is also allowed for the first 1 MHz frequency range immediately outside the harmonic emission on both sides of the harmonic emission. This results in an overall exception interval centred at the harmonic emission of (2 MHz + N x LCRB x 180 kHz), where N is 2, 3, 4, 5 for the 2nd, 3rd, 4th or 5th harmonic respectively. The exception is allowed if the measurement bandwidth (MBW) totally or partially overlaps the overall exception interval.

NOTE 3: Applicable when co-existence with PHS system operating in 1 884.5-1 915.7MHz

NOTE 4: These requirements also apply for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1-1 and Table 6.5A.3.1-1 from the edge of the channel bandwidth.

Table 6.5A.3.2.1.5-1a: Requirements for uplink inter-band carrier aggregation (two bands) Rel-16

NR CA Configuration	Spurious emission						
	Protected Band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
CA_n1-n28	E-UTRA Band 5, 7, 8, 18, 19, 20, 26, 27, 31, 38, 40, 41, 72, 73 NR band n79	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	E-UTRA Band 1, 22, 32, 42, 43, 50, 51, 52, 65, 74, 75, 76 NR band n77, n78	F_{DL_low}	-	F_{DL_high}	-50+TT	1	2
	E-UTRA Band 3, 34	F_{DL_low}	-	F_{DL_high}	-50+TT	1	4
	E-UTRA Band 11, 21	F_{DL_low}	-	F_{DL_high}	-50+TT	1	11, 12
	E-UTRA Band 1, 65	F_{DL_low}	-	F_{DL_high}	-50+TT	1	11, 15
	Frequency range	470	-	694	-42+TT	8	4, 14
	Frequency range	470	-	710	-26.2+TT	6	15
	Frequency range	758	-	773	-30+TT	1	4
	Frequency range	773	-	803	-50+TT	1	
	Frequency range	662	-	694	-26.2+TT	6	4
	Frequency range	1 880	-	1 895	-40+TT	1	4, 6
	Frequency range	1 895	-	1 915	-15.5+TT	5	4, 6, 7
	Frequency range	1 915	-	1 920	+1.6+TT	5	4, 6, 7
CA_n1-n40	E-UTRA Band 1, 5, 7, 8, 11, 18, 19, 20, 21, 22, 26, 27, 28, 31, 32, 38, 41, 42, 43, 44, 45, 50, 51, 52, 65, 67, 68, 69, 72, 73, 74, 75, 76 NR band n78	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	Band 3, 34	F_{DL_low}	-	F_{DL_high}	-50+TT	1	4
	NR band n77, n79	F_{DL_low}	-	F_{DL_high}	-50+TT	1	2
	Frequency range	1 880		1 895	-40+TT	1	4, 14
	Frequency range	1 895		1 915	-15.5+TT	5	4, 7, 14
	Frequency range	1 915		1 920	+1.6+TT	5	4, 7, 14
	Frequency range	1 884.5	-	1 915.7	-41+TT	0.3	3
CA_n1-n78	E-UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 20, 21, 26, 28, 34, 40, 41, 65, 74	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	Frequency range	1 880	-	1 895	-40+TT	1	4, 6

	Frequency range	1 895	-	1 915	-15.5+TT	5	4, 6, 7
	Frequency range	1 915	-	1 920	+1.6+TT	5	4, 6, 7
CA_n1-n79	E-UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 21, 26, 28, 34, 40, 41, 42, 65, 74	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	Frequency range	1 880	-	1 895	-40+TT	1	4, 6
	Frequency range	1 895	-	1 915	-15.5+TT	5	4, 6, 7
	Frequency range	1 915	-	1 920	+1.6+TT	5	4, 6, 7
CA_n3-n40	E-UTRA Band 1, 5, 7, 8, 11, 18, 19, 20, 21, 26, 27, 28, 31, 32, 33, 34, 38, 39, 41, 43, 44. 45, 50, 51, 65, 67, 68, 69, 72, 73, 74, 75, 76	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 3	F_{DL_low}	-	F_{DL_high}	-50	1	4
	UTRA Band 22, 42, 52 NR Band n77, n78, n79	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	1 884.5	-	1 915.7	-41	0.3	3
CA_n3-n78	E-UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 20, 21, 26, 28, 34, 39, 40, 41, 65, 74	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	Frequency range	1 884.5	-	1 915.7	-41+TT	0.3	3
CA_n5-n77	E-UTRA Band 1, 2, 3, 4, 8, 11, 12, 13, 14, 17, 18, 19, 21, 25, 26, 28, 29, 30, 34, 40, 65, 66, 70, 71, 74	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 41	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	1 884.5	-	1 915.7	-41	0.3	3
CA_n8-n39	E-UTRA Band 1, 34, 40, 50, 51, 74	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	E-UTRA Band 22, 41, 42 NR Band n77, n78, n79	F_{DL_low}	-	F_{DL_high}	-50+TT	1	2
	E-UTRA Band 8	F_{DL_low}	-	F_{DL_high}	-50+TT	1	4
CA_n8-n40	E-UTRA Bands 1, 5, 11, 18, 19, 20, 21, 26, 28, 31, 32, 33, 34, 38, 39, 45, 50, 51, 65, 67, 68, 69, 72, 73, 74, 75, 76	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Bands 3, 7, 22, 41, 42, 43, 52 NR Bands n77, n78, n79	F_{DL_low}	-	F_{DL_high}	-50	1	2
	E-UTRA Band 8	F_{DL_low}	-	F_{DL_high}	-50	1	4
	Frequency range	1 884.5	-	1 915.7	-41	0.3	3
CA_n8-n78	E-UTRA Band 1, 8, 11, 20, 21, 28, 34, 39, 40, 65, 74	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	E-UTRA Band 3, 7,41	F_{DL_low}	-	F_{DL_high}	-50+TT	1	2
	Frequency range	1 884.5	-	1 915.7	-41+TT	0.3	3
CA_n28-n40	E-UTRA Band 1, 3, 5, 7, 8, 18, 19, 20, 26, 27, 28, 31, 34, 38, 41, 72	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 11, 21, 22, 32, 42, 43, 50, 51, 52, 65, 73, 74, 75, 76 NR band n77, n78, n79	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	1 884.5	-	1 915.7	-41	0.3	3
CA_n28-n41	E-UTRA Band 2, 3, 5, 8, 25, 26, 27, 34	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 4, 42, 50, 51, 52, 65, 66, 73, 74 NR Band n77, n78, n79	F_{DL_low}	-	F_{DL_high}	-50	1	2
	E-UTRA Band 18, 19	FDL_low	-	FDL_high	-50	1	11
	E-UTRA Band 1	F_{DL_low}	-	F_{DL_high}	-50	1	11, 15
	E-UTRA Band 11, 21	F_{DL_low}	-	F_{DL_high}	-50	1	11, 12
	Frequency range	470	-	694	-42	8	4, 14

	Frequency range	470	-	710	-26.2	6	13
	Frequency range	662	-	694	-26.2	6	4
	Frequency range	758	-	773	-32	1	4
	Frequency range	773	-	803	-50	1	
	Frequency range	1 884.5	-	1 915.7	-41	0.3	3, 11
CA_n39-n40	E-UTRA Band 1, 8, 22, 26, 28, 34, 41, 42, 44, 45, 50, 51, 52, 73, 74	F_{DL_low}	-	F_{DL_high}	-50	1	
	NR Band n77, n78, n79	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	1 805		1 855	-40	1	8
	Frequency range	1 855		1 880	-15.5	5	4, 7, 8
CA_n39-n41	E-UTRA Band 1, 8, 26, 28, 34, 40, 42, 44, 45, 50, 51, 74	F_{DL_low}	-	F_{DL_high}	-50	1	
	NR Band n77, n78, n79	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	1 805	-	1 855	-40	1	4
	Frequency range	1 855	-	1 880	-15.5	5	4, 7, 8
CA_n39-n79	E-UTRA Band 1, 8, 28, 34, 40, 41, 44, 45	F_{DL_low}	-	F_{DL_high}	-50	1	
	NR Band n78	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	1 805	-	1 855	-40	1	4, 8
	Frequency range	1 855	-	1 880	-15.5	5	4, 7, 8
CA_n40-n41	E-UTRA Band 1, 3, 5, 8, 11, 18, 19, 21, 26, 27, 28, 34, 39, 42, 44, 45, 50, 51, 65, 73, 74, NR Band n77, n78	F_{DL_low}	-	F_{DL_high}	-50	1	
	NR Band n79	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	1 884.5	-	1 915.7	-41	0.3	3
CA_n40-n78	UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 20, 21, 26, 27, 28, 31, 32, 33, 34, 38, 39, 41, 44, 45, 50, 51, 65, 67, 68, 69, 72, 73, 74, 75, 76	F_{DL_low}	-	F_{DL_high}	-50	1	
	NR Band n79	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	1 884.5	-	1 915.7	-41	0.3	3
CA_n40-n79	E-UTRA Band 1, 3, 5, 8, 11, 18, 19, 21, 26, 28, 34, 39, 41, 42, 65, 74, NR band n78	F_{DL_low}	-	F_{DL_high}	-50	1	
	Frequency range	1 884.5	-	1 915.7	-41	0.3	3
CA_n41-n79	E-UTRA Band 1, 3, 5, 8, 11, 18, 19, 21, 28, 34, 42, 44, 45, 65	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 40	F_{DL_low}	-	F_{DL_high}	-40	1	
	Frequency range	1 884.5	-	1 915.7	-41	0.3	3
CA_n48-n66	E-UTRA Band 2, 4, 5, 7, 12, 13, 14, 17, 24, 25, 26, 27, 29, 30, 41, 50, 51, 66, 70, 71, 74, 85	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
CA_n66-n71	E-UTRA Band 4, 5, 12, 13, 14, 17, 26, 27, 30, 43, 50, 51, 53, 66, 74, 85	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	E-UTRA Band 2, 25, 41, 42, 48, 70 NR Band n77	F_{DL_low}	-	F_{DL_high}	-50+TT	1	2
	E-UTRA Band 29	F_{DL_low}	-	F_{DL_high}	-38+TT	1	4
	E-UTRA Band 71	F_{DL_low}	-	F_{DL_high}	-50+TT	1	4
CA_n70-n71	E-UTRA Band 4, 5, 12, 13, 14, 17, 26, 27, 30, 48, 66, 74, 85	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	E-UTRA Band 2, 7, 25, 41, 70,	F_{DL_low}	-	F_{DL_high}	-50+TT	1	2

	NR Band n77						
	E-UTRA Band 29	F_{DL_low}	-	F_{DL_high}	-38+TT	1	4
	E-UTRA Band 71	F_{DL_low}	-	F_{DL_high}	-38+TT	1	4

NOTE 1: FDL_low and FDL_high refer to each frequency band specified in Table 5.2-1 or Table 5.5-1 in TS 36.101

NOTE 2: As exceptions, measurements with a level up to the applicable requirements defined in Table 6.5.3.1-2 are permitted for each assigned NR carrier used in the measurement due to 2nd, 3rd, 4th or 5th harmonic spurious emissions. Due to spreading of the harmonic emission the exception is also allowed for the first 1 MHz frequency range immediately outside the harmonic emission on both sides of the harmonic emission. This results in an overall exception interval centred at the harmonic emission of (2 MHz + N x LCRB x 180 kHz), where N is 2, 3, 4, 5 for the 2nd, 3rd, 4th or 5th harmonic respectively. The exception is allowed if the measurement bandwidth (MBW) totally or partially overlaps the overall exception interval.

NOTE 3: Applicable when co-existence with PHS system operating in 1 884.5-1 915.7MHz.

NOTE 4: These requirements also apply for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1-1 and Table 6.5A.3.1-1 from the edge of the channel bandwidth.

NOTE 5: This requirement is applicable only for the following cases: - for carriers of 5 MHz channel bandwidth when carrier centre frequency (Fc) is within the range 902.5 MHz ≤ Fc < 907.5 MHz with an uplink transmission bandwidth less than or equal to 20 RB - for carriers of 5 MHz channel bandwidth when carrier centre frequency (Fc) is within the range 907.5 MHz ≤ Fc ≤ 912.5 MHz without any restriction on uplink transmission bandwidth. - for carriers of 10 MHz channel bandwidth when carrier centre frequency (Fc) is Fc = 910 MHz with an uplink transmission bandwidth less than or equal to 32 RB with RBstart> 3.

NOTE 6: This requirement is applicable for any channel bandwidths within the range 1 920-1 980 MHz with the following restriction: for carriers of 15 MHz bandwidth when carrier centre frequency is within the range 1 927.5-1 929.5 MHz and for carriers of 20 MHz bandwidth when carrier centre frequency is within the range 1 930-1 938 MHz the requirement is applicable only for an uplink transmission bandwidth less than or equal to 54 RB.

NOTE 7: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.

NOTE 8: This requirement is only applicable for carriers with bandwidth confined within 1 885-1 920 MHz (requirement for carriers with at least 1RB confined within 1 880-1 885 MHz is not specified). This requirement applies for an uplink transmission bandwidth less than or equal to 54 RB for carriers of 15 MHz bandwidth when carrier centre frequency is within the range 1 892.5-1 894.5 MHz and for carriers of 20 MHz bandwidth when carrier centre frequency is within the range 1 895-1 903 MHz.

NOTE 9: Void.

NOTE 10: Void.

NOTE 11: Applicable when the assigned NR carrier is confined within 718 MHz and 748 MHz and when the channel bandwidth used is 5 or 10 MHz.

NOTE 12: As exceptions, measurements with a level up to the applicable requirement of -38 dBm/MHz is permitted for each assigned NR carrier used in the measurement due to 2nd harmonic spurious emissions. An exception is allowed if there is at least one individual RB within the transmission bandwidth (see Figure 5.3.1-1) for which the 2nd harmonic totally or partially overlaps the measurement bandwidth (MBW).

NOTE 13: This requirement is applicable for 5 and 10 MHz NR channel bandwidth allocated within 718-728 MHz. For carriers of 10 MHz bandwidth, this requirement applies for an uplink transmission bandwidth less than or equal to 30 RB with RBstart > 1 and Rbstart < 48.

NOTE 14: This requirement is applicable in the case of a 10 MHz NR carrier confined within 703 MHz and 733 MHz, otherwise the requirement of -25 dBm with a measurement bandwidth of 8 MHz applies.

NOTE 15: As exceptions, measurements with a level up to the applicable requirement of -36 dBm/MHz is permitted for each assigned E-UTRA carrier used in the measurement due to 3rd harmonic spurious emissions. An exception is allowed if there is at least one individual RB within the transmission bandwidth (see Figure 5.6-1) for which the 3rd harmonic totally or partially overlaps the measurement bandwidth (MBW).

Table 6.5A.3.2.1.5-1b: Requirements for uplink inter-band carrier aggregation (two bands) Rel-17

NR CA Configuration	Spurious emission						
	Protected Band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
CA_n1-n78	E-UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 20, 21, 26, 28, 34, 40, 41, 65, 74	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	Frequency range	1 880	-	1 895	-40+TT	1	4, 6
	Frequency range	1 895	-	1 915	-15.5+TT	5	4, 6, 7
	Frequency range	1 915	-	1 920	+1.6+TT	5	4, 6, 7

CA_n1-n79	E-UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 21, 26, 28, 34, 40, 41, 42, 65, 74	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	Frequency range	1 880	-	1 895	-40+TT	1	4, 6
	Frequency range	1 895	-	1 915	-15.5+TT	5	4, 6, 7
	Frequency range	1 915	-	1 920	+1.6+TT	5	4, 6, 7
CA_n3-n78	E-UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 20, 21, 26, 28, 34, 39, 40, 41, 65, 74	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	Frequency range	1 884.5	-	1 915.7	-41+TT	0.3	3
CA_n8-n39	E-UTRA Band 1, 34, 40, 50, 51, 74	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	E-UTRA Band 22, 41, 42 NR Band n77, n78, n79	F_{DL_low}	-	F_{DL_high}	-50+TT	1	2
	E-UTRA Band 8	F_{DL_low}	-	F_{DL_high}	-50+TT	1	4
CA_n8-n78	E-UTRA Band 1, 8, 11, 20, 21, 28, 34, 39, 40, 65, 74	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	E-UTRA Band 3, 7,41	F_{DL_low}	-	F_{DL_high}	-50+TT	1	2
	Frequency range	1 884.5	-	1 915.7	-41+TT	0.3	3
CA_n24-n41	E-UTRA Band 2, 4, 5, 10, 12, 13, 14, 17, 25, 26, 29, 30, 48, 66, 70, 71, 85	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	NR Band n77	F_{DL_low}	-	F_{DL_high}	-50+TT	1	2
CA_n24-n48	E-UTRA Band 2, 4, 5, 10, 12, 13, 14, 17, 25, 26, 29, 30, 41, 66, 70, 71, 85	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
CA_n24-n77	E-UTRA Band 2, 4, 5, 10, 12, 13, 14, 17, 25, 26, 29, 30, 41, 66, 70, 71, 85	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
CA_n26-n66	E-UTRA Band 2, 4, 5, 10, 12, 13, 14, 17, 24, 25, 26, 29, 30, 43, 47, 50, 51, 66, 70, 71, 74, 85	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	E-UTRA Band 41, 42, 48, 53 NR band 77	F_{DL_low}	-	F_{DL_high}	-50+TT	1	2
	Frequency range	1 884.5	-	1 915.7	-41+TT	0.3	3
CA_n26-n70	E-UTRA Band 2, 5, 10, 12, 13, 14, 17, 24, 25, 29, 30, 48, 66, 70, 71, 85	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	E-UTRA Band 41, 53	F_{DL_low}	-	F_{DL_high}	-50+TT	1	2
	Frequency range	1 884.5	-	1 915.7	-41+TT	0.3	3
CA_n28-n41	E-UTRA Band 2, 3, 5, 8, 25, 26, 27, 34	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 4, 42, 50, 51, 52, 65, 66, 73, 74 NR Band n77, n78, n79	F_{DL_low}	-	F_{DL_high}	-50	1	2
	E-UTRA Band 18, 19	FDL_low	-	FDL_high	-50	1	11
	E-UTRA Band 1	F_{DL_low}	-	F_{DL_high}	-50	1	11, 15
	E-UTRA Band 11, 21	F_{DL_low}	-	F_{DL_high}	-50	1	11, 12
	Frequency range	470	-	694	-42	8	4, 14
	Frequency range	470	-	710	-26.2	6	13
	Frequency range	662	-	694	-26.2	6	4
	Frequency range	758	-	773	-32	1	4
	Frequency range	773	-	803	-50	1	
	Frequency range	1 884.5	-	1 915.7	-41	0.3	3, 11
CA_n39-n40	E-UTRA Band 1, 8, 22, 26, 28, 34, 41, 42, 44, 45, 50, 51, 52, 73, 74	F_{DL_low}	-	F_{DL_high}	-50	1	
	NR Band n77, n78, n79	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	1 805		1 855	-40	1	8
	Frequency range	1 855		1 880	-15.5	5	4, 7, 8

CA_n39-n41	E-UTRA Band 1, 8, 26, 28, 34, 40, 42, 44, 45, 50, 51, 74	F_{DL_low}	-	F_{DL_high}	-50	1	
	NR Band n77, n78, n79	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	1 805	-	1 855	-40	1	4
	Frequency range	1 855	-	1 880	-15.5	5	4, 7, 8
CA_n39-n79	E-UTRA Band 1, 8, 28, 34, 40, 41, 44, 45	F_{DL_low}	-	F_{DL_high}	-50	1	
	NR Band n78	F_{DL_low}	-	F_{DL_high}	-50	1	2
	Frequency range	1 805	-	1 855	-40	1	4, 8
	Frequency range	1 855	-	1 880	-15.5	5	4, 7, 8
CA_n41-n79	E-UTRA Band 1, 3, 5, 8, 11, 18, 19, 21, 28, 34, 42, 44, 45, 65	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 40	F_{DL_low}	-	F_{DL_high}	-40	1	
	Frequency range	1 884.5	-	1 915.7	-41	0.3	3
CA_n48-n66	E-UTRA Band 2, 4, 5, 7, 12, 13, 14, 17, 24, 25, 26, 27, 29, 30, 41, 50, 51, 66, 70, 71, 74, 85	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
CA_n48-n70	E-UTRA Band 2, 4, 5, 12, 13, 14, 17, 24, 25, 26, 29, 30, 66, 70, 71, 85	F_{DL_low}	-	F_{DL_high}	-50+TT	1	16
	E-UTRA Band 41	F_{DL_low}	-	F_{DL_high}	-50+TT	1	2, 16
CA_n48-n71	E-UTRA Band 4, 5, 12, 13, 14, 17, 24, 26, 30, 50, 51, 53, 66, 74, 85	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	E-UTRA Band 2, 25, 41, 70	F_{DL_low}	-	F_{DL_high}	-50+TT	1	2
	E-UTRA Band 29	F_{DL_low}	-	F_{DL_high}	-38+TT	1	15
	E-UTRA Band 71	F_{DL_low}	-	F_{DL_high}	-50+TT	1	15
CA_n66-n71	E-UTRA Band 4, 5, 12, 13, 14, 17, 26, 27, 30, 43, 50, 51, 53, 66, 74, 85	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	E-UTRA Band 2, 25, 41, 42, 48, 70 NR Band n77	F_{DL_low}	-	F_{DL_high}	-50+TT	1	2
	E-UTRA Band 29	F_{DL_low}	-	F_{DL_high}	-38+TT	1	4
	E-UTRA Band 71	F_{DL_low}	-	F_{DL_high}	-50+TT	1	4
CA_n70-n71	E-UTRA Band 4, 5, 12, 13, 14, 17, 26, 27, 30, 48, 66, 74, 85	F_{DL_low}	-	F_{DL_high}	-50+TT	1	
	E-UTRA Band 2, 7, 25, 41, 70, NR Band n77	F_{DL_low}	-	F_{DL_high}	-50+TT	1	2
	E-UTRA Band 29	F_{DL_low}	-	F_{DL_high}	-38+TT	1	4
	E-UTRA Band 71	F_{DL_low}	-	F_{DL_high}	-38+TT	1	4

NOTE 1: FDL_low and FDL_high refer to each frequency band specified in Table 5.2-1 or Table 5.5-1 in TS 36.101

NOTE 2: As exceptions, measurements with a level up to the applicable requirements defined in Table 6.5.3.1-2 are permitted for each assigned NR carrier used in the measurement due to 2nd, 3rd, 4th or 5th harmonic spurious emissions. Due to spreading of the harmonic emission the exception is also allowed for the first 1 MHz frequency range immediately outside the harmonic emission on both sides of the harmonic emission. This results in an overall exception interval centred at the harmonic emission of (2MHz + N x LCRB x 180kHz), where N is 2, 3, 4, 5 for the 2nd, 3rd, 4th or 5th harmonic respectively. The exception is allowed if the measurement bandwidth (MBW) totally or partially overlaps the overall exception interval.

NOTE 3: Applicable when co-existence with PHS system operating in 1 884.5 -1 915.7 MHz.

NOTE 4: These requirements also apply for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1-1 and Table 6.5A.3.1-1 from the edge of the channel bandwidth.

NOTE 5: This requirement is applicable only for the following cases: - for carriers of 5 MHz channel bandwidth when carrier centre frequency (Fc) is within the range 902.5 MHz ≤ Fc < 907.5 MHz with an uplink transmission bandwidth less than or equal to 20 RB - for carriers of 5 MHz channel bandwidth when carrier centre frequency (Fc) is within the range 907.5 MHz ≤ Fc ≤ 912.5 MHz without any restriction on uplink transmission bandwidth. - for carriers of 10 MHz channel bandwidth when carrier centre frequency (Fc) is Fc = 910 MHz with an uplink transmission bandwidth less than or equal to 32 RB with RBstart> 3.

NOTE 6: This requirement is applicable for any channel bandwidths within the range 1 920-1 980 MHz with the following restriction: for carriers of 15 MHz bandwidth when carrier centre frequency is within the range 1 927.5-1 929.5 MHz and for carriers of 20 MHz bandwidth when carrier centre frequency is within the range 1 930-1 938 MHz the requirement is applicable only for an uplink transmission bandwidth less than or equal to 54 RB.

NOTE 7: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.

NOTE 8: This requirement is only applicable for carriers with bandwidth confined within 1 885-1 920 MHz (requirement for carriers with at least 1RB confined within 1 880-1 885 MHz is not specified). This requirement applies for an uplink transmission bandwidth less than or equal to 54 RB for carriers of 15 MHz bandwidth when carrier centre frequency is within the range 1 892.5-1 894.5 MHz and for carriers of 20 MHz bandwidth when carrier centre frequency is within the range 1 895-1 903 MHz.

NOTE 9: Void.

NOTE 10: Void.

NOTE 11: Applicable when the assigned NR carrier is confined within 718 MHz and 748 MHz and when the channel bandwidth used is 5 or 10 MHz.

NOTE 12: As exceptions, measurements with a level up to the applicable requirement of –38 dBm/MHz is permitted for each assigned NR carrier used in the measurement due to 2nd harmonic spurious emissions. An exception is allowed if there is at least one individual RB within the transmission bandwidth (see Figure 5.3.1-1) for which the 2nd harmonic totally or partially overlaps the measurement bandwidth (MBW).

NOTE 13: This requirement is applicable for 5 and 10 MHz NR channel bandwidth allocated within 718-728 MHz. For carriers of 10 MHz bandwidth, this requirement applies for an uplink transmission bandwidth less than or equal to 30 RB with RBstart > 1 and Rbstart < 48.

NOTE 14: This requirement is applicable in the case of a 10 MHz NR carrier confined within 703 MHz and 733 MHz, otherwise the requirement of -25 dBm with a measurement bandwidth of 8 MHz applies.

NOTE 15: As exceptions, measurements with a level up to the applicable requirement of –36 dBm/MHz is permitted for each assigned E-UTRA carrier used in the measurement due to 3rd harmonic spurious emissions. An exception is allowed if there is at least one individual RB within the transmission bandwidth (see Figure 5.6-1) for which the 3rd harmonic totally or partially overlaps the measurement bandwidth (MBW).

NOTE 16: The same configuration applies to corresponding NR-DC configuration in Table 4.3.1.1.7.1-1 in [5]. If UE supporting NR-DC configuration do not support the corresponding CA configuration, NR-DC configuration is used in this test.

Table 6.5A.3.2.1.5-2: Test Tolerance for uplink inter-band carrier aggregation (two bands)

	f ≤ 3.0 GHz	3.0 GHz < f ≤ 6 GHz
BW ≤ 40 MHz	0	0
40MHz < BW ≤ 100 MHz	0	0

Unless otherwise stated, the spurious emission limits apply for the frequency ranges that are more than Δf_{OOB} (MHz) in Table 6.5.3.2.3-1 from the edge of the channel bandwidth. The spurious emission limits in Table 6.5.3.2.3-1 apply for all transmitter band configurations (NRB) and channel bandwidths for all CC combinations.

2.2B NR-DC的输出RF频谱发射

2.2B.1 NR-DC的频谱发射掩模

对于每个NR频段指配一个上行链路载波的频段间NR-DC，第2.2A.1.1节就相应频段间CA配置输出RF频谱发射做出的规定适用。

2.2B.2 NR-DC的相邻信道泄漏比

对于频段间双连接，第2.2A.1.3节中规定的相应频段间CA配置杂散发射适用。

2.2C SUL的RF频谱发射输出

2.2C.1 频谱发射掩模或SUL

用于SUL的频谱发射掩模限值在TS 38.521-1 [1]中的第6.5C.2.2.5节定义。

6.5C.2.2.5 Test requirement

The measured sum of the UE mean power in the channel bandwidth on the SUL carrier, derived in step 3, shall fulfil requirements in Tables 6.2C.4.5-1 as appropriate, and the power of any UE emission shall fulfil requirements in Table 6.5C.2.2.5-1.

Table 6.5C.2.2.5-1: NR General spectrum emission mask

Spectrum emission limit (dBm) / Channel bandwidth														
ΔfOOB (MHz)	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**25 MHz**	**30 MHz**	**40 MHz**	**50 MHz**	**60 MHz**	**70 MHz**	**80 MHz**	**90 MHz**	**100 MHz**	**Measurement bandwidth**
± 0-1	-13	-13	-13	-13	-13	-13	-13							1 % channel bandwidth
± 0-1								-24	-24	-24	-24	-24	-24	30 kHz
± 1-5	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	1 MHz
± 5-6	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	
± 6-10	-25													
± 10-15		-25												
± 15-20			-25											
± 20-25				-25										
± 25-30					-25									
± 30-35						-25								
± 35-40														
± 40-45							-25							
± 45-50														
± 50-55								-25						
± 55-60														
± 60-65									-25					
± 65-70														
± 70-75										-25				
± 75-80														
± 80-85											-25			
± 85-90														
± 90-95												-25		
±95-100														
±100-105													-25	

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.

Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5MHz and –0.5 MHz, respectively.

Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.

Note 4: TT = 1.5 dB for f ≤ 3 GHz, TT = 1.8 dB for 3 GHz < f ≤ 4.2 GHz, TT = 1.8 dB for 4.2 GHz < f ≤ 6.0 GHz.

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

2.2C.2 SUL的附加频谱发射掩模

SUL的附加频谱发射掩模限值在TS 38.521-1 [1]中的第6.5C.2.3.5节定义。

6.5C.2.3.5 Test requirement

6.5C.2.3.5.1 Test requirements (network signalling value "NS_03")

When "NS_03" is indicated in the cell:

- the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2C.5.5-1 for a NR UE.

and

- the power of any UE emission shall fulfil requirements in Table 6.5C.2.3.5-1, as applicable.

Table 6.5C.2.3.5-1: Additional requirements for "NS_03"

Spectrum emission limit (dBm)/ Channel bandwidth						
ΔfOOB (MHz)	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**40 MHz**	**Measurement bandwidth**
± 0-1	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	1 % of channel BW
± 1-6	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	1 MHz
± 6-10	-25+ TT	-13+ TT	-13 + TT	-13 + TT	-13 + TT	1 MHz
± 10-15		-25+ TT	-13 + TT	-13 + TT	-13 + TT	1 MHz
± 15-20			-25+ TT	-13 + TT	-13 + TT	1 MHz
± 20-25				-25+ TT	-13+ TT	1 MHz
± 25-40					-13+ TT	1 MHz
± 40-45					-25+ TT	1 MHz
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5.2.3.5-1.						

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

2.2C.3 SUL的相邻信道泄漏比

SUL的NR ACLR限值在TS 38.521-1 [1]中的第6.5C.2.4.1.5节定义。

6.5C.2.4.1.5 Test requirement

The measured UE mean power in the channel bandwidth on SUL carrier, derived in step 3, shall fulfil requirements in Clause 6.2C.4.5 as appropriate, and if the measured adjacent channel power is greater than –50 dBm then the measured NR ACLR, derived in step 6, shall be higher than the limits in Table 6.5C.2.4.1.5-1.

Table 6.5C.2.4.1.5-1: NR ACLR measurement bandwidth

NR channel bandwidth / NR ACLR measurement bandwidth												
	5 MHz	10 MHz	15 MHz	20 MHz	25 MHz	30 MHz	40 MHz	50 MHz	60 MHz	80 MHz	90 MHz	100 MHz
NR ACLR measurement bandwidth	4.515	9.375	14.235	19.095	23.955	28.815	38.895	48.615	58.35	78.15	88.23	98.31

Table 6.5C.2.4.1.5-2: NR ACLR requirement

	Power class 1	Power class 2	Power class 3
NR ACLR			30 + TT dB
NOTE 1: TT = 0.8 dB for f ≤ 4.0 GHz, TT = 1.0 dB for 4.0 GHz < f ≤ 6.0 GHz,			

用于SUL的UTRA ACLR限值在TS 38.521-1 [1]中的第6.5C.2.4.2.5节定义。

6.5C.2.4.2.5 Test requirement

UTRA ACLR requirement is applicable when signalled by the network with network signalling value indicated by the field *additionalSpectrumEmission*.

The measured UE mean total power in the channel bandwidth on SUL carrier, derived in step 3, shall fulfil requirements in Clause 6.2C.5.5 as appropriate, and if the measured adjacent channel power is greater than –50 dBm then the measured UTRA ACLR, derived in step 6, shall be higher than the limits in Table 6.5C.2.4.2.5-1.

Table 6.5C.2.4.2.5-1: NR ACLR requirement

	Power class 3
$UTRA_{ACLR1}$	33 dB - TT
$UTRA_{ACLR2}$	36 dB - TT
NOTE 1: TT = 0.8 dB	

2.2C.4 SUL的杂散发射

2.2C.4.1 SUL的一般杂散发射

SUL的一般杂散发射限值在TS 38.521-1 [1]中的第6.5C.3.1.5节定义。

6.5C.3.1.5 Test requirement

The measured average power of spurious emission on the SUL carrier, derived in step 3, shall not exceed the described value in Table 6.5C.3.1.5-1.

The spurious emission limits apply for the frequency ranges that are more than ΔfOOB (MHz) in Table 6.5.3.1.3-1from the edge of the channel bandwidth.

Table 6.5C.3.1.5-1: General spurious emissions test requirements

Frequency Range	Maximum Level	Measurement bandwidth	NOTE
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	
12.75 GHz ≤ f < 5th harmonic of the upper frequency edge of the UL operating band in GHz	–30 dBm	1 MHz	1
12.75 GHz < f < 26 GHz	–30 dBm	1 MHz	2
NOTE 1: Applies for Band that the upper frequency edge of the UL Band more than 2.69 GHz. NOTE 2: Applies for Band that the upper frequency edge of the UL Band more than 5.2 GHz.			

2.2C.4.2 SUL的杂散发射共存

SUL杂散发射共存限值在TS 38.521-1 [1]中的第6.5C.3.2.5节定义。

6.5C.3.2.5 Test requirement

Test requirements for Spurious Emissions UE Co-existence are the same as specified in clause 6.5.3.2.3.

The measured average power of spurious emission, derived in step 3, shall not exceed the described value in Table 6.5.3.2.3-1 to Table 6.5.3.2.3-3. If the UE support a band, which is not defined in the table corresponding UE's release, the requirements for this band are taken from the table of earliest release where requirements for this band are defined. This has been described in following Table 6.5C.3.2.5-1.

Table 6.5C.3.2.5-1: UE Requirements according to UE NR release and supported NR band

UE Requirements per release			
NR Band	**Rel-15**	**Rel-16**	**R17**
n80	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n81	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n82	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n83	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n84	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n86	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n89	Table 6.5.3.2.3-2	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n95	Table 6.5.3.2.3-2	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n97	Table 6.5.3.2.3-3	Table 6.5.3.2.3-3	Table 6.5.3.2.3-3
n98	Table 6.5.3.2.3-3	Table 6.5.3.2.3-3	Table 6.5.3.2.3-3
n99	Table 6.5.3.2.3-3	Table 6.5.3.2.3-3	Table 6.5.3.2.3-3

2.2C.4.3 SUL的附加杂散发射

附加杂散发射限值在第2.2.2.3节定义。

2.2D UL MIMO的射频频谱发射

2.2D.1 UL MIMO的带外发射

2.2D.1.1 UL MIMO的频谱发射掩模

UL-MIMO的频谱发射掩模要求在TS 38.521-1 [1]中的第6.5D.2.2.5节定义。

6.5D.2.2.5 Test requirement

The measured sum of the UE mean power in the channel bandwidth, derived in step 3, shall fulfill requirements in Tables 6.2D.2.5-1, 6.2D.2.5-2, 6.2D.2.5-2a and 6.2D.2.5-2b as appropriate, and the sum of power of any UE emission measured from both antennas in step 4 and step 5 shall fulfill requirements in Table 6.5D.2.2.5-1.

Table 6.5D.2.2.5-1: NR General spectrum emission mask

Spectrum emission limit (dBm) / Channel bandwidth														
Δf_{OOB} (MHz)	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**25 MHz**	**30 MHz**	**40 MHz**	**50 MHz**	**60 MHz**	**70 MHz**	**80 MHz**	**90 MHz**	**100 MHz**	**Measurement bandwidth**
± 0-1	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT							1 % channel bandwidth
± 0-1								-24 + TT	-24 + TT	-24 + TT	-24 + TT	-24 + TT	-24 + TT	30 kHz
± 1-5	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	1 MHz
± 5-6	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	
± 6-10	-25 + TT													
± 10-15		-25 + TT												
± 15-20			-25 + TT											
± 20-25				-25 + TT										
± 25-30					-25 + TT									
± 30-35						-25 + TT								
± 35-40														
± 40-45							-25 + TT							
± 45-50														
± 50-55								-25 + TT						
± 55-60														

± 60-65									-25 + TT				
± 65-70													
± 70-75										-25 + TT			
± 75-80													
± 80-85											-25 + TT		
± 85-90													
± 90-95												-25 + TT	
±95-100													
±100-105													-25 + TT

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5MHz and -0.5MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: TT = 1.5 dB for f ≤ 3 GHz, TT = 1.8 dB for 3 GHz < f ≤ 4.2GHz, TT = 1.8 dB for 4.2 GHz < f ≤ 6.0 GHz.

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

2.2D.1.2 UL MIMO的附加频谱发射掩模

UL-MIMO的附加频谱发射要求在TS 38.521-1 [1]中的第6.5D.2.3.5节定义。

6.5D.2.3.5 Test requirement

The measured sum of the UE mean power in the channel bandwidth, derived in step 3 shall fulfill the requirements as specified in clause 6.2D.3.5 for NS_35 and NS_04 as appropriate, and the sum of power of any UE emission measured from both antennas in step 4 shall fulfill requirements in Table 6.5D.2.3.5-1for NS_35 and Table 6.5D.2.3.5-3 for NS_04.

Table 6.5D.2.3.5-1: Additional requirements for "NS_35"

Spectrum emission limit (dBm) / Channel bandwidth					
Δf_{OOB} (MHz)	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth (unless otherwise stated)**
± 0-0.1	-15 + TT	-18 + TT	-20 + TT	-21 + TT	30 kHz
± 0.1-6	-13 + TT	-13 + TT	-13 + TT	-13 + TT	100 kHz
± 6-10	-25[1] + TT	-13 + TT	-13 + TT	-13 + TT	100 kHz
± 10-15		-25[1] + TT	-13 + TT	-13 + TT	100 kHz
± 15-20			-25[1] + TT	-13 + TT	100 kHz

± 20-25				-25 + TT	1 MHz
NOTE 1: The measurement bandwidth shall be 1 MHz; NOTE 2: TT for each frequency and channel bandwidth is specified in Table 6.5D.2.3.5-2					

Table 6.5D.2.3.5-2: Test Tolerance (Spectrum Emission Mask)

	f ≤ 3.0GHz	3.0GHz < f ≤ 4.2GHz	4.2GHz < f ≤ 6.0GHz
BW ≤ 100 MHz	1.5 dB	1.8 dB	1.8 dB

Table 6.5D.2.3.5-3: Additional requirements for "NS_04"

	Spectrum emission limit (dBm) / measurement bandwidth for each channel bandwidth									
Δf_{OOB} MHz	**10 MHz**	**15 MHz**	**20 MHz**	**40 MHz**	**50 MHz**	**60 MHz**	**80 MHz**	**90 MHz**	**100 MHz**	**Measurement bandwidth**
± 0 - 1	-10 + TT	-10 + TT	-10 + TT	-10 + TT						2 % channel bandwidth
					-10 + TT					1 MHz
± 1 - 5	-10 + TT									1 MHz
± 5 - X	-13 + TT									
± X - ($BW_{Channel}$ + 5 MHz)	-25 + TT									
NOTE 1: X is defined in Table 6.5D.2.3.5-3a for CP-OFDM NOTE 2: TT for each frequency and channel bandwidth is specified in Table 6.5D.2.3.5-2.										

Table 6.5D.2.3.5-3a: n41 maximum transmission bandwidths (MHz) for CP-OFDM

SCS (kHz)	**Channel bandwidths (MHz)**								
	10	**15**	**20**	**40**	**50**	**60**	**80**	**90**	**100**
15	9.36	14.22	19.08	38.88	48.6	N/A	N/A	N/A	N/A
30	8.64	13.68	18.36	38.16	47.88	58.32	78.12	88.02	98.28
60	7.92	12.96	17.28	36.72	46.8	56.88	77.04	87.12	97.20

Table 6.5D.2.3.5-4: Additional requirements for "NS_03 and NS_03U"

Δf_{OOB} MHz	**Channel bandwidth (MHz) / Spectrum emission limit (dBm)**							**Measurement bandwidth**
	5	**10**	**15**	**20**	**25**	**30**	**40**	
± 0-1	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	1 % of channel BW
± 1-6	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	1 MHz
± 6-10	-25 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	1 MHz
± 10-15		-25 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	1 MHz
± 15-20			-25 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	1 MHz
± 20-25				-25 + TT	-13 + TT	-13 + TT	-13 + TT	1 MHz
± 25-30					-25 + TT	-13 + TT	-13 + TT	1 MHz
± 30-35						-25 + TT	-13 + TT	1 MHz

± 35-40							-13 + TT	1 MHz
± 40-45							-25 + TT	1 MHz
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5.2.3.5-1.								

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

2.2D.1.3 UL MIMO的相邻信道泄漏比

UL-MIMO的NR ACLR要求在TS 38.521-1 [1]中的第6.5D.2.4.1.5节定义。

6.5D.2.4.1.5 Test requirement

The measured UE mean total power derived in step 3, shall fulfil requirements in Clause 6.2D.2.5 as appropriate, and if the measured adjacent channel power is greater than –50 dBm then the measured NR ACLR, derived in step 6 for each antenna connector, shall be higher than the limits in Table 6.5D.2.4.1.5-2.

Table 6.5D.2.4.1.5-1: Void

Table 6.5D.2.4.1.5-2: NR ACLR requirement

	Power class 1	Power class 2	Power class 3
NR ACLR		31 - TT dB	30 - TT dB
NOTE 1: TT = 0.8 dB			

UL-MIMO的UTRA ACLR要求在TS 38.521-1 [1]中的第6.5D.2.4.2.5节定义。

6.5D.2.4.2.5 Test requirement

UTRA ACLR requirement is applicable when signalled by the network with network signalling value indicated by the field *additionalSpectrumEmission*.

The measured UE mean total power in the channel bandwidth at all the antenna connectors, derived in step 3, shall fulfil requirements in Clause 6.2D.3.5 as appropriate, and if the measured adjacent channel power is greater than –50 dBm then the measured UTRA ACLR, derived in step 6 for each antenna connector, shall be higher than the limits in Table 6.5D.2.4.2.5-1.

Table 6.5D.2.4.2.5-1: UTRA ACLR requirement

	Power class 3
$UTRA_{ACLR1}$	33 dB - TT
$UTRA_{ACLR2}$	36 dB - TT
NOTE 1: TT = 0.8 dB	

2.2D.2 UL MIMO的杂散发射

2.2D.2.1 杂散发射要求

UL MIMO的一般杂散发射限值在TS 38.521-1 [1]中的第6.5D.3.1.5节定义。

6.5D.3.1.5 Test requirement

The measured average power of spurious emission at each antenna connector, derived in step 3, shall not exceed the described value in Table 6.5D.3.1.5-1.

The spurious emission limits apply for the frequency ranges that are more than ΔfOOB (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth.

Table 6.5D.3.1.5-1: General spurious emissions test requirements

Frequency Range	**Maximum Level**	**Measurement bandwidth**	**NOTE**
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	
12.75 GHz ≤ f < 5th harmonic of the upper frequency edge of the UL operating band in GHz	–30 dBm	1 MHz	1
12.75 GHz < f < 26 GHz	–30 dBm	1 MHz	2
NOTE 1: Applies for Band that the upper frequency edge of the UL Band more than 2.69 GHz. NOTE 2: Applies for Band that the upper frequency edge of the UL Band more than 5.2 GHz.			

UL MIMO Rel-16及更高版本的一般杂散发射限值在TS 38.521-1 [1]中的第6.5D.3_1.1.5节定义。

6.5D.3_1.1.5 Test requirement

The measured average power of spurious emission, derived in step 3 or step 4, shall not exceed the described value in Table 6.5D.3_1.1.5-1.

The spurious emission limits apply for the frequency ranges that are more than ΔfOOB (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth.

Table 6.5D.3_1.1.5-1: General spurious emissions test requirements

Frequency Range	Maximum Level	Measurement bandwidth	NOTE
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	
12.75 GHz ≤ f < 5th harmonic of the upper frequency edge of the UL operating band in GHz	–30 dBm	1 MHz	1
12.75 GHz < f < 26 GHz	–30 dBm	1 MHz	2
NOTE 1: Applies for Band that the upper frequency edge of the UL Band more than 2.69 GHz. NOTE 2: Applies for Band that the upper frequency edge of the UL Band more than 5.2 GHz.			

2.2D.2.2 UE共存的杂散发射

UL MIMO共存限值在第2.2.2.2节定义。

2.2D.2.3 附加杂散发射

第2.2.2.3节定义了不同NS值的UL MIMO附加杂散发射限值。

2.2E V2X的射频频谱发射

2.2E.1.1 V2X的频谱发射掩模

V2X的频谱发射掩模要求在TS 38.521-1 [1]中的第6.5E.2.2.1.5和6.5E.2.2.1D.5节定义。

6.5E.2.2.1.5 Test requirement

The measured UE mean power in the channel bandwidth, derived in step 4 of Subtest 1, step 5 of Subtest 2 and step 4 of Subtest 3, shall fulfil requirements in Table 6.2E.2.2.1.5-1 as appropriate, and the power of any UE emission shall fulfil requirements in Table 6.5E.2.2.1.5-1.

Table 6.5E.2.2.1.5-1: General NR spectrum emission mask for V2X / non-concurrent operation

	Spectrum emission limit (dBm) / Channel bandwidth												
Δf_{OOB} (MHz)	5 MHz	10 MHz	15 MHz	20 MHz	25 MHz	30 MHz	40 MHz	50 MHz	60 MHz	80 MHz	90 MHz	100 MHz	Measurement bandwidth
± 0-1	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT						1 % channel bandwidth
± 0-1								-24 + TT	-24 + TT	-24 + TT	-24 + TT	-24 + TT	30 kHz

± 1-5	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	1 MHz
± 5-6	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	
± 6-10	-25 + TT												
± 10-15		-25 + TT											
± 15-20			-25 + TT										
± 20-25				-25 + TT									
± 25-30					-25 + TT								
± 30-35						-25 + TT							
± 35-40													
± 40-45							-25 + TT						
± 45-50													
± 50-55								-25 + TT					
± 55-60													
± 60-65									-25 + TT				
± 65-80													
± 80-85										-25 + TT			
± 85-90													
± 90-95											-25 + TT		
± 95-100													
± 100-105												-25 + TT	

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and –0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: TT for each frequency and channel bandwidth is specified in Table 6.5E.2.2.1.5-2.

6.5E.2.2.1D.5 Test requirement

The measured sum of mean power of each antenna connector in the channel bandwidth, derived in step 2, shall fulfil requirements as appropriate, and the power of any UE emission at each antenna connector shall fulfil requirements in Table 6.5E.2.2.1D.5-1.

Table 6.5E.2.2.1D.5-1: General NR spectrum emission mask for V2X / non-concurrent operation / SL-MIMO

	Spectrum emission limit (dBm) / Channel bandwidth												
Δf_{OOB} (MHz)	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**25 MHz**	**30 MHz**	**40 MHz**	**50 MHz**	**60 MHz**	**80 MHz**	**90 MHz**	**100 MHz**	**Measurement bandwidth**
± 0-1	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT						1 % channel bandwidth
± 0-1								-24 + TT	-24 + TT	-24 + TT	-24 + TT	-24 + TT	30 kHz

± 1-5	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	
± 5-6	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	
± 6-10	-25 + TT												
± 10-15		-25 + TT											
± 15-20			-25 + TT										
± 20-25				-25 + TT									
± 25-30					-25 + TT								
± 30-35						-25 + TT							
± 35-40													
± 40-45							-25 + TT						
± 45-50													
± 50-55								-25 + TT					
± 55-60													
± 60-65									-25 + TT				
± 65-80													
± 80-85										-25 + TT			
± 85-90													
± 90-95											-25 + TT		
± 95-100													
± 100-105												-25 + TT	

Note 1: The first and last measurement position with a 30 kHz filter is at ΔfOOB equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and –0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: TT for each frequency and channel bandwidth is specified in Table 6.5E.2.2.5-2.

2.2E.1.2 V2X的附加频谱发射掩模

V2X的附加频谱发射要求在TS 38.521-1 [1]中的第6.5E.2.3.1.5和6.5E.2.3.1D.5节定义。

6.5E.2.3.1.5 Test requirement

6.5E.2.3.1.5.1 Requirements for network signalling value "NS_33"

When "NS_33" is indicated in the cell, the power of any NR V2X UE emission shall fulfil requirements in Table 6.5E.2.3.1.5.1-1.

Table 6.5E.2.3.1.5.1-1: Additional spectrum mask requirements for 10 MHz channel bandwidth

Spectrum emission limit (dBm EIRP)/ Channel bandwidth		
Δf_{OOB} (MHz)	**10 MHz**	**Measurement bandwidth**
± 0-0.5	$[-13 - 12\left(|\Delta fOOB|/_{MHz}\right)]$+TT	100 kHz

± 0.5-5	$[-19-\frac{16}{9}\left(\left\|\Delta fOOB\right\|/_{MHz}-0.5\right)]$+TT	100 kHz
± 5-10	$[-27-2\left(\left\|\Delta fOOB\right\|/_{MHz}-5.0\right)]$+TT	100 kHz
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5E.2.3.1.5-1.		

6.5E.2.3.1.5.2 Requirements for network signalling value "NS_52"

When "NS_52" is indicated in the cell, the power of any NR V2X UE emission shall fulfil requirements in Table 6.5E.2.3.1.5.2-1.

Table 6.5E.2.3.1.5.2-1: Additional spectrum mask requirements for 40MHz channel bandwidth (fc = 5 885 MHz)

Δf_{OOB} (MHz)	Emission Limit (dBm)	Measurement Bandwidth
±0-2	-32+TT	100kHz
±2-10	-36+TT	100kHz
±10-20	-38+TT	100kHz
±20-40	-43+TT	100kHz
±40-100	-50+TT	100kHz
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5E.2.3.1.5-1.		

6.5E.2.3.1D.5 Test requirement

6.5E.2.3.1D.5.1 Requirements for network signalling value "NS_33"

When "NS_33" is indicated in the cell, the power of any NR V2X UE emission at each antenna connector shall fulfil requirements in Table 6.5E.2.3.1D.5.1-1.

Table 6.5E.2.3.1D.5.1-1: Additional spectrum mask requirements for 10 MHz channel bandwidth

Spectrum emission limit (dBm EIRP)/ Channel bandwidth		
Δf_{OOB} (MHz)	10 MHz	Measurement bandwidth
± 0-0.5	$[-13-12\left(\left\|\Delta fOOB\right\|/_{MHz}\right)]$+TT	100 kHz
± 0.5-5	$[-19-\frac{16}{9}\left(\left\|\Delta fOOB\right\|/_{MHz}-0.5\right)]$+TT	100 kHz
± 5-10	$[-27-2\left(\left\|\Delta fOOB\right\|/_{MHz}-5.0\right)]$+TT	100 kHz
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5E.2.3.1D.5-1.		

6.5E.2.3.1D.5.2 Requirements for network signalling value "NS_52"

When "NS_52" is indicated in the cell, the power of any NR V2X UE emission at each antenna connector shall fulfil requirements in Table 6.5E.2.3.1D.5.2-1.

Table 6.5E.2.3.1D.5.2-1: Additional spectrum mask requirements for 40 MHz channel bandwidth (fc = 5 885 MHz)

Δf_{OOB} (MHz)	Emission Limit (dBm)	Measurement Bandwidth
±0-2	–32+TT	100 kHz
±2-10	–36+TT	100 kHz
±10-20	–38+TT	100 kHz
±20-40	–43+TT	100 kHz
±40-100	–50+TT	100 kHz
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5E.2.3.1D.5-1.		

2.2E.1.3 V2X的相邻信道泄漏比

V2X的ACLR要求在TS 38.521-1 [1]中的第6.5E.2.4.1.5和6.5E.2.4.1D.5节定义。

6.5E.2.4.1.5 Test requirement

The measured mean power of V2X UE in the channel bandwidth, derived in step 6 of Subtest 1, step 7 of Subtest 2 and step 6 of Subtest 3, shall fulfil requirements in clause 6.2E.2.1.5, and if the measured adjacent channel power is greater than –50 dBm then the measured NR ACLR, derived in step 5, shall be higher than the limits in Table 6.5E.2.4.1.5-2.

Table 6.5E.2.4.1.5-1: Measurement bandwidth

NR channel bandwidth / NR ACLR measurement bandwidth												
	5 MHz	10 MHz	15 MHz	20 MHz	25 MHz	30 MHz	40 MHz	50 MHz	60 MHz	80 MHz	90 MHz	100 MHz
NR ACLR measurement bandwidth	4.515	9.375	14.235	19.095	23.955	28.815	38.895	48.615	58.35	78.15	88.23	98.31

Table 6.5E.2.4.1.5-2: NR ACLR requirement for V2X / non-concurrent operation

	Power class 1	Power class 2	Power class 3
NR ACLR			30 - TT dB
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5E.2.4.1.5-3.			

6.5E.2.4.1D.5 Test requirement

The measured sum of mean power of V2X UE at both antenna connector in the channel bandwidth, derived in step 2, shall fulfil requirements in clause 6.2E.2.1D.5, and if the measured adjacent channel power is greater than –50 dBm then the measured NR ACLR for each antenna connector, derived in step 5, shall be higher than the limits in Table 6.5E.2.4.1D.5-2.

Table 6.5E.2.4.1D.5-1: Measurement bandwidth

NR channel bandwidth / NR ACLR measurement bandwidth												
	5 MHz	10 MHz	15 MHz	20 MHz	25 MHz	30 MHz	40 MHz	50 MHz	60 MHz	80 MHz	90 MHz	100 MHz
NR ACLR measurement bandwidth	4.515	9.375	14.235	19.095	23.955	28.815	38.895	48.615	58.35	78.15	88.23	98.31

Table 6.5E.2.4.1D.5-2: NR ACLR requirement for V2X / non-concurrent operation / SL-MIMO

	Power class 1	Power class 2	Power class 3
NR ACLR			30 - TT dB
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5E.2.4.1D.5-3.			

2.2E.2 V2X的杂散发射

2.2E.2.1 杂散发射要求

V2X的一般杂散发射限值在第2.2.2.1节定义。

2.2E.2.2 UE共存的杂散发射

V2X共存限值在第2.2.2.2节定义。

2.2E.2.3 附加杂散发射

TS 38.521-1 [1]中的第6.5E.3.3.1.5节为不同的NS值定义了V2X附加杂散发射限值。

6.5E.3.3.1.5 Test requirement

6.5E.3.3.1.5.1 Message contents exceptions (network signalling value "NS_33")

The transmitted spurious emission power derived in step 2 should be converted to EIRP value depend on the supported post antenna connector gain $G_{post\ connector}$ declared by the UE following the principle described in annex I in [11]. The EIPR value should not exceed test requirements in Table 6.5E.3.3.1.5.1-1.

Table 6.5E.3.3.1.5.1-1: Test requirements for "NS_33"

Protected band	Frequency range (MHz)			Maximum Level (EIRP[2])	MBW (MHz)
Frequency range	5 925	-	5 950	–30	1
Frequency range	5 815	-	5 855	–30	1

2.2F 共用频谱信道接入的射频频谱发射

2.2F.1.1 共用频谱信道接入的频谱发射掩模

UL-MIMO的频谱发射掩模要求在TS 38.521-1 [1]中的第6.5F.2.2.5节定义。

6.5F.2.2.5 Test requirement

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2F.1.5-1, and the power of any UE emission shall fulfil requirements in Table 6.5F.2.2.5-1.

Table 6.5F.2.2.5-1: Test Tolerance (Spectrum Emission Mask)

	f ≤ 3.0 GHz	3.0 GHz < f ≤ 4.2 GHz	4.2 GHz < f ≤ 6.0 GHz
BW ≤ 100 MHz	1.5 dB	1.8 dB	1.8 dB

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

2.2F.1.2 共用频谱信道接入的相邻信道泄漏比

共用频谱信道接入的ACLR要求在TS 38.521-1 [1]中的第6.5F.2.4.1.5节定义。

6.5F.2.4.1.5 Test requirement

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in clause 6.2F.2.5, and if the measured adjacent channel power is greater than –47 dBm then the measured NR ACLR, derived in step 6, shall be higher than the limits in Table 6.5F.2.4.1.5-2.

Table 6.5F.2.4.1.5-1: NR ACLR measurement bandwidth

	10 MHz	20 MHz	40 MHz	60 MHz	80 MHz
NR ACLR measurement bandwidth (MHz)	9.375	19.095	38.895	58.35	78.15

Table 6.5F.2.4.1.5-2: NR ACLR requirement

	Power class 5
NR ACLR	27 - TT dB
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5F.2.4.1.5-3.	

Table 6.5F.2.4.1.5-3: Test Tolerance (TT) (NR ACLR)

	f ≤ 3.0 GHz	3.0 GHz < f ≤ 4.2 GHz	4.2 GHz < f ≤ 5.925 GHz	5.925 GHz < f ≤ 7.125 GHz
BW ≤ 100 MHz	0.8 dB	0.8 dB	0.8 dB	0.8 dB

2.2F.2 共用频谱信道接入的杂散发射

2.2F.2.1 杂散发射要求

共用频谱信道接入的一般杂散发射限值在TS 38.521-1 [1]中的第6.5F.3.1.5节定义。

6.5F.3.1.5 Test requirement

This clause specifies the requirements for the specified NR standalone shared spectrum channel access for Transmitter Spurious emissions requirement with frequency range as indicated in Table 6.5F.3.1.5-1.

Unless otherwise stated, the spurious emission limits apply for the frequency ranges that are more than F_{OOB} (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth. The spurious emission limits in Table 6.5F.3.1.5-1 apply for all transmitter band configurations (NRB) and channel bandwidths for shared spectrum channel access.

The measured average power of spurious emission, derived in step 3, shall not exceed the described value in Table 6.5F.3.1.5-1.

Table 6.5F.3.1.5-1: General spurious emissions test requirements

Frequency Range	Maximum Level	Measurement bandwidth	NOTE
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	4
	–25 dBm	1 MHz	3
12.75 GHz ≤ f < 5th harmonic of the upper frequency edge of the UL operating band in GHz	–30 dBm	1 MHz	1
12.75 GHz < f < 26 GHz	–30 dBm	1 MHz	2
NOTE 1: Applies for Band that the upper frequency edge of the UL Band more than 2.69 GHz. NOTE 2: Applies for Band that the upper frequency edge of the UL Band more than 5.2 GHz.			

2.2F.2.2 UE共存的杂散发射

对于限制为独立操作模式的频段，无需适用针对UE共存场景规定的杂散发射要求。

2.2G 发射分集的射频频谱发射

2.2G.1.1 无效

2.2G.1.2 发射分集的相邻信道泄漏比

Tx分集的ACLR要求在TS 38.521-1 [1]中的第6.5G.2.3.1.5节定义。

6.5G.2.3.1.5 Test requirement

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in clause 6.2G.2.5 as appropriate, and if the measured adjacent channel power is greater than –50 dBm then the measured NR ACLR, derived in step 6, shall be higher than the limits in Table 6.5G.2.3.1.5-2 with TT applying for the sum of power at each of UE antenna connector.

Table 6.5G.2.3.1.5-1: NR ACLR measurement bandwidth

NR channel bandwidth / NR ACLR measurement bandwidth													
	5 MHz	10 MHz	15 MHz	20 MHz	25 MHz	30 MHz	40 MHz	50 MHz	60 MHz	70 MHz	80 MHz	90 MHz	100 MHz
NR ACLR measurement bandwidth (MHz)	4.515	9.375	14.235	19.095	23.955	28.815	38.895	48.615	58.35	68.07	78.15	88.23	98.31

Table 6.5G.2.3.1.5-2: NR ACLR requirement for Tx Diversity

	Power class 1.5	Power class 2
NR ACLR	31 - TT dB	31 - TT dB
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5G.2.3.1.5-3. NOTE 2: TT for the sum of power at each of UE antenna connector.		

Table 6.5G.2.3.1.5-3: Test Tolerance (NR ACLR)

	f ≤ 3.0GHz	3.0GHz < f ≤ 4.2GHz	4.2GHz < f ≤ 6.0GHz
BW ≤ 100 MHz	0.8 dB	0.8 dB	0.8 dB

3 NR频率范围2独立组网模式下的一般无用发射特性

3.1 操作频段和信道安排

在许多情况下，整个射频规范的要求是针对不同的频率范围（FR）分别定义的。表A1-6描述了NR可以根据本版本规范操作的频率范围。

表A1-6

频率范围的定义

频率范围名称	对应的频率范围*
FR1	410 MHz – 7 125 MHz
FR2	24 250 MHz – 52 600 MHz

* 《无线电规则》并未将这些范围内的频段全部确定用于IMT。

3.1.1 操作频段

NR的设计旨在支持在表3.1.1-1A和表3.1.1-1B规定的FR2频段内操作。

表A1-7

FR2中的NR操作频段

由NR使用并在《无线电规则》中为IMT确定的频段

操作频段 表 1	上行链路（UL）操作频段 BS接收 UE发射 表 2 $F_{UL_LOW} - F_{UL_HIGH}$	下行链路（DL）操作频段 BS发射 UE接收 表 3 $F_{DL_LOW} - F_{DL_HIGH}$	双工模式 表 4	为各国/各区域确定IMT频段或其中一部分的脚注 表 5
n258	24 250 MHz – 27 500 MHz	24 250 MHz – 27 500 MHz	TDD	**5.532AB**
n259	39 500 MHz – 43 500 MHz	39 500 MHz – 43 500 MHz	TDD	**5.550B**
n260	37 000 MHz – 40 000 MHz	37 000 MHz – 4 0000 MHz	TDD	**5.550B**

表A1-8

FR2中的NR操作频段

由NR使用但尚未或未完全确定用于《无线电规则》中IMT的频段

操作频段 表 1	上行链路（UL）操作频段 BS接收 UE发射 表 2 $F_{UL_LOW} - F_{UL_HIGH}$	下行链路（DL）操作频段 BS发射 UE接收 表 3 $F_{DL_LOW} - F_{DL_HIGH}$	双工模式 表 4	为各国/各区域确定IMT频段或其中一部分的脚注 表 5
n257	26 500 MHz – 29 500 MHz	26 500 MHz – 29 500 MHz	TDD	**5.532AB**
n261	27 500 MHz – 28 350 MHz	27 500 MHz – 28 350 MHz	TDD	在《无线电规则》中未确定用于IMT

CA的UE操作频段在TS 38.101-2 [3]中的第5.2A节定义。

5.2A Operating bands for CA

5.2A.1 Intra-band CA

NR intra-band contiguous and non-contiguous carrier aggregation is designed to operate in the operating bands defined in Table 5.2A.1-1, where all operating bands are within FR2.

Table 5.2A.1-1: Intra-band contiguous and non-contiguous CA operating bands in FR2

NR CA Band	NR Band (Table 5.2-1)
CA_n257	n257
CA_n258	n258
CA_n259	n259
CA_n260	n260
CA_n261	n261

5.2A.2 Inter-band CA

NR inter-band carrier aggregation is designed to operate in the operating bands defined in Table 5.2A.2-1, where all operating bands are within FR2.

Beam management type is according to UE capability declaration IE beamManagementType-r16 or beamManagementType-CBM-r17. The requirements in the following clauses are only applicable to inter-band CA with IBM type.

Table 5.2A.2-1: Inter-band CA operating bands in FR2

NR CA Band	NR Band (Table 5.2-1)
CA_n257-n259[1]	n257, n259
CA_n258-n260[1]	n258, n260
CA_n258-n261[1]	n258, n261
CA_n260-n261[1]	n260, n261
NOTE 1: The minimum requirements apply only when there is non-simultaneous Rx/Tx operation between inter-band NR carriers in the current version of this specification.	

UL MIMO的UE操作频段组合在TS 38.101-2 [3]中的第5.2D节定义。

5.2D Operating bands for UL MIMO

NR UL MIMO is designed to operate in the operating bands defined in Table 5.2D-1.

Table 5.2D-1: NR UL MIMO operating bands

UL MIMO operating band (Table 5.2-1)
n257
n258
n259
n260
n261
n262

3.1.2 UE信道带宽

不同NR频段的UE信道带宽在TS 38.101-2 [3]中的第5.3节定义。

5.3 UE Channel bandwidth

5.3.1 General

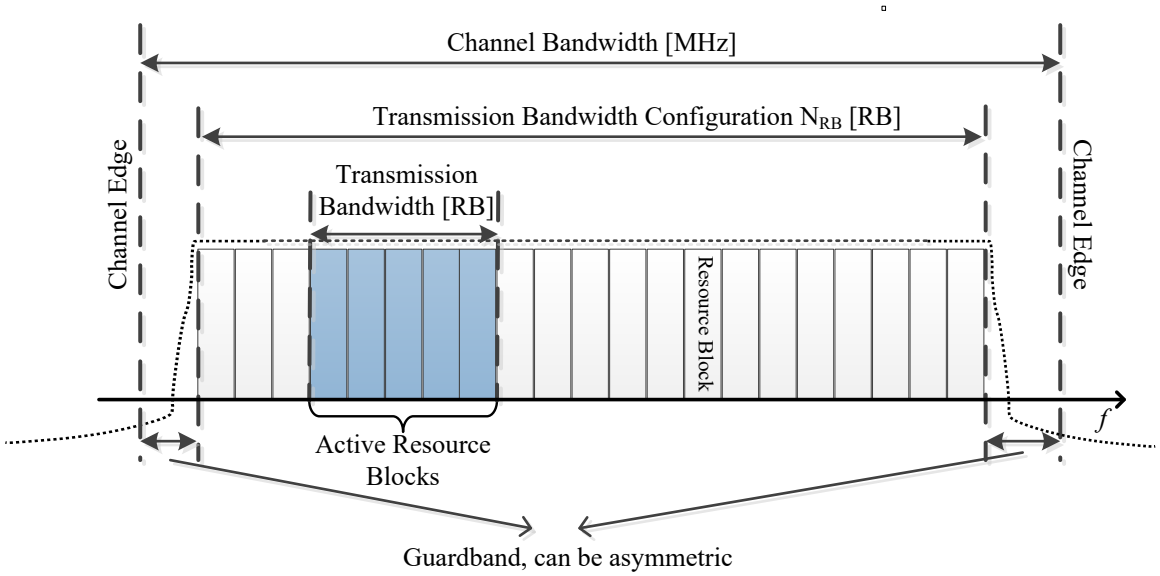
The UE channel bandwidth supports a single NR RF carrier in the uplink or downlink at the UE. From a BS perspective, different UE channel bandwidths may be supported within the same spectrum for transmitting to and receiving from UEs connected to the BS. Transmission of multiple carriers to the same UE (CA) or multiple carriers to different UEs within the BS channel bandwidth can be supported.

From a UE perspective, the UE is configured with one or more BWP / carriers, each with its own UE channel bandwidth. The UE does not need to be aware of the BS channel bandwidth or how the BS allocates bandwidth to different UEs.

The placement of the UE channel bandwidth for each UE carrier is flexible but can only be completely within the BS channel bandwidth.

The relationship between the channel bandwidth, the guardband and the transmission bandwidth configuration is shown in Figure 5.3.1-1.

Figure 5.3.1-1: Definition of channel bandwidth and transmission bandwidth configuration for one NR channel



5.3.2 Maximum transmission bandwidth configuration

The maximum transmission bandwidth configuration N_{RB} for each UE channel bandwidth and subcarrier spacing is specified in Table 5.3.2-1

Table 5.3.2-1: Maximum transmission bandwidth configuration N_{RB}

SCS (kHz)	50 MHz	100 MHz	200 MHz	400 MHz	800 MHz	1600 MHz	2000 MHz
	N_{RB}	N_{RB}	N_{RB}	N_{RB}	N_{RB}	N_{RB}	N_{RB}
60	66	132	264	N/A	N/A	N/A	N/A
120	32	66	132	264	N/A	N/A	N/A
480[1]	N/A	N/A	N/A	66	124	248	N/A
960[1]	N/A	N/A	N/A	33	62	124	148
Note 1: This SCS is optional in this release of the specification.							

5.3.3 Minimum guardband and transmission bandwidth configuration

The minimum guardband for each UE channel bandwidth and SCS is specified in Table 5.3.3-1.

Table 5.3.3-1: Minimum guardband for each UE channel bandwidth and SCS (kHz)

SCS (kHz)	50 MHz	100 MHz	200 MHz	400 MHz	800 MHz	1 600 MHz	2 000 MHz
60	1210	2450	4930	N/A	N/A	N/A	N/A
120	1900	2420	4900	9860	N/A	N/A	N/A
480	N/A	N/A	N/A	9680	42640	85520	N/A
960	N/A	N/A	N/A	9440	42400	85280	147040

NOTE: The minimum guardbands have been calculated using the following equation: ($BW_{Channel}$ x 1 000 (kHz) - N_{RB} x SCS x 12) / 2 - SCS/2, where N_{RB} are from Table 5.3.2-1.

The minimum guardband of receiving BS SCS 240 kHz SS/PBCH block for each UE channel bandwidth is specified in table 5.3.3-2 for FR2.

Table: 5.3.3-2: Minimum guardband (kHz) of SCS 240 kHz SS/PBCH block in FR2-1

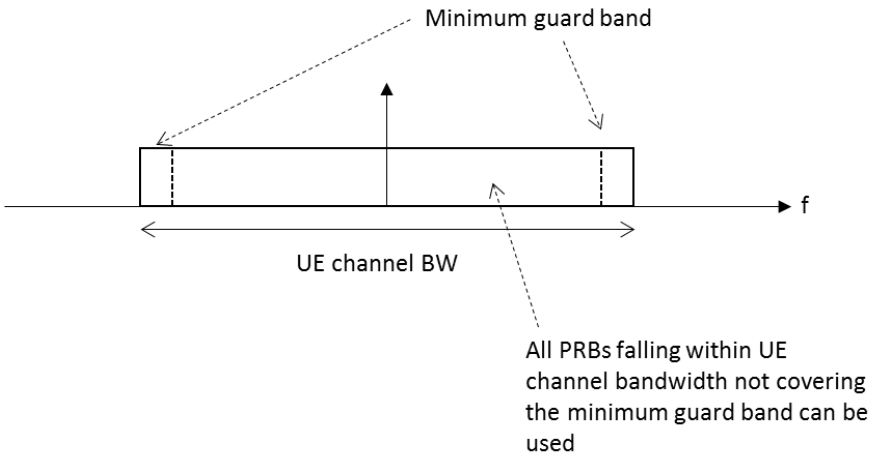
SCS (kHz)	100 MHz	200 MHz	400 MHz
240	3800	7720	15560

NOTE: In FR2-1, the minimum guardband in Table 5.3.3-2 is applicable only when the SCS 240 kHz SS/PBCH block is received adjacent to the edge of the UE channel bandwidth within which the SS/PBCH block is located.

Figure 5.3.3-1: Void

The number of RBs configured in any channel bandwidth shall ensure that the minimum guardband specified in this clause is met.

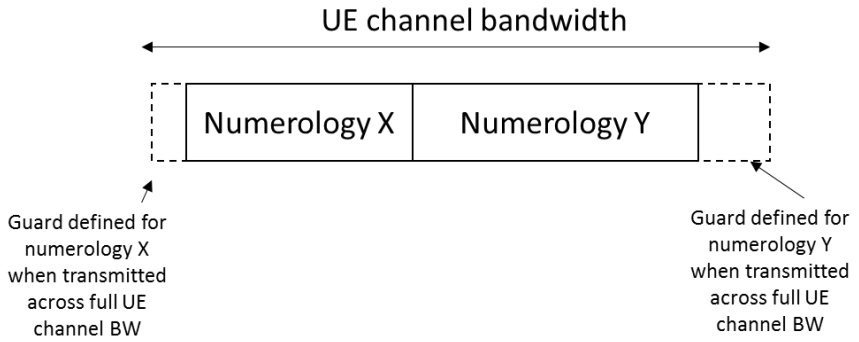
Figure 5.3.3-2 UE PRB utilization



In the case that multiple numerologies are multiplexed in the same symbol due to BS transmission of SSB, the minimum guardband on each side of the carrier is the guardband applied at the configured channel bandwidth for the numerology that is transmitted immediately adjacent to the guard band.

If multiple numerologies are multiplexed in the same symbol and the UE channel bandwidth is > 200 MHz, the minimum guardband applied adjacent to 60 kHz SCS shall be the same as the minimum guardband defined for 120 kHz SCS for the same UE channel bandwidth.

Figure 5.3.3-3 Guard band definition when transmitting multiple numerologies



Note: Figure 5.3.3-3 is not intended to imply the size of any guard between the two numerologies. Inter-numerology guard band within the carrier is implementation dependent.

5.3.4 RB alignment

For each numerology, its common resource blocks are specified in Clause 4.4.4.3 in [9], and the starting point of its transmission bandwidth configuration on the common resource block grid for a given channel bandwidth is indicated by an offset to "Reference point A" in the unit of the numerology. The *UE transmission bandwidth configuration* is indicated by the higher layer parameter *carrierBandwidth* [13] and will fulfil the minimum UE guardband requirement specified in Clause 5.3.3.

5.3.5 Channel bandwidth per operating band

The requirements in this specification apply to the combination of channel bandwidths, SCS and operating bands shown in Table 5.3.5-1. The transmission bandwidth configuration in Table 5.3.2-1 shall be supported for each of the specified channel bandwidths. The channel bandwidths are specified for both the Tx and Rx path.

Table 5.3.5-1: Channel bandwidths for each NR band

Operating band	SCS (kHz)	UE channel bandwidth (MHz)						
		50	100	200	400	800	1600	2000
n257	60	50	100	200				
	120	50	100	200	400[1]			
n258	60	50	100	200				
	120	50	100	200	400[1]			
n259	60	50	100	200				
	120	50	100	200	400[1]			
n260	60	50	100	200				
	120	50	100	200	400[1]			
n261	60	50	100	200				
	120	50	100	200	400[1]			
n262	60	50	100	200				
	120	50	100	200	400[1]			
n263	120		100		400			
	480[2]				400	800[1]	1600[1]	
	960[2]				400	800[1]	1600[1]	2000[1]
NOTE 1: This UE channel bandwidth is optional in this release of the specification. NOTE 2: This SCS is optional in this release of the specification.								

CA的UE信道带宽在TS 38.101-2 [3]中的第5.3A节定义。

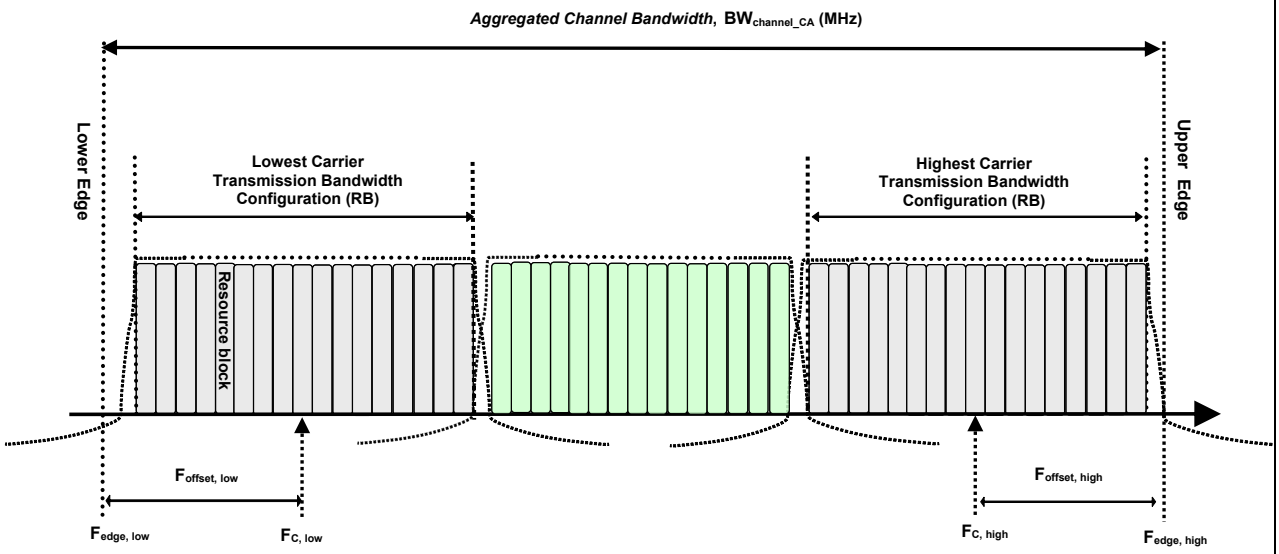
5.3A UE channel bandwidth for CA

5.3A.1 General

5.3A.2 Minimum guardband and transmission bandwidth configuration for CA

For intra-band contiguous carrier aggregation, *Aggregated Channel Bandwidth* and *Guard Bands* are defined as follows, see Figure 5.3A.2-1.

Figure 5.3A.2-1: Definition of *Aggregated Channel Bandwidth* for intra-band carrier aggregation



The *aggregated channel bandwidth,* $BW_{Channel_CA}$, is defined as

$$BW_{Channel_CA} = F_{edge,high} - F_{edge,low} \text{ (MHz)}.$$

The lower bandwidth edge $F_{edge,\ low}$ and the upper bandwidth edge $F_{edge,high}$ of the aggregated channel bandwidth are used as frequency reference points for transmitter and receiver requirements and are defined by

$$F_{edge,low} = F_{C,low} - F_{offset,low}$$

$$F_{edge,high} = F_{C,high} + F_{offset,high}$$

The lower and upper frequency offsets depend on the transmission bandwidth configurations of the lowest and highest assigned edge component carrier and are defined as

$$F_{offset,low} = (N_{RB,low}*12 + 1)*SCS_{low}/2 + BW_{GB} \text{ (MHz)}$$

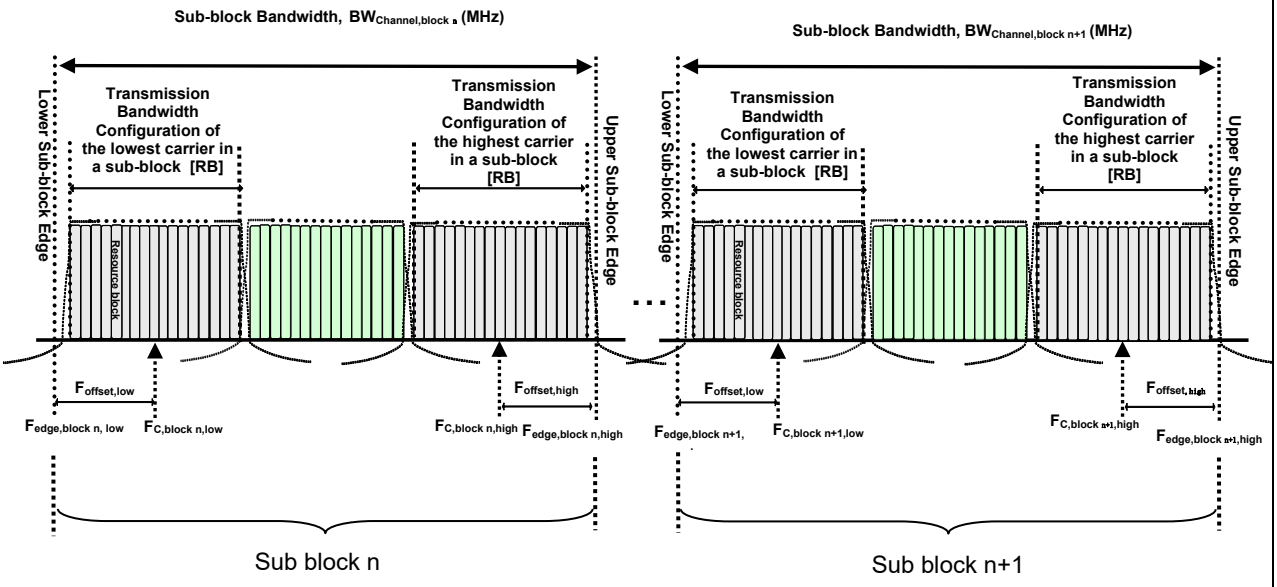
$$F_{offset,high} = (N_{RB,high}*12 - 1)*SCS_{high}/2 + BW_{GB} \text{ (MHz)}$$

$$BW_{GB} = \max(BW_{GB,Channel(k)})$$

$N_{RB,low}$ and $N_{RB,high}$ are the transmission bandwidth configurations according to Table 5.3.2-1 for the lowest and highest assigned component carrier, SCS_{low} and SCS_{high} are the sub-carrier spacing for the lowest and highest assigned component carrier respectively. SCS_{low}, SCS_{high}, $N_{RB,low}$, $N_{RB,high}$, and $BW_{GB,Channel(k)}$ use the largest μ value among the subcarrier spacing configurations supported in the operating band for both of the channel bandwidths according to Table 5.3.5-1 and $BW_{GB,Channel(k)}$ is the minimum guard band for carrier k according to Table 5.3.3-1 for the said μ value.

For intra-band non-contiguous carrier aggregation *Sub-block Bandwidth* and *Sub-block edges* are defined as follows, see Figure 5.3A.2-2.

Figure 5.3A.2-2: Definition of sub-block bandwidth for intra-band non-contiguous spectrum



The lower sub-block edge of the Sub-block Bandwidth ($BW_{Channel,block}$) is defined as

$$F_{edge,block,\,low} = F_{C,block,low} - F_{offset,\,low.}$$

The upper sub-block edge of the Sub-block Bandwidth is defined as

$$F_{edge,block,high} = F_{C,block,high} + F_{offset,\,high.}$$

The Sub-block Bandwidth, $BW_{Channel,block}$, is defined as follows:

$$BW_{Channel,block} = F_{edge,block,high} - F_{edge,block,low}\ (MHz)$$

The lower and upper frequency offsets $F_{offset,block,low}$ and $F_{offset,block,high}$ depend on the transmission bandwidth configurations of the lowest and highest assigned edge component carriers within a sub-block and are defined as

$$F_{offset,block,low} = (N_{RB,low}*12 + 1)*SCS_{low}/2 + BW_{GB}\ (MHz)$$

$$F_{offset,block,high} = (N_{RB,high}*12 - 1)*SCS_{high}/2 + BW_{GB}\ (MHz)$$

$$BW_{GB} = \max(BW_{GB,Channel(k)})$$

where $N_{RB,low}$ and $N_{RB,high}$ are the transmission bandwidth configurations according to Table 5.3.2-1 for the lowest and highest assigned component carrier within a sub-block, respectively. SCS_{low} and SCS_{high} are the sub-carrier spacing for the lowest and highest assigned component carrier within a sub-block, respectively. SCS_{low}, SCS_{high}, $N_{RB,low}$, $N_{RB,high}$, and $BW_{GB,Channel(k)}$ use the largest μ value among the subcarrier spacing configurations supported in the operating band for both of the channel bandwidths according to Table 5.3.5-1 and $BW_{GB,Channel(k)}$ is the minimum guard band for carrier k according to Table 5.3.3-1 for the said μ value.

The sub-block gap size between two consecutive sub-blocks W_{gap} is defined as

$$W_{gap} = F_{edge,block\ n+1,low} - F_{edge,block\ n,high}\ (MHz)$$

5.3A.3 RB alignment with different numerologies for CA

5.3A.4 UE channel bandwidth per operating band for CA

For intra-band contiguous carrier aggregation, a carrier aggregation configuration is a single operating band supporting a carrier aggregation bandwidth class with associated bandwidth combination sets specified in clause 5.5A.1. For each carrier aggregation configuration, requirements are specified for all aggregated channel bandwidths contained in a bandwidth combination set, UE can indicate support of several bandwidth combination sets per carrier aggregation configuration. The requirements are applicable only when Uplink CCs are configured within the frequency range between lower edge of lowest downlink component carrier and upper edge of highest downlink component carrier.

For intra-band non-contiguous carrier aggregation, a carrier aggregation configuration is a single operating band supporting two or more sub-blocks, each supporting a carrier aggregation bandwidth class. The requirements are applicable only when Uplink CCs in each UL sub-block are configured within the frequency range between lower edge of lowest downlink component carrier and upper edge of highest downlink component carrier of a DL sub-block.

Frequency separation class (Fs) specified in Table 5.3A.4-2 indicates the maximum frequency span between lower edge of lowest component carrier and upper edge of highest component carrier that UE can support per band in downlink or uplink (DL Fs or UL Fs) respectively in non-contiguous intra-band operation within the bidirectional spectrum.

The DL-only frequency spectrum is the width of UE frequency spectrum available to network to configure DL CCs only, and it extends on one-side of the bidirectional spectrum in contiguous manner with no frequency gap between the two. Frequency separation class for DL-only spectrum (Fsd) specified in Table 5.3A.4-3 and is declared per band. The frequency separation class for DL-only spectrum (Fsd) can be equal but not larger than the frequency separation (DL Fs). The combined downlink spectrum (DL Fs + Fsd) cannot exceed 2 400 MHz. A UE may configure DL-only spectrum only if the combined downlink spectrum (DL Fs + Fsd) exceeds 1 400 MHz. When a UE configures DL-only spectrum, it shall not expect a CC to be configured across the boundary between bidirectional spectrum and DL-only spectrum UE can support respectively.

For inter-band carrier aggregation, a carrier aggregation configuration is a combination of operating bands, each supporting a carrier aggregation bandwidth class.

Table 5.3A.4-1: CA bandwidth classes

NR CA bandwidth class	Aggregated channel bandwidth	Number of contiguous CC	Fallback group
A	$BW_{Channel} \leq 400$ MHz	1	1,2,3,4,5
B	400 MHz < $BW_{Channel_CA} \leq 800$ MHz	2	1
C	800 MHz < $BW_{Channel_CA} \leq 1\,200$ MHz	3	
D	200 MHz < $BW_{Channel_CA} \leq 400$ MHz	2	2
E	400 MHz < $BW_{Channel_CA} \leq 600$ MHz	3	
F	600 MHz < $BW_{Channel_CA} \leq 800$ MHz	4	
R	800 MHz < $BW_{Channel_CA} \leq 1\,000$ MHz	5	
S	1 000 MHz < $BW_{Channel_CA} \leq 1\,200$ MHz	6	
T	1 200 MHz < $BW_{Channel_CA} \leq 1\,400$ MHz	7	
U	1 400 MHz < $BW_{Channel_CA} \leq 1\,600$ MHz	8	
G	100 MHz < $BW_{Channel_CA} \leq 200$ MHz	2	3
H	200 MHz < $BW_{Channel_CA} \leq 300$ MHz	3	
I	300 MHz < $BW_{Channel_CA} \leq 400$ MHz	4	
J	400 MHz < $BW_{Channel_CA} \leq 500$ MHz	5	
K	500 MHz < $BW_{Channel_CA} \leq 600$ MHz	6	
L	600 MHz < $BW_{Channel_CA} \leq 700$ MHz	7	
M	700 MHz < $BW_{Channel_CA} \leq 800$ MHz	8	
O	100 MHz ≤ $BW_{Channel_CA} \leq 200$ MHz	2	4
P	150 MHz ≤ $BW_{Channel_CA} \leq 300$ MHz	3	
Q	200 MHz ≤ $BW_{Channel_CA} \leq 400$ MHz	4	
R2	200 MHz ≤ $BW_{Channel_CA} \leq 400$ MHz	2	5
R3	300 MHz ≤ $BW_{Channel_CA} \leq 600$ MHz	3	
R4	400 MHz ≤ $BW_{Channel_CA} \leq 800$ MHz	4	

R5	500 MHz ≤ $BW_{Channel_CA}$ ≤ 1 000 MHz	5	
R6	600 MHz ≤ $BW_{Channel_CA}$ ≤ 1 200 MHz	6	
R7	700 MHz ≤ $BW_{Channel_CA}$ ≤ 1 400 MHz	7	
R8	800 MHz ≤ $BW_{Channel_CA}$ ≤ 1 600 MHz	8	
R9	900 MHz ≤ $BW_{Channel_CA}$ ≤ 1 800 MHz	9	
R10	1 000 MHz ≤ $BW_{Channel_CA}$ ≤ 2 000 MHz	10	
R11	1 100 MHz ≤ $BW_{Channel_CA}$ ≤ 2 200 MHz	11	
R12	1 200 MHz ≤ $BW_{Channel_CA}$ ≤ 2 400 MHz	12	
NOTE 1: Maximum supported component carrier bandwidths for fallback groups 1, 2, 3, 4 and 5 are 400 MHz, 200 MHz, 100 MHz, 100 MHz and 200 MHz respectively except for CA bandwidth class A. For CA bandwidth classes of fallback group 5, requirements apply for non-interlaced 100 MHz and 200 MHz channel bandwidths (each CA bandwidth class consisting of up to two contiguous sub-blocks each with component carriers of a single channel bandwidth). NOTE 2: It is mandatory for a UE to be able to fallback to lower order CA bandwidth class configuration within a fallback group. It is not mandatory for a UE to be able to fallback to lower order CA bandwidth class configuration that belong to a different fallback group. NOTE 3: In this release of the specification, the minimum requirements for intra-band contiguous CA configurations apply for aggregated channel bandwidths up to 1600 MHz (this note is not relevant for UE capability parsing by the network).			

Table 5.3A.4-2: Frequency separation classes for non-contiguous intra-band operation

Frequency separation class	Max. allowed frequency separation (Fs)
I	800 MHz
II	1 200 MHz
III	1 400 MHz
IV	1 000 MHz
V	1 600 MHz
VI	1 800 MHz
VII	2 000 MHz
VIII	2 200 MHz
IX	2 400 MHz
X	400 MHz
XI	600 MHz
NOTE 1: Fs values larger than 1 400 MHz apply only to downlink frequency separation.	

Table 5.3A.4-3: Frequency separation classes for DL-only spectrum

Frequency separation class	Max. allowed frequency separation (Fsd)
I	200 MHz
II	400 MHz
III	600 MHz
IV	800 MHz
V	1000 MHz
VI	1200 MHz

3.1.3 信道安排

UE信道安排，即信道间隔、信道光栅、同步光栅和TX-RX频率间隔，在TS 38.101-2 [3]中的第5.4节定义。

5.4 Channel arrangement

5.4.1 Channel spacing

5.4.1.1 Channel spacing for adjacent NR carriers

The spacing between carriers will depend on the deployment scenario, the size of the frequency block available and the channel bandwidths. The nominal channel spacing between two adjacent NR carriers is defined as following:

For NR operating bands with 60 kHz channel raster,

Nominal Channel spacing = $(BW_{Channel(1)} + BW_{Channel(2)})/2$ + {-20 kHz, 0 kHz, 20 kHz} for ΔF_{Raster} equals to 60 kHz

Nominal Channel spacing = $(BW_{Channel(1)} + BW_{Channel(2)})/2$ + {-40 kHz, 0 kHz, 40 kHz} for ΔF_{Raster} equals to 120 kHz

where $BW_{Channel(1)}$ and $BW_{Channel(2)}$ are the channel bandwidths of the two respective NR carriers. The channel spacing can be adjusted depending on the channel raster to optimize performance in a particular deployment scenario.

5.4.2 Channel raster

5.4.2.1 NR-ARFCN and channel raster

The global frequency raster defines a set of RF reference frequencies F_{REF}. The RF reference frequency is used in signalling to identify the position of RF channels, SS blocks and other elements.

The global frequency raster is defined for all frequencies from 0 to 100 GHz. The granularity of the global frequency raster is ΔF_{Global}.

RF reference frequency is designated by an NR Absolute Radio Frequency Channel Number (NR-ARFCN) in the range 2016667...3279165 on the global frequency raster. The relation between the NR-ARFCN and the RF reference frequency F_{REF} in MHz is given by the following equation, where $F_{REF-Offs}$ and $N_{Ref-Offs}$ are given in Table 5.4.2.1-1 and N_{REF} is the NR-ARFCN

$$F_{REF} = F_{REF-Offs} + \Delta F_{Global} (N_{REF} – N_{REF-Offs})$$

Table 5.4.2.1-1: NR-ARFCN parameters for the global frequency raster

Frequency range (MHz)	ΔF_{Global} (kHz)	$F_{REF-Offs}$ [MHz]	$N_{REF-Offs}$	Range of N_{REF}
24 250 – 100 000	60	24 250.08	2016667	2016667 – 3279165

The *channel raster* defines a subset of *RF reference frequencies* that can be used to identify the RF channel position in the uplink and downlink. The *RF reference frequency* for an RF channel maps to a resource element on the carrier. For each operating band, a subset of frequencies from the global frequency raster are applicable for that band and forms a channel raster with a granularity ΔF_{Raster}, which may be equal to or larger than ΔF_{Global}.

The mapping between the channel raster and corresponding resource element is given in Clause 5.4.2.2. The applicable entries for each operating band are defined in clause 5.4.2.3

5.4.2.2 Channel raster to resource element mapping

The mapping between the RF reference frequency on channel raster and the corresponding resource element is given in Table 5.4.2.2-1 and can be used to identify the RF channel position. The mapping depends on the total number of RBs that are allocated in the channel and applies to both UL and DL. The mapping must apply to at least one numerology supported by the UE.

Table 5.4.2.2-1: Channel raster to resource element mapping

	N_{RB} mod 2 = 0	N_{RB} mod 2 = 1

Resource element index k	0	6
Physical resource block number n_{PRB}	$n_{\mathrm{PRB}} = \left\lfloor \frac{N_{\mathrm{RB}}}{2} \right\rfloor$	$n_{\mathrm{PRB}} = \left\lfloor \frac{N_{\mathrm{RB}}}{2} \right\rfloor$

k, n_{RB} , N_{RB} are as defined in TS 38.211 [9].

5.4.2.3 Channel raster entries for each operating band

The RF channel positions on the channel raster in each NR operating band are given through the applicable NR-ARFCN in Table 5.4.2.3-1, using the channel raster to resource element mapping in clause 5.4.2.2.

- For NR operating bands with 60 kHz channel raster above 24 GHz, $\Delta F_{Raster} = I \times \Delta F_{Global}$, where $I \in \{1,2\}$. Every I^{th} NR-ARFCN within the operating band are applicable for the channel raster within the operating band and the step size for the channel raster in table 5.4.2.3-1 is given as <*I*>.

- In frequency bands with two ΔF_{Raster}, the higher ΔF_{Raster} applies to channels using only the SCS that equals the higher ΔF_{Raster} and the SSB SCS that is equal to or larger than the higher ΔF_{Raster}.

Table 5.4.2.3-1: Applicable NR-ARFCN per operating band

Operating Band	ΔF_{Raster} (kHz)	Uplink and Downlink Range of N_{REF} (First – <Step size> – Last)
n257	60	2054166 – <1> – 2104165
	120	2054167 – <2> – 2104165
n258	60	2016667 – <1> – 2070832
	120	2016667 – <2> – 2070831
n259	60	2270833 – <1> – 2337499
	120	2270833 – <2> – 2337499
n260	60	2229166 – <1> – 2279165
	120	2229167 – <2> – 2279165
n261	60	2070833 – <1> – 2084999
	120	2070833 – <2> – 2084999
n262	60	2399166 – <1> – 2415832
	120	2399167 – <2> – 2415831
n263	120	See Table 5.4.2.3-2
	480	
	960	

Table 5.4.2.3-2: Applicable NR-ARFCN for operation in band n263

Channel Bandwidth	Applicable NR-ARFCN
100 MHz	2564083 + 1680 * N, N = 0:137
400 MHz	2566603 + 6720 * N, N = 0:33
800 MHz	2569963 + 6720 * N, N = 0:32
1600 MHz	2576683 + 6720 * N, N =0:30
2000 MHz	2580043 + 6720 * N, N=0:29, 2585083, 2655643, 2692603, 2764843

5.4.3 Synchronization raster

5.4.3.1 Synchronization raster and numbering

The synchronization raster indicates the frequency positions of the synchronization block that can be used by the UE for system acquisition when explicit signalling of the synchronization block position is not present.

A global synchronization raster is defined for all frequencies. The frequency position of the SS block is defined as SS_{REF} with corresponding number GSCN. The parameters defining the SS_{REF} and GSCN for all the frequency ranges are in Table 5.4.3.1-1.

The resource element corresponding to the SS block reference frequency SS_{REF} is given in clause 5.4.3.2. The synchronization raster and the subcarrier spacing of the synchronization block is defined separately for each band.

Table 5.4.3.1-1: GSCN parameters for the global frequency raster

Frequency range	SS block frequency position SS_{REF}	GSCN	Range of GSCN
24250 – 100000 MHz	24250.08 MHz + N * 17.28 MHz, N = 0:4383	22256 + N	22256 – 26639

5.4.3.2 Synchronization raster to synchronization block resource element mapping

The mapping between the synchronization raster and the corresponding resource element of the SS block is given in Table 5.4.3.2-1.

Table 5.4.3.2-1: Synchronization raster to SS block resource element mapping

Resource element index *k*	120

k is the subcarrier number of SS/PBCH block defined in TS 38.211 clause 7.4.3.1 [9].

5.4.3.3 Synchronization raster entries for each operating band

The synchronization raster for each band is give in Table 5.4.3.3-1. The distance between applicable GSCN entries is given by the <Step size> indicated in Table 5.4.3.3-1.

Table 5.4.3.3-1: Applicable SS raster entries per operating band

NR Operating Band	SS Block SCS	SS Block pattern[1]	Range of GSCN (First – <Step size> – Last)
n257	120 kHz	Case D	22388 - <1> - 22558
	240 kHz	Case E	22390 - <2> - 22556
n258	120 kHz	Case D	22257 - <1> - 22443
	240 kHz	Case E	22258 - <2> - 22442
n259	120 kHz	Case D	23140 – <1> – 23369
	240 kHz	Case E	23142 – <2> – 23368
n260	120 kHz	Case D	22995 - <1> - 23166
	240 kHz	Case E	22996 - <2> - 23164
n261	120 kHz	Case D	22446 - <1> - 22492
	240 kHz	Case E	22446 - <2> - 22490
n262	120 kHz	Case D	23586 – <1> – 23641
	240 kHz	Case E	23588 – <2> – 23640
n263	120 kHz	Case D	Table 5.4.3.3-2
	480 kHz	Case F	
	960 kHz[2]	Case G	24162 – <6> – 24954

NOTE 1: SS Block pattern is defined in clause 4.1 in TS 38.213 [10].
NOTE 2: SS Block SCS of 960 kHz is not used for initial access.

Table 5.4.3.3-2: Allowed GSCN for operation in band n263 for 120 kHz and 480 kHz

SS Block SCS	Range of GSCN
120 kHz	24156 + 6 * N – 3 * floor((N+5)/18), N=0:137
480 kHz	24162 + 24 * N – 12 * floor((N+4)/18), N=0:33

CA的UE信道安排在TS 38.101-2 [3]中的第5.4A节定义。

5.4A Channel arrangement for CA

5.4A.1 Channel spacing for CA

For intra-band contiguous carrier aggregation with two or more component carriers, the nominal channel spacing between two adjacent NR component carriers is defined as the following unless stated otherwise:

For NR operating bands with 60 kHz channel raster:

$$\text{Nominal channel spacing} = \left\lfloor \frac{BW_{Channel(1)} + BW_{Channel(2)} - 2\left|GB_{Channel(1)} - GB_{Channel(2)}\right|}{0.06 * 2^{n+1}} \right\rfloor 0.06 * 2^{n} \text{ [MHz]}$$

with

$$n = \mu_0 - 2$$

where $BW_{Channel(1)}$ and $BW_{Channel(2)}$ are the channel bandwidths of the two respective NR component carriers according to Table 5.3.2-1 with values in MHz, μ_o is the largest μ value among the subcarrier spacing configurations supported in the operating band for both of the channel bandwidths according to Table 5.3.5-1, and $GB_{Channel(i)}$ is the minimum guard band for channel bandwidth *i* according to Table 5.3.3-1 for the said μ value, with μ as defined in TS 38.211 [9].

The channel spacing for intra-band contiguous carrier aggregation can be adjusted to any multiple of least common multiple of channel raster and sub-carrier spacing less than the nominal channel spacing to optimize performance in a particular deployment scenario.

For intra-band non-contiguous carrier aggregation, the channel spacing between two NR component carriers in different sub-blocks shall be larger than the nominal channel spacing defined in this clause.

3.1.4 配置

CA操作频段的UE配置在TS 38.101-2 [3]中的第5.5A节定义。

5.5A Configurations for CA

5.5A.1 Configurations for intra-band contiguous CA

Table 5.5A.1-1: NR CA configurations, bandwidth combination sets, and fallback group defined for intra-band contiguous CA

NR CA configuration / Bandwidth combination set / Fallback group												
NR CA configuration	**Uplink CA configurations**	**$BW_{Channel}$ (MHz)**	**$BW_{Channel}$ (MHz)**	**$BW_{Channel}$ (MHz)**	**$BW_{Channel}$ (MHz)**	**$BW_{Channel}$ (MHz)**	**$BW_{Channel}$ (MHz)**	**$BW_{Channel}$ (MHz)**	**$BW_{Channel}$ (MHz)**	**Maximum aggregated BW (MHz)**	**BCS**	**Fallback group**
CA_n257B	CA_n257B	50, 100, 200, 400	400							800	0	1
CA_n257C	CA_n257B	50, 100, 200, 400	400	400						1200	0	
CA_n257D	CA_n257D	50, 100, 200	200							400	0	2

CA_n257E	CA_n257D CA_n257E	50, 100, 200	200	200						600	0	
CA_n257F	CA_n257D CA_n257E CA_n257F	50, 100, 200	200	200	200					800	0	
CA_n257G	CA_n257G	50, 100	100							200	0	3
CA_n257H	CA_n257G CA_n257H	50, 100	100	100						300	0	
CA_n257I	CA_n257G CA_n257H CA_n257I	50, 100	100	100	100					400	0	
CA_n257J	CA_n257G CA_n257H CA_n257I CA_n257J	50, 100	100	100	100	100				500	0	
CA_n257K	CA_n257G CA_n257H CA_n257I CA_n257J CA_n257K	50, 100	100	100	100	100	100			600	0	
CA_n257L	CA_n257G CA_n257H CA_n257I CA_n257J CA_n257K CA_n257L	50, 100	100	100	100	100	100	100		700	0	
CA_n257M	CA_n257G CA_n257H CA_n257I CA_n257J CA_n257K CA_n257L CA_n257M	50, 100	100	100	100	100	100	100	100	800	0	
CA_n258B	CA_n258B	50, 100, 200, 400	400							800	0	1
CA_n258C	CA_n258B CA_n258C	50, 100, 200, 400	400	400						1200	0	
CA_n258D	CA_n258D	50, 100, 200	200							400	0	2
CA_n258E	CA_n258D CA_n258E	50, 100, 200	200	200						600	0	
CA_n258F	CA_n258D CA_n258E CA_n258F	50, 100, 200	200	200	200					800	0	
CA_n258G	CA_n258G	50, 100	100							200	0	3
CA_n258H	CA_n258G CA_n258H	50, 100	100	100						300	0	
CA_n258I	CA_n258G CA_n258H CA_n258I	50, 100	100	100	100					400	0	
CA_n258J	CA_n258G CA_n258H CA_n258I CA_n258J	50, 100	100	100	100	100				500	0	
CA_n258K	CA_n258G CA_n258H CA_n258I CA_n258J	50, 100	100	100	100	100	100			600	0	

	CA_n258K											
CA_n258L	CA_n258G CA_n258H CA_n258I CA_n258J CA_n258K CA_n258L	50, 100	100	100	100	100	100	100		700	0	
CA_n258M	CA_n258G CA_n258H CA_n258I CA_n258J CA_n258K CA_n258L CA_n258M	50, 100	100	100	100	100	100	100	100	800	0	
CA_n258O	CA_n258O	50, 100	50, 100							200	0	4
CA_n258P	CA_n258O CA_n258P	50, 100	50, 100	50, 100						300	0	
CA_n258Q	CA_n258O CA_n258P CA_n258Q	50, 100	50, 100	50, 100	50, 100					400	0	
CA_n259B	CA_n259B	50, 100, 200, 400	400							800	0	1
CA_n259C	CA_n259B	50, 100, 200, 400	400	400						1200	0	
CA_n259G	CA_n259G	50, 100	100							200	0	3
CA_n259H	CA_n259G CA_n259H	50, 100	100	100						300	0	
CA_n259I	CA_n259G CA_n259H CA_n259I	50, 100	100	100	100					400	0	
CA_n259J	CA_n259G CA_n259H CA_n259I CA_n259J	50, 100	100	100	100	100				500	0	
CA_n259K	CA_n259G CA_n259H CA_n259I CA_n259J CA_n259K	50, 100	100	100	100	100	100			600	0	
CA_n259L	CA_n259G CA_n259H CA_n259I CA_n259J CA_n259K CA_n259L	50, 100	100	100	100	100	100	100		700	0	
CA_n259M	CA_n259G CA_n259H CA_n259I CA_n259J CA_n259K CA_n259L CA_n259M	50, 100	100	100	100	100	100	100	100	800	0	
CA_n260B	CA_n260B	50, 100, 200, 400	400							800	0	1
CA_n260C	CA_n260B	50, 100, 200, 400	400	400						1200	0	

CA_n260D	CA_n260D	50, 100, 200	200							400	0	2
CA_n260E	CA_n260D CA_n260E	50, 100, 200	200	200						600	0	
CA_n260F	CA_n260D CA_n260E CA_n260F	50, 100, 200	200	200	200					800	0	
CA_n260G	CA_n260G	50, 100	100							200	0	3
CA_n260H	CA_n260G CA_n260H	50, 100	100	100						300	0	
CA_n260I	CA_n260G CA_n260H CA_n260I	50, 100	100	100	100					400	0	
CA_n260J	CA_n260G CA_n260H CA_n260I CA_n260J	50, 100	100	100	100	100				500	0	
CA_n260K	CA_n260G CA_n260H CA_n260I CA_n260J CA_n260K	50, 100	100	100	100	100	100			600	0	
CA_n260L	CA_n260G CA_n260H CA_n260I CA_n260J CA_n260K CA_n260L	50, 100	100	100	100	100	100	100		700	0	
CA_n260M	CA_n260G CA_n260H CA_n260I CA_n260J CA_n260K CA_n260L CA_n260M	50, 100	100	100	100	100	100	100	100	800	0	
CA_n260O	CA_n260O	50, 100	50, 100							200	0	4
CA_n260P	CA_n260O CA_n260P	50, 100	50, 100	50, 100						300	0	
CA_n260Q	CA_n260O CA_n260P CA_n260Q	50, 100	50, 100	50, 100	50, 100					400	0	
CA_n261B	CA_n261B	50, 100, 200, 400	400							800	0	1
CA_n261C	CA_n261B	50	400	400						850	0	
CA_n261D	CA_n261D	50, 100, 200	200							400	0	2
CA_n261E	CA_n261D CA_n261E	50, 100, 200	200	200						600	0	
CA_n261F	CA_n261D CA_n261E CA_n261F	50, 100, 200	200	200	200					800	0	
CA_n261G	CA_n261G	50, 100	100							200	0	3
CA_n261H	CA_n261G CA_n261H	50, 100	100	100						300	0	
CA_n261I	CA_n261G CA_n261H CA_n261I	50, 100	100	100	100					400	0	

CA_n261J	CA_n261G CA_n261H CA_n261I CA_n261J	50, 100	100	100	100	100				500	0	
CA_n261K	CA_n261G CA_n261H CA_n261I CA_n261J CA_n261K	50, 100	100	100	100	100	100			600	0	
CA_n261L	CA_n261G CA_n261H CA_n261I CA_n261J CA_n261K CA_n261L	50, 100	100	100	100	100	100	100		700	0	
CA_n261M	CA_n261G CA_n261H CA_n261I CA_n261J CA_n261K CA_n261L CA_n261M	50, 100	100	100	100	100	100	100	100	800	0	
CA_n261O	CA_n261O	50, 100	50, 100							200	0	4
CA_n261P	CA_n261O CA_n261P	50, 100	50, 100	50, 100						300	0	
CA_n261Q	CA_n261O CA_n261P CA_n261Q	50, 100	50, 100	50, 100	50, 100					400	0	
CA_n262G	CA_n262G	50, 100	100							200	0	3
CA_n262H	CA_n262G CA_n262H	50, 100	100	100						300	0	
CA_n262I	CA_n262G CA_n262H CA_n262I	50, 100	100	100	100					400	0	
CA_n262J	CA_n262G CA_n262H CA_n262I CA_n262J	50, 100	100	100	100	100				500	0	
CA_n262K	CA_n262G CA_n262H CA_n262I CA_n262J CA_n262K	50, 100	100	100	100	100	100			600	0	
CA_n262L	CA_n262G CA_n262H CA_n262I CA_n262J CA_n262K CA_n262L	50, 100	100	100	100	100	100	100		700	0	
CA_n262M	CA_n262G CA_n262H CA_n262I CA_n262J CA_n262K CA_n262L CA_n262M	50, 100	100	100	100	100	100	100	100	800	0	

NOTE 1: Void
NOTE 2: For the NR CA configuration with more than two component carries, the bandwidths in a BCS which may introduce combinations more than requested unintentionally should be listed in a row separately.

5.5A.2 Configurations for intra-band non-contiguous CA

Configurations listed in this clause apply to downlink carrier aggregation only.

NOTE: Sub-blocks belonging to a CA configuration can be in any order. In other words certain CA configuration acronym includes all sub-block arrangements which have exactly the same sub-block set. As an example, CA_n260(2G-3O) denotes CA_n260(2O-2G-O), CA_n260(G-3O-G) etc. but these are not listed in tables separately.

Table 5.5A.2-1: NR CA configurations with single CA bandwidth class defined for intra-band non-contiguous CA

NR CA configuration / Bandwidth combination set			
NR configuration	**Uplink CA configurations**	**$\Sigma(BW_{Channel,block})$ (MHz)**	**BCS**
CA_n257(2A)	-	800	0
CA_n258(2A)	-	800	0
CA_n258(3A)	-	1 200	0
CA_n258(4A)	-	1 600	0
CA_n258(5A)	-	2 000	0
CA_n258(2G)	CA_n258G	400	0
CA_n260(2A)	CA_n260(2A)	800	0
CA_n260(3A)	CA_n260(3A)	1 200	0
CA_n260(4A)	-	1 600	0
CA_n260(5A)	-	2 000	0
CA_n260(6A)	-	2 400	0
CA_n260(7A)	-	2 800	0
CA_n260(8A)	-	2 900	0
CA_n260(9A)	-	2 950	0
CA_n260(10A)	-	2 950	0
CA_n260(2D)	-	800	0
CA_n260(2G)	CA_n260G	400	0
CA_n260(3G)	-	600	0
CA_n260(4G)	-	800	0
CA_n260(2H)	CA_n260G CA_n260H	600	0
CA_n260(2O)	-	400	0
CA_n260(3O)	-	600	0
CA_n260(4O)	-	800	0
CA_n260(2P)	-	600	0
CA_n260(3P)	-	900	0
CA_n260(4P)	-	1 200	0
CA_n260(2Q)	-	800	0
CA_n261(2A)	-	800	0
CA_n261(3A)	-	800	0
CA_n261(4A)	-	800	0
CA_n261(5A)	-	800	0
CA_n261(6A)	-	800	0
CA_n261(7A)	-	800	0
CA_n261(8A)	-	800	0
CA_n261(2D)	-	800	0
CA_n261(2G)	CA_n261G	400	0
CA_n261(3G)	-	600	0
CA_n261(4G)	-	800	0
CA_n261(2H)	CA_n261G CA_n261H	600	0
CA_n261(2I)	CA_n261G CA_n261H CA_n261I	800	0
CA_n261(2O)	-	400	0
CA_n261(3O)	-	600	0
CA_n261(4O)	-	800	0
CA_n261(5O)	-	800	0
CA_n261(6O)	-	800	0
CA_n261(7O)	-	800	0
CA_n261(2P)	-	600	0
CA_n261(2Q)	-	800	0
NOTE 1: Void			

NOTE 2: Void
NOTE 3: Void
NOTE 4: Void
NOTE 5: Channel bandwidth per operating band defined in Table 5.3.5-1.
NOTE 6: Unless otherwise stated, BCS0 is referred in each constituent CA configuration.
NOTE 7: $\Sigma(BW_{Channel,block})$ denotes the maximum total bandwidth from the summation of the sub-block bandwidths and shall be less than the bandwidth of the operating band.

Table 5.5A.2-2: NR CA configurations with multiple CA bandwidth classes defined for intra-band non-contiguous CA

NR CA configuration / Bandwidth combination set			
CA configuration	**Uplink CA configurations**	**$\Sigma(BW_{Channel,block})$ (MHz)**	**BCS**
CA_n258(A-G)	CA_n258G	600	0
CA_n258(A-H)	CA_n258G CA_n258H	700	0
CA_n258(2G)	CA_n258G	400	0
CA_n258(G-H)	CA_n258G CA_n258H	500	0
CA_n260(A-D)	-	800	0
CA_n260(A-E)	-	1 000	0
CA_n260(2A-D)	-	1 200	0
CA_n260(3A-D)	-	1 600	0
CA_n260(4A-D)	-	2 000	0
CA_n260(A-2D)	-	1 200	0
CA_n260(2A-2D)	-	1 600	0
CA_n260(A-D-O)	-	1 000	0
CA_n260(A-D-G)	-	1 000	0
CA_n260(2A-D-O)	-	1 400	0
CA_n260(3A-D-O)	-	1 800	0
CA_n260(A-D-2O)	-	1 200	0
CA_n260(2A-D-2O)	-	1 600	0
CA_n260(A-G)	CA_n260G	600	0
CA_n260(A-G-H)	-	900	0
CA_n260(2A-G)	CA_n260G	1000	0
CA_n260(A-2G)	CA_n260G	800	0
CA_n260(A-3G)	-	1 000	0
CA_n260(A-4G)	-	1 200	0
CA_n260(2A-2G)	CA_n260G	1 200	0
CA_n260(2A-3G)	-	1 400	0
CA_n260(2A-2G-O)	-	1 400	0
CA_n260(2A-2G-2O)	-	1 600	0
CA_n260(3A-2G)	-	1 600	0
CA_n260(3A-2G-O)	-	1 800	0
CA_n260(4A-G)	-	1 800	0
CA_n260(4A-G-O)	-	2 000	0
CA_n260(4A-2G)	-	2 000	0
CA_n260(5A-G)	-	2 200	0
CA_n260(A-2G-2O)	-	1 200	0
CA_n260(A-2G-3O)	-	1 400	0
CA_n260(2A-G-H)	-	1 300	0
CA_n260(2A-G-2O)	-	1 400	0
CA_n260(2A-G-3O)	-	1 600	0
CA_n260(3A-G)	CA_n260G	1 400	0
CA_n260(3A-G-O)	-	1 600	0
CA_n260(3A-G-2O)	-	1 800	0
CA_n260(A-2H)	-	1 000	0
CA_n260(2A-H)	-	1 100	0
CA_n260(3A-H)	-	1 500	0

CA_n260(2A-2H)	-	1 400	0
CA_n260(A-H)	CA_n260G CA_n260H	700	0
CA_n260(A-H-O)	-	900	0
CA_n260(A-O)	-	600	0
CA_n260(A-O-P)	-	900	0
CA_n260(A-O-P-Q)	-	1 300	0
CA_n260(A-O-2P)	-	1 200	0
CA_n260(A-O-3P)	-	1 500	0
CA_n260(2A-O-P)	-	1 300	0
CA_n260(2A-O-P-Q)	-	1 700	0
CA_n260(2A-O-2P)	-	1 600	0
CA_n260(2A-O-3P)	-	1 900	0
CA_n260(2A-2O-P)	-	1 500	0
CA_n260(2A-2O-P-Q)	-	1 900	0
CA_n260(A-O-Q)	-	1 000	0
CA_n260(A-O-2Q)	-	1 400	0
CA_n260(2A-O-Q)	-	1 400	0
CA_n260(2A-O-2Q)	-	1 800	0
CA_n260(2A-2O-Q)	-	1 600	0
CA_n260(2A-O)	-	1 000	0
CA_n260(A-2O)	-	800	0
CA_n260(A-2O-P)	-	1 100	0
CA_n260(A-2O-P-Q)	-	1 500	0
CA_n260(A-2O-2P)	-	1 400	0
CA_n260(A-2O-Q)	-	1 200	0
CA_n260(A-2O-2Q)	-	1 600	0
CA_n260(A-3O-P)	-	1 300	0
CA_n260(A-3O-Q)		1 400	0
CA_n260(2A-2O)	-	1 200	0
CA_n260(2A-2O-2P)	-	1 800	0
CA_n260(2A-2O-2Q)	-	2 000	0
CA_n260(2A-3O)	-	1 400	0
CA_n260(2A-3O-P)	-	1 700	0
CA_n260(2A-3O-Q)	-	1 800	0
CA_n260(3A-2O)	-	1 600	0
CA_n260(3A-2O-P)	-	1 900	0
CA_n260(3A-2O-Q)	-	2 000	0
CA_n260(4A-O)	-	1 800	0
CA_n260(4A-O-P)	-	2 100	0
CA_n260(4A-O-Q)	-	2 200	0
CA_n260(5A-O-P)	-	2 500	0
CA_n260(6A-O-P)	-	2 900	0
CA_n260(4A-3O)	-	2 200	0
CA_n260(5A-O)	-	2 200	0
CA_n260(6A-O)	-	2 600	0
CA_n260(7A-O)	-	2 950	0
CA_n260(8A-O)	-	2 950	0
CA_n260(4A-2O)	-	2 000	0
CA_n260(4A-2Q)	-	2 400	0
CA_n260(3A-3O)	-	1 800	0
CA_n260(A-G-O)	-	800	0
CA_n260(A-G-2O)	-	1 000	0
CA_n260(A-G-3O)	-	1 200	0
CA_n260(A-G-4O)	-	1 400	0
CA_n260(2A-G-O)	-	1 200	0
CA_n260(A-2G-O)	-	1 000	0
CA_n260(A-3G-O)	-	1 200	0
CA_n260(A-3O)	-	1 000	0
CA_n260(3A-O)	-	1 400	0
CA_n260(3A-O-P)	CA_n260O CA_n260P	1 700	0
CA_n260(3A-O-P-Q)	-	2 100	0
CA_n260(3A-O-2P)	-	2 000	0
CA_n260(3A-O-Q)	-	1 800	0

CA_n260(3A-O-2Q)	-	2 200	0
CA_n260(A-4O)	-	1 200	0
CA_n260(2A-4O)	-	1 600	0
CA_n260(3A-4O)	-	2 000	0
CA_n260(4A-4O)	-	2 400	0
CA_n260(5A-4O)	-	2 800	0
CA_n260(A-P)	-	700	0
CA_n260(A-3P)	-	1 300	0
CA_n260(A-4P)	-	1 600	0
CA_n260(A-P-Q)	CA_n260P CA_n260Q	1 100	0
CA_n260(2A-P)	-	1 100	0
CA_n260(2A-P-Q)	-	1 500	0
CA_n260(3A-P)	-	1 500	0
CA_n260(3A-P-Q)	-	1 900	0
CA_n260(4A-P)	-	1 900	0
CA_n260(4A-P-Q)	-	2 300	0
CA_n260(5A-P)	-	2 300	0
CA_n260(6A-P)	-	2 700	0
CA_n260(7A-P)	-	3 000?	0
CA_n260(A-2P)	-	1 000	0
CA_n260(2A-2P)	-	1 400	0
CA_n260(2A-3P)	-	1 700	0
CA_n260(2A-4P)	-	2 000	0
CA_n260(3A-2P)	-	1 800	0
CA_n260(3A-3P)	-	2 100	0
CA_n260(4A-2P)	-	2 200	0
CA_n260(5A-2P)	-	2 600	0
CA_n260(5A-2O)	-	2 400	0
CA_n260(6A-2O)	-	2 800	0
CA_n260(5A-3O)	-	2 600	0
CA_n260(6A-3O)	-	2 950	0
CA_n260(7A-2O)	-	2950	0
CA_n260(7A-3O)	-	2950	0
CA_n260(6A-2P)	-	2950	0
CA_n260(8A-2O)	-	2550	0
CA_n260(9A-O)	-	3000?	0
CA_n260(A-Q)	-	800	0
CA_n260(A-2Q)	-	1 200	0
CA_n260(2A-Q)	-	1 200	0
CA_n260(2A-2Q)	-	1 600	0
CA_n260(3A-Q)	-	1 600	0
CA_n260(3A-2Q)	-	2 000	0
CA_n260(4A-Q)	-	2 000	0
CA_n260(5A-Q)	-	2 400	0
CA_n260(D-2G)	-	800	0
CA_n260(2D-O)	-	1 000	0
CA_n260(D-2O)	-	800	0
CA_n260(A-I)	CA_n260I	800	0
CA_n260(D-G)	CA_n260D CA_n260G	600	0
CA_n260(D-H)	CA_n260D CA_n260H	700	0
CA_n260(D-I)	CA_n260D CA_n260I	800	0
CA_n260(D-O)	CA_n260D CA_n260O	600	0
CA_n260(D-P)	CA_n260D CA_n260P	700	0
CA_n260(D-Q)	CA_n260D CA_n260Q	800	0

CA_n260(E-O)	CA_n260E CA_n260O	800	0	
CA_n260(E-P)	CA_n260E CA_n260P	800	0	
CA_n260(E-Q)	CA_n260E CA_n260Q	1 000	0	
CA_n260(G-H)	CA_n260G CA_n260H	500	0	
CA_n260(G-H-O)	-	700	0	
CA_n260(G-I)	CA_n260G CA_n260I	600	0	
CA_n260(G-O)	-	400	0	
CA_n260(G-2O)	-	600	0	
CA_n260(2G-O)	-	600	0	
CA_n260(2G-2O)	-	800	0	
CA_n260(G-3O)	-	800	0	
CA_n260(3G-O)	-	800	0	
CA_n260(2G-3O)	-	1 000	0	
CA_n260(G-4O)	-	1 000	0	
CA_n260(2G-4O)	-	1 200	0	
CA_n260(4G-O)	-	1 000	0	
CA_n260(H-O)	-	500	0	
CA_n260(2H-O)	-	800	0	
CA_n260(O-2P)	-	800	0	
CA_n260(O-3P)	-	1 100	0	
CA_n260(O-2Q)	-	1 000	0	
CA_n260(O-P)	-	500	0	
CA_n260(O-P-Q)	-	900	0	
CA_n260(2O-P)	-	700	0	
CA_n260(2O-P-Q)	-	1 100	0	
CA_n260(2O-2P)	-	1 000	0	
CA_n260(3O-P)		900	0	
CA_n260(3O-Q)		1 000	0	
CA_n260(O-Q)	-	600	0	
CA_n260(2O-Q)	-	800	0	
CA_n260(2O-2Q)	-	1 200	0	
CA_n260(P-Q)	-	700	0	
CA_n261(A-D)	-	800	0	
CA_n261(A-E)	-	800	0	
CA_n261(2A-D)	-	800	0	
CA_n261(2A-D-O)	-	800	0	
CA_n261(A-2D)	-	800	0	
CA_n261(A-D-G)	-	800	0	
CA_n261(A-D-H)	-	800	0	
CA_n261(A-D-O)	-	800	0	
CA_n261(A-D-2O)	-	800	0	
CA_n261(A-G)	CA_n261G	600	0	
CA_n261(A-G-H)	CA_n261G CA_n261H	800	0	
CA_n261(A-G-I)	CA_n261G CA_n261H CA_n261I	800	0	
CA_n261(A-G-O)	-	800	0	
CA_n261(2A-G-O)	-	800	0	
CA_n261(A-G-2O)	-	800	0	
CA_n261(2A-G-2O)	-	800	0	
CA_n261(A-2G-O)	-	800	0	
CA_n261(A-2G-2O)	-	800	0	
CA_n261(A-3G)	-	800	0	
CA_n261(A-3G-O)	-	800	0	
CA_n261(A-2G)	CA_n261G	800	0	
CA_n261(A-4G)	-	800	0	
CA_n261(A-H)	CA_n261G	700	0	

	CA_n261H			
CA_n261(A-2H)	-	800	0	
CA_n261(A-H-I)	-	800	0	
CA_n261(A-I)	CA_n261G CA_n261H CA_n261I	800	0	
CA_n261(A-2I)	-	800	0	
CA_n261(A-J)	CA_n261G CA_n261H CA_n261I	700	0	
CA_n261(A-K)	CA_n261G CA_n261H CA_n261I	800	0	
CA_n261(A-L)	CA_n261A CA_n261G CA_n261H CA_n261I	800	0	
CA_n261(A-O)	-	600	0	
CA_n261(A-O-P)	-	800	0	
CA_n261(A-O-Q)	-	800	0	
CA_n261(2A-O)	-	800	0	
CA_n261(A-2O)	-	800	0	
CA_n261(A-3O)	-	800	0	
CA_n261(A-4O)	-	800	0	
CA_n261(A-5O)	-	800	0	
CA_n261(A-6O)	-	800	0	
CA_n261(A-7O)	-	800	0	
CA_n261(A-P)	-	700	0	
CA_n261(A-P-Q)	-	800	0	
CA_n261(2A-P)	-	800	0	
CA_n261(A-2P)	-	800	0	
CA_n261(A-Q)	-	800	0	
CA_n261(2A-Q)	-	800	0	
CA_n261(A-2Q)	-	800	0	
CA_n261(2A-G)	CA_n261G	800	0	
CA_n261(2A-2G)	-	800	0	
CA_n261(2A-2G-O)	-	800	0	
CA_n261(2A-3G)	-	800	0	
CA_n261(2A-2O)	-	800	0	
CA_n261(2A-3O)	-	800	0	
CA_n261(2A-4O)	-	800	0	
CA_n261(2A-5O)	-	800	0	
CA_n261(2A-6O)	-	800	0	
CA_n261(2A-H)	CA_n261G CA_n261H	800	0	
CA_n261(2A-I)	CA_n261G CA_n261H CA_n261I	800	0	
CA_n261(3A-G)	CA_n261G	800	0	
CA_n261(3A-G-O)	-	800	0	
CA_n261(3A-2G)	-	800	0	
CA_n261(3A-D)	-	800	0	
CA_n261(3A-O)	-	800	0	
CA_n261(3A-2O)	-	800	0	
CA_n261(3A-3O)	-	800	0	
CA_n261(3A-4O)	-	800	0	
CA_n261(3A-5O)	-	800	0	
CA_n261(4A-G)	-	800	0	
CA_n261(4A-O)	-	800	0	
CA_n261(4A-2O)	-	800	0	
CA_n261(4A-3O)	-	800	0	
CA_n261(4A-4O)	-	800	0	
CA_n261(5A-O)	-	800	0	
CA_n261(5A-2O)	-	800	0	
CA_n261(5A-3O)	-	800	0	
CA_n261(6A-O)	-	800	0	

CA_n261(6A-2O)	-	800	0
CA_n261(7A-O)	-	800	0
CA_n261(D-G)	CA_n261D CA_n261G	600	0
CA_n261(D-H)	CA_n261D CA_n261H	700	0
CA_n261(D-I)	CA_n261D CA_n261I	800	0
CA_n261(D-O)	CA_n261D CA_n261O	600	0
CA_n261(D-2O)	-	800	0
CA_n261(D-P)	CA_n261D CA_n261P	700	0
CA_n261(D-Q)	CA_n261D CA_n261Q	800	0
CA_n261(E-O)	CA_n261E CA_n261O	800	0
CA_n261(E-P)	CA_n261E CA_n261P	800	0
CA_n261(E-Q)	CA_n261E CA_n261Q	800	0
CA_n261(G-I)	CA_n261G CA_n261H CA_n261I	600	0
CA_n261(G-H)	CA_n261G CA_n261H	500	0
CA_n261(G-J)	CA_n261A CA_n261G CA_n261H CA_n261I	700	0
CA_n261(2G-2O)	-	800	0
CA_n261(G-O)	-	400	0
CA_n261(G-2O)	-	600	0
CA_n261(2G-O)	-	600	0
CA_n261(3G-O)	-	800	0
CA_n261(H-I)	CA_n261G CA_n261H CA_n261I	700	0
CA_n261(O-P)	-	500	0
CA_n261(O-Q)	-	600	0
CA_n261(P-Q)	-	700	0

NOTE 1: Void.
NOTE 2: Void.
NOTE 3: Channel bandwidth per operating band defined in Table 5.3.5-1.
NOTE 4: Configurations for intra-band contiguous CA defined in Table 5.5A.1-1.
NOTE 5: Configurations for intra-band non-contiguous CA defined in Table 5.5A.2-1.
NOTE 6: Void.
NOTE 7: Unless otherwise stated, BCS0 is referred in each constituent CA configuration.
NOTE 8: $\Sigma(BW_{Channel,block})$ denotes the maximum total bandwidth from the summation of the sub-block bandwidths and shall be less than the bandwidth of the operating band.

5.5A.3 Configurations for inter-band CA

Table 5.5A.3-1: NR CA configurations for inter-band CA

NR CA configuration	Uplink CA configuration	NR Band	Channel bandwidth (MHz) (NOTE 1)	Bandwidth combination set
CA_n257A-n259A	CA_n257A-n259A[3]	n257	50, 100, 200, 400	0
		n259	50, 100, 200, 400	
CA_n257A-n259G	CA_n257A-n259A[3]	n257	50, 100, 200, 400	0
		n259	CA_n259G	
CA_n257A-n259H	CA_n257A-n259A[3]	n257	50, 100, 200, 400	0
		n259	CA_n259H	
CA_n257A-n259I	CA_n257A-n259A[3]	n257	50, 100, 200, 400	0
		n259	CA_n259I	
CA_n257A-n259J	CA_n257A-n259A[3]	n257	50, 100, 200, 400	0
		n259	CA_n259J	
CA_n257A-n259K	CA_n257A-n259A[3]	n257	50, 100, 200, 400	0
		n259	CA_n259K	
CA_n257A-n259L	CA_n257A-n259A[3]	n257	50, 100, 200, 400	0
		n259	CA_n259L	
CA_n257A-n259M	CA_n257A-n259A[3]	n257	50, 100, 200, 400	0
		n259	CA_n259M	
CA_n257G-n259A	CA_n257A-n259A[3]	n257	CA_n257G	0
		n259	50, 100, 200, 400	
CA_n257G-n259G	CA_n257A-n259A[3]	n257	CA_n257G	0
		n259	CA_n259G	
CA_n257G-n259H	CA_n257A-n259A[3]	n257	CA_n257G	0
		n259	CA_n259H	
CA_n257G-n259I	CA_n257A-n259A[3]	n257	CA_n257G	0
		n259	CA_n259I	
CA_n257G-n259J	CA_n257A-n259A[3]	n257	CA_n257G	0
		n259	CA_n259J	
CA_n257G-n259K	CA_n257A-n259A[3]	n257	CA_n257G	0
		n259	CA_n259K	
CA_n257G-n259L	CA_n257A-n259A[3]	n257	CA_n257G	0
		n259	CA_n259L	
CA_n257G-n259M	CA_n257A-n259A[3]	n257	CA_n257G	0
		n259	CA_n259M	
CA_n257H-n259A	CA_n257A-n259A[3]	n257	CA_n257H	0
		n259	50, 100, 200, 400	
CA_n257H-n259G	CA_n257A-n259A[3]	n257	CA_n257H	0
		n259	CA_n259G	
CA_n257H-n259H	CA_n257A-n259A[3]	n257	CA_n257H	0
		n259	CA_n259H	
CA_n257H-n259I	CA_n257A-n259A[3]	n257	CA_n257H	0
		n259	CA_n259I	
CA_n257H-n259J	CA_n257A-n259A[3]	n257	CA_n257H	0
		n259	CA_n259J	
CA_n257H-n259K	CA_n257A-n259A[3]	n257	CA_n257H	0
		n259	CA_n259K	
CA_n257H-n259L	CA_n257A-n259A[3]	n257	CA_n257H	0
		n259	CA_n259L	
CA_n257H-n259M	CA_n257A-n259A[3]	n257	CA_n257H	0
		n259	CA_n259M	
CA_n257I-n259A	CA_n257A-n259A[3]	n257	CA_n257I	0
		n259	50, 100, 200, 400	
CA_n257I-n259G	CA_n257A-n259A[3]	n257	CA_n257I	0
		n259	CA_n259G	
CA_n257I-n259H	CA_n257A-n259A[3]	n257	CA_n257I	0
		n259	CA_n259H	
CA_n257I-n259I	CA_n257A-n259A[3]	n257	CA_n257I	0
		n259	CA_n259I	
CA_n257I-n259J	CA_n257A-n259A[3]	n257	CA_n257I	0
		n259	CA_n259J	
CA_n257I-n259K	CA_n257A-n259A[3]	n257	CA_n257I	0
		n259	CA_n259K	
CA_n257I-n259L	CA_n257A-n259A[3]	n257	CA_n257I	0
		n259	CA_n259L	

CA_n257I-n259M	CA_n257A-n259A[3]	n257	CA_n257I	0
		n259	CA_n259M	
CA_n258A-n260A	-	n258	50, 100, 200, 400	0
		n260	50, 100, 200, 400	
CA_n258A-n261A	-	n258	50, 100, 200, 400	0
		n261	50, 100, 200, 400	
CA_n260A-n261A	CA_n260A-n261A[3]	n260	50, 100, 200, 400	0
		n261	50, 100, 200, 400	
CA_n260A-n261G	**CA_n260A-n261A[3]** CA_n261G CA_n261H CA_n261I CA_n261J CA_n261K CA_n261L CA_n261M	n260	50, 100, 200, 400	0
		n261	CA_n261G	
CA_n260A-n261H		n260	50, 100, 200, 400	0
		n261	CA_n261H	
CA_n260A-n261I		n260	50, 100, 200, 400	0
		n261	CA_n261I	
CA_n260A-n261J		n260	50, 100, 200, 400	0
		n261	CA_n261J	
CA_n260A-n261K		n260	50, 100, 200, 400	0
		n261	CA_n261K	
CA_n260A-n261L		n260	50, 100, 200, 400	0
		n261	CA_n261L	
CA_n260A-n261M		n260	50, 100, 200, 400	0
		n261	CA_n261M	
CA_n260G-n261A	**CA_n260A-n261A[3]** CA_n260G CA_n261G CA_n261H CA_n261I CA_n261J CA_n261K CA_n261L CA_n261M	n260	CA_n260G	0
		n261	50, 100, 200, 400	
CA_n260G-n261G		n260	CA_n260G	0
		n261	CA_n261G	
CA_n260G-n261H		n260	CA_n260G	0
		n261	CA_n261H	
CA_n260G-n261I		n260	CA_n260G	0
		n261	CA_n261I	
CA_n260G-n261J		n260	CA_n260G	0
		n261	CA_n261J	
CA_n260G-n261K		n260	CA_n260G	0
		n261	CA_n261K	
CA_n260G-n261L		n260	CA_n260G	0
		n261	CA_n261L	
CA_n260G-n261M		n260	CA_n260G	0
		n261	CA_n261M	
CA_n260H-n261A	**CA_n260A-n261A[3]** CA_n260G CA_n260H CA_n261G CA_n261H CA_n261I CA_n261J CA_n261K CA_n261L CA_n261M	n260	CA_n260H	0
		n261	50, 100, 200, 400	
CA_n260H-n261G		n260	CA_n260H	0
		n261	CA_n261G	
CA_n260H-n261H		n260	CA_n260H	0
		n261	CA_n261H	
CA_n260H-n261I		n260	CA_n260H	0
		n261	CA_n261I	
CA_n260H-n261J		n260	CA_n260H	0
		n261	CA_n261J	
CA_n260H-n261K		n260	CA_n260H	0
		n261	CA_n261K	
CA_n260H-n261L		n260	CA_n260H	0
		n261	CA_n261L	
CA_n260H-n261M		n260	CA_n260H	0
		n261	CA_n261M	
CA_n260I-n261A	**CA_n260A-n261A[3]** CA_n260G CA_n260H CA_n260I CA_n261G CA_n261H CA_n261I CA_n261J CA_n261K CA_n261L CA_n261M	n260	CA_n260I	0
		n261	50, 100, 200, 400	
CA_n260I-n261G		n260	CA_n260I	0
		n261	CA_n261G	
CA_n260I-n261H		n260	CA_n260I	0
		n261	CA_n261H	
CA_n260I-n261I		n260	CA_n260I	0
		n261	CA_n261I	
CA_n260I-n261J		n260	CA_n260I	0
		n261	CA_n261J	
CA_n260I-n261K		n260	CA_n260I	0

		n261	CA_n261K	
CA_n260I-n261L		n260	CA_n260I	0
		n261	CA_n261L	
CA_n260I-n261M		n260	CA_n260I	0
		n261	CA_n261M	
CA_n260J-n261A	**CA_n260A-n261A**[3] CA_n260G CA_n260H CA_n260I CA_n260J CA_n261G CA_n261H CA_n261I CA_n261J CA_n261K CA_n261L CA_n261M	n260	CA_n260J	0
		n261	50, 100, 200, 400	
CA_n260J-n261G		n260	CA_n260J	0
		n261	CA_n261G	
CA_n260J-n261H		n260	CA_n260J	0
		n261	CA_n261H	
CA_n260J-n261I		n260	CA_n260J	0
		n261	CA_n261I	
CA_n260J-n261J		n260	CA_n260J	0
		n261	CA_n261J	
CA_n260J-n261K		n260	CA_n260J	0
		n261	CA_n261K	
CA_n260J-n261L		n260	CA_n260J	0
		n261	CA_n261L	
CA_n260J-n261M		n260	CA_n260J	0
		n261	CA_n261M	
CA_n260K-n261A	**CA_n260A-n261A**[3] CA_n260G CA_n260H CA_n260I CA_n260J CA_n260K CA_n261G CA_n261H CA_n261I CA_n261J CA_n261K CA_n261L CA_n261M	n260	CA_n260K	0
		n261	50, 100, 200, 400	
CA_n260K-n261G		n260	CA_n260K	0
		n261	CA_n261G	
CA_n260K-n261H		n260	CA_n260K	0
		n261	CA_n261H	
CA_n260K-n261I		n260	CA_n260K	0
		n261	CA_n261I	
CA_n260K-n261J		n260	CA_n260K	0
		n261	CA_n261J	
CA_n260K-n261K		n260	CA_n260K	0
		n261	CA_n261K	
CA_n260K-n261L		n260	CA_n260K	0
		n261	CA_n261L	
CA_n260K-n261M		n260	CA_n260K	0
		n261	CA_n261M	
CA_n260L-n261A	**CA_n260A-n261A**[3] CA_n260G CA_n260H CA_n260I CA_n260J CA_n260K CA_n260L CA_n261G CA_n261H CA_n261I CA_n261J CA_n261K CA_n261L CA_n261M	n260	CA_n260L	0
		n261	50, 100, 200, 400	
CA_n260L-n261G		n260	CA_n260L	0
		n261	CA_n261G	
CA_n260L-n261H		n260	CA_n260L	0
		n261	CA_n261H	
CA_n260L-n261I		n260	CA_n260L	0
		n261	CA_n261I	
CA_n260L-n261J		n260	CA_n260L	0
		n261	CA_n261J	
CA_n260L-n261K		n260	CA_n260L	0
		n261	CA_n261K	
CA_n260L-n261L		n260	CA_n260L	0
		n261	CA_n261L	
CA_n260L-n261M		n260	CA_n260L	0
		n261	CA_n261M	
CA_n260M-n261A	**CA_n260A-n261A**[3] CA_n260G CA_n260H CA_n260I CA_n260J CA_n260K CA_n260L CA_n260M CA_n261G CA_n261H CA_n261I CA_n261J	n260	CA_n260M	0
		n261	50, 100, 200, 400	
CA_n260M-n261G		n260	CA_n260M	0
		n261	CA_n261G	
CA_n260M-n261H		n260	CA_n260M	0
		n261	CA_n261H	
CA_n260M-n261I		n260	CA_n260M	0
		n261	CA_n261I	
CA_n260M-n261J		n260	CA_n260M	0
		n261	CA_n261J	
CA_n260M-n261K		n260	CA_n260M	0
		n261	CA_n261K	

CA_n260M-n261L	CA_n261K CA_n261L CA_n261M	n260	CA_n260M	0
		n261	CA_n261L	
CA_n260M-n261M		n260	CA_n260M	0
		n261	CA_n261M	
NOTE 1: The SCS of each channel bandwidth for NR band refers to Table 5.3.5-1. NOTE 2: Unless otherwise stated, BCS0 is referred in each constituent CA configuration NOTE 3: UL CA combination applicable to power classes 1, 2 and 5 only				

UL-MIMO操作频段的UE配置在TS 38.101-2 [3]中的第5.5D节定义。

5.5D Configurations for UL MIMO

The requirements specified in clause 5.5 are applicable to UE supporting UL MIMO.

3.1.5 定义、符号和缩写

3.1.5.1 定义

聚合信道带宽：UE配置为发送和接收多个连续聚合载波的RF带宽。

载波聚合：两个或多个分量载波的聚合，用于支持更宽的传输带宽。

信道带宽：支持具有小区上行链路或下行链路中配置的传输带宽的单个E-UTRA射频载波的射频段宽。信道带宽以MHz为单位测量，用作发射机和接收机射频要求的参考。

EIRP（链路=链路角度，Meas=链路角度）：对UE的测量，使链路角度与测量角度对齐。EIRP（待测指标）可用EIS、频率、EVM、载波泄漏、带内发射和OBW代替。

EIRP（链路=TX波束峰值方向，Meas=链路角度）：测量UE的EIRP，使测量角度在可接受的测量误差不确定性内与波束峰值方向对齐。EIRP（待测指标）可以用频率、EVM、载波泄漏、带内发射和OBW代替。

EIRP（链路=球形覆盖网格，Meas=链路角度）：测量UE的EIRP球形覆盖范围，使EIRP链路和测量角度在可接受的测量误差不确定性内与沿球形覆盖网格的方向对齐。或者，可以用波束峰值搜索网格来替代球形覆盖网格，因为波束峰值搜索的结果可以重新用于球形覆盖。

EIS（有效各向同性灵敏度）：等效各向同性设备的灵敏度，是指与被测设备在特定到达角（AoA）入射波作用下的灵敏度相对应的灵敏度。

EIS（链路=RX波束峰值方向，Meas=链路角度）：UE的EIS测量，使测量角度在可接受的测量误差不确定性内与RX波束峰值方向对齐。

注1： 灵敏度是满足特定要求的最小接收功率电平。

注2： 等效各向同性在所有方向上都是相等的（即0 dBi）。

后备组：对于同一回退组中的载波聚合带宽类别，UE应具备从高阶带宽类别配置回退至低阶带宽类别配置的能力。对于属于其他回退组的低阶带宽类别配置，则不强制要求UE支持该回退功能。

频段内连续载波聚合：在相同操作频段中聚合的连续载波。

频段内非连续载波聚合：在相同操作频段中聚合的非连续载波。

链路角：从UE视角看的DL信号AoA，如附件J所述。如果波束锁定功能用于锁定UE波束，一旦波束锁定被激活，链路角度可以变为任意的AOA。

测量角：从UE的角度测量所需度量的角度，如附件J所述

辐射接口边界：对于特定操作频段，作为辐射性能要求适用基准的参考边界。

辐射要求参考点：对于射频测量设置，辐射要求参考点位于静区的中心。从UE的角度来看，参考点是UE天线阵列的输入。

RX波束峰值方向：找到RSRP的最大总分量的方向，从而找到EIS的最佳总分量。

子块：这是由同一UE进行发射和接收的一个连续频谱分配块。在一个射频段宽内可以有多个子块的实例。

TX波束峰值方向：找到EIRP的最大总分量的方向。

TRP（链路=TX波束峰值方向，Meas=TRP网格）： 测量UE的TRP，使测量角度在可接受的测量不确定性内与TRP网格点的方向对齐，而链路角度与TX波束峰值方向对齐。

3.1.5.2 符号

F_{DL_low} 下行链路操作频段的最低频率

F_{DL_high} 下行链路操作频段的最高频率

F_{UL_low} 上行链路操作频段的最低频率

F_{UL_high} 上行链路操作频段的最高频率

3.1.5.3 缩略语

ACLR 相邻信道泄漏比
CA 载波聚合
DC 双连接
FDD 频分双工
FR 频率范围
NR 新空中接口
NS 网络信令
SUL 补充上行链路
FDD 时分双工
UE 用户设备
EIRP 等效全向辐射功率
EIS 有效各向同性灵敏度
UL MIMO 上行链路多天线发射

3.2 射频频谱发射

其他发射要求可由网络发出信号。每个附加的发射要求都与一个独特的NS标签相关联。NS标签及其相应NR频段的列表在TS 38.521-2 [6]的表6.2.3.3.1-1和表6.2.3.3.1-2中定义。

Table 6.2.3.3.1-1: Additional maximum power reduction (A-MPR)

Network Signalling label	Requirements (subclause)	NR Band	Channel bandwidth (MHz)	Resources Blocks (N_{RB})	A-MPR (dB)
NS_200					N/A
NS_201 (NOTE 1)	6.5.3.3.3	n258			6.2.3.3.2
NS_202	6.5.3.3.3	n257, n258	50, 100, 200, 400	Table 5.3.2-1	6.2.3.3.3
NS_203	6.5.3.3.3	n258	50, 100, 200, 400	Table 5.3.2-1	6.2.3.3.4
NOTE 1: NS_201 is obsolete, the associated additional spurious emission requirements are not applicable.					

Table 6.2.3.3.1-2: Mapping of Network Signalling label

NR Band	Value of *additionalSpectrumEmission* (NOTE 1)							
	0	1	2	3	4	5	6	7
n257	NS_200	NS_202						
n258	NS_200	NS_201[2]	NS_202	NS_203				
n260	NS_200							
n261	NS_200							
NOTE 1: *additionalSpectrumEmission* corresponds to an information element of the same name defined in sub-clause 6.3.2 of TS 38.331 [19]. NOTE 2: NS_201 is obsolete, the associated additional spurious emission requirements are not applicable.								

3.2.1 带外发射

3.2.1.1 频谱发射掩模

一般NR频谱发射掩模限值在TS 38.521-2 [6]的表6.5.2.1.5-1中定义，测试容限在表6.5.2.1.5-1a中定义。

Table 6.5.2.1.5-1: General NR spectrum emission mask for Range 2

Spectrum emission limit (dBm)/ Channel bandwidth					
Δf_{OOB} (MHz)	50 MHz	100 MHz	200 MHz	400 MHz	Measurement bandwidth
± 0-5	-5 + TT	-5 + TT	-5 + TT	-5 + TT	1 MHz
± 5-10	-13 + TT	-5 + TT	-5 + TT	-5 + TT	1 MHz
± 10-20	-13 + TT	-13 + TT	-5 + TT	-5 + TT	1 MHz
± 20-40	-13 + TT	-13 + TT	-13 + TT	-5 + TT	1 MHz
± 40-100	-13 + TT	-13 + TT	-13 + TT	-13 + TT	1 MHz
± 100-200		-13 + TT	-13 + TT	-13 + TT	1 MHz
± 200-400			-13 + TT	-13 +TT	1 MHz
± 400-800				-13 + TT	1 MHz
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5.2.1.5-1a NOTE 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively. NOTE 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.					

Table 6.5.2.1.5-1a: Test Tolerance (Spectrum emission mask)

Test Metric	23.45 GHz ≤ f ≤ 32.125 GHz	32.125 GHz < f ≤ 40.8 GHz
IFF (Max device size ≤ 30 cm)	3.21 dB	3.46 dB

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

3.2.2 发射机杂散发射

杂散发射是由无用发射机效应引起的发射，如谐波发射、寄生发射、互调产物和变频产物，但带外发射除外，除非另有说明。杂散发射限值是根据ITU-RSM.329建议书的一般要求和NR操作频段要求规定的，以解决UE共存问题。

为提高测量精确度、敏感度和效率，分辨带宽可以小于测量带宽。当分辨带宽小于测量带宽时，结果应在测量带宽上进行积分处理，以获得测量带宽的等效噪声带宽。

3.2.2.1 杂散发射要求

一般NR杂散发射限值在TS 38.521-2 [6]的表6.5.3.1.5-1中定义。

Table 6.5.3.1.5-1: Spurious emissions test requirements

Frequency Range	Maximum Level	Measurement bandwidth	NOTE
6 GHz ≤ f < 12.75 GHz	-30 dBm	1 MHz	
12.75 GHz ≤ f ≤ 2nd harmonic of the upper frequency edge of the UL operating band in GHz	-13 dBm	1 MHz	
NOTE 1: Applies for Band n257, n258, n260, n261			

3.2.2.2 UE共存的杂散发射

UE的共存要求参见TS 38.521-2 [6]的表6.5.3.2.5-1。

Table 6.5.3.2.5-1: Spurious emissions UE co-existence test requirements

NR Band	Spurious emission						
	Protected band/frequency range	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
n257	NR Band n260	F_{DL_low}	-	F_{DL_high}	-2 + 5.0	100	NOTE 3
	Frequency range	57000	-	66000	2	100	
	Frequency range	23600	-	24000	1 + 0.3	200	NOTE 6
n258	Frequency range	57000	-	66000	2	100	
n259	NR Band 257	F_{DL_low}	-	F_{DL_high}	-5 + 3.3	100	n259, NOTE 4
	NR Band 261	F_{DL_low}	-	F_{DL_high}	-5 + 3.3	100	NOTE 4
	Frequency range	36000	-	37000	7 + 6.0	1000	NOTE 5
	Frequency range	57000	-	66000	2	100	
n260	NR Band 257	F_{DL_low}	-	F_{DL_high}	-5 + 3.3	100	NOTE 4
	NR Band 261	F_{DL_low}	-	F_{DL_high}	-5 + 3.3	100	NOTE 4
	Frequency range	57000	-	66000	2	100	
n261	NR Band 260	F_{DL_low}	-	F_{DL_high}	-2 + 5.0	100	NOTE 3
	Frequency range	57000	-	66000	2	100	

NOTE 1: F_{DL_low} and F_{DL_high} refer to each NR frequency band specified in Table 5.2-1.
NOTE 2: Void.
NOTE 3: 5.0 dB relaxation due to testability limit
NOTE 4: 3.3 dB relaxation due to testability limit
NOTE 5: 6.0 dB relaxation due to testability limit
NOTE 6: 0.3 dB relaxation due to testability limit

3.2.2.3 附加杂散发射

上述要求以附加频谱发射要求的形式规定。网络通过信令机制通知附加杂散发射要求，用于指示UE在特定网络部署场景中需满足额外的发射限制。该信息作为小区切换消息或系统广播消息的一部分进行传输。

TS 38.521-2 [6]的表6.5.3.3.3-2定义了网络信令标签“NS_202”的附加杂散发射要求。

Table 6.5.3.3.3-2: Additional spurious emissions (NS_202) test limits

Frequency Range	Maximum Level	Measurement bandwidth
7.25 GHz ≤ f ≤ 2nd harmonic of the upper frequency edge of the UL operating band	-10 dBm	100 MHz
23.6 GHz ≤ f ≤ 24.0 GHz	+1 dBm	200 MHz
NOTE 1: This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth. The protection of frequency range 23600 - 24000 MHz is meant for protection of satellite passive services.		

TS 38.521-2 [6]的表6.5.3.3.3-3定义了网络信令标签“NS_203”的附加杂散发射要求。

Table 6.5.3.3.3-3: Additional spurious emissions (NS_203) test limits

Frequency band (GHz)	Spectrum emission limit (dBm)	Measurement bandwidth
23.6 ≤ f ≤ 24.0	+1	200 MHz

3.2A CA的输出RF频谱发射

3.2A.1 带外发射

3.2A.1.1 频谱发射掩模

TS 38.521-2 [6]中的第6.5A.2.1.1.5节定义了带内连续CA的一般NR频谱发射掩模限值。

6.5A.2.1.1.5 Test Requirements

The measured TRP of any UE emission derived in step 7, shall fulfil requirements in Table.6.5A.2.1.1.5-1.

Table 6.5A.2.1.1.5-1: General NR spectrum emission mask for intra-band contiguous CA in frequency range 2

Δf_{OOB} (MHz)	Any carrier aggregation bandwidth class	Measurement bandwidth
$\pm$ 0-0.1*$BW_{Channel_CA}$	-5 + TT	1 MHz
$\pm$ 0.1*$BW_{Channel_CA}$ - 2*$BW_{Channel_CA}$	-13 + TT	1 MHz
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5A.2.1.1.5-1a NOTE 2: If carrier leakage or I/Q image lands inside the spectrum occupied by the configured UL and DL CCs, exception to the general spectrum emission mask limit applies. For carrier leakage the requirements specified in section 6.4A.2.2.0 shall apply. For I/Q image the requirements specified in section 6.4A.2.3.0 shall apply. NOTE 3: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and -0.5 MHz, respectively. NOTE 4: The measurements are to be performed above the upper edge of the aggregated channel bandwidth and below the lower edge of the aggregated channel bandwidth.		

Table 6.5A.2.1.1.5-1a: Test Tolerance (Aggregated BW ≤ 400 MHz)

Test Metric	FR2a	FR2b
IFF (Max device size ≤ 30 cm)	3.21 dB	3.46 dB

3.2A.1.2 无效

3.2A.1.3 相邻信道泄漏比

CA的一般NR ACLR限值在TS 38.521-2 [6]中的第6.5A.2.2.1.5节定义。

6.5A.2.2.1.5 Test Requirements

If the measured adjacent channel power, derived in step 8, is greater than -35 dBm then the measured NR_{ACLR}, derived in step 9, shall be higher than the limits in Table 6.5A.2.2.1.5-1.

Table 6.5A.2.2.1.5-1: General requirements for CA NR_{ACLR}

	CA bandwidth class / CA NR_{ACLR} / Measurement bandwidth
	Any CA bandwidth class
CA NR_{ACLR} for band n257, n258, n261	17 - TT- R dB
CA NR_{ACLR} for band n260	16 - TT dB
NR channel measurement bandwidth[1]	$BW_{Channel_CA} - 2*BW_{GB}$
Adjacent channel centre frequency offset (in MHz)	+ $BW_{Channel_CA}$ / - $BW_{Channel_CA}$
NOTE 1: BW_{GB} is defined in clause 5.3A.2. NOTE 2: TT for each frequency and channel bandwidth is specified in Table 6.5A.2.2.1.5-1a NOTE 3: R for each frequency, channel bandwidth and test point is specified in Table 6.5A.2.2.1.5-1b	

Table 6.5A.2.2.1.5-1a: Test Tolerance (Aggregated BW ≤ 400 MHz)

Test Metric	**Any CA bandwidth class**	**23.45 GHz ≤ f ≤ 30.3 GHz**	**30.3 GHz < f ≤ 40.8 GHz**
IFF (Max device size ≤ 30 cm)	$BW_{Channel_CA}$ ≤ 100 MHz	4.96 dB	4.96 dB
	100 MHz < $BW_{Channel_CA}$ ≤ 200 MHz	4.96 dB	4.96 dB
	200 MHz < $BW_{Channel_CA}$ ≤ 400 MHz	4.96 dB	4.96 dB

Table 6.5A.2.2.1.5-1b: Relaxation due to testability limit (Aggregated BW ≤ 400MHz)

		Channel bandwidth / NR_{ACLR} / Measurement bandwidth		
	Test ID	**$BW_{Channel_CA}$ ≤ 100 MHz**	**100 MHz < $BW_{Channel_CA}$ ≤ 200 MHz**	**200 MHz < $BW_{Channel_CA}$ ≤ 400 MHz**
NR_{ACLR} for band n257, n258, n261	1	0	3	6
	2	0	3	6
	3	0	0	3
	4	0	3	6
	5	0	3	6
	6	0	0	3
	7	0	3	6
	8	0	3	6
	9	0	2.5	5.5
	10	2	5	8
	11	0	3	6

	12	0	3	6
	13	0	0	3
NOTE 1: Relaxation value is 0 for FR2b.				

3.2A.2 CA的发射机杂散发射

CA的一般杂散发射限值在TS 38.521-2 [6]中的第6.5A.3.1.1.5节定义。

6.5A.3.1.1.5 Test Requirements

This clause specifies the requirements for the specified *NR* band for Transmitter Spurious emissions requirement with frequency range as indicated in Table 6.5A.3.1.1.5-1.

The maximum TRP power of spurious emission, measured using RMS detector, shall not exceed the described value in Table 6.5A.3.1.1.5-1.

Unless otherwise stated, the spurious emission limits apply for the frequency ranges that are more than F_{OOB} (MHz) in Table 6.5.3.1.3-1 starting from the edge of the assigned *NR* channel bandwidth. The spurious emission limits in Table 6.5A.3.1.1.5-1 apply for all transmitter band configurations (NRB) and channel bandwidths.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.5A.3.1.1.5-1: Spurious emissions for CA test requirements

Frequency Range	Maximum Level	Measurement bandwidth	NOTE
6 GHz ≤ f < 12.75 GHz	-30 dBm	1 MHz	
12.75 GHz ≤ f ≤ 2nd harmonic of the upper frequency edge of the UL operating band in GHz	-13 dBm	1 MHz	
NOTE 1: Applies for Band n257, n258, n260			

用于UE共存的杂散发射CA限值在TS 38.521-2 [6]的第6.5A.3.2.1.5节定义。

6.5A.3.2.1.5 Test requirement

This clause specifies the requirements for the specified *NR* band for Transmitter Spurious emissions for UE co-existence requirement with frequency range as indicated in Table 6.5A.3.2.1.5-1.

The maximum TRP power of spurious emission for UE co-existence, measured using RMS detector, shall not exceed the described value in Table 6.5A.3.2.1.5-1.

The spurious emission UE co-existence limits in Table 6.5A.3.2.1.5-1 apply for all transmitter band configurations (NRB) and channel bandwidths.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.5A.3.2.1.5-1: Spurious emissions UE co-existence CA test requirements

UL CA for any CA bandwidth class	Spurious emission						
	Protected band / frequency range	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
CA_n257	NR Band n260	F_{DL_low}	-	F_{DL_high}	-2	100	
	Frequency range	23600	-	24000	1	200	2
	Frequency range	57000	-	66000	2	100	
CA_n258							
	Frequency range	57000	-	66000	2	100	
CA_n259	NR Band 257	F_{DL_low}	-	F_{DL_high}	-5	100	
	NR Band 261	F_{DL_low}	-	F_{DL_high}	-5	100	
	Frequency range	36000	-	37000	7	1000	
	Frequency range	57000	-	66000	2	100	
CA_n260	NR Band 257	F_{DL_low}	-	F_{DL_high}	-5	100	
	NR Band 261	F_{DL_low}	-	F_{DL_high}	-5	100	
	Frequency range	57000	-	66000	2	100	
CA_n261	NR Band 260	F_{DL_low}	-	F_{DL_high}	-2	100	
	Frequency range	57000	-	66000	2	100	

NOTE 1: F_{DL_low} and F_{DL_high} refer to each NR frequency band specified in Table 5.2-1
NOTE 2: The protection of frequency range 23 600-24 00 MHz is meant for protection of satellite passive services.

3.2D UL MIMO的射频频谱发射

3.2D.1 UL MIMO的带外发射

3.2D.1.1 UL MIMO的频谱发射掩模

UL-MIMO的频谱发射掩模要求在TS 38.521-2 [6]中的第6.5D.2.1.5节定义。

6.5D.2.1.5 Test requirements

The test requirement is the same as in clause 6.5.2.1.5.

6.5.2.1.5 Test requirement

The measured TRP of any UE emission derived in step 5, shall fulfil requirements in Table 6.5.2.1.5-1.

Table 6.5.2.1.5-1: General NR spectrum emission mask for Range 2

Spectrum emission limit (dBm)/ Channel bandwidth					
Δf_{OOB} (MHz)	**50 MHz**	**100 MHz**	**200 MHz**	**400 MHz**	**Measurement bandwidth**
± 0-5	-5 + TT	-5 + TT	-5 + TT	-5 + TT	1 MHz
± 5-10	-13 + TT	-5 + TT	-5 + TT	-5 + TT	1 MHz
± 10-20	-13 + TT	-13 + TT	-5 + TT	-5 + TT	1 MHz
± 20-40	-13 + TT	-13 + TT	-13 + TT	-5 + TT	1 MHz
± 40-100	-13 + TT	-13 + TT	-13 + TT	-13 + TT	1 MHz
± 100-200		-13 + TT	-13 + TT	-13 + TT	1 MHz
± 200-400			-13 + TT	-13 +TT	1 MHz
± 400-800				-13 + TT	1 MHz
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5.2.1.5-1a NOTE 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5MHz and -0.5MHz, respectively. NOTE 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.					

Table 6.5.2.1.5-1a: Test Tolerance (Spectrum emission mask)

Test Metric	23.45 GHz ≤ f ≤ 32.125 GHz	32.125 GHz < f ≤ 40.8 GHz
IFF (Max device size ≤ 30 cm)	3.21 dB	3.46 dB

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

3.2D.1.3 UL MIMO的相邻信道泄漏比

UL-MIMO的NR ACLR要求在TS 38.521-2 [6]中的第6.5D.3.3节定义。

6.5D.3.3 Additional spurious emissions for UL MIMO

6.5D.3.3.1 Test purpose

Additional spurious emission requirements are signalled by the network to indicate that the UE shall meet an additional requirement for a specific deployment scenario as part of the cell handover/broadcast message.

6.5D.3.3.2 Test applicability

This test case applies to all types of NR UE release 15 and forward supporting UL MIMO.

6.5D.3.3.3 Minimum conformance requirements

For UE configured with UL MIMO, the minimum conformance requirements are defined in clause 6.5.3.3.3. The requirements shall be met with the UL MIMO configurations specified in Table 6.5D.3.1.3-1.

The normative reference for this requirement is TS 38.101-2 [3] clause 6.5D.3.

6.5D.3.3.4 Test description

6.5D.3.3.4.1 Initial condition

Same initial condition in clause 6.5.3.3.4.1 with following exceptions:

- Instead of DFT-s -OFDM → use CP-OFDM.

6.5D.3.3.4.2 Test procedure

Same test procedure as in clause 6.5.3.3.4.2 with the following added to step 3 for UL MIMO configuration:

3.1 The PDCCH DCI format 0_1 is specified with the condition 2TX_UL_MIMO in 38.508-1 [10] subclause 4.3.6.1.1.2.

6.5D.3.3.4.3 Message contents

Message contents are according to TS 38.508-1 [10] subclause 4.6 ensuring Table 4.6.3-182 with condition 2TX_UL_MIMO.

6.5D.3.3.5 Test requirements

The test requirement is the same as in clause 6.5.3.3.5.

3.2D.2 UL MIMO的杂散发射

3.2D.2.1 杂散发射要求

UL MIMO的一般杂散发射限值在TS 38.521-2 [6]中的第6.5D.3.1.5节定义。

6.5D.3.1.5 Test requirements

The test requirement is the same as in clause 6.5.3.1.5.

6.5.3.1.5 Test requirement

This clause specifies the requirements for the specified *NR* band for Transmitter Spurious emissions requirement with frequency range as indicated in Table 6.5.3.1.5-1.

The maximum TRP power of spurious emission, measured using RMS detector, shall not exceed the described value in Table 6.5.3.1.5-1.

Unless otherwise stated, the spurious emission limits apply for the frequency ranges that are more than F_{OOB} (MHz) in Table 6.5.3.1.3-1 starting from the edge of the assigned *NR* channel bandwidth. The spurious emission limits in Table 6.5.3.1.5-1 apply for all transmitter band configurations (NRB) and channel bandwidths.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.5.3.1.5-1: Spurious emissions test requirements

Frequency Range	Maximum Level	Measurement bandwidth	NOTE
6 GHz ≤ f < 12.75 GHz	-30 dBm	1 MHz	
12.75 GHz ≤ f ≤ 2nd harmonic of the upper frequency edge of the UL operating band in GHz	-13 dBm	1 MHz	
NOTE 1: Applies for Band n257, n258, n260, n261			

3.2D.2.2 UE共存的杂散发射

UL MIMO的UE共存限值杂散发射在TS 38.521-2 [6]中的第6.5D.3.2节定义。

6.5D.3.2 Spurious emission band UE co-existence for UL MIMO

6.5D.3.2.1 Test purpose

To verify that UL MIMO configured UE's transmitter does not cause unacceptable interference when in co-existence with protected bands in terms of transmitter spurious emissions.

6.5D.3.2.2 Test applicability

This test case applies to all types of NR UE release 15 and forward supporting UL MIMO.

6.5D.3.2.3 Minimum conformance requirements

For UE configured with UL MIMO, the minimum conformance requirements are defined in clause 6.5.3.2.3. The requirements shall be met with the UL MIMO configurations specified in Table 6.5D.3.1.3-1.

The normative reference for this requirement is TS 38.101-2 [3] clause 6.5D.3.

6.5D.3.2.4 Test description

6.5D.3.2.4.1 Initial condition

Same initial condition in clause 6.5.3.2.4.1 with following exceptions:

- Instead of DFT-s -OFDM → use CP-OFDM.

6.5D.3.2.4.2 Test procedure

Same test procedure as in clause 6.5.3.2.4.2 with the following added to step 3 for UL MIMO configuration:

3.1 The PDCCH DCI format 0_1 is specified with the condition 2TX_UL_MIMO in 38.508-1 [10] subclause 4.3.6.1.1.2.

6.5D.3.2.4.3 Message contents

Message contents are according to TS 38.508-1 [10] subclause 4.6 ensuring Table 4.6.3-182 with condition 2TX_UL_MIMO.

6.5D.3.2.5 Test requirements

The test requirement is the same as in clause 6.5.3.2.5.

3.2D.2.3 附加杂散发射

UL MIMO的UE共存限值杂散发射在TS 38.521-2 [6]中的第6.5D.3.3节定义。

4 NR频率范围1和范围2独立组网模式下的一般无用发射特性

4.1 操作频段和信道安排

4.1.1 操作频段

FR1和FR2之间带内NR CA的UE操作频段在TS 38.521-3 [8]的表5.2A.1-1定义。

Table 5.2A.1-1: Band combinations for inter-band NR CA between FR1 and FR2

NR CA Band	NR Band
CA_n8-n258[1]	n8, n258
CA_n71-n257[1]	n71, n257
CA_n77-n257[1]	n77, n257
CA_n78-n257[1]	n78, n257
CA_n79-n257[1]	n79, n257
NOTE 1: Applicable for UE supporting inter-band carrier aggregation with mandatory simultaneous Rx/Tx capability.	

DC安排的UE操作频段在TS 38.521-3 V16.7.0第5.5B子节规定。

5.5B Configuration for DC

5.5B.1 General

The operating bands and bandwidth classes are specified for operation with EN-DC, NGEN-DC, NE-DC or NR-DC configured. The EN-DC, NE-DC or NGEN-DC band combinations include at least one E-UTRA operating band.

For EN-DC or NE-DC configurations indicated by column "Single Uplink allowed" (e.g., problematic band combinations as defined in TS 38.306 [16]) in tables in this clause the UE may indicate capability of not supporting simultaneous dual and triple uplink operation due to possible intermodulation interference to its own primary downlink channel bandwidth of PCell or PSCell if the intermodulation order is 2 or if the intermodulation order is 3 for the combinations when both operating bands are between 450 MHz – 960 MHz or between 1 427 MHz – 2 690 MHz.

In the case for EN-DC or NE-DC configurations listed in tables in this clause for which the intermodulation products caused by the dual and triple uplink operation fall into the receive band but do not interfere with its own primary downlink channel bandwidth of PCell or PSCell as defined in Annex I the UE is mandated to operate in dual and triple uplink mode. Single Uplink is also allowed for certain band combinations where intermodulation or reverse intermodulation products could create difficulty for meeting emission requirements.

For EN-DC combinations of order 3 or higher, "Single Uplink allowed" UL configurations captured in Table 5.5B.2-1, Table 5.5B.3-1, and Table 5.5B.4-1 apply.

Non-contiguous resource allocation and almost contiguous allocation are not applicable for E-UTRA or NR carrier part of intra-band EN-DC configuration.

If multiple UL DC configurations are listed for multiple DL DC configurations, valid uplink configurations are such that uplink does not have more carriers than downlink.

Non-contiguous resource allocation and almost contiguous allocation are not applicable for E-UTRA or NR carrier part of intra-band EN-DC configuration.

5.5B.2 Intra-band contiguous EN-DC

Supported channel bandwidths for E-UTRA operating bands are defined in TS 36.521-1 [10] and for NR operating bands in TS 38.521-1 [8].

Table 5.5B.2-1: Intra-band contiguous EN-DC configurations

EN-DC Configuration	Uplink EN-DC configuration (NOTE 1)	Single UL allowed
DC_(n)41AA[5] DC_(n)41CA[5] DC_(n)41DA[5]	DC_(n)41AA	Yes[3]
DC_(n)41CA[5]	DC_41A_n41A	Yes[3]

DC_(n)41DA[5]		
DC_(n)71AA[2]	DC_(n)71AA	No[4]

NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.
NOTE 2: Requirements in this specification apply for NR SCS of 15 kHz only.
NOTE 3: Single UL allowed due to potential emission issues, not self-interference.
NOTE 4: For UE(s) supporting dynamic power sharing it is mandatory to do dual simultaneous UL. For UE(s) not supporting dynamic power sharing single UL is allowed.
NOTE 5: The minimum requirements only apply for non-simultaneous Tx/Rx between all carriers.

5.5B.3 Intra-band non-contiguous EN-DC

Supported channel bandwidths for E-UTRA operating bands are defined in TS 36.521-1 [10] and for NR operating bands in TS 38.521-1 [8].

Table 5.5B.3-1: Intra-band non-contiguous EN-DC configurations

EN-DC Configuration	Uplink EN-DC configuration (NOTE 1)	Single UL allowed
DC_3A_n3A	DC_3A_n3A[2]	Yes[2]
DC_41A_n41A[3] DC_41C_n41A[3] DC_41D_n41A[3]	DC_41A_n41A	Yes[4]
DC_66A_n66A	DC_66A_n66A[5]	Yes[5]

NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.
NOTE 2: Only single switched UL is supported in Rel-15
NOTE 3: The minimum requirements only apply for non-simultaneous Tx/Rx between all carriers.
NOTE 4: Single UL allowed due to potential emission issues, not self-interference.
NOTE 5: Only single switched UL is supported.

5.5B.4 Inter-band EN-DC within FR1

Supported channel bandwidths for E-UTRA operating bands and CA configurations are defined in TS 36.521-1 [10] and for NR operating bands and CA configurations in TS 38.521-1 [8] and present document.

5.5B.4.1 Inter-band EN-DC configurations within FR1 (two bands)

Table 5.5B.4.1-1: Inter-band EN-DC configurations within FR1 (two bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)	Single UL allowed
DC_1A_n3A	DC_1A_n3A	DC_1_n3
DC_1A_n28A	DC_1A_n28A	No
DC_1A_n40A	DC_1A_n40A	No
DC_1A_n51A	DC_1A_n51A	No
DC_1A_n77A[7] DC_1A_n77C[7]	DC_1A_n77A	DC_1_n77
DC_1A_n78A[7] DC_1A_n78C[7]	DC_1A_n78A	No
DC_1A_n79A[7] DC_1A_n79C[7]	DC_1A_n79A	No
DC_2A_n5A	DC_2A_n5A	No
DC_2A_n41A DC_2C_n41A	DC_2A_n41A DC_2C_n41A	No
DC_2A_n66A	DC_2A_n66A	DC_2_n66
DC_2A_n71A	DC_2A_n71A	No
DC_2A_n78A	DC_2A_n78A	DC_2_n78
DC_3A_n1A	DC_3A_n1A	DC_3_n1
DC_3A_n7A	DC_3A_n7A	No
DC_3A_n28A	DC_3A_n28A	No

DC_3A_n40A	DC_3A_n40A	No	
DC_3A_n41A DC_3C_n41A	DC_3A_n41A DC_3C_n41A	DC_3_n41	
DC_3A_n51A	DC_3A_n51A	No	
DC_3A_n77A[7] DC_3A_n77C[7]	DC_3A_n77A	DC_3_n77	
DC_3A_n78A[7] DC_3A_n78C[7] DC_3C_n78A[7]	DC_3A_n78A	DC_3_n78	
DC_3A_n79A[7] DC_3A_n79C[7]	DC_3A_n79A	No	
DC_5A_n2A	DC_5A_n2A	No	
DC_5A_n40A	DC_5A_n40A	No	
DC_5A_n66A	DC_5A_n66A	DC_5_n66	
DC_5A_n78A[7]	DC_5A_n78A	No	
DC_7A_n1A	DC_7A_n1A	No	
DC_7A_n3A	DC_7A_n3A	No	
DC_7A_n28A	DC_7A_n28A	No	
DC_7A_n51A	DC_7A_n51A	No	
DC_7A_n66A DC_7C_n66A	DC_7A_n66A	No	
DC_7A_n78A[7]	DC_7A_n78A	No	
DC_7C_n78A[7]	DC_7A_n78A	No	
DC_7A-7A_n78A[7]	DC_7A_n78A	No	
DC_8A_n1A	DC_8A_n1A	No	
DC_8A_n3A	DC_8A_n3A	No	
DC_8A_n40A[7]	DC_8A_n40A	No	
DC_8A_n41A DC_8A_n41C DC_8A_n41(2A)	DC_8A_n41A	No	
DC_8A_n77A[7]	DC_8A_n77A	No	
DC_8A_n78A[7]	DC_8A_n78A	No	
DC_8A_n79A[7]	DC_8A_n79A	No	
DC_11A_n77A[7]	DC_11A_n77A	No	
DC_11A_n78A[7]	DC_11A_n78A	No	
DC_11A_n79A[7]	DC_11A_n79A	No	
DC_12A_n5A	DC_12A_n5A	No	
DC_12A_n66A	DC_12A_n66A	No	
DC_12A_n78A	DC_12A_n78A	DC_12_n78	
DC_13A_n2A	DC_13A_n2A	No	
DC_13A_n66A	DC_13A_n66A	No	
DC_14A_n2A	DC_14A_n2A	No	
DC_14A_n66A	DC_14A_n66A	No	
DC_18A_n77A[7]	DC_18A_n77A	No	
DC_18A_n78A[7]	DC_18A_n78A	No	
DC_18A_n79A[7]	DC_18A_n79A	No	
DC_19A_n77A[7] DC_19A_n77C[7]	DC_19A_n77A	No	
DC_19A_n78A[7] DC_19A_n78C[7]	DC_19A_n78A	No	
DC_19A_n79A[7] DC_19A_n79C[7]	DC_19A_n79A	No	
DC_20A_n1A	DC_20A_n1A	No	
DC_20A_n3A	DC_20A_n3A	No	
DC_20A_n8A	DC_20A_n8A	DC_20_n8	
DC_20A_n28A[8,10]	DC_20A_n28A	No	
DC_20A_n51A	DC_20A_n51A	No	
DC_20A_n77A[7]	DC_20A_n77A	No	
DC_20A_n78A[7]	DC_20A_n78A	No	
DC_21A_n77A[7] DC_21A_n77C[7]	DC_21A_n77A	No	

	DC_21A_n78A[7] DC_21A_n78C[7]	DC_21A_n78A	No	
	DC_21A_n79A[7] DC_21A_n79C[7]	DC_21A_n79A	No	
	DC_25A_n41A	DC_25A_n41A	No	
	DC_26A_n41A	DC_26A_n41A	No	
	DC_26A_n77A[7]	DC_26A_n77A	No	
	DC_26A_n78A[7]	DC_26A_n78A	No	
	DC_26A_n79A[7]	DC_26A_n79A	No	
	DC_28A_n3A	DC_28A_n3A	No	
	DC_28A n51A	DC_28A_n51A	No	
	DC_28A_n77A[7] DC_28A_n77C[7]	DC_28A_n77A	No	
	DC_28A_n78A[7] DC_28A_n78C[7]	DC_28A_n78A	No	
	DC_28A_n79A[7] DC_28A_n79C[7]	DC_28A_n79A	No	
	DC_30A_n5A	DC_30A_n5A	No	
	DC_30A_n66A	DC_30A_n66A	No	
	DC_38A_n78A[7]	N/A	No	
	DC_39A_n41A DC_39C_n41A	DC_39A_n41A DC_39C_n41A	No	
	DC_39A_n78A[5, 7]	DC_39A_n78A	No	
	DC_39A_n79A[7]	DC_39A_n79A	No	
	DC_40A_n1A	DC_40A_n1A	No	
	DC_40A_n41A	DC_40A_n41A	No	
	DC_40A_n77A	N/A	No	
	DC_40A_n78A DC_40C_n78A	DC_40A_n78A DC_40C_n78A	No	
	DC_41A_n77A DC_41C_n77A	DC_41A_n77A	No	
	DC_41A_n78A DC_41C_n78A	DC_41A_n78A	No	
	DC_41A_n79A[6,7] DC_41C_n79A[6,7]	DC_41A_n79A	No	
	DC_42A_n51A	DC_42A_n51A	No	
	DC_42A_n77A[3,4,9,11] DC_42A_n77C[3,4,9] DC_42C_n77A[3,4,9] DC_42C_n77C[3,4,9] DC_42D_n77A[3,4,9] DC_42E_n77A[3,4,9]	N/A	N/A	
	DC_42A_n78A[3,4,9] DC_42A_n78C[3,4,9] DC_42C_n78A[3,4,9] DC_42C_n78C[3,4,9] DC_42D_n78A[3,4,9] DC_42E_n78A[3,4,9]	N/A	N/A	
	DC_42A_n79A[9] DC_42A_n79C[9] DC_42C_n79A[9] DC_42C_n79C[9] DC_42D_n79A[9] DC_42E_n79A[9]	N/A	N/A	
	DC_46A_n78A[2] DC_46C_n78A[2] DC_46D_n78A[2] DC_46E_n78A[2]	N/A	N/A	
	DC_48A_n5A	DC_48A_n5A	No	
	DC_48A_n66A	DC_48A_n66A	No	
	DC_66A_n2A	DC_66A_n2A	DC_66_n2	
	DC_66A_n5A	DC_66A_n5A	DC_66_n5	
	DC_66A_n41A	DC_66A_n41A	No	

DC_66A_n71A	DC_66A_n71A	No
DC_66A_n78A	DC_66A_n78A	No

NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.
NOTE 2: Restricted to E-UTRA operation when inter-band carrier aggregation is configured. The downlink operating band for Band 46 is paired with the uplink operating band (external E-UTRA band) of the carrier aggregation configuration that is supporting the configured PCell.
NOTE 3: The minimum requirements apply only when there is non-simultaneous Tx/Rx operation between E-UTRA and NR carriers. This restriction applies also for these carriers when applicable EN-DC configuration is part of a higher order EN-DC configuration.
NOTE 4: The minimum requirements for intra-band contiguous or non-contiguous EN-DC apply. The intra-band requirements also apply for these carriers when applicable EN-DC configuration is a subset of a higher order EN-DC configuration.
NOTE 5: The frequency range above 3 600 MHz for Band n78 is not used in this combination.
NOTE 6: The frequency range below 2 506 MHz for Band 41 is not used in this combination.
NOTE 7: Applicable for UE supporting inter-band EN-DC with mandatory simultaneous Rx/Tx capability.
NOTE 8: The frequency range in band n28 is restricted for this band combination to 703-733 MHz for the UL and 758-788 MHz for the DL.
NOTE 9: The combination is not used alone as fall back mode of other band combinations in which UL in Band 42 is not used.
NOTE 10: The maximum power spectral density imbalance between downlink carriers is within 6 dB. The power spectral density imbalance condition also applies for these carriers when applicable EN-DC configuration is a subset of a higher order EN-DC configuration.
NOTE 11: The minimum requirements for inter-band EN-DC apply when the maximum power spectral density imbalance between downlink carriers is within 6 dB. The power spectral density imbalance condition also applies for these carriers when applicable EN-DC configuration is a subset of a higher order EN-DC configuration.

5.5B.4.2 Inter-band EN-DC configurations within FR1 (three bands)

Table 5.5B.4.2-1: Inter-band EN-DC configurations within FR1 (three bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A-3A_n28A	DC_1A_n28A DC_3A_n28A
DC_1A-3A_n77A[5] DC_1A-3A_n77C[5]	DC_1A_n77A DC_3A_n77A
DC_1A-3A_n78A[5] DC_1A-3A_n78C[5] DC_1A-3C_n78A[5]	DC_1A_n78A DC_3A_n78A
DC_1A-3A_n79A[5] DC_1A-3A_n79C[5]	DC_1A_n79A DC_3A_n79A
DC_1A-5A_n78A[5]	DC_1A_n78A DC_5A_n78A
DC_1A-7A_n3A	DC_1A_n3A DC_7A_n3A
DC_1A-7A_n28A[5]	DC_1A_n28A DC_7A_n28A
DC_1A-7A_n78A[5]	DC_1A_n78A DC_7A_n78A
DC_1A-7A-7A_n78A[5]	DC_1A_n78A DC_7A_n78A
DC_1A-8A_n3A	DC_1A_n3A DC_8A_n3A
DC_1A-8A_n78A[5]	DC_1A_n78A DC_8A_n78A
DC_1A-18A_n77A[5]	DC_1A_n77A DC_18A_n77A
DC_1A-18A_n78A[5]	DC_1A_n78A DC_18A_n78A
DC_1A-18A_n79A	DC_1A_n79A DC_18A_n79A

DC_1A-19A_n77A[5] DC_1A-19A_n77C[5]	DC_1A_n77A DC 19A_n77A
DC_1A-19A_n78A[5] DC_1A-19A_n78C[5]	DC_1A_n78A DC_19A_n78A
DC_1A-19A_n79A[5] DC_1A-19A_n79C[5]	DC_1A_n79A DC_19A_n79A
DC_1A-20A_n3A	DC_1A_n3A DC_20A_n3A
DC_1A-20A_n28A[6]	DC_1A_n28A DC_20A_n28A
DC_1A-20A_n78A[5]	DC_1A_n78A DC_20A_n78A
DC_1A-21A_n77A[5] DC_1A-21A_n77C[5]	DC_1A_n77A DC_21A_n77A
DC_1A-21A_n78A[5] DC_1A-21A_n78C[5]	DC_1A_n78A DC_21A_n78A
DC_1A-21A_n79A[5] DC_1A-21A_n79C[5]	DC_1A_n79A DC_21A_n79A
DC_1A-28A_n3A	DC_1A_n3A DC_28A_n3A
DC_1A-28A_n77A[5] DC_1A-28A_n77C[5]	DC_1A_n77A DC_28A_n77A
DC_1A-28A_n78A[5] DC_1A-28A_n78C[5]	DC_1A_n78A DC_28A_n78A
DC_1A_n28A-n78A[5]	DC_1A_n28A, DC_1A_n78A
DC_1A-28A_n79A DC_1A-28A_n79C	DC_1A_n79A DC_28A_n79A
DC_1A-41A_n77A DC_1A-41C_n77A	DC_1A_n77A DC_41A_n77A
DC_1A-41A_n78A DC_1A-41C_n78A	DC_1A_n78A DC_41A_n78A
DC_1A-41C_n79A	DC_1A_n79A
DC_1A-42A_n77A DC_1A-42A_n77C DC_1A-42C_n77A DC_1A-42C_n77C DC_1A-42D_n77A DC_1A-42E_n77A	DC_1A_n77A
DC_1A-42A_n78A DC_1A-42A_n78C DC_1A-42C_n78A DC_1A-42C_n78C DC_1A-42D_n78A DC_1A-42E_n78A	DC_1A_n78A
DC_1A-42A_n79A DC_1A-42A_n79C DC_1A-42C_n79A DC_1A-42C_n79C DC_1A-42D_n79A DC_1A-42E_n79A	DC_1A_n79A
DC_1A_n77A-n79A	DC_1A_n77A DC_1A_n79A
DC_1A_n78A-n79A	DC_1A_n78A DC_1A_n79A
DC_1A_SUL_n78A-n84A[5]	DC_1A_n78A DC_1A_n84A_ULSUP-TDM_n78A DC_1A_n84A_ULSUP-FDM_n78A
DC_2A-5A_n66A	DC_2A_n66A DC_5A_n66A

	DC_2A-12A_n66A	DC_2A_n66A DC_12A_n66A	
	DC_2A-14A_n2A	DC_2A_n2A[2] DC_14A_n2A	
	DC_2A-14A_n66A	DC_2A_n66A DC_14A_n66A	
	DC_2A-2A-14A_n66A	DC_2A_n66A DC_14A_n66A	
	DC_2A-30A_n66A	DC_2A_n66A DC_30A_n66A	
	DC_2A-66A_n5A	DC_2A_n5A DC_66A_n5A	
	DC_2A-66A_n41A	DC_2A_n41A DC_66A_n41A	
	DC_2A-66A_n71A	DC_2A_n71A DC_66A_n71A	
	DC_2A-(n)71AA	DC_2A_n71A DC_(n)71AA	
	DC_3A_n3A-n77A	DC_3A_n77A DC_3A_n3A[2]	
	DC_3A_n3A-n78A	DC_3A_n78A DC_3A_n3A[2]	
	DC_3A-5A_n78A[5]	DC_3A_n78A DC_5A_n78A	
	DC_3A-7A_n28A	DC_3A_n28A DC_7A_n28A	
	DC_3A-7A_n78A[5] DC_3C-7A_n78A[5]	DC_3A_n78A DC_7A_n78A	
	DC_3A-7C_n78A[5] DC_3C-7C_n78A[5]	DC_3A_n78A DC_7A_n78A	
	DC_3A-7A-7A_n78A[5]	DC_3A_n78A DC_7A_n78A	
	DC_3A-8A_n1A	DC_3A_n1A DC_8A_n1A	
	DC_3A-8A_n78A	DC_3A_n78A DC_8A_n78A	
	DC_3A-18A_n78A	DC_3A_n78A DC_18A_n78A	
	DC_3A-19A_n77A[5] DC_3A-19A_n77C[5]	DC_3A_n77A DC_19A_n77A	
	DC_3A-19A_n78A[5] DC_3A-19A_n78C[5]	DC_3A_n78A DC_19A_n78A	
	DC_3A-19A_n79A[5] DC_3A-19A_n79C[5]	DC_3A_n79A DC_19A_n79A	
	DC_3A-20A_n1A	DC_3A_n1A DC_20A_n1A	
	DC_3A-20A_n28A[5,6]	DC_3A_n28A DC_20A_n28A	
	DC_3A-20A_n78A[5] DC_3C-20A_n78A[5]	DC_3A_n78A DC_20A_n78A	
	DC_3A-21A_n77A[5] DC_3A-21A_n77C[5]	DC_3A_n77A DC_21A_n77A	
	DC_3A-21A_n78A[5] DC_3A-21A_n78C[5]	DC_3A_n78A DC_21A_n78A	
	DC_3A-21A_n79A[5] DC_3A-21A_n79C[5]	DC_3A_n79A DC_21A_n79A	
	DC_3A-28A_n77A DC_3A-28A_n77C	DC_3A_n77A DC_28A_n77A	
	DC_3A-28A_n78A[5]	DC_3A_n78A	

DC_3A-28A_n78C[5]	DC_28A_n78A
DC_3A_n28A-n78A[5]	DC_3A_n28A, DC_3A_n78A
DC_3A-28A_n79A DC_3A-28A_n79C	DC_3A_n79A DC_28A_n79A
DC_3A-38A_n78A	DC_3A_n78A
DC_3A-40A_n1A	DC_3A_n1A DC_40A_n1A
DC_3A-41A_n78A	DC_3A_n78A DC_41A_n78A
DC_3A-42A_n77A DC_3A-42A_n77C DC_3A-42C_n77A DC_3A-42C_n77C DC_3A-42D_n77A DC_3A-42E_n77A	DC_3A_n77A
DC_3A-42A_n78A DC_3A-42A_n78C DC_3A-42C_n78A DC_3A-42C_n78C DC_3A-42D_n78A DC_3A-42E_n78A	DC_3A_n78A
DC_3A-42A_n79A DC_3A-42A_n79C DC_3A-42C_n79A DC_3A-42C_n79C DC_3A-42D_n79A DC_3A-42E_n79A	DC_3A_n79A
DC_3A_n77A-n79A	DC_3A_n77A DC_3A_n79A
DC_3A_n78A-n79A	DC_3A_n78A DC_3A_n79A
DC_3A_SUL_n78A-n80A[5]	DC_3A_n78A DC_3A_n80A_ULSUP-TDM_n78A DC_3A_n80A_ULSUP-FDM_n78A
DC_3A_SUL_n78A-n82A[5]	DC_3A_n78A DC_3A_n82A
DC_3A_SUL_n79A-n80A[5]	DC_3A_n79A DC_3A_n80A_ULSUP-TDM_n79A DC_3A_n80A_ULSUP-FDM_n79A
DC_5A-7A_n78A	DC_5A_n78A DC_7A_n78A
DC_5A-7A-7A_n78A	DC_5A_n78A DC_7A_n78A
DC_5A-30A_n66A	DC_5A_n66A DC_30A_n66A
DC_7A-8A_n1A	DC_7A_n1A DC_8A_n1A
DC_7A-20A_n1A	DC_7A_n1A DC_20A_n1A
DC_7A-20A_n3A	DC_7A_n3A DC_20A_n3A
DC_7A-20A_n28A[6]	DC_7A_n28A DC_20A_n28A
DC_7A-20A_n78A[5]	DC_7A_n78A DC_20A_n78A
DC_7A-28A_n3A	DC_7A_n3A DC_28A_n3A
DC_7A-28A_n78A[5]	DC_7A_n78A DC_28A_n78A

	DC_7C-28A_n78A[5]	DC_7A_n78A DC_28A_n78A	
	DC_7A_n28A-n78A[5]	DC_7A_n28A, DC_7A_n78A	
	DC_7A-46A_n78A[3] DC_7A-46C_n78A[3] DC_7A-46D_n78A[3] DC_7A-46E_n78A[3]	DC_7A_n78A	
	DC_8A_SUL_n78A-n81A[5]	DC_8A_n78A DC_8A_n81A_ULSUP-TDM_n78A DC_8A_n81A_ULSUP-FDM_n78A	
	DC_8A_SUL_n79A-n81A[5]	DC_8A_n79A DC_8A_n81A_ULSUP-TDM_n79A DC_8A_n81A_ULSUP-FDM_n79A	
	DC_12A-30A_n66A	DC_12A_n66A DC_30A_n66A	
	DC_18A-28A_n77A[5]	DC_18A_n77A DC_28A_n77A	
	DC_18A-28A_n78A[5]	DC_18A_n78A DC_28A_n78A	
	DC_18A-28A_n79A[5]	DC_18A_n79A DC_28A_n79A	
	DC_19A-21A_n77A[5] DC_19A-21A_n77C[5]	DC_19A_n77A DC_21A_n77A	
	DC_19A-21A_n78A[5] DC_19A-21A_n78C[5]	DC_19A_n78A DC_21A_n78A	
	DC_19A-21A_n79A[5] DC_19A-21A_n79C[5]	DC_19A_n79A DC_21A_n79A	
	DC_19A-42A_n77A DC_19A-42A_n77C	DC_19A_n77A	
	DC_19A-42A_n78A DC_19A-42A_n78C	DC_19A_n78A	
	DC_19A-42A_n79A DC_19A-42A_n79C	DC_19A_n79A	
	DC_19A-42C_n77A DC_19A-42C_n77C	DC_19A_n77A	
	DC_19A-42C_n78A DC_19A-42C_n78C	DC_19A_n78A	
	DC_19A-42C_n79A DC_19A-42C_n79C	DC_19A_n79A	
	DC_19A_n77A-n79A	DC_19A_n77A DC_19A_n79A	
	DC_19A_n78A-n79A	DC_19A_n78A DC_19A_n79A	
	DC_20A_n8A-n75A[6]	DC_20A_n8A	
	DC_20A_n28A-n75A[6]	DC_20A_n28A	
	DC_20A_n28A-n78A[5,6]	DC_20A_n28A DC_20A_n78A	
	DC_20A_n75A-n78A[5]	DC_20A_n78A	
	DC_20A_n76A-n78A[5]	DC_20A_n78A	
	DC_20A_SUL_n78A-n82A[5]	DC_20A_n78A DC_20A_n82A_ULSUP-TDM_n78A DC_20A_n82A_ULSUP-FDM_n78A	
	DC_20A_SUL_n78A-n83A[5]	DC_20A_n78A DC_20A_n83A	
	DC_21A-28A_n77A DC_21A-28A_n77C	DC_21A_n77A DC_28A_n77A	
	DC_21A-28A_n78A DC_21A-28A_n78C	DC_21A_n78A DC_28A_n78A	

DC_21A-28A_n79A DC_21A-28A_n79C	DC_21A_n79A DC_28A_n79A
DC_21A-42A_n77A DC_21A-42A_n77C DC_21A-42C_n77A DC_21A-42C_n77C	DC_21A_n77A
DC_21A-42A_n78A DC_21A-42A_n78C DC_21A-42C_n78A DC_21A-42C_n78C	DC_21A_n78A
DC_21A-42A_n79A DC_21A-42A_n79C DC_21A-42C_n79A DC_21A-42C_n79C	DC_21A_n79A
DC_21A_n77A-n79A	DC_21A_n77A DC_21A_n79A
DC_21A_n78A-n79A	DC_21A_n78A DC_21A_n79A
DC_28A-42A_n77A DC_28A-42A_n77C DC_28A-42C_n77A	DC_28A_n77A
DC_28A-42A_n78A DC_28A-42A_n78C DC_28A-42C_n78A	DC_28A_n78A
DC_28A-42A_n79A DC_28A-42A_n79C DC_28A-42C_n79A	DC_28A_n79A
DC_28A_SUL_n78A-n83A[5]	DC_28A_n78A DC_28A_n83A_ULSUP-TDM_n78A DC_28A_n83A_ULSUP-FDM_n78A
DC_41A-42A_n77A DC_41A-42C_n77A DC_41C-42A_n77A DC_41C-42C_n77A	DC_41A_n77A
DC_41A-42A_n78A DC_41A-42C_n78A DC_41C-42A_n78A DC_41C-42C_n78A	DC_41A_n78A
DC_41A-42A_n79A DC_41A-42C_n79A DC_41C-42A_n79A DC_41C-42C_n79A	DC_41A_n79A
DC_66A_(n)71AA	DC_66A_n71A DC_(n)71AA
DC_66A_SUL_n78A-n86A[5]	DC_66A_n78A DC_66A_n86A_ULSUP-TDM_n78A DC_66A_n86A_ULSUP-FDM_n78A
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications. NOTE 2: Only single switched UL is supported. NOTE 3: Restricted to E-UTRA operation when inter-band carrier aggregation is configured. The downlink operating band for Band 46 is paired with the uplink operating band (external E-UTRA band) of the carrier aggregation configuration that is supporting the configured PCell. NOTE 4: If a UE is configured with both NR UL and NR SUL carriers in a cell, the switching time between NR UL carrier and NR SUL carrier can be up to 140us and placed in SUL resources. NOTE 5: Applicable for UE supporting inter-band EN-DC with mandatory simultaneous Rx/Tx capability NOTE 6: The frequency range in band n28 is restricted for this band combination to 703-733 MHz for the UL and 758-788 MHz for the DL.	

5.5B.4.3 Inter-band EN-DC configurations within FR1 (four bands)

Table 5.5B.4.3-1: Inter-band EN-DC configurations within FR1 (four bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A-3A-5A_n78A[2]	DC_1A_n78A DC_3A_n78A DC_5A_n78A
DC_1A-3A-7A_n28A	DC_1A_n28A DC_3A_n28A DC_7A_n28A
DC_1A-3A-7A_n78A[2] DC_1A-3C-7A_n78A[2]	DC_1A_n78A DC_3A_n78A DC_7A_n78A
DC_1A-3A-7A-7A_n78A[2]	DC_1A_n78A DC_3A_n78A DC_7A_n78A
DC_1A-3A-8A_n78A[2]	DC_1A_n78A DC_3A_n78A DC_8A_n78A
DC_1A-3A-19A_n77A[2] DC_1A-3A-19A_n77C[2]	DC_1A_n77A DC_3A_n77A DC_19A_n77A
DC_1A-3A-19A_n78A[2] DC_1A-3A-19A_n78C[2]	DC_1A_n78A DC_3A_n78A DC_19A_n78A
DC_1A-3A-19A_n79A[2] DC_1A-3A-19A_n79C[2]	DC_1A_n79A DC_3A_n79A DC_19A_n79A
DC_1A-3A-20A_n28A[3]	DC_1A_n28A DC_3A_n28A DC_20A_n28A
DC_1A-3A-20A_n78A[2]	DC_1A_n78A DC_3A_n78A DC_20A_n78A
DC_1A-3A-21A_n77A[2] DC_1A-3A-21A_n77C[2]	DC_1A_n77A DC_3A_n77A DC_21A_n77A
DC_1A-3A-21A_n78A[2] DC_1A-3A-21A_n78C[2]	DC_1A_n78A DC_3A_n78A DC_21A_n78A
DC_1A-3A-21A_n79A[2] DC_1A-3A-21A_n79C[2]	DC_1A_n79A DC_3A_n79A DC_21A_n79A
DC_1A-3A-28A_n77A[2]	DC_1A_n77A DC_3A_n77A DC_28A_n77A
DC_1A-3A-28A_n78A[2]	DC_1A_n78A DC_3A_n78A DC_28A_n78A
DC_1A-3A-28A_n79A[2]	DC_1A_n79A DC_3A_n79A DC_28A_n79A
DC_1A-3A_n28A-n78A[2]	DC_1A_n28A DC_1A_n78A DC_3A_n28A DC_3A_n78A
DC_1A-3A-42A_n77A DC_1A-3A-42A_n77C DC_1A-3A-42C_n77A DC_1A-3A-42C_n77C	DC_1A_n77A DC_3A_n77A
DC_1A-3A-42A_n78A	DC_1A_n78A

DC_1A-3A-42A_n78C DC_1A-3A-42C_n78A DC_1A-3A-42C_n78C DC_1A-3A-42D_n78A	DC_3A_n78A	
DC_1A-3A-42A_n79A DC_1A-3A-42A_n79C DC_1A-3A-42C_n79A DC_1A-3A-42C_n79C DC_1A-3A-42D_n79A	DC_1A_n79A DC_3A_n79A	
DC_1A-5A-7A_n78A	DC_1A_n78A DC_5A_n78A DC_7A_n78A	
DC_1A-5A-7A-7A_n78A	DC_1A_n78A DC_5A_n78A DC_7A_n78A	
DC_1A-7A-20A_n28A[3]	DC_1A_n28A DC_7A_n28A DC_20A_n28A	
DC_1A-7A-20A_n78A[2]	DC_1A_n78A DC_7A_n78A DC_20A_n78A	
DC_1A-7A_n28A-n78A[2]	DC_1A_n28A DC_1A_n78A DC_7A_n28A DC_7A_n78A	
DC_1A-18A-28A_n77A	DC_1A_n77A DC_18A_n77A DC_28A_n77A	
DC_1A-18A-28A_n78A	DC_1A_n78A DC_18A_n78A DC_28A_n78A	
DC_1A-18A-28A_n79A[2]	DC_1A_n79A DC_18A_n79A DC_28A_n79A	
DC_1A-19A-21A_n77A DC_1A-19A-21A_n77C	DC_1A_n77A DC_19A_n77A DC_21A_n77A	
DC_1A-19A-21A_n78A DC_1A-19A-21A_n78C	DC_1A_n78A DC_19A_n78A DC_21A_n78A	
DC_1A-19A-21A_n79A DC_1A-19A-21A_n79C	DC_1A_n79A DC_19A_n79A DC_21A_n79A	
DC_1A-19A-42A_n77A DC_1A-19A-42A_n77C DC_1A-19A-42C_n77A DC_1A-19A-42C_n77C	DC_1A_n77A DC_19A_n77A	
DC_1A-19A-42A_n78A DC_1A-19A-42A_n78C DC_1A-19A-42C_n78A DC_1A-19A-42C_n78C	DC_1A_n78A DC_19A_n78A	
DC_1A-19A-42A_n79A DC_1A-19A-42A_n79C DC_1A-19A-42C_n79A DC_1A-19A-42C_n79C	DC_1A_n79A DC_19A_n79A	
DC_1A-20A_n28A-n78A[2,3]	DC_1A_n28A DC_1A_n78A DC_20A_n28A DC_20A_n78A	
DC_1A-21A-28A_n77A[2]	DC_1A_n77A DC_21A_n77A DC_28A_n77A	

	DC_1A-21A-28A_n78A[2]	DC_1A_n78A DC_21A_n78A DC_28A_n78A	
	DC_1A-21A-28A_n79A[2]	DC_1A_n79A DC_21A_n79A DC_28A_n79A	
	DC_1A-21A-42A_n77A DC_1A-21A-42A_n77C DC_1A-21A-42C_n77A DC_1A-21A-42C_n77C	DC_1A_n77A DC_21A_n77A	
	DC_1A-21A-42A_n78A DC_1A-21A-42A_n78C DC_1A-21A-42C_n78A DC_1A-21A-42C_n78C	DC_1A_n78A DC_21A_n78A	
	DC_1A-21A-42A_n79A DC_1A-21A-42A_n79C DC_1A-21A-42C_n79A DC_1A-21A-42C_n79C	DC_1A_n79A DC_21A_n79A	
	DC_1A-28A-42A_n77A DC_1A-28A-42C_n77A	DC_1A_n77A DC_28A_n77A	
	DC_1A-28A-42A_n78A DC_1A-28A-42C_n78A	DC_1A_n78A DC_28A_n78A	
	DC_1A-28A-42A_n79A DC_1A-28A-42C_n79A	DC_1A_n79A DC_28A_n79A	
	DC_1A-41A-42A_n77A DC_1A-41A-42C_n77A DC_1A-41C-42A_n77A DC_1A-41C-42C_n77A	DC_1A_n77A DC_41A_n77A	
	DC_1A-41A-42A_n78A DC_1A-41A-42C_n78A DC_1A-41C-42A_n78A DC_1A-41C-42C_n78A	DC_1A_n78A DC_41A_n78A	
	DC_1A-41A-42A_n79A DC_1A-41A-42C_n79A DC_1A-41C-42A_n79A DC_1A-41C-42C_n79A	DC_1A_n79A DC_41A_n79A	
	DC_2A-7A-7A-13A_n66A DC_2A-7C-13A_n66A	DC_2A_n66A DC_7A_n66A DC_13A_n66A	
	DC_2A-7C-66A_n66A DC_2A-7A-7A-66A_n66A	DC_2A_n66A DC_7A_n66A DC_66A_n66A[4]	
	DC_2A-7A-7A-66A_n78A DC_2A-7C-66A_n78A	DC_2A_n78A DC_7A_n78A DC_66A_n78A	
	DC_2A-7A-13A_n66A	DC_2A_n66A DC_7A_n66A DC_13A_n66A	
	DC_2A-7A-66A_n66A	DC_2A_n66A DC_7A_n66A DC_66A_n66A[4]	
	DC_2A-14A-66A_n2A	DC_2A_n2A[4] DC_14A_n2A DC_66A_n2A	
	DC_2A-14A-66A-66A_n2A	DC_2A_n2A[4] DC_14A_n2A DC_66A_n2A	
	DC_2A-14A-66A_n66A	DC_2A_n66A DC_14A_n66A DC_66A_n66A[4]	
	DC_2A-2A-14A-66A_n66A	DC_2A_n66A DC_14A_n66A	

		DC_66A_n66A[4]
	DC_2A-66A-(n)71AA	DC_2A_n71A DC_66A_n71A DC_(n)71AA
	DC_3A-5A-7A_n78A	DC_3A_n78A DC_5A_n78A DC_7A_n78A
	DC_3A-5A-7A-7A_n78A	DC_3A_n78A DC_5A_n78A DC_7A_n78A
	DC_3A-7A-20A_n28A[3]	DC_3A_n28A DC_7A_n28A DC_20A_n28A
	DC_3A-7A-20A_n78A[2]	DC_3A_n78A DC_7A_n78A DC_20A_n78A
	DC_3A-7A-28A_n78A[2] DC_3A-7C-28A_n78A[2]	DC_3A_n78A DC_7A_n78A DC_28A_n78A
	DC_3A-7A_n28A-n78A[2]	DC_3A_n28A DC_3A_n78A DC_7A_n28A DC_7A_n78A
	DC_3A-19A-21A_n77A[2] DC_3A-19A-21A_n77C[2]	DC_3A_n77A DC_19A_n77A DC_21A_n77A
	DC_3A-19A-21A_n78A[2] DC_3A-19A-21A_n78C[2]	DC_3A_n78A DC_19A_n78A DC_21A_n78A
	DC_3A-19A-21A_n79A[2] DC_3A-19A-21A_n79C[2]	DC_3A_n79A DC_19A_n79A DC_21A_n79A
	DC_3A-19A-42A_n77A DC_3A-19A-42A_n77C DC_3A-19A-42C_n77A DC_3A-19A-42C_n77C	DC_3A_n77A DC_19A_n77A
	DC_3A-19A-42A_n78A DC_3A-19A-42A_n78C DC_3A-19A-42C_n78A DC_3A-19A-42C_n78C	DC_3A_n78A DC_19A_n78A
	DC_3A-19A-42A_n79A[2] DC_3A-19A-42A_n79C[2] DC_3A-19A-42C_n79A[2] DC_3A-19A-42C_n79C[2]	DC_3A_n79A DC_19A_n79A
	DC_3A-20A_n28A-n78A[2,3]	DC_3A_n28A DC_3A_n78A DC_20A_n28A DC_20A_n78A
	DC_3A-21A-42A_n77A DC_3A-21A-42A_n77C DC_3A-21A-42C_n77A DC_3A-21A-42C_n77C	DC_3A_n77A DC_21A_n77A
	DC_3A-21A-42A_n78A DC_3A-21A-42A_n78C DC_3A-21A-42C_n78A DC_3A-21A-42C_n78C	DC_3A_n78A DC_21A_n78A
	DC_3A-21A-42A_n79A DC_3A-21A-42A_n79C DC_3A-21A-42C_n79A DC_3A-21A-42C_n79C	DC_3A_n79A DC_21A_n79A
	DC_3A-28A-42A_n77A DC_3A-28A-42C_n77A	DC_3A_n77A DC_28A_n77A

DC_3A-28A-42A_n78A DC_3A-28A-42C_n78A	DC_3A_n78A DC_28A_n78A
DC_3A-28A-42A_n79A DC_3A-28A-42C_n79A	DC_3A_n79A DC_28A_n79A
DC_7A-20A_n28A-n78A[2,3]	DC_7A_n28A DC_7A_n78A DC_20A_n28A DC_20A_n78A
DC_19A-21A-42A_n77A DC_19A-21A-42A_n77C DC_19A-21A-42C_n77A DC_19A-21A-42C_n77C	DC_19A_n77A DC_21A_n77A
DC_19A-21A-42A_n78A DC_19A-21A-42A_n78C DC_19A-21A-42C_n78A DC_19A-21A-42C_n78C	DC_19A_n78A DC_21A_n78A
DC_19A-21A-42A_n79A DC_19A-21A-42A_n79C DC_19A-21A-42C_n79A DC_19A-21A-42C_n79C	DC_19A_n79A DC_21A_n79A
DC_21A-28A-42A_n77A DC_21A-28A-42C_n77A	DC_21A_n77A DC_28A_n77A
DC_21A-28A-42A_n78A DC_21A-28A-42C_n78A	DC_21A_n78A DC_28A_n78A
DC_21A-28A-42A_n79A DC_21A-28A-42C_n79A	DC_21A_n79A DC_28A_n79A
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications. NOTE 2: Applicable for UE supporting inter-band EN-DC with mandatory simultaneous Rx/Tx capability NOTE 3: The frequency range in band n28 is restricted for this band combination to 703-733 MHz for the UL and 758-788 MHz for the DL. NOTE 4: Only single switched UL is supported.	

5.5B.4.4 Inter-band EN-DC configurations within FR1 (five bands)

Table 5.5B.4.4-1: Inter-band EN-DC configurations within FR1 (five bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A-3A-5A-7A_n78A	DC_1A_n78A DC_3A_n78A DC_5A_n78A DC_7A_n78A
DC_1A-3A-5A-7A-7A_n78A	DC_1A_n78A DC_3A_n78A DC_5A_n78A DC_7A_n78A
DC_1A-3A-5A-41A_n79A	DC_1A_n79A DC_3A_n79A DC_5A_n79A DC_41A_n79A
DC_1A-3A-7A-20A_n28A[3]	DC_1A_n28A DC_3A_n28A DC_7A_n28A DC_20A_n28A
DC_1A-3A-7A-20A_n78A[2]	DC_1A_n78A DC_3A_n78A DC_7A_n78A DC_20A_n78A
DC_1A-3A-7A_n28A-n78A[2]	DC_1A_n28A DC_1A_n78A DC_3A_n28A

		DC_3A_n78A DC_7A_n28A DC_7A_n78A
	DC_1A-3A-19A-21A_n77A[2] DC_1A-3A-19A-21A_n77C[2]	DC_1A_n77A DC_3A_n77A DC_19A_n77A DC_21A_n77A
	DC_1A-3A-19A-21A_n78A[2] DC_1A-3A-19A-21A_n78C[2]	DC_1A_n78A DC_3A_n78A DC_19A_n78A DC_21A_n78A
	DC_1A-3A-19A-21A_n79A[2] DC_1A-3A-19A-21A_n79C[2]	DC_1A_n79A DC_3A_n79A DC_19A_n79A DC_21A_n79A
	DC_1A-3A-19A-42A_n77A DC_1A-3A-19A-42A_n77C DC_1A-3A-19A-42C_n77A DC_1A-3A-19A-42C_n77C	DC_1A_n77A DC_3A_n77A DC_19A_n77A
	DC_1A-3A-19A-42A_n78A DC_1A-3A-19A-42A_n78C DC_1A-3A-19A-42C_n78A DC_1A-3A-19A-42C_n78C	DC_1A_n78A DC_3A_n78A DC_19A_n78A
	DC_1A-3A-19A-42A_n79A DC_1A-3A-19A-42A_n79C DC_1A-3A-19A-42C_n79A DC_1A-3A-19A-42C_n79C	DC_1A_n79A DC_3A_n79A DC_19A_n79A
	DC_1A-3A-20A_n28A-n78A[2,3]	DC_1A_n28A DC_1A_n78A DC_3A_n28A DC_3A_n78A DC_20A_n28A DC_20A_n78A
	DC_1A-3A-21A-42A_n77A DC_1A-3A-21A-42A_n77C DC_1A-3A-21A-42C_n77A DC_1A-3A-21A-42C_n77C	DC_1A_n77A DC_3A_n77A DC_21A_n77A
	DC_1A-3A-21A-42A_n78A DC_1A-3A-21A-42A_n78C DC_1A-3A-21A-42C_n78A DC_1A-3A-21A-42C_n78C	DC_1A_n78A DC_3A_n78A DC_21A_n78A
	DC_1A-3A-21A-42A_n79A DC_1A-3A-21A-42A_n79C DC_1A-3A-21A-42C_n79A DC_1A-3A-21A-42C_n79C	DC_1A_n79A DC_3A_n79A DC_21A_n79A
	DC_1A-3A-28A-42A_n77A DC_1A-3A-28A-42C_n77A	DC_1A_n77A DC_3A_n77A DC_28A_n77A
	DC_1A-3A-28A-42A_n78A DC_1A-3A-28A-42C_n78A	DC_1A_n78A DC_3A_n78A DC_28A_n78A
	DC_1A-3A-28A-42A_n79A DC_1A-3A-28A-42C_n79A	DC_1A_n79A DC_3A_n79A DC_28A_n79A
	DC_1A-7A-20A_n28A-n78A[2,3]	DC_1A_n28A DC_1A_n78A DC_7A_n28A DC_7A_n78A DC_20A_n28A DC_20A_n78A
	DC_1A-19A-21A-42A_n77A DC_1A-19A-21A-42A_n77C DC_1A-19A-21A-42C_n77A	DC_1A_n77A DC_19A_n77A DC_21A_n77A

DC_1A-19A-21A-42C_n77C	
DC_1A-19A-21A-42A_n78A DC_1A-19A-21A-42A_n78C DC_1A-19A-21A-42C_n78A DC_1A-19A-21A-42C_n78C	DC_1A_n78A DC_19A_n78A DC_21A_n78A
DC_1A-19A-21A-42A_n79A DC_1A-19A-21A-42A_n79C DC_1A-19A-21A-42C_n79A DC_1A-19A-21A-42C_n79C	DC_1A_n79A DC_19A_n79A DC_21A_n79A
DC_1A-21A-28A-42A_n77A DC_1A-21A-28A-42C_n77A	DC_1A_n77A DC_21A_n77A DC_28A_n77A
DC_1A-21A-28A-42A_n78A DC_1A-21A-28A-42C_n78A	DC_1A_n78A DC_21A_n78A DC_28A_n78A
DC_1A-21A-28A-42A_n79A DC_1A-21A-28A-42C_n79A	DC_1A_n79A DC_21A_n79A DC_28A_n79A
DC_3A-7A-20A_n28A-n78A[2,3]	DC_3A_n28A DC_3A_n78A DC_7A_n28A DC_7A_n78A DC_20A_n28A DC_20A_n78A
DC_3A-19A-21A-42A_n78A DC_3A-19A-21A-42C_n78A	DC_3A_n78A DC_19A_n78A DC_21A_n78A
DC_3A-19A-21A-42A_n79A DC_3A-19A-21A-42C_n79A	DC_3A_n79A DC_19A_n79A DC_21A_n79A
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications. NOTE 2: Applicable for UE supporting inter-band EN-DC with mandatory simultaneous Rx/Tx capability. NOTE 3: The frequency range in band n28 is restricted for this band combination to 703-733 MHz for the UL and 758-788 MHz for the DL.	

5.5B.4.5 Inter-band EN-DC configurations within FR1 (six bands)

Table 5.5B.4.5-1: Inter-band EN-DC configurations within FR1 (six bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A-3A-7A-20A_n28A-n78A[2,3]	DC_1A_n28A DC_1A_n78A DC_3A_n28A DC_3A_n78A DC_7A_n28A DC_7A_n78A DC_20A_n28A DC_20A_n78A
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications. NOTE 2: Applicable for UE supporting inter-band EN-DC with mandatory simultaneous Rx/Tx capability. NOTE 3: The frequency range in band n28 is restricted for this band combination to 703-733 MHz for the UL and 758-788 MHz for the DL.	

5.5B.4a Inter-band NE-DC within FR1

5.5B.4a.1 Inter-band NE-DC configurations within FR1 (two bands)

Table 5.5B.4a.1-1: Inter-band NE-DC configurations within FR1 (two bands)

NE-DC configuration	Uplink NE-DC configuration (NOTE 1)	Single UL allowed
DC_n1A_28A	DC_n1A_28A	No
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.		

5.5B.5 Inter-band EN-DC including FR2

Supported channel bandwidths for E-UTRA operating bands and CA configurations are defined in TS 36.521-1 [10] and for NR operating bands and CA configurations in TS 38.521-1 [8], TS 38.521-2 [9] and present document.

5.5B.5.1 Inter-band EN-DC configurations including FR2 (two bands)

Table 5.5B.5.1-1: Inter-band EN-DC configurations including FR2 (two bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A_n257A DC_1A_n257D DC_1A_n257E DC_1A_n257F DC_1A_n257G DC_1A_n257H DC_1A_n257I DC_1A_n257J DC_1A_n257K DC_1A_n257L DC_1A_n257M	DC_1A_n257A DC_1A_n257D DC_1A_n257G DC_1A_n257H DC_1A_n257I DC_1A_n257J DC_1A_n257K DC_1A_n257L DC_1A_n257M
DC_2A_n257A DC_2C_n257A	DC_2A_n257A
DC_2A_n257(2A)	DC_2A_n257A
DC_2A-2A_n257A	DC_2A_n257A
DC_2A_n260A DC_2A_n260G DC_2A_n260H DC_2A_n260I DC_2A_n260J DC_2A_n260K DC_2A_n260L DC_2A_n260M DC_2C_n260A	DC_2A_n260A
DC_2A_n260(2A)	DC_2A_n260A
DC_2A-2A_n260A DC_2A-2A_n260G DC_2A-2A_n260H DC_2A-2A_n260I DC_2A-2A_n260J DC_2A-2A_n260K DC_2A-2A_n260L DC_2A-2A_n260M	DC_2A_n260A
DC_3A_n257A DC_3A_n257D DC_3A_n257E DC_3A_n257F DC_3A_n257G DC_3A_n257H DC_3A_n257I	DC_3A_n257A DC_3A_n257B DC_3A_n257D DC_3A_n257G DC_3A_n257H DC_3A_n257I
DC_3A_n258A	DC_3A_n258A
DC_5A_n257A	DC_5A_n257A

	DC_5B_n257A	DC_5B_n257A	
	DC_5A-5A_n257A	DC_5A_n257A	
	DC_5A_n260A DC_5A_n260B DC_5A_n260C DC_5A_n260D DC_5A_n260E DC_5A_n260F DC_5A_n260G DC_5A_n260H DC_5A_n260I DC_5A_n260J DC_5A_n260K DC_5A_n260L DC_5A_n260M DC_5A_n260O DC_5A_n260P DC_5A_n260Q DC_5B_n260A	DC_5A_n260A DC_5B_n260A	
	DC_5A_n260(2A) DC_5A_n260(3A) DC_5A_n260(4A) DC_5A_n260(A-I) DC_5A_n260(D-G) DC_5A_n260(D-H) DC_5A_n260(D-I) DC_5A_n260(D-O) DC_5A_n260(D-P) DC_5A_n260(D-Q) DC_5A_n260(E-O) DC_5A_n260(E-P) DC_5A_n260(E-Q) DC_5A_n260(G-I)	DC_5A_n260A	
	DC_5A-5A_n260A	DC_5A_n260A	
	DC_5A_n261A DC_5A_n261B DC_5A_n261C DC_5A_n261D DC_5A_n261E DC_5A_n261F DC_5A_n261G DC_5A_n261H DC_5A_n261I DC_5A_n261J DC_5A_n261K DC_5A_n261L DC_5A_n261M DC_5A_n261O DC_5A_n261P DC_5A_n261Q	DC_5A_n261A	
	DC_5A_n261(2A) DC_5A_n261(3A) DC_5A_n261(4A) DC_5A_n261(D-G) DC_5A_n261(D-H) DC_5A_n261(D-I) DC_5A_n261(D-O) DC_5A_n261(D-P) DC_5A_n261(D-Q) DC_5A_n261(E-O) DC_5A_n261(E-P) DC_5A_n261(E-Q)	DC_5A_n261A	
	DC_7A_n257A	DC_7A_n257A	
	DC_7A-7A_n257A	DC_7A_n257A	
	DC_7A_n258A	DC_7A_n258A	

DC_8A_n257A	DC_8A_n257A
DC_8A_n258A	DC_8A_n258A
DC_11A_n257A	DC_11A_n257A
DC_12A_n260A DC_12A_n260G DC_12A_n260H DC_12A_n260I DC_12A_n260J DC_12A_n260K DC_12A_n260L DC_12A_n260M	DC_12A_n260A
DC_12A_n260(A-I) DC_12A_n260(G-I)	DC_12A_n260A
DC_13A_n257A	DC_13A_n257A
DC_13A_n260A	DC_13A_n260A
DC_18A_n257A	DC_18A_n257A
DC_19A_n257A DC_19A_n257D DC_19A_n257E DC_19A_n257F DC_19A_n257G DC_19A_n257H DC_19A_n257I	DC_19A_n257A DC_19A_n257G DC_19A_n257H DC_19A_n257I
DC_20A_n258A	DC_20A_n258A
DC_21A_n257A DC_21A_n257D DC_21A_n257E DC_21A_n257F DC_21A_n257G DC_21A_n257H DC_21A_n257I	DC_21A_n257A DC_21A_n257G DC_21A_n257H DC_21A_n257I
DC_26A_n257A	DC_26A_n257A
DC_28A_n257A DC_28A_n257D DC_28A_n257E DC_28A_n257F	DC_28A_n257A
DC_28A_n258A	DC_28A_n258A
DC_30A_n260A DC_30A_n260G DC_30A_n260H DC_30A_n260I DC_30A_n260J DC_30A_n260K DC_30A_n260L DC_30A_n260M	DC_30A_n260A
DC_30A_n260(A-I) DC_30A_n260(G-I)	DC_30A_n260A
DC_39A_n258A	DC_39A_n258A
DC_41A_n257A DC_41C_n257A	DC_41A_n257A DC_41C_n257A
DC_41A_n258A	DC_41A_n258A
DC_42A_n257A DC_42A_n257D DC_42A_n257E DC_42A_n257F DC_42C_n257A DC_42C_n257D DC_42C_n257E DC_42C_n257F DC_42D_n257A DC_42E_n257A	DC_42A_n257A DC_42C_n257A

	DC_48A_n257A DC_48C_n257A	DC_48A_n257A DC_48C_n257A	
	DC_48A-48A_n257A	DC_48A_n257A	
	DC_48A_n260A DC_48C_n260A	DC_48A_n260A DC_48C_n260A	
	DC_48A-48A_n260A	DC_48A_n260A	
	DC_66A_n257A DC_66A_n257(2A) DC_66A_n257G DC_66A_n257H DC_66A_n257I DC_66A_n257J DC_66A_n257K DC_66A_n257L DC_66A_n257M DC_66C_n257A	DC_66A_n257A	
	DC_66A-66A_n257A	DC_66A_n257A	
	DC_66A_n260A DC_66A_n260D DC_66A_n260E DC_66A_n260F DC_66A_n260G DC_66A_n260H DC_66A_n260I DC_66A_n260J DC_66A_n260K DC_66A_n260L DC_66A_n260M DC_66A_n260O DC_66A_n260P DC_66A_n260Q	DC_66A_n260A	
	DC_66A_n260(2A) DC_66A_n260(3A) DC_66A_n260(4A) DC_66A_n260(A-I) DC_66A_n260(D-G) DC_66A_n260(D-H) DC_66A_n260(D-I) DC_66A_n260(D-O) DC_66A_n260(D-P) DC_66A_n260(D-Q) DC_66A_n260(E-O) DC_66A_n260(E-P) DC_66A_n260(E-Q) DC_66A_n260(G-I)	DC_66A_n260A	
	DC_66A-66A_n260A DC_66A-66A_n260G DC_66A-66A_n260H DC_66A-66A_n260I DC_66A-66A_n260J DC_66A-66A_n260K DC_66A-66A_n260L DC_66A-66A_n260M	DC_66A_n260A	
	DC_66A_n261A DC_66A_n261D DC_66A_n261E DC_66A_n261F DC_66A_n261G DC_66A_n261H DC_66A_n261I DC_66A_n261J DC_66A_n261K DC_66A_n261L DC_66A_n261M DC_66A_n261O	DC_66A_n261A	

DC_66A_n261P DC_66A_n261Q	
DC_66A_n261(2A) DC_66A_n261(3A) DC_66A_n261(4A) DC_66A_n261(D-G) DC_66A_n261(D-H) DC_66A_n261(D-I) DC_66A_n261(D-O) DC_66A_n261(D-P) DC_66A_n261(D-Q) DC_66A_n261(E-O) DC_66A_n261(E-P) DC_66A_n261(E-Q)	DC_66A_n261A
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications. NOTE 2: Applicable for UE supporting inter-band EN-DC with mandatory simultaneous Rx/Tx capability for all of the above combinations	

5.5B.5.2 Inter-band EN-DC configurations including FR2 (three bands)

Table 5.5B.5.2-1: Inter-band EN-DC configurations including FR2 (three bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A-3A_n257A[2] DC_1A-3A_n257D[2] DC_1A-3A_n257E[2] DC_1A-3A_n257F[2] DC_1A-3A_n257G DC_1A-3A_n257H DC_1A-3A_n257I	DC_1A_n257A DC_1A_n257D DC_3A_n257A DC_3A_n257D DC_3A_n257G DC_3A_n257H DC_3A_n257I
DC_1A-5A_n257A[2]	DC_1A_n257A DC_5A_n257A
DC_1A-7A_n257A[2]	DC_1A_n257A DC_7A_n257A
DC_1A-7A-7A_n257A[2]	DC_1A_n257A DC_7A_n257A
DC_1A-8A_n257A[2]	DC_1A_n257A DC_8A_n257A
DC_1A-18A_n257A[2]	DC_1A_n257A DC_18A_n257A
DC_1A-19A_n257A[2] DC_1A-19A_n257D[2] DC_1A-19A_n257E[2] DC_1A-19A_n257F[2] DC_1A-19A_n257G DC_1A-19A_n257H DC_1A-19A_n257I	DC_1A_n257A DC_1A_n257D DC_1A_n257G DC_1A_n257H DC_1A_n257I DC_19A_n257A DC_19A_n257D
DC_1A-21A_n257A[2] DC_1A-21A_n257D[2] DC_1A-21A_n257E[2] DC_1A-21A_n257F[2] DC_1A-21A_n257G DC_1A-21A_n257H DC_1A-21A_n257I	DC_1A_n257A DC_1A_n257G DC_1A_n257H DC_1A_n257I DC_21A_n257A DC_21A_n257G DC_21A_n257H DC_21A_n257I
DC_1A-28A_n257A[2] DC_1A-28A_n257D[2] DC_1A-28A_n257E[2] DC_1A-28A_n257F[2]	DC_1A_n257A DC_28A_n257A
DC_1A-41A_n257A DC_1A-41C_n257A	DC_1A_n257A DC_41A_n257A DC_41C_n257A

	DC_1A-42A_n257A DC_1A-42A_n257D DC_1A-42A_n257E DC_1A-42A_n257F DC_1A-42A_n257G DC_1A-42A_n257H DC_1A-42A_n257I DC_1A-42C_n257A DC_1A-42C_n257D DC_1A-42C_n257E DC_1A-42C_n257F DC_1A-42D_n257A DC_1A-42D_n257G DC_1A-42D_n257H DC_1A-42D_n257I DC_1A-42E_n257A DC_1A-42E_n257G DC_1A-42E_n257H DC_1A-42E_n257I	DC_1A_n257A DC_1A_n257D DC_1A_n257G DC_1A_n257H DC_1A_n257I DC_42A_n257A DC_42A_n257D	
	DC_2A-5A_n257A[2]	DC_2A_n257A DC_5A_n257A	
	DC_2A-5A_n260A DC_2A-5A_n260G DC_2A-5A_n260H DC_2A-5A_n260I DC_2A-5A_n260J DC_2A-5A_n260K DC_2A-5A_n260L DC_2A-5A_n260M	DC_2A_n260A DC_5A_n260A	
	DC_2A-12A_n260A DC_2A-12A_n260G DC_2A-12A_n260H DC_2A-12A_n260I DC_2A-12A_n260J DC_2A-12A_n260K DC_2A-12A_n260L DC_2A-12A_n260M	DC_2A_n260A DC_12A_n260A	
	DC_2A-13A_n257A[2]	DC_2A_n257A DC_13A_n257A	
	DC_2A-13A_n260A[2]	DC_2A_n260A DC_13A_n260A	
	DC_2A-30A_n260A DC_2A-30A_n260G DC_2A-30A_n260H DC_2A-30A_n260I DC_2A-30A_n260J DC_2A-30A_n260K DC_2A-30A_n260L DC_2A-30A_n260M	DC_2A_n260A DC_30A_n260A	
	DC_2A-66A_n257A[2]	DC_2A_n257A DC_66A_n257A	
	DC_2A-66A_n260A DC_2A-66A_n260G DC_2A-66A_n260H DC_2A-66A_n260I DC_2A-66A_n260J DC_2A-66A_n260K DC_2A-66A_n260L DC_2A-66A_n260M	DC_2A_n260A DC_66A_n260A	
	DC_3A-5A_n257A[2]	DC_3A_n257A DC_5A_n257A	
	DC_3A-7A_n257A[2]	DC_3A_n257A DC_7A_n257A	
	DC_3A-7A-7A_n257A[2]	DC_3A_n257A DC_7A_n257A	

	DC_3A-19A_n257A[2] DC_3A-19A_n257D[2] DC_3A-19A_n257E[2] DC_3A-19A_n257F[2] DC_3A-19A_n257G DC_3A-19A_n257H DC_3A-19A_n257I	DC_3A_n257A DC_3A_n257D DC_3A_n257G DC_3A_n257H DC_3A_n257I DC_19A_n257A DC_19A_n257D	
	DC_3A-21A_n257A[2] DC_3A-21A_n257D[2] DC_3A-21A_n257E[2] DC_3A-21A_n257F[2] DC_3A-21A_n257G DC_3A-21A_n257H DC_3A-21A_n257I	DC_3A_n257A DC_3A_n257D DC_3A_n257G DC_3A_n257H DC_3A_n257I DC_21A_n257A DC_21A_n257D	
	DC_3A-28A_n257A[2] DC_3A-28A_n257D[2] DC_3A-28A_n257E[2] DC_3A-28A_n257F[2]	DC_3A_n257A DC_28A_n257A	
	DC_3A-41A_n257A	DC_3A_n257A DC_41A_n257A	
	DC_3A-42A_n257A[2] DC_3A-42A_n257D[2] DC_3A-42A_n257E[2] DC_3A-42A_n257F[2] DC_3A-42A_n257G DC_3A-42A_n257H DC_3A-42A_n257I DC_3A-42C_n257A[2] DC_3A-42C_n257D[2] DC_3A-42C_n257E[2] DC_3A-42C_n257F[2] DC_3A-42C_n257G DC_3A-42C_n257H DC_3A-42C_n257I DC_3A-42D_n257A[2] DC_3A-42D_n257G DC_3A-42D_n257H DC_3A-42D_n257I DC_3A-42E_n257A[2] DC_3A-42E_n257G DC_3A-42E_n257H DC_3A-42E_n257I	DC_3A_n257A DC_3A_n257D DC_3A_n257G DC_3A_n257H DC_3A_n257I DC_42A_n257A DC_42A_n257D	
	DC_5A-7A_n257A[2]	DC_5A_n257A DC_7A_n257A	
	DC_5A-7A-7A_n257A	DC_5A_n257A DC_7A_n257A	
	DC_5A-30A_n260A DC_5A-30A_n260G DC_5A-30A_n260H DC_5A-30A_n260I DC_5A-30A_n260J DC_5A-30A_n260K DC_5A-30A_n260L DC_5A-30A_n260M	DC_5A_n260A DC_30A_n260A	
	DC_5A-66A_n257A	DC_5A_n257A DC_66A_n257A	
	DC_5A-66A_n260A DC_5A-66A_n260G DC_5A-66A_n260H DC_5A-66A_n260I DC_5A-66A_n260J DC_5A-66A_n260K DC_5A-66A_n260L DC_5A-66A_n260M	DC_5A_n260A DC_66A_n260A	
	DC_12A-30A_n260A	DC_12A_n260A	

	DC_12A-30A_n260G DC_12A-30A_n260H DC_12A-30A_n260I DC_12A-30A_n260J DC_12A-30A_n260K DC_12A-30A_n260L DC_12A-30A_n260M	DC_30A_n260A	
	DC_12A-66A_n260A DC_12A-66A_n260G DC_12A-66A_n260H DC_12A-66A_n260I DC_12A-66A_n260J DC_12A-66A_n260K DC_12A-66A_n260L DC_12A-66A_n260M	DC_12A_n260A DC_66A_n260A	
	DC_13A-66A_n257A[2]	DC_13A_n257A DC_66A_n257A	
	DC_13A-66A_n260A[2]	DC_13A_n260A DC_66A_n260A	
	DC_18A-28A_n257A[2]	DC_18A_n257A DC_28A_n257A	
	DC_19A-21A_n257A[2] DC_19A-21A_n257D[2] DC_19A-21A_n257E[2] DC_19A-21A_n257F[2] DC_19A-21A_n257G DC_19A-21A_n257H DC_19A-21A_n257I	DC_19A_n257A DC_19A_n257D DC_21A_n257A DC_21A_n257D DC_21A_n257G	
	DC_19A-42A_n257A[2] DC_19A-42A_n257D[2] DC_19A-42A_n257E[2] DC_19A-42A_n257F[2] DC_19A-42A_n257G[2] DC_19A-42A_n257H[2] DC_19A-42A_n257I[2] DC_19A-42C_n257A[2] DC_19A-42C_n257G[2] DC_19A-42C_n257H[2] DC_19A-42C_n257I[2]	DC_19A_n257A DC_19A_n257D DC_19A_n257G DC_19A_n257H DC_19A_n257I DC_42A_n257A DC_42A_n257D DC_42A_n257G DC_42A_n257H DC_42A_n257I	
	DC_21A-28A_n257A[2] DC_21A-28A_n257D[2] DC_21A-28A_n257E[2] DC_21A-28A_n257F[2]	DC_21A_n257A DC_28A_n257A	
	DC_21A-42A_n257A[2] DC_21A-42A_n257D[2] DC_21A-42A_n257E[2] DC_21A-42A_n257F[2] DC_21A-42A_n257G DC_21A-42A_n257H DC_21A-42A_n257I DC_21A-42C_n257A[2] DC_21A-42C_n257G DC_21A-42C_n257H DC_21A-42C_n257I	DC_21A_n257A DC_21A_n257D DC_21A_n257G DC_21A_n257H DC_21A_n257I DC_42A_n257A DC_42A_n257D	
	DC_28A-42C_n257A[2] DC_28A-42A_n257A[2]	DC_28A_n257A DC_42A_n257A	
	DC_30A-66A_n260A DC_30A-66A_n260G DC_30A-66A_n260H DC_30A-66A_n260I DC_30A-66A_n260J DC_30A-66A_n260K DC_30A-66A_n260L DC_30A-66A_n260M	DC_30A_n260A DC_66A_n260A	

DC_41A-42A_n257A DC_41A-42C_n257A DC_41C-42A_n257A DC_41C-42C_n257A	DC_41A_n257A DC_42A_n257A
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications. NOTE 2: Applicable for UE supporting inter-band EN-DC with mandatory simultaneous Rx/Tx capability.	

5.5B.5.3 Inter-band EN-DC configurations including FR2 (four bands)

Table 5.5B.5.3-1: Inter-band EN-DC configurations including FR2 (four bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A-3A-5A_n257A[2]	DC_1A_n257A DC_3A_n257A DC_5A_n257A
DC_1A-3A-7A_n257A[2]	DC_1A_n257A DC_3A_n257A DC_7A_n257A
DC_1A-3A-7A-7A_n257A	DC_1A_n257A DC_3A_n257A DC_7A_n257A
DC_1A-3A-19A_n257A[2] DC_1A-3A-19A_n257G DC_1A-3A-19A_n257H DC_1A-3A-19A_n257I	DC_1A_n257A DC_3A_n257A DC_3A_n257G DC_3A_n257H DC_3A_n257I DC_19A_n257A
DC_1A-3A-21A_n257A[2] DC_1A-3A-21A_n257G DC_1A-3A-21A_n257H DC_1A-3A-21A_n257I	DC_1A_n257A DC_3A_n257A DC_3A_n257G DC_3A_n257H DC_3A_n257I DC_21A_n257A
DC_1A-3A-28A_n257A[2]	DC_1A_n257A DC_3A_n257A DC_28A_n257A
DC_1A-3A-42A_n257A DC_1A-3A-42A_n257G DC_1A-3A-42A_n257H DC_1A-3A-42A_n257I DC_1A-3A-42C_n257A DC_1A-3A-42C_n257D DC_1A-3A-42C_n257E DC_1A-3A-42C_n257F DC_1A-3A-42C_n257G DC_1A-3A-42C_n257H DC_1A-3A-42C_n257I DC_1A-3A-42D_n257G DC_1A-3A-42D_n257H DC_1A-3A-42D_n257I	DC_1A_n257A DC_1A_n257G DC_1A_n257H DC_1A_n257I DC_3A_n257ADC_3A_n257G DC_3A_n257H DC_3A_n257I
DC_1A-5A-7A_n257A[2]	DC_1A_n257A DC_5A_n257A DC_7A_n257A
DC_1A-5A-7A-7A_n257A	DC_1A_n257A DC_5A_n257A DC_7A_n257A
DC_1A-18A-28A_n257A[2]	DC_1A_n257A DC_18A_n257A DC_28A_n257A
DC_1A-19A-21A_n257A DC_1A-19A-21A_n257D	DC_1A_n257A DC_1A_n257G

	DC_1A-19A-21A_n257E DC_1A-19A-21A_n257F DC_1A-19A-21A_n257G DC_1A-19A-21A_n257H DC_1A-19A-21A_n257I	DC_1A_n257H DC_1A_n257I DC_19A_n257A DC_21A_n257A DC_21A_n257G DC_21A_n257H DC_21A_n257I	
	DC_1A-19A-42A_n257A DC_1A-19A-42A_n257G DC_1A-19A-42A_n257H DC_1A-19A-42A_n257I DC_1A-19A-42C_n257A DC_1A-19A-42C_n257D DC_1A-19A-42C_n257E DC_1A-19A-42C_n257F DC_1A-19A-42C_n257G DC_1A-19A-42C_n257H DC_1A-19A-42C_n257I	DC_1A_n257A DC_1A_n257G DC_1A_n257H DC_1A_n257I DC_19A_n257A DC_42A_n257A	
	DC_1A-21A-28A_n257A[2]	DC_1A_n257A DC_21A_n257A DC_28A_n257A	
	DC_1A-21A-42A_n257A DC_1A-21A-42A_n257G DC_1A-21A-42A_n257H DC_1A-21A-42A_n257I DC_1A-21A-42C_n257A DC_1A-21A-42C_n257D DC_1A-21A-42C_n257E DC_1A-21A-42C_n257F DC_1A-21A-42C_n257G DC_1A-21A-42C_n257H DC_1A-21A-42C_n257I	DC_1A_n257A DC_1A_n257G DC_1A_n257H DC_1A_n257I DC_21A_n257A DC_21A_n257G DC_21A_n257H DC_21A_n257I DC_42A_n257A DC_42A_n257D	
	DC_1A-28A-42A_n257A DC_1A-28A-42C_n257A	DC_1A_n257A DC_28A_n257A DC_42A_n257A	
	DC_1A-41A-42A_n257A DC_1A-41A-42C_n257A DC_1A-41C-42A_n257A DC_1A-41C-42C_n257A	DC_1A_n257A DC_41A_n257A DC_42A_n257A	
	DC_3A-5A-7A_n257A[2]	DC_3A_n257A DC_5A_n257A DC_7A_n257A	
	DC_3A-5A-7A-7A_n257A[2]	DC_3A_n257A DC_5A_n257A DC_7A_n257A	
	DC_3A-19A-21A_n257A[2]	DC_3A_n257A DC_19A_n257A DC_21A_n257A	
	DC_3A-19A-42A_n257A DC_3A-19A-42A_n257G DC_3A-19A-42A_n257H DC_3A-19A-42A_n257I DC_3A-19A-42C_n257A DC_3A-19A-42C_n257D DC_3A-19A-42C_n257E DC_3A-19A-42C_n257F DC_3A-19A-42C_n257G DC_3A-19A-42C_n257H DC_3A-19A-42C_n257I	DC_3A_n257A DC_3A_n257D DC_3A_n257G DC_3A_n257H DC_3A_n257I DC_19A_n257A DC_19A_n257D DC_19A_n257G DC_19A_n257H DC_19A_n257I DC_42A_n257A DC_42A_n257D DC_42A_n257G DC_42A_n257H DC_42A_n257I	
	DC_3A-21A-42A_n257A DC_3A-21A-42A_n257G	DC_3A_n257A DC_3A_n257D	

DC_3A-21A-42A_n257H DC_3A-21A-42A_n257I DC_3A-21A-42C_n257A DC_3A-21A-42C_n257D DC_3A-21A-42C_n257E DC_3A-21A-42C_n257F DC_3A-21A-42C_n257G DC_3A-21A-42C_n257H DC_3A-21A-42C_n257I	DC_3A_n257G DC_3A_n257H DC_3A_n257I DC_21A_n257A DC_21A_n257D DC_21A_n257G DC_21A_n257H DC_21A_n257I DC_42A_n257A DC_42A_n257D DC_42A_n257G DC_42A_n257H DC_42A_n257I
DC_3A-28A-42A_n257A DC_3A-28A-42C_n257A	DC_3A_n257A DC_28A_n257A DC_42A_n257A
DC_19A-21A-42A_n257A[2] DC_19A-21A-42A_n257G[2] DC_19A-21A-42A_n257H[2] DC_19A-21A-42A_n257I[2] DC_19A-21A-42C_n257A[2] DC_19A-21A-42C_n257D[2] DC_19A-21A-42C_n257E[2] DC_19A-21A-42C_n257F[2] DC_19A-21A-42C_n257G[2] DC_19A-21A-42C_n257H[2] DC_19A-21A-42C_n257I[2]	DC_19A_n257A DC_19A_n257D DC_19A_n257G DC_19A_n257H DC_19A_n257I DC_21A_n257A DC_21A_n257D DC_21A_n257G DC_21A_n257H DC_21A_n257I DC_42A_n257A DC_42A_n257D DC_42A_n257G DC_42A_n257H DC_42A_n257I
DC_21A-28A-42A_n257A[2] DC_21A-28A-42C_n257A[2]	DC_21A_n257A DC_28A_n257A DC_42A_n257A
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications. NOTE 2: Applicable for UE supporting inter-band EN-DC with mandatory simultaneous Rx/Tx capability.	

5.5B.5.4 Inter-band EN-DC configurations including FR2 (five bands)

Table 5.5B.5.4-1: Inter-band EN-DC configurations including FR2 (five bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A-3A-5A-7A_n257A	DC_1A_n257A DC_3A_n257A DC_5A_n257A DC_7A_n257A
DC_1A-3A-5A-7A-7A_n257A	DC_1A_n257A DC_3A_n257A DC_5A_n257A DC_7A_n257A
DC_1A-3A-19A-21A_n257A DC_1A-3A-19A-21A_n257D DC_1A-3A-19A-21A_n257E DC_1A-3A-19A-21A_n257F	DC_1A_n257A DC_3A_n257A DC_19A_n257A DC_21A_n257A
DC_1A-3A-19A-42A_n257A DC_1A-3A-19A-42A_n257D DC_1A-3A-19A-42A_n257E DC_1A-3A-19A-42A_n257F DC_1A-3A-19A-42A_n257G DC_1A-3A-19A-42A_n257H DC_1A-3A-19A-42A_n257I DC_1A-3A-19A-42C_n257A	DC_1A_n257A DC_3A_n257A DC_3A_n257G DC_3A_n257H DC_3A_n257I DC_19A_n257A DC_42A_n257A

DC_1A-3A-19A-42C_n257D DC_1A-3A-19A-42C_n257E DC_1A-3A-19A-42C_n257F DC_1A-3A-19A-42C_n257G DC_1A-3A-19A-42C_n257H DC_1A-3A-19A-42C_n257I	
DC_1A-3A-21A-42A_n257A DC_1A-3A-21A-42C_n257A DC_1A-3A-21A-42C_n257D DC_1A-3A-21A-42C_n257E DC_1A-3A-21A-42C_n257F DC_1A-3A-21A-42C_n257G DC_1A-3A-21A-42C_n257H DC_1A-3A-21A-42C_n257I	DC_1A_n257A DC_3A_n257A DC_3A_n257G DC_3A_n257H DC_3A_n257I DC_3A_n257J DC_21A_n257A DC_42A_n257A
DC_1A-3A-28A-42A_n257A DC_1A-3A-28A-42C_n257A	DC_1A_n257A DC_3A_n257A DC_28A_n257A DC_42A_n257A
DC_1A-19A-21A-42A_n257A DC_1A-19A-21A-42A_n257D DC_1A-19A-21A-42A_n257E DC_1A-19A-21A-42A_n257F DC_1A-19A-21A-42A_n257G DC_1A-19A-21A-42A_n257H DC_1A-19A-21A-42A_n257I DC_1A-19A-21A-42C_n257A DC_1A-19A-21A-42C_n257D DC_1A-19A-21A-42C_n257E DC_1A-19A-21A-42C_n257F DC_1A-19A-21A-42C_n257G DC_1A-19A-21A-42C_n257H DC_1A-19A-21A-42C_n257I	DC_1A_n257A DC_1A_n257G DC_1A_n257H DC_1A_n257I DC_19A_n257A DC_21A_n257A DC_21A_n257G DC_21A_n257H DC_21A_n257I DC_42A_n257A
DC_1A-19A-28A-42C_n257A	DC_1A_n257A DC_19A_n257A DC_28A_n257A DC_42A_n257A
DC_1A-21A-28A-42A_n257A	DC_1A_n257A DC_21A_n257A DC_28A_n257A DC_42A_n257A
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.	

5.5B.5.5 Void

5.5B.6 Inter-band EN-DC including FR1 and FR2

Supported channel bandwidths for E-UTRA operating bands and CA configurations are defined in TS 36.521-1 [10] and for NR operating bands and CA configurations in TS 38.521-1 [8], TS 38.521-2 [9] and present document.

5.5B.6.1 Void

5.5B.6.2 Inter-band EN-DC configurations including FR1 and FR2 (three bands)

Table 5.5B.6.2-1: Inter-band EN-DC configurations including FR1 and FR2 (three bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A_n77A-n257A DC_1A_n77A-n257D DC_1A_n77A-n257E DC_1A_n77A-n257F DC_1A_n77C-n257A DC_1A_n77C-n257D	DC_1A_n77A DC_1A_n257A DC_1A_n77A-n257A

	DC_1A_n77C-n257E DC_1A_n77C-n257F	
	DC_1A_n78A-n257A DC_1A_n78A-n257D DC_1A_n78A-n257E DC_1A_n78A-n257F DC_1A_n78C-n257A DC_1A_n78C-n257D DC_1A_n78C-n257E DC_1A_n78C-n257F	DC_1A_n78A DC_1A_n257A DC_1A_n78A-n257A
	DC_1A_n79A-n257A DC_1A_n79A-n257D DC_1A_n79A-n257E DC_1A_n79A-n257F DC_1A_n79C-n257A DC_1A_n79C-n257D DC_1A_n79C-n257E DC_1A_n79C-n257F	DC_1A_n79A DC_1A_n257A DC_1A_n79A-n257A
	DC_3A_n77A-n257A DC_3A_n77A-n257D DC_3A_n77A-n257E DC_3A_n77A-n257F DC_3A_n77C-n257A DC_3A_n77C-n257D DC_3A_n77C-n257E DC_3A_n77C-n257F	DC_3A_n77A DC_3A_n257A DC_3A_n77A-n257A
	DC_3A_n78A-n257A DC_3A_n78A-n257D DC_3A_n78A-n257E DC_3A_n78A-n257F DC_3A_n78C-n257A DC_3A_n78C-n257D DC_3A_n78C-n257E DC_3A_n78C-n257F	DC_3A_n78A DC_3A_n257A DC_3A_n78A-n257A
	DC_3A_n79A-n257A DC_3A_n79A-n257D DC_3A_n79A-n257E DC_3A_n79A-n257F DC_3A_n79C-n257A DC_3A_n79C-n257D DC_3A_n79C-n257E DC_3A_n79C-n257F	DC_3A_n79A DC_3A_n257A DC_3A_n79A-n257A
	DC_5A_n78A-n257A[2]	DC_5A_n78A DC_5A_n257A
	DC_7A_n78A-n257A	DC_7A_n78A DC_7A_n257A
	DC_7A-7A_n78A-n257A	DC_7A_n78A DC_7A_n257A DC_7A_n78A-n257A
	DC_19A_n77A-n257A DC_19A_n77A-n257D DC_19A_n77A-n257E DC_19A_n77A-n257F DC_19A_n77C-n257A DC_19A_n77C-n257D DC_19A_n77C-n257E DC_19A_n77C-n257F	DC_19A_n77A DC_19A_n257A DC_19A_n77A-n257A
	DC_19A_n78A-n257A DC_19A_n78A-n257D DC_19A_n78A-n257E DC_19A_n78A-n257F DC_19A_n78C-n257A DC_19A_n78C-n257D DC_19A_n78C-n257E DC_19A_n78C-n257F	DC_19A_n78A DC_19A_n257A DC_19A_n78A-n257A

DC_19A_n79A-n257A DC_19A_n79A-n257D DC_19A_n79A-n257E DC_19A_n79A-n257F DC_19A_n79C-n257A DC_19A_n79C-n257D DC_19A_n79C-n257E DC_19A_n79C-n257F	DC_19A_n79A DC_19A_n257A DC_19A_n79A-n257A
DC_21A_n77A-n257A	DC_21A_n77A DC_21A_n257A
DC_21A_n78A-n257A	DC_21A_n78A DC_21A_n257A
DC_21A_n79A-n257A	DC_21A_n79A DC_21A_n257A
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications. NOTE 2: Applicable for UE supporting inter-band EN-DC with mandatory simultaneous Rx/Tx capability.	

5.5B.6.3 Inter-band EN-DC configurations including FR1 and FR2 (four bands)

Table 5.5B.6.3-1: Inter-band EN-DC configurations including FR1 and FR2 (four bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A-3A_n78A-n257A DC_1A-3A_n78A-n257G DC_1A-3A_n78A-n257H DC_1A-3A_n78A-n257I	DC_1A_n78A DC_1A_n257A DC_1A_n257D DC_1A_n257G DC_1A_n257H DC_1A_n257I DC_3A_n78A DC_3A_n257A DC_3A_n257D DC_3A_n257G DC_3A_n257H DC_3A_n257I
DC_1A-5A_n78A-n257A	DC_1A_n78A DC_1A_n257A DC_5A_n78A DC_5A_n257A
DC_1A-7A_n78A-n257A	DC_1A_n78A DC_1A_n257A DC_7A_n78A DC_7A_n257A
DC_1A-7A-7A_n78A-n257A	DC_1A_n78A DC_1A_n257A DC_7A_n78A DC_7A_n257A
DC_3A-5A_n78A-n257A	DC_3A_n78A DC_3A_n257A DC_5A_n78A DC_5A_n257A
DC_3A-7A_n78A-n257A	DC_3A_n78A DC_3A_n257A DC_7A_n78A DC_7A_n257A
DC_3A-7A-7A_n78A-n257A	DC_3A_n78A DC_3A_n257A DC_7A_n78A DC_7A_n257A
DC_5A-7A_n78A-n257A	DC_5A_n78A DC_5A_n257A DC_7A_n78A

	DC_7A_n257A
DC_5A-7A-7A_n78A-n257A	DC_5A_n78A DC_5A_n257A DC_7A_n78A DC_7A_n257A
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.	

5.5B.6.4 Inter-band EN-DC configurations including FR1 and FR2 (five bands)

Table 5.5B.6.4-1: Inter-band EN-DC configurations including FR1 and FR2 (five bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A-3A-5A_n78A-n257A	DC_1A_n78A DC_1A_n257A DC_3A_n78A DC_3A_n257A DC_5A_n78A DC_5A_n257A
DC_1A-3A-7A_n78A-n257A	DC_1A_n78A DC_1A_n257A DC_3A_n78A DC_3A_n257A DC_7A_n78A DC_7A_n257A
DC_1A-3A-7A-7A_n78A-n257A	DC_1A_n78A DC_1A_n257A DC_3A_n78A DC_3A_n257A DC_7A_n78A DC_7A_n257A
DC_1A-5A-7A_n78A-n257A	DC_1A_n78A DC_1A_n257A DC_5A_n78A DC_5A_n257A DC_7A_n78A DC_7A_n257A
DC_1A-5A-7A-7A_n78A-n257A	DC_1A_n78A DC_1A_n257A DC_5A_n78A DC_5A_n257A DC_7A_n78A DC_7A_n257A
DC_3A-5A-7A_n78A-n257A	DC_3A_n78A DC_3A_n257A DC_5A_n78A DC_5A_n257A DC_7A_n78A DC_7A_n257A
DC_3A-5A-7A-7A_n78A-n257A	DC_3A_n78A DC_3A_n257A DC_5A_n78A DC_5A_n257A DC_7A_n78A DC_7A_n257A
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.	

5.5B.6.5 Inter-band EN-DC configurations including FR1 and FR2 (six bands)

Table 5.5B.6.5-1: Inter-band EN-DC configurations including FR1 and FR2 (six bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A-3A-5A-7A_n78A-n257A	DC_1A_n78A DC_1A_n257A DC_3A_n78A DC_3A_n257A DC_5A_n78A DC_5A_n257A DC_7A_n78A DC_7A_n257A
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.	

5.5B.7 Inter-band NR-DC between FR1 and FR2

Supported channel bandwidths for E-UTRA operating bands and CA configurations are defined in TS 36.521-1 [10] and for NR operating bands and CA configurations in TS 38.521-1 [8], TS 38.521-2 [9] and present document.

5.5B.7.1 Inter-band NR-DC configurations between FR1 and FR2 (two bands)

Table 5.5B.7-1: Inter-band NR-DC configurations between FR1 and FR2 (two bands)

Downlink NR-DC configuration	Uplink NR-DC configuration
DC_n77A-n257A DC_n77A-n257D DC_n77A-n257E DC_n77A-n257F DC_n77A-n257G DC_n77A-n257H DC_n77A-n257I DC_n77A-n257J DC_n77A-n257K DC_n77A-n257L DC_n77A-n257M DC_n77C-n257A DC_n77C-n257D DC_n77C-n257E DC_n77C-n257F	DC_n77A-n257A
DC_n78A-n257A DC_n78A-n257D DC_n78A-n257E DC_n78A-n257F DC_n78A-n257G DC_n78A-n257H DC_n78A-n257I DC_n78A-n257J DC_n78A-n257K DC_n78A-n257L DC_n78A-n257M DC_n78C-n257A DC_n78C-n257D DC_n78C-n257E DC_n78C-n257F	DC_n78A-n257A
DC_n79A-n257A DC_n79A-n257D DC_n79A-n257E DC_n79A-n257F DC_n79A-n257G DC_n79A-n257H DC_n79A-n257I DC_n79A-n257J DC_n79A-n257K DC_n79A-n257L DC_n79A-n257M DC_n79C-n257A	DC_n79A-n257A

	DC_n79C-n257D DC_n79C-n257E DC_n79C-n257F		
	NOTE 1: NR configuration for FR1 and FR2 are defined in TS 38.521-1 [8] and TS 38.521-2 [9] respectively.		

针对NR V2X与E-UTRA上行链路、下行链路或侧链路配置并发操作的场景，其UE操作频段在TS 38.521-3 V16.7.0第5.2E子节定义。

5.2E Operating bands for V2X

5.2E.1 Intra-band V2X bands

NR V2X operation is designed to operate concurrent with E-UTRA uplink/downlink or sidelink on the operating bands combinations listed in Table 5.2E.1-1.

Table 5.2E.1-1: Intra-band V2X operating bands

V2X con-current operating band	E-UTRA or NR Band	Interface
V2X_47_n47[1]	47	PC5
	n47	PC5
NOTE 1: Only single switched SL is supported.		

5.2E.2 Inter-band V2X bands

NR V2X operation is designed to operate concurrent with E-UTRA uplink/downlink on the operating bands combinations listed in Table 5.2E.2-1.

Table 5.2E.2-1: Inter-band con-current V2X operating bands

E-UTRA-NR V2X Band Combination	E-UTRA or NR Band	Interface
V2X_20_n38	20	Uu
	n38	PC5
V2X_n71_47	47	PC5
	n71	Uu
V2X_n71_(n) 47[1]	47	PC5
	n47	PC5
	n71	Uu
NOTE 1: Only single switched SL in ITS band is supported.		

4.1.2 UE信道带宽

FR1和FR2之间带内NR CA的UE信道带宽在TS 38.521-3 [8]中的第5.3A节定义。

5.3A UE Channel bandwidth for CA

5.3A.1 Inter-band CA between FR1 and FR2

For inter-band NR CA between FR1 and FR2, a carrier aggregation configuration is a combination of operating bands, each supporting a carrier aggregation bandwidth class as specified in clause 5.3A.5 of TS 38.101-1 [2] and clause 5.3A.4 of TS 38.101-2 [3] independently.

EN-DC的UE信道带宽在TS 38.521-3 [8]中的第5.3B节定义。

5.3B UE Channel bandwidth for EN-DC

5.3B.0 General

For intra-band contiguous EN-DC, the aggregated channel bandwidth is sum of the individual NR and E-UTRA channel bandwidths assuming nominal EN-DC channel with 0 kHz offset spacing as specified in clause 5.4.

$$ENBW = BW_{NR_Channel} + BW_{E\text{-}UTRA_Channel}$$

In the case where the NR sub-block and/or the E-UTRA sub-block itself is composed of intra-band contiguous CA carriers, the EN-DC aggregated channel bandwidth is the sum of the aggregated channel bandwidths of the NR and E-UTRA sub-blocks assuming nominal EN-DC channel spacing between the NR sub-block and E-UTRA sub-block.

$$ENBW = BW_{NR_Channel_CA} + BW_{E\text{-}UTRA_Channel_CA}$$

For NR inter-band dual connectivity specified in 5.5B.7, the corresponding NR CA configurations in 5.5A.1, i.e., dual uplink inter-band carrier aggregation between FR1 and FR2 with uplink assigned to two NR bands, are applicable to Dual Connectivity.

NOTE: Requirements for the dual connectivity configurations are defined in the clause corresponding NR uplink CA between FR1 and FR2 configurations, unless otherwise specified.

Intra-band contiguous EN-DC configurations are defined using intra-band contiguous EN-DC bandwidth class notation DC_(n)Xyz where the first EN-DC bandwidth class letter indicates the number of contiguous E-UTRA carriers and the second EN-DC bandwidth class letter indicates the number of contiguous NR carriers for the EN-DC combination of E-UTRA Band X and NR Band nX. Applicable contiguous intraband EN-DC bandwidth classes are listed in Table 5.3B.0-1.

Table 5.3B.0-1: Intra-band contiguous EN-DC bandwidth classes

Intra-band contiguous EN-DC bandwidth class	Number of contiguous CC	
	E-UTRA	NR
AA	1	1
AB	1	2
CA	2	1
DA	3	1

5.3B.1 Intra-band EN-DC in FR1

5.3B.1.1 General

The requirements for intra-band EN-DC in this specification are defined for EN-DC configurations with associated bandwidth combination sets.

For each EN-DC configuration, requirements are specified for all bandwidth combinations contained in a *bandwidth combination set*, which is indicated per supported band combination in the UE radio access capability. A UE can indicate support of several bandwidth combination sets per band combination.

5.3B.1.2 BCS for Intra-band contiguous EN-DC

For intra-band contiguous EN-DC, an EN-DC configuration is a single operating band supporting an intra-band contiguous EN-DC bandwidth class.

Bandwidth combination sets for intra-band contiguous EN-DC are specified in Table 5.3B.1.2-1. The EN-DC configurations and bandwidth combination sets in Table 5.3B.1.2-1 also apply to higher order EN-DC combinations that include inter-band and intra-band EN-DC on the downlink and inter-band EN-DC on the uplink. If no BCS is reported in the UE capabilities for an intra-band combination the default is that the UE supports BCS0.

Table 5.3B.1.2-1: EN-DC configurations and bandwidth combination sets defined for intra-band contiguous EN-DC

E-UTRA – NR configuration / Bandwidth combination set						
Downlink EN-DC configuration	Uplink EN-DC configurations	Component carriers in order of increasing carrier frequency			Maximum aggregated bandwidth (MHz)	Bandwidth combination set
		Channel bandwidths for E-UTRA carrier (MHz)	Channel bandwidths for NR carrier (MHz)	Channel bandwidths for E-UTRA carrier (MHz)		
DC_(n)41AA	DC_(n)41AA	20	40, 60, 80,100		120	0
			40, 60, 80,100	20		
		20	40, 50, 60, 80,100		120	1
			40, 50, 60, 80,100	20		
DC_(n)41CA	DC_(n)41AA, DC_41A_n41A	20+20	40, 60, 80,100		140	0
			40, 60, 80,100	20+20		
		20+20	40, 50, 60, 80,100		140	1
			40, 50, 60, 80,100	20+20		
DC_(n)41DA	DC_(n)41AA, DC_41A_n41A	20+20+20	40, 60, 80,100		160	0
			40, 60, 80,100	20+20+20		
		20+20+20	40, 50, 60, 80,100		160	1
			40, 50, 60, 80,100	20+20+20		
DC_(n)71AA	DC_(n)71AA	15	5		20	0
		10	5, 10			
		5	5, 10, 15			
			5	15		
			5, 10	10		
			5, 10, 15	5		

NOTE 1: Void
NOTE 2: Void
NOTE 3: Void
NOTE 4: The channel bandwidths for E-UTRA or NR carrier should be at least supported in one of the BCS indicated in E-UTRA bandwidth combination sets or NR bandwidth combination sets if reported.

5.3B.1.3 BCS for Intra-band non-contiguous EN-DC

For intra-band non-contiguous EN-DC, an EN-DC configuration is a single operating band supporting E-UTRA and NR carriers, where E-UTRA configuration is indicated by using E-UTRA CA bandwidth class as defined in TS 36.101 [5] and NR configuration is indicated by using NR CA bandwidth class as defined in TS 38.101-1 [2].

Requirements for intra-band non-contiguous EN-DC are defined for the EN-DC configurations and bandwidth combination sets specified in Table 5.3B.1.3-1. The EN-DC configurations and bandwidth combination sets in Table 5.3B.1.3-1 also apply to higher order EN-DC combinations that include inter-band and intra-band EN-DC on the downlink and inter-band EN-DC on the uplink. If no BCS is reported in the UE capabilities for an intra-band combination the default is that the UE supports BCS0.

Table 5.3B.1.3-1: EN-DC configurations and bandwidth combination sets defined for intra-band non-contiguous EN-DC

E-UTRA – NR configuration / Bandwidth combination set						
Downlink EN-DC configuration	Uplink EN-DC configurations	Component carriers in order of increasing carrier frequency			Maximum aggregated bandwidth (MHz)	Bandwidth combination set
		Channel bandwidths for E-UTRA carrier (MHz)	Channel bandwidths for NR carrier (MHz)	Channel bandwidths for E-UTRA carrier (MHz)		
DC_3A_n3A	DC_3A_n3A(1)		5, 10, 15, 20, 25, 30	5, 10, 15, 20	50	0
DC_41A_n41A	DC_41A_n41A	20	40, 60, 80,100		120	0
			40, 60, 80,100	20		
		20	40, 50, 60, 80,100		120	1
			40, 50, 60, 80,100	20		
DC_41C_n41A	DC_41A_n41A	20+20	40, 60, 80,100		140	0
			40, 60, 80,100	20+20		
		20+20	40, 50, 60, 80,100		140	1
			40, 50, 60, 80,100	20+20		
DC_41D_n41A	DC_41A_n41A	20+20+20	40, 60, 80,100		160	0
			40, 60, 80,100	20+20+20		
		20+20+20	40, 50, 60, 80,100		160	1
			40, 50, 60, 80,100	20+20+20		
NOTE 1: Only single switched UL is supported in Rel-15.						

针对NR V2X与E-UTRA上行/下行链路或侧链路配置并发操作的场景，其UE信道带宽在TS 38.521-3 [8]中的第5.3E节定义。

5.3E UE Channel bandwidth for V2X

5.3E.0 General

The requirements specified in clause 5.3B are applicable to NR V2X UE.

5.3E.1 Intra-band contiguous V2X in FR1

For intra-band contiguous E-UTRA NR V2X UE, an EN-DC bandwidth class in Table 5.3B.0-1 are considered to specify the V2X transmission/reception configurations.

Bandwidth combination sets and V2X transmission/reception configurations for intra-band contiguous V2X UE are specified in Table 5.3E.1-1.

Table 5.3E.1-1: E-UTRA-NR V2X configurations and bandwidth combination sets for intra-band contiguous V2X UE

V2X configuration	SL transmission band	Channel bandwidths for E-UTRA carrier (MHz)	Channel bandwidths for NR carrier (MHz)	Maximum aggregated bandwidth (MHz)	Bandwidth combination set
V2X_(n)47AA	E-UTRA Band 47 or NR band n47	10	10,20,30,40	60	0
		20	10,20,30,40		

5.3E.2 Intra-band non-contiguous V2X in FR1

For intra-band non-contiguous E-UTRA NR V2X UE, an EN-DC bandwidth class in Table 5.3B.0-1 are considered to specify the V2X transmission/reception configurations.

Bandwidth combination sets and SL transmission/reception configurations for intra-band non-contiguous V2X are specified in Table 5.3E.2-1.

Table 5.3E.2-1: E-UTRA-NR V2X configurations and bandwidth combination sets for intra-band non-contiguous V2X UE

V2X configuration	SL transmission band	Channel bandwidths for E-UTRA carrier (MHz)	Channel bandwidths for NR carrier (MHz)	Maximum aggregated bandwidth (MHz)	Bandwidth combination set
V2X_47A_n47A	E-UTRA Band 47 or NR band n47	10	10,20,30,40	60	0
		20	10,20,30,40		

5.3E.3 Inter-band V2X in FR1

For inter-band E-UTRA NR V2X UE, the each channel bandwidth for inter-band V2X operations in FR1 is specified in TS 36.101 [4] and TS 38.101-1 [2], respectively.

4.1.3 信道安排

FR1和FR2之间带内NR CA的UE信道安排在TS 38.521-3 [8]中的第5.4A节定义。

5.4A Channel arrangement for CA

The channel arrangement for CA operations in FR1 and FR2 as specified in TS 38.101-1 [2] and TS 38.101-2 [3], respectively.

有关DC安排的UE信道安排在TS 38.521-3 [8]中的第5.4B节定义。

5.4B Channel arrangement for DC

5.4B.0 General

The channel arrangement for intra-band EN-DC operations in FR1 is specified in TS 36.101 [5] and TS 38.101-1 [2], respectively.

5.4B.1 Channel spacing for intra-band EN-DC carriers

The spacing between carriers will depend on the deployment scenario, the size of the frequency block available and the channel bandwidths. The nominal channel spacing between E-UTRA carrier and an adjacent NR carrier for intra-band contiguous EN-DC is defined as following:

- For NR operating bands with 100 kHz channel raster,

  Nominal Channel spacing = $(BW_{E\text{-}UTRA_Channel} + BW_{NR_Channel})/2$

- For NR operating bands with 15 kHz channel raster,

  Nominal Channel spacing = $(BW_{E\text{-}UTRA_Channel} + BW_{NR_Channel})/2+\{-5kHz, 0kHz, 5kHz\}$ for ΔF_{Raster} equals to 15 kHz

  Nominal Channel spacing = $(BW_{E\text{-}UTRA_Channel} + BW_{NR_Channel})/2+\{-10kHz, 0kHz, 10kHz\}$ for ΔF_{Raster} equals to 30 kHz.

where $BW_{E\text{-}UTRA_Channel}$ and $BW_{NR_Channel}$ are the channel bandwidths of the E-UTRA and NR carriers, ΔF_{Raster} is the band dependent channel raster granularity defined in TS38.101-1[2]. The channel spacing can be adjusted depending on the channel raster to optimize performance in a particular deployment scenario.

For intra-band non-contiguous EN-DC the channel spacing between E-UTRA and NR carriers shall be larger than the nominal channel spacing defined in this clause.

4.1.4 配置

FR1和FR2之间支持的带内CA配置在TS 38.521-3 [8]的表5.5A.1-1中规范。

Table 5.5A.1-1: Inter-band CA configurations and bandwidth combinations sets between FR1 and FR2 (two bands)

NR CA configuration	Uplink CA configuration	NR Band	Channel bandwidth (MHz) (NOTE 3)															Bandwidth combination set
			5	10	15	20	25	30	40	50	60	70	80	90	100	200	400	
CA_n1A-n258A	CA_n1A-n258A	n1	5	10	15	20												0
		n258								50					100	200	400	
		n1	5	10	15	20	25	30	40	50								1
		n258								50					100	200	400	
CA_n1A-n258D	CA_n1A-n258A	n1	5	10	15	20												0
		n258	CA_n258D															
		n1	5	10	15	20	25	30	40	50								1
		n258	CA_n258D															
CA_n1A-n258E	CA_n1A-n258A	n1	5	10	15	20												0
		n258	CA_n258E															
		n1	5	10	15	20	25	30	40	50								1
		n258	CA_n258E															
CA_n1A-n258F	CA_n1A-n258A	n1	5	10	15	20												0
		n258	CA_n258F															
		n1	5	10	15	20	25	30	40	50								1
		n258	CA_n258F															
CA_n1A-n258G	CA_n1A-n258A	n1	5	10	15	20												0
		n258	CA_n258G															
		n1	5	10	15	20	25	30	40	50								1
		n258	CA_n258G															
CA_n1A-n258H	CA_n1A-n258A	n1	5	10	15	20												0
		n258	CA_n258H															
		n1	5	10	15	20	25	30	40	50								1
		n258	CA_n258H															
CA_n1A-n258I	CA_n1A-n258A	n1	5	10	15	20												0
		n258	CA_n258I															
		n1	5	10	15	20	25	30	40	50								1
		n258	CA_n258I															
CA_n1A-n258J	CA_n1A-n258A	n1	5	10	15	20												0
		n258	CA_n258J															
		n1	5	10	15	20	25	30	40	50								1
		n258	CA_n258J															
CA_n1A-n258K	CA_n1A-n258A	n1	5	10	15	20												0
		n258	CA_n258K															
		n1	5	10	15	20	25	30	40	50								1
		n258	CA_n258K															

CA_n1A-n258L	CA_n1A-n258A	n1	5	10	15	20												0
		n258	CA_n258L															
		n1	5	10	15	20	25	30	40	50								1
		n258	CA_n258L															
CA_n1A-n258M	CA_n1A-n258A	n1	5	10	15	20												0
		n258	CA_n258M															
		n1	5	10	15	20	25	30	40	50								1
		n258	CA_n258M															
CA_n8A-n258A	CA_n8A-n258A	n8	5	10	15	20												0
		n258								50					100	200	400	
CA_n71A-n257A	-	n71	5	10	15	20												0
		n257								50					100	200	400	
CA_n77A-n257A	CA_n77A-n257A	n77		10	15	20			40	50	60		80	90	100			0
		n257								50					100	200	400	
CA_n77A-n257D	CA_n77A-n257A	n77		10	15	20			40	50	60		80	90	100			0
		n257	CA_n257D															
CA_n77A-n257E	CA_n77A-n257A	n77		10	15	20			40	50	60		80	90	100			0
		n257	CA_n257E															
CA_n77A-n257F	CA_n77A-n257A	n77		10	15	20			40	50	60		80	90	100			0
		n257	CA_n257F															
CA_n77C-n257A	CA_n77A-n257A	n77	CA_n77C															0
		n257								50					100	200	400	
CA_n77C-n257D	CA_n77A-n257A	n77	CA_n77C															0
		n257	CA_n257D															
CA_n77C-n257E	CA_n77A-n257A	n77	CA_n77C															0
		n257	CA_n257E															
CA_n77C-n257F	CA_n77A-n257A	n77	CA_n77C															0
		n257	CA_n257F															
CA_n78A-n257A	CA_n78A-n257A	n78		10	15	20			40	50	60		80	90	100			0
		n257								50					100	200	400	
CA_n78A-n257D	CA_n78A-n257A	n78		10	15	20			40	50	60		80	90	100			0
		n257	CA_n257D															

CA_n78A-n257E	CA_n78A-n257A	n78		10	15	20			40	50	60		80	90	100			0
		n257	CA_n257E															
CA_n78A-n257F	CA_n78A-n257A	n78		10	15	20			40	50	60		80	90	100			0
		n257	CA_n257F															
CA_n78C-n257A	CA_n78A-n257A	n78	CA_n78C															0
		n257								50					100	200	400	
CA_n78C-n257D	CA_n78A-n257A	n78	CA_n78C															0
		n257	CA_n257D															
CA_n78C-n257E	CA_n78A-n257A	n78	CA_n78C															0
		n257	CA_n257E															
CA_n78C-n257F	CA_n78A-n257A	n78	CA_n78C															0
		n257	CA_n257F															
CA_n78A-n258D	CA_n78A-n258A	n78		10	15	20			40	50	60		80	90	100			0
		n258	CA_n258D															
		n78		10	15	20	25	30	40	50	60	70	80	90	100			1
		n258	CA_n258D															
CA_n78A-n258E	CA_n78A-n258A	n78		10	15	20			40	50	60		80	90	100			0
		n258	CA_n258E															
		n78		10	15	20	25	30	40	50	60	70	80	90	100			1
		n258	CA_n258E															
CA_n78A-n258F	CA_n78A-n258A	n78		10	15	20			40	50	60		80	90	100			0
		n258	CA_n258F															
		n78		10	15	20	25	30	40	50	60	70	80	90	100			1
		n258	CA_n258F															
CA_n79A-n257A	CA_n79A-n257A	n79							40	50	60		80		100			0
		n257								50					100	200	400	
CA_n79A-n257D	CA_n79A-n257A	n79							40	50	60		80		100			0
		n257	CA_n257D															
CA_n79A-n257E	CA_n79A-n257A	n79							40	50	60		80		100			0
		n257	CA_n257E															
CA_n79A-n257F	CA_n79A-n257A	n79							40	50	60		80		100			0

		n257	CA_n257F																							
CA_n79C-n257A	CA_n79A-n257A	n79	CA_n79C																							0
		n257											50										100		200	400	
CA_n79C-n257D	CA_n79A-n257A	n79	CA_n79C																							0
		n257	CA_n257D																							
CA_n79C-n257E	CA_n79A-n257A	n79	CA_n79C																							0
		n257	CA_n257E																							
CA_n79C-n257F	CA_n79A-n257A	n79	CA_n79C																							0
		n257	CA_n257F																							

NOTE 1: Reserved.
NOTE 2: The CA configurations are given in Table 5.5A.1-1 of either TS 38.521-1 [8] or TS 38.521-2 [9] where unless otherwise stated BCS0 is referred to.
NOTE 3: The SCS of each channel bandwidth for NR FR1 and NR FR2 band refers to Table 5.3.5-1 of TS 38.521-1 [8] and TS 38.521-2 [9] respectively.

支持的带内连续EN-DC配置，在TS 38.521-3 [8]的表5.5B.2-1中做出规定。

Table 5.5B.2-1: Intra-band contiguous EN-DC configurations

EN-DC Configuration	Uplink EN-DC configuration (NOTE 1)	Single UL allowed
DC_(n)41AA[5] DC_(n)41CA[5] DC_(n)41DA[5]	DC_(n)41AA	Yes[3]
DC_(n)41CA[5] DC_(n)41DA[5]	DC_41A_n41A	Yes[3]
DC_(n)71AA[2]	DC_(n)71AA	No[4]

NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.
NOTE 2: Requirements in this specification apply for NR SCS of 15 kHz only.
NOTE 3: Single UL allowed due to potential emission issues, not self-interference.
NOTE 4: For UE(s) supporting dynamic power sharing it is mandatory to do dual simultaneous UL. For UE(s) not supporting dynamic power sharing single UL is allowed.
NOTE 5: The minimum requirements only apply for non-simultaneous Tx/Rx between all carriers.

支持的带内非连续EN-DC配置，在TS 38.521-3 [8]的表5.5B.3-1中做出规定。

Table 5.5B.3-1: Intra-band non-contiguous EN-DC configurations

EN-DC Configuration	Uplink EN-DC configuration (NOTE 1)	Single UL allowed
DC_3A_n3A	DC_3A_n3A[2,7]	Yes[2,7]
DC_41A_n41A[3] DC_41C_n41A[3] DC_41D_n41A[3]	DC_41A_n41A	Yes[4]
DC_66A_n66A	DC_66A_n66A[5]	Yes[5]

NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.
NOTE 2: Only single switched UL is supported in Rel-15.
NOTE 3: The minimum requirements only apply for non-simultaneous Tx/Rx between all carriers.
NOTE 4: Single UL allowed due to potential emission issues, not self-interference.
NOTE 5: Only single switched UL is supported.
NOTE 6: Reserve.
NOTE 7: Single UL allowed due to potential emission issues and self-interference.

FR1内支持的带内EN-DC配置，在TS 38.521-3 [8]的表5.5B.4.1-1、表5.5B.4.2-1、表5.5B.4.3-1、表5.5B.4.4.4-1和表5.5B.4.5-1中做出规定。

Table 5.5B.4.1-1: Inter-band EN-DC configurations within FR1 (two bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)	Single UL allowed	DL interruption allowed (Note 14)
DC_1A_n3A	DC_1A_n3A	DC_1_n3	
DC_1A_n5A	DC_1A_n5A	No	
DC_1A_n7A	DC_1A_n7A	No	
DC_1A_n28A	DC_1A_n28A	No	
DC_1A_n40A	DC_1A_n40A	No	
DC_1A_n51A	DC_1A_n51A	No	
DC_1A_n77A[7] DC_1A_n77C[7]	DC_1A_n77A	DC_1_n77	No
DC_1A_n78A[7] DC_1A_n78C[7]	DC_1A_n78A	No	No
DC_1A-1A_n78A	DC_1A_n78A	No	
DC_1A_n79A[7] DC_1A_n79C[7]	DC_1A_n79A	No	No
DC_2A_n5A	DC_2A_n5A	No	
DC_2A_n41A DC_2C_n41A	DC_2A_n41A DC_2C_n41A	No	
DC_2A_n66A	DC_2A_n66A	DC_2_n66	
DC_2A_n71A	DC_2A_n71A	No	
DC_2A_n77A	DC_2A_n77A	DC_2_n77	
DC_2A_n78A	DC_2A_n78A	DC_2_n78	
DC_3A_n1A	DC_3A_n1A	DC_3_n1	
DC_3A_n5A	DC_3A_n5A	DC_3_n5	
DC_3A_n7A	DC_3A_n7A	No	
DC_3A_n28A	DC_3A_n28A	No	
DC_3A_n40A	DC_3A_n40A	No	
DC_3A_n41A[7] DC_3C_n41A	DC_3A_n41A DC_3C_n41A	DC_3_n41	No
DC_3A_n51A	DC_3A_n51A	No	
DC_3A_n77A[7] DC_3A_n77C[7]	DC_3A_n77A	DC_3_n77	No
DC_3A_n78A[7] DC_3A_n78C[7] DC_3C_n78A[7]	DC_3A_n78A	DC_3_n78	No
DC_3A_n79A[7] DC_3A_n79C[7]	DC_3A_n79A	No	No
DC_5A_n2A	DC_5A_n2A	No	
DC_5A_n40A	DC_5A_n40A	No	
DC_5A_n66A	DC_5A_n66A	DC_5_n66	
DC_5A_n77A	DC_5A_n77A	No	
DC_5A_n78A[7] DC_5A_n78C[7]	DC_5A_n78A	No	No
DC_7A_n1A	DC_7A_n1A	No	
DC_7A_n3A	DC_7A_n3A	No	
DC_7A_n5A	DC_7A_n5A	DC_7_n5	
DC_7A_n28A	DC_7A_n28A	No	
DC_7A_n51A	DC_7A_n51A	No	
DC_7A_n66A DC_7C_n66A	DC_7A_n66A	No	
DC_7A_n78A[7] DC_7C_n78A[7]	DC_7A_n78A	No	
DC_7A-7A_n78A[7]	DC_7A_n78A	No	
DC_8A_n1A	DC_8A_n1A	No	
DC_8A_n3A	DC_8A_n3A	No	
DC_8A_n20A	DC_8A_n20A	Yes	
DC_8A_n40A[7]	DC_8A_n40A	No	
DC_8A_n41A[7] DC_8A_n41C	DC_8A_n41A	No	No
DC_8A_n41(2A)	DC_8A_n41A	No	No
DC_8A_n77A[7]	DC_8A_n77A	No	No
DC_8A_n78A[7]	DC_8A_n78A	No	No
DC_8A_n79A[7]	DC_8A_n79A	No	No

DC_11A_n77A[7]	DC_11A_n77A	No	No
DC_11A_n78A[7]	DC_11A_n78A	No	No
DC_11A_n79A[7]	DC_11A_n79A	No	
DC_12A_n5A	DC_12A_n5A	No	
DC_12A_n66A	DC_12A_n66A	No	
DC_12A_n78A	DC_12A_n78A	DC_12_n78	
DC_13A_n2A	DC_13A_n2A	No	
DC_13A_n66A	DC_13A_n66A	No	
DC_13A_n77A	DC_13A_n77A	No	
DC_14A_n2A	DC_14A_n2A	No	
DC_14A_n66A	DC_14A_n66A	No	
DC_18A_n77A[7]	DC_18A_n77A	No	No
DC_18A_n78A[7]	DC_18A_n78A	No	No
DC_18A_n79A[7]	DC_18A_n79A	No	
DC_19A_n1A	DC_19A_n1A	No	
DC_19A_n77A[7] DC_19A_n77C[7]	DC_19A_n77A	No	
DC_19A_n78A[7] DC_19A_n78C[7]	DC_19A_n78A	No	No
DC_19A_n79A[7] DC_19A_n79C[7]	DC_19A_n79A	No	No
DC_20A_n1A	DC_20A_n1A	No	
DC_20A_n3A	DC_20A_n3A	No	
DC_20A_n7A	DC_20A_n7A	DC_20_n7	
DC_20A_n8A	DC_20A_n8A	DC_20_n8	
DC_20A_n28A[8,11,13]	DC_20A_n28A	No	
DC_20A_n51A	DC_20A_n51A	No	
DC_20A_n77A[7]	DC_20A_n77A	No	
DC_20A_n78A[7]	DC_20A_n78A	No	
DC_21A_n1A	DC_21A_n1A	No	
DC_21A_n28A[17]	DC_21A_n28A	DC_21_n28	
DC_21A_n77A[7] DC_21A_n77C[7]	DC_21A_n77A	No	
DC_21A_n78A[7] DC_21A_n78C[7]	DC_21A_n78A	No	No
DC_21A_n79A[7] DC_21A_n79C[7]	DC_21A_n79A	No	No
DC_25A_n41A	DC_25A_n41A	No	
DC_26A_n41A	DC_26A_n41A	No	
DC_26A_n77A[7]	DC_26A_n77A	No	
DC_26A_n78A[7]	DC_26A_n78A	No	
DC_26A_n79A[7]	DC_26A_n79A	No	
DC_28A_n3A	DC_28A_n3A	No	
DC_28A_n5A[8]	DC_28A_n5A	No	
DC_28A_n7A	DC_28A_n7A	No	
DC_28A_n51A	DC_28A_n51A	No	
DC_28A_n77A[7] DC_28A_n77C[7]	DC_28A_n77A	No	No
DC_28A_n78A[7] DC_28A_n78C[7]	DC_28A_n78A	No	No
DC_28A_n79A[7] DC_28A_n79C[7]	DC_28A_n79A	No	
DC_30A_n5A	DC_30A_n5A	No	
DC_30A_n66A	DC_30A_n66A	No	
DC_38A_n78A[7]	DC_38A_n78A	No	
DC_39A_n41A[3] DC_39C_n41A[3]	DC_39A_n41A DC_39C_n41A	No	No
DC_39A_n78A[5,7]	DC_39A_n78A	No	
DC_39A_n79A[7]	DC_39A_n79A	No	No
DC_40A_n1A	DC_40A_n1A	No	
DC_40A_n41A[3]	DC_40A_n41A	No	
DC_40A_n77A	DC_40A_n77A	No	
DC_40A_n78A DC_40C_n78A	DC_40A_n78A DC_40C_n78A	No	
DC_40A_n79A[7,12] DC_40C_n79A[7,12]	DC_40A_n79A	No	No

DC_41A_n77A DC_41C_n77A	DC_41A_n77A	No	
DC_41A_n78A DC_41C_n78A	DC_41A_n78A	No	
DC_41A_n79A[6,7] DC_41C_n79A[6,7]	DC_41A_n79A	No	No
DC_42A_n51A	DC_42A_n51A	No	
DC_42A_n77A[3,4,9,11] DC_42A_n77C[3,4,9,11] DC_42C_n77A[3,4,9,11] DC_42C_n77C[3,4,9,11] DC_42D_n77A[3,4,9,11] DC_42E_n77A[3,4,9,11]	N/A	N/A	
DC_42A_n78A[3,4,9,11] DC_42A_n78C[3,4,9,11] DC_42C_n78A[3,4,9,11] DC_42C_n78C[3,4,9,11] DC_42D_n78A[3,4,9,11] DC_42E_n78A[3,4,9,11]	N/A	N/A	
DC_42A_n79A[9,15] DC_42A_n79C[9,15] DC_42C_n79A[9,15] DC_42C_n79C[9,15] DC_42D_n79A[9,15] DC_42E_n79A[9,15]	N/A	N/A	
DC_46A_n78A[2] DC_46C_n78A[2] DC_46D_n78A[2] DC_46E_n78A[2]	N/A	N/A	
DC_48A_n5A	DC_48A_n5A	No	
DC_48A_n66A	DC_48A_n66A	No	
DC_66A_n2A	DC_66A_n2A	DC_66_n2	
DC_66A_n5A	DC_66A_n5A	DC_66_n5	
DC_66A_n41A	DC_66A_n41A	No	
DC_66A_n71A	DC_66A_n71A	No	
DC_66A_n78A	DC_66A_n78A	No	

NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.

NOTE 2: Restricted to E-UTRA operation when inter-band carrier aggregation is configured. The downlink operating band for Band 46 is paired with the uplink operating band (external E-UTRA band) of the carrier aggregation configuration that is supporting the configured PCell.

NOTE 3: The minimum requirements apply only when there is non-simultaneous Tx/Rx operation between E-UTRA and NR carriers. This restriction applies also for these carriers when applicable EN-DC configuration is part of a higher order EN-DC configuration.

NOTE 4: For UEs not indicating interBandMRDC-WithOverlapDL-Bands-r16, the minimum requirements for intra-band non-contiguous EN-DC apply for the Band 42/48 and Band n77/n78 combination. For UEs not indicating *interBandMRDC-WithOverlapDL-Bands-r16*, when UE capability *interBandContiguousMRDC* is indicated, the minimum requirements for intra-band-contiguous EN-DC also should be met in addition to intra-band non-contiguous EN-DC. The intra-band requirements also apply for these carriers when applicable EN-DC configuration is a subset of a higher order EN-DC configuration.

NOTE 5: The frequency range above 3 600 MHz for Band n78 is not used in this combination.

NOTE 6: The frequency range below 2 506 MHz for Band 41 is not used in this combination.

NOTE 7: Applicable for UE supporting inter-band EN-DC with mandatory simultaneous Rx/Tx capability.

NOTE 8: The frequency range in band n28 is restricted for this band combination to 703-733 MHz for the UL and 758-788 MHz for the DL.

NOTE 9: The combination is not used alone as fall back mode of other band combinations in which UL in Band 42 is not used.

NOTE 10: Void.

NOTE 11: For UEs not indicating *interBandMRDC-WithOverlapDL-Bands-r16*, the minimum requirements for inter-band EN-DC apply when the maximum power spectral density imbalance between downlink carriers is within 6 dB. For UEs indicating interBandMRDC-WithOverlapDL-Bands-r16, the power imbalance requirement defined in clause 7.6B.2.6 of 38.101-3 [4] apply. For these UEs, the power spectral density imbalance condition also applies for these carriers when applicable EN-DC configuration is a subset of a higher order EN-DC configuration.

NOTE 12: Applicable for frequency range above 4 800 MHz for Band n79 in this combination.

NOTE 13: For UEs not indicating *interBandMRDC-WithOverlapDL-Bands-r16*, the minimum requirements apply for synchronized DL carriers with a maximum receive time difference ≤ 3 usec. The requirements also apply for these carriers when applicable EN-DC configuration is a subset of a higher order EN-DC configuration.

NOTE 14: Applicable when dynamic switching between two uplink carriers is conducted. The DL interruption requirements for NR DL carrier(s) and E-UTRA DL carrier(s) are specified in clause 8.2.1.2.14 of 38.133 [25] and clause 7.32.2.12 of 36.133 [12] respectively.
NOTE 15: Simultaneous Rx/Tx capability does not apply for UEs supporting band 42 with a n77 implementation only. Same restrictions are applied to related higher order configurations.
NOTE 16: Reserved.
NOTE 17: The frequency range in band n28 is restricted for this band combination to 728-738 MHz for the UL and 783-793 MHz for the DL. This restriction applies also for these band combinations when applicable EN-DC configuration is part of a higher order EN-DC configuration.

Table 5.5B.4.2-1: Inter-band EN-DC configurations within FR1 (three bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A-3A_n28A	DC_1A_n28A DC_3A_n28A
DC_1A-3A_n77A[5] DC_1A-3A_n77C[5]	DC_1A_n77A DC_3A_n77A
DC_1A-3A_n78A[5] DC_1A-3A_n78C[5] DC_1A-3C_n78A[5]	DC_1A_n78A DC_3A_n78A DC_3C_n78A
DC_1A-1A-3A_n78A DC_1A-1A-3C_n78A	DC_1A_n78A DC_3A_n78A DC_3C_n78A
DC_1A-3C_n78(2A)[5]	DC_1A_n78A DC_3A_n78A DC_3C_n78A
DC_1A-3A_n79A[5] DC_1A-3A_n79C[5]	DC_1A_n79A DC_3A_n79A
DC_1A-5A_n78A[5] DC_1A-5A_n78C[5]	DC_1A_n78A DC_5A_n78A
DC_1A-1A-5A_n78A	DC_1A_n78A DC_5A_n78A
DC_1A-7A_n3A	DC_1A_n3A DC_7A_n3A
DC_1A-7A_n28A[5]	DC_1A_n28A DC_7A_n28A
DC_1A-7A_n78A[5]	DC_1A_n78A DC_7A_n78A
DC_1A-7A-7A_n78A[5]	DC_1A_n78A DC_7A_n78A
DC_1A-8A_n3A	DC_1A_n3A DC_8A_n3A
DC_1A-8A_n78A[5]	DC_1A_n78A DC_8A_n78A
DC_1A-8A_n78(2A)[5]	DC_1A_n78A DC_8A_n78A
DC_1A-18A_n77A[5]	DC_1A_n77A DC_18A_n77A
DC_1A-18A_n78A[5]	DC_1A_n78A DC_18A_n78A
DC_1A-18A_n79A	DC_1A_n79A DC_18A_n79A
DC_1A-19A_n77A[5] DC_1A-19A_n77C[5]	DC_1A_n77A DC_19A_n77A
DC_1A-19A_n78A[5] DC_1A-19A_n78C[5]	DC_1A_n78A DC_19A_n78A
DC_1A-19A_n79A[5] DC_1A-19A_n79C[5]	DC_1A_n79A DC_19A_n79A
DC_1A-20A_n3A	DC_1A_n3A DC_20A_n3A

	DC_1A-20A_n8A	DC_1A_n8A DC_20A_n8A	
	DC_1A-20A_n28A[6,11,12]	DC_1A_n28A DC_20A_n28A	
	DC_1A-20A_n78A[5]	DC_1A_n78A DC_20A_n78A	
	DC_1A-21A_n77A[5] DC_1A-21A_n77C[5]	DC_1A_n77A DC_21A_n77A	
	DC_1A-21A_n78A[5] DC_1A-21A_n78C[5]	DC_1A_n78A DC_21A_n78A	
	DC_1A-21A_n79A[5] DC_1A-21A_n79C[5]	DC_1A_n79A DC_21A_n79A	
	DC_1A-28A_n3A	DC_1A_n3A DC_28A_n3A	
	DC_1A-28A_n5A[6]	DC_1A_n5A DC_28A_n5A	
	DC_1A-28A_n77A[5] DC_1A-28A_n77C[5]	DC_1A_n77A DC_28A_n77A	
	DC_1A-28A_n78A[5] DC_1A-28A_n78C[5]	DC_1A_n78A DC_28A_n78A	
	DC_1A_n28A-n78A[5]	DC_1A_n28A DC_1A_n78A	
	DC_1A-28A_n79A DC_1A-28A_n79C	DC_1A_n79A DC_28A_n79A	
	DC_1A-41A_n28A[5] DC_1A-41C_n28A[5]	DC_1A_n28A DC_41A_n28A DC_41C_n28A	
	DC_1A-41A_n77A DC_1A-41C_n77A	DC_1A_n77A DC_41A_n77A	
	DC_1A-41A_n78A DC_1A-41C_n78A	DC_1A_n78A DC_41A_n78A	
	DC_1A-41C_n79A	DC_1A_n79A	
	DC_1A-42A_n77A[10,11] DC_1A-42A_n77C[10,11] DC_1A-42C_n77A[10,11] DC_1A-42C_n77C[10,11] DC_1A-42D_n77A[10,11] DC_1A-42E_n77A[10,11]	DC_1A_n77A	
	DC_1A-42A_n78A[10,11] DC_1A-42A_n78C[10,11] DC_1A-42C_n78A[10,11] DC_1A-42C_n78C[10,11] DC_1A-42D_n78A[10,11] DC_1A-42E_n78A[10,11]	DC_1A_n78A	
	DC_1A-42A_n79A DC_1A-42A_n79C DC_1A-42C_n79A DC_1A-42C_n79C DC_1A-42D_n79A DC_1A-42E_n79A	DC_1A_n79A	
	DC_1A_n77A-n79A	DC_1A_n77A DC_1A_n79A	
	DC_1A_n78A-n79A	DC_1A_n78A DC_1A_n79A	
	DC_1A_SUL_n78A-n84A[5]	DC_1A_n78A DC_1A_n84A_ULSUP-TDM_n78A DC_1A_n84A_ULSUP-FDM_n78A	
	DC_2A-5A_n66A	DC_2A_n66A DC_5A_n66A	
	DC_2A-12A_n66A	DC_2A_n66A DC_12A_n66A	

	DC_2A-13A_n77A	DC_2A_n77A DC_13A_n77A	
	DC_2A-14A_n2A	DC_2A_n2A[2] DC_14A_n2A	
	DC_2A-14A_n66A	DC_2A_n66A DC_14A_n66A	
	DC_2A-2A-14A_n66A	DC_2A_n66A DC_14A_n66A	
	DC_2A-30A_n66A	DC_2A_n66A DC_30A_n66A	
	DC_2A-66A_n5A	DC_2A_n5A DC_66A_n5A	
	DC_2A-66A_n41A	DC_2A_n41A DC_66A_n41A	
	DC_2A-66A_n71A	DC_2A_n71A DC_66A_n71A	
	DC_2A-66A_n77A	DC_2A_n77A DC_66A_n77A	
	DC_2A-(n)71AA	DC_2A_n71A DC_(n)71AA	
	DC_3A_n1A-n78A[5]	DC_3A_n1A DC_3A_n78A	
	DC_3A_n1A-n79A[5]	DC_3A_n1A DC_3A_n79A	
	DC_3A_n3A-n77A	DC_3A_n77A DC_3A_n3A[2]	
	DC_3A_n3A-n78A	DC_3A_n78A DC_3A_n3A[2]	
	DC_3A-5A_n78A[5] DC_3A-5A_n78C[5]	DC_3A_n78A DC_5A_n78A	
	DC_3A-7A_n5A	DC_3A_n5A DC_7A_n5A	
	DC_3A-7A_n28A	DC_3A_n28A DC_7A_n28A	
	DC_3A-7A_n78A[5] DC_3C-7A_n78A[5]	DC_3A_n78A DC_7A_n78A	
	DC_3A-7C_n78A[5] DC_3C-7C_n78A[5]	DC_3A_n78A DC_7A_n78A	
	DC_3A-7A-7A_n78A[5]	DC_3A_n78A DC_7A_n78A	
	DC_3A-8A_n1A	DC_3A_n1A DC_8A_n1A	
	DC_3A-8A_n28A	DC_3A_n28A DC_8A_n28A	
	DC_3A-8A_n78A[5]	DC_3A_n78A DC_8A_n78A	
	DC_3A-18A_n77A	DC_3A_n77A DC_18A_n77A	
	DC_3A-8A_n78(2A)	DC_3A_n78A DC_8A_n78A	
	DC_3A-18A_n78A	DC_3A_n78A DC_18A_n78A	
	DC_3A-19A_n77A[5] DC_3A-19A_n77C[5]	DC_3A_n77A DC_19A_n77A	
	DC_3A-19A_n78A[5] DC_3A-19A_n78C[5]	DC_3A_n78A DC_19A_n78A	
	DC_3A-19A_n79A[5] DC_3A-19A_n79C[5]	DC_3A_n79A DC_19A_n79A	
	DC_3A-20A_n1A	DC_3A_n1A	

		DC_20A_n1A
	DC_3A-20A_n28A[5,6,11,12]	DC_3A_n28A DC_20A_n28A
	DC_3A-20A_n78A[5] DC_3C-20A_n78A[5]	DC_3A_n78A DC_20A_n78A
	DC_3A-21A_n77A[5] DC_3A-21A_n77C[5]	DC_3A_n77A DC_21A_n77A
	DC_3A-21A_n78A[5] DC_3A-21A_n78C[5]	DC_3A_n78A DC_21A_n78A
	DC_3A-21A_n79A[5] DC_3A-21A_n79C[5]	DC_3A_n79A DC_21A_n79A
	DC_3A-28A_n77A DC_3A-28A_n77C	DC_3A_n77A DC_28A_n77A
	DC_3A-28A_n78A[5] DC_3A-28A_n78C[5]	DC_3A_n78A DC_28A_n78A
	DC_3A_n28A-n78A[5]	DC_3A_n28A DC_3A_n78A
	DC_3A-28A_n79A DC_3A-28A_n79C	DC_3A_n79A DC_28A_n79A
	DC_3A-38A_n78A	DC_3A_n78A
	DC_3A-40A_n1A	DC_3A_n1A DC_40A_n1A
	DC_3A-41A_n28A[5] DC_3A-41C_n28A[5]	DC_3A_n28A DC_41A_n28A DC_41C_n28A
	DC_3A-41A_n41A	DC_3A_n41A
	DC_3A-41A_n77A DC_3A-41C_n77A	DC_3A_n77A DC_41A_n77A
	DC_3A-41A_n77(2A)	DC_3A_n77A DC_41A_n77A
	DC_3A-41A_n78A	DC_3A_n78A DC_41A_n78A
	DC_3A-42A_n77A[10,11] DC_3A-42A_n77C[10,11] DC_3A-42C_n77A[10,11] DC_3A-42C_n77C[10,11] DC_3A-42D_n77A[10,11] DC_3A-42E_n77A[10,11]	DC_3A_n77A
	DC_3A-42A_n78A[10,11] DC_3A-42A_n78C[10,11] DC_3A-42C_n78A[10,11] DC_3A-42C_n78C[10,11] DC_3A-42D_n78A[10,11] DC_3A-42E_n78A[10,11]	DC_3A_n78A
	DC_3A-42A_n79A DC_3A-42A_n79C DC_3A-42C_n79A DC_3A-42C_n79C DC_3A-42D_n79A DC_3A-42E_n79A	DC_3A_n79A
	DC_3A_n77A-n79A	DC_3A_n77A DC_3A_n79A
	DC_3A_n78A-n79A	DC_3A_n78A DC_3A_n79A
	DC_3A_SUL_n78A-n80A[5]	DC_3A_n78A DC_3A_n80A_ULSUP-TDM_n78A DC_3A_n80A_ULSUP-FDM_n78A
	DC_3A_SUL_n78A-n82A[5]	DC_3A_n78A DC_3A_n82A
	DC_3A_SUL_n79A-n80A[5]	DC_3A_n79A

	DC_3A_n80A_ULSUP-TDM_n79A DC_3A_n80A_ULSUP-FDM_n79A
DC_5A-7A_n78A	DC_5A_n78A DC_7A_n78A
DC_5A-7A-7A_n78A	DC_5A_n78A DC_7A_n78A
DC_5A-30A_n66A	DC_5A_n66A DC_30A_n66A
DC_7A_n5A-n78A DC_7C_n5A-n78A	DC_7A_n5A DC_7C_n5A DC_7A_n78A DC_7C_n78A
DC_7A-8A_n1A	DC_7A_n1A DC_8A_n1A
DC_7A-8A_n3A	DC_7A_n3A DC_8A_n3A
DC_7A-20A_n1A	DC_7A_n1A DC_20A_n1A
DC_7A-20A_n3A	DC_7A_n3A DC_20A_n3A
DC_7A-20A_n8A	DC_7A_n8A DC_20A_n8A
DC_7A-20A_n28A[6,11,12]	DC_7A_n28A DC_20A_n28A
DC_7A-20A_n78A[5]	DC_7A_n78A DC_20A_n78A
DC_7A-28A_n3A	DC_7A_n3A DC_28A_n3A
DC_7A-28A_n5A[6]	DC_7A_n5A DC_28A_n5A
DC_7A-28A_n78A[5]	DC_7A_n78A DC_28A_n78A
DC_7C-28A_n78A[5]	DC_7A_n78A DC_28A_n78A
DC_7A_n28A-n78A[5] DC_7C_n28A-n78A	DC_7A_n28A DC_7A_n78A DC_7C_n28A DC_7C_n78A
DC_7A-46A_n78A[3] DC_7A-46C_n78A[3] DC_7A-46D_n78A[3] DC_7A-46E_n78A[3]	DC_7A_n78A
DC_8A_SUL_n78A-n81A[5]	DC_8A_n78A DC_8A_n81A_ULSUP-TDM_n78A DC_8A_n81A_ULSUP-FDM_n78A
DC_8A_SUL_n79A-n81A[5]	DC_8A_n79A DC_8A_n81A_ULSUP-TDM_n79A DC_8A_n81A_ULSUP-FDM_n79A
DC_12A-30A_n66A	DC_12A_n66A DC_30A_n66A
DC_13A-66A_n77A	DC_13A_n77A DC_66A_n77A
DC_18A-28A_n77A[5]	DC_18A_n77A DC_28A_n77A
DC_18A-28A_n78A[5]	DC_18A_n78A DC_28A_n78A
DC_18A-28A_n79A[5]	DC_18A_n79A DC_28A_n79A
DC_18A-41A_n3A	DC_18A_n3A DC_41A_n3A

	DC_18A-41A_n77A DC_18A-41C_n77A	DC_18A_n77A DC_41A_n77A DC_41C_n77A	
	DC_18A-41A_n78A DC_18A-41C_n78A	DC_18A_n78A DC_41A_n78A DC_41C_n78A	
	DC_19A_n1A-n78A[5]	DC_19A_n1A DC_19A_n78A	
	DC_19A_n1A-n79A[5]	DC_19A_n1A DC_19A_n79A	
	DC_19A-21A_n77A[5] DC_19A-21A_n77C[5]	DC_19A_n77A DC_21A_n77A	
	DC_19A-21A_n78A[5] DC_19A-21A_n78C[5]	DC_19A_n78A DC_21A_n78A	
	DC_19A-21A_n79A[5] DC_19A-21A_n79C[5]	DC_19A_n79A DC_21A_n79A	
	DC_19A-42A_n77A DC_19A-42A_n77C	DC_19A_n77A	
	DC_19A-42A_n78A DC_19A-42A_n78C	DC_19A_n78A	
	DC_19A-42A_n79A DC_19A-42A_n79C	DC_19A_n79A	
	DC_19A-42C_n77A DC_19A-42C_n77C	DC_19A_n77A	
	DC_19A-42C_n78A DC_19A-42C_n78C	DC_19A_n78A	
	DC_19A-42C_n79A DC_19A-42C_n79C	DC_19A_n79A	
	DC_19A_n77A-n79A	DC_19A_n77A DC_19A_n79A	
	DC_19A_n78A-n79A	DC_19A_n78A DC_19A_n79A	
	DC_20A_n8A-n75A[6]	DC_20A_n8A	
	DC_20A_n28A-n75A[6,11,12]	DC_20A_n28A	
	DC_20A_n28A-n78A[5,6,11,12]	DC_20A_n28A DC_20A_n78A	
	DC_20A_n75A-n78A[5]	DC_20A_n78A	
	DC_20A_n76A-n78A[5]	DC_20A_n78A	
	DC_20A_SUL_n78A-n82A[5]	DC_20A_n78A DC_20A_n82A_ULSUP-TDM_n78A DC_20A_n82A_ULSUP-FDM_n78A	
	DC_20A_SUL_n78A-n83A[5]	DC_20A_n78A DC_20A_n83A	
	DC_21A_n1A-n78A[5]	DC_21A_n1A DC_21A_n78A	
	DC_21A_n1A-n79A[5]	DC_21A_n1A DC_21A_n79A	
	DC_21A-28A_n77A DC_21A-28A_n77C	DC_21A_n77A DC_28A_n77A	
	DC_21A-28A_n78A DC_21A-28A_n78C	DC_21A_n78A DC_28A_n78A	
	DC_21A-28A_n79A DC_21A-28A_n79C	DC_21A_n79A DC_28A_n79A	
	DC_21A-42A_n77A[10,11] DC_21A-42A_n77C[10,11] DC_21A-42C_n77A[10,11] DC_21A-42C_n77C[10,11]	DC_21A_n77A	
	DC_21A-42A_n78A[10,11] DC_21A-42A_n78C[10,11]	DC_21A_n78A	

DC_21A-42C_n78A[10,11] DC_21A-42C_n78C[10,11]	
DC_21A-42A_n79A DC_21A-42A_n79C DC_21A-42C_n79A DC_21A-42C_n79C	DC_21A_n79A
DC_21A_n77A-n79A	DC_21A_n77A DC_21A_n79A
DC_21A_n78A-n79A	DC_21A_n78A DC_21A_n79A
DC_28A_n7A-n78A	DC_28A_n7A DC_28A_n78A
DC_28A-42A_n77A[10,11] DC_28A-42A_n77C[10,11] DC_28A-42C_n77A[10,11]	DC_28A_n77A
DC_28A-42A_n78A[10,11] DC_28A-42A_n78C[10,11] DC_28A-42C_n78A[10,11]	DC_28A_n78A
DC_28A-42A_n79A DC_28A-42A_n79C DC_28A-42C_n79A	DC_28A_n79A
DC_28A_SUL_n78A-n83A[5]	DC_28A_n78A DC_28A_n83A_ULSUP-TDM_n78A DC_28A_n83A_ULSUP-FDM_n78A
DC_41A-42A_n77A[10,11] DC_41A-42C_n77A[10,11] DC_41C-42A_n77A[10,11] DC_41C-42C_n77A[10,11]	DC_41A_n77A
DC_41A-42A_n78A[10,11] DC_41A-42C_n78A[10,11] DC_41C-42A_n78A[10,11] DC_41C-42C_n78A[10,11]	DC_41A_n78A
DC_41A-42A_n79A DC_41A-42C_n79A DC_41C-42A_n79A DC_41C-42C_n79A	DC_41A_n79A
DC_66A-(n)71AA	DC_66A_n71A DC_(n)71AA
DC_66A_SUL_n78A-n86A[5]	DC_66A_n78A DC_66A_n86A_ULSUP-TDM_n78A DC_66A_n86A_ULSUP-FDM_n78A

NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.
NOTE 2: Only single switched UL is supported.
NOTE 3: Restricted to E-UTRA operation when inter-band carrier aggregation is configured. The downlink operating band for Band 46 is paired with the uplink operating band (external E-UTRA band) of the carrier aggregation configuration that is supporting the configured PCell.
NOTE 4: If a UE is configured with both NR UL and NR SUL carriers in a cell, the switching time between NR UL carrier and NR SUL carrier can be up to 140us and placed in SUL resources.
NOTE 5: Applicable for UE supporting inter-band EN-DC with mandatory simultaneous Rx/Tx capability.
NOTE 6: The frequency range in band n28 is restricted for this band combination to 703-733 MHz for the UL and 758-788 MHz for the DL.
NOTE 7: Void.
NOTE 8: Reserved.
NOTE 9: Reserved.
NOTE 10: For UEs not indicating *interBandMRDC-WithOverlapDL-Bands-r16*, the minimum requirements for intra-band non-contiguous EN-DC apply for the Band 42 and Band n77/n78 combination. For UEs not indicating *interBandMRDC-WithOverlapDL-Bands-r16*, when UE capability *interBandContiguousMRDC* is indicated, the minimum requirements for intra-band-contiguous EN-DC also should be met in addition to intra-band non-contiguous EN-DC.

NOTE 11: For UEs not indicating *interBandMRDC-WithOverlapDL-Bands-r16*, the minimum requirements for inter-band EN-DC apply when the maximum power spectral density imbalance between downlink carriers contained in overlapping or partially overlapping DL bands is within 6 dB.

NOTE 12: For UEs not indicating *interBandMRDC-WithOverlapDL-Bands-r16*, the minimum requirements apply for synchronized DL carriers with a maximum receive time difference ≤ 3 usec between overlapping or partially overlapping DL bands contained in different cell groups.

Table 5.5B.4.4-1: Inter-band EN-DC configurations within FR1 (five bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A-3A-5A-7A_n78A	DC_1A_n78A DC_3A_n78A DC_5A_n78A DC_7A_n78A
DC_1A-3A-5A-7A-7A_n78A	DC_1A_n78A DC_3A_n78A DC_5A_n78A DC_7A_n78A
DC_1A-3A-5A-41A_n79A	DC_1A_n79A DC_3A_n79A DC_5A_n79A DC_41A_n79A
DC_1A-3A-7A-20A_n28A[3,6,7]	DC_1A_n28A DC_3A_n28A DC_7A_n28A DC_20A_n28A
DC_1A-3A-7A-20A_n78A[2]	DC_1A_n78A DC_3A_n78A DC_7A_n78A DC_20A_n78A
DC_1A-3A-7A_n28A-n78A[2]	DC_1A_n28A DC_1A_n78A DC_3A_n28A DC_3A_n78A DC_7A_n28A DC_7A_n78A
DC_1A-3A-7A-28A_n78A	DC_1A_n78A DC_3A_n78A DC_7A_n78A DC_28A_n78A
DC_1A-3A-19A-21A_n77A[2] DC_1A-3A-19A-21A_n77C[2]	DC_1A_n77A DC_3A_n77A DC_19A_n77A DC_21A_n77A
DC_1A-3A-19A-21A_n78A[2] DC_1A-3A-19A-21A_n78C[2]	DC_1A_n78A DC_3A_n78A DC_19A_n78A DC_21A_n78A
DC_1A-3A-19A-21A_n79A[2] DC_1A-3A-19A-21A_n79C[2]	DC_1A_n79A DC_3A_n79A DC_19A_n79A DC_21A_n79A
DC_1A-3A-19A-42A_n77A[5,6] DC_1A-3A-19A-42A_n77C[5,6] DC_1A-3A-19A-42C_n77A[5,6] DC_1A-3A-19A-42C_n77C[5,6]	DC_1A_n77A DC_3A_n77A DC_19A_n77A
DC_1A-3A-19A-42A_n78A[5,6] DC_1A-3A-19A-42A_n78C[5,6] DC_1A-3A-19A-42C_n78A[5,6] DC_1A-3A-19A-42C_n78C[5,6]	DC_1A_n78A DC_3A_n78A DC_19A_n78A
DC_1A-3A-19A-42A_n79A DC_1A-3A-19A-42A_n79C DC_1A-3A-19A-42C_n79A DC_1A-3A-19A-42C_n79C	DC_1A_n79A DC_3A_n79A DC_19A_n79A
DC_1A-3A-20A_n28A-n78A[2,3,6,7]	DC_1A_n28A DC_1A_n78A DC_3A_n28A DC_3A_n78A DC_20A_n28A DC_20A_n78A

DC_1A-3A-21A-42A_n77A[5,6] DC_1A-3A-21A-42A_n77C[5,6] DC_1A-3A-21A-42C_n77A[5,6] DC_1A-3A-21A-42C_n77C[5,6]	DC_1A_n77A DC_3A_n77A DC_21A_n77A
DC_1A-3A-21A-42A_n78A[5,6] DC_1A-3A-21A-42A_n78C[5,6] DC_1A-3A-21A-42C_n78A[5,6] DC_1A-3A-21A-42C_n78C[5,6]	DC_1A_n78A DC_3A_n78A DC_21A_n78A
DC_1A-3A-21A-42A_n79A DC_1A-3A-21A-42A_n79C DC_1A-3A-21A-42C_n79A DC_1A-3A-21A-42C_n79C	DC_1A_n79A DC_3A_n79A DC_21A_n79A
DC_1A-3A-28A-42A_n77A[5,6] DC_1A-3A-28A-42C_n77A[5,6]	DC_1A_n77A DC_3A_n77A DC_28A_n77A
DC_1A-3A-28A-42A_n78A[5,6] DC_1A-3A-28A-42C_n78A[5,6]	DC_1A_n78A DC_3A_n78A DC_28A_n78A
DC_1A-3A-28A-42A_n79A DC_1A-3A-28A-42C_n79A	DC_1A_n79A DC_3A_n79A DC_28A_n79A
DC_1A-7A-20A_n28A-n78A[2,3,6,7]	DC_1A_n28A DC_1A_n78A DC_7A_n28A DC_7A_n78A DC_20A_n28A DC_20A_n78A
DC_1A-19A-21A-42A_n77A[5,6] DC_1A-19A-21A-42A_n77C[5,6] DC_1A-19A-21A-42C_n77A[5,6] DC_1A-19A-21A-42C_n77C[5,6]	DC_1A_n77A DC_19A_n77A DC_21A_n77A
DC_1A-19A-21A-42A_n78A[5,6] DC_1A-19A-21A-42A_n78C[5,6] DC_1A-19A-21A-42C_n78A[5,6] DC_1A-19A-21A-42C_n78C[5,6]	DC_1A_n78A DC_19A_n78A DC_21A_n78A
DC_1A-19A-21A-42A_n79A DC_1A-19A-21A-42A_n79C DC_1A-19A-21A-42C_n79A DC_1A-19A-21A-42C_n79C	DC_1A_n79A DC_19A_n79A DC_21A_n79A
DC_1A-21A-28A-42A_n77A DC_1A-21A-28A-42C_n77A	DC_1A_n77A DC_21A_n77A DC_28A_n77A
DC_1A-21A-28A-42A_n78A DC_1A-21A-28A-42C_n78A	DC_1A_n78A DC_21A_n78A DC_28A_n78A
DC_1A-21A-28A-42A_n79A DC_1A-21A-28A-42C_n79A	DC_1A_n79A DC_21A_n79A DC_28A_n79A
DC_3A-7A-20A_n28A-n78A[2,3,6,7]	DC_3A_n28A DC_3A_n78A DC_7A_n28A DC_7A_n78A DC_20A_n28A DC_20A_n78A
DC_3A-19A-21A-42A_n78A[5,6] DC_3A-19A-21A-42C_n78A[5,6]	DC_3A_n78A DC_19A_n78A DC_21A_n78A
DC_3A-19A-21A-42A_n79A[5,6] DC_3A-19A-21A-42C_n79A[5,6]	DC_3A_n79A DC_19A_n79A DC_21A_n79A
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.	

NOTE 2: Applicable for UE supporting inter-band EN-DC with mandatory simultaneous Rx/Tx capability
NOTE 3: The frequency range in band n28 is restricted for this band combination to 703-733 MHz for the UL and 758-788 MHz for the DL
NOTE 4: Reserved.
NOTE 5: For UEs not indicating *interBandMRDC-WithOverlapDL-Bands-r16*, the minimum requirements for intra-band non-contiguous EN-DC apply for the Band 42 and Band n77/n78 combination. For UEs not indicating *interBandMRDC-WithOverlapDL-Bands-r16*, when UE capability *interBandContiguousMRDC* is indicated, the minimum requirements for intra-band-contiguous EN-DC also should be met in addition to intra-band non-contiguous EN-DC.
NOTE 6: For UEs not indicating *interBandMRDC-WithOverlapDL-Bands-r16*, the minimum requirements for inter-band EN-DC apply when the maximum power spectral density imbalance between downlink carriers contained in overlapping or partially overlapping DL bands is within 6 dB.
NOTE 7: For UEs not indicating *interBandMRDC-WithOverlapDL-Bands-r16*, the minimum requirements apply for synchronized DL carriers with a maximum receive time difference ≤ 3 usec between overlapping or partially overlapping DL bands contained in different cell groups.

Table 5.5B.4.5-1: Inter-band EN-DC configurations within FR1 (six bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A-3A-7A-20A_n28A-n78A[2,3,5,6]	DC_1A_n28A DC_1A_n78A DC_3A_n28A DC_3A_n78A DC_7A_n28A DC_7A_n78A DC_20A_n28A DC_20A_n78A

NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.
NOTE 2: Applicable for UE supporting inter-band EN-DC with mandatory simultaneous Rx/Tx capability.
NOTE 3: The frequency range in band n28 is restricted for this band combination to 703-733 MHz for the UL and 758-788 MHz for the DL.
NOTE 4: Reserved
NOTE 5: For UEs not indicating *interBandMRDC-WithOverlapDL-Bands-r16*, the minimum requirements for inter-band EN-DC apply when the maximum power spectral density imbalance between downlink carriers contained in overlapping or partially overlapping DL bands is within 6 dB.
NOTE 6: For UEs not indicating *interBandMRDC-WithOverlapDL-Bands-r16*, the minimum requirements apply for synchronized DL carriers with a maximum receive time difference ≤ 3 usec between overlapping or partially overlapping DL bands contained in different cell groups.

FR1中支持的带内NE-DC配置在TS 38.521-3 [8]的表5.5B.4a.1-1中规定。

Table 5.5B.4a.1-1: Inter-band NE-DC configurations within FR1 (two bands)

NE-DC configuration	Uplink NE-DC configuration (NOTE 1)	Single UL allowed
DC_n1A_28A	DC_n1A_28A	No
DC_n28A_3A DC_n28A_3C	DC_n28A_3A	No
DC_n28A_39A DC_n28A_39C	DC_n28A_39A	No
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.		

支持的带内EN-DC配置（包括FR2）在TS 38.521-3 [8]的表5.5B.5.1-1、表5.5B.5.2-1、表5.5B.5.3-1和表5.5B.5.4-1中规定。

Table 5.5B.5.1-1: Inter-band EN-DC configurations including FR2 (two bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A_n257A	DC_1A_n257A
DC_2A_n257A DC_2C_n257A	DC_2A_n257A
DC_2A_n257(2A)	DC_2A_n257A
DC_2A-2A_n257A	DC_2A_n257A
DC_2A_n260A DC_2A_n260G DC_2A_n260H DC_2A_n260I DC_2A_n260J DC_2A_n260K DC_2A_n260L DC_2A_n260M DC_2C_n260A	DC_2A_n260A DC_2A_n260G DC_2A_n260H
DC_2A_n261A DC_2A_n261G DC_2A_n261H DC_2A_n261I DC_2A_n261J DC_2A_n261M	DC_2A_n261G DC_2A_n261H DC_2A_n261I
DC_2A_n261(2A) DC_2A_n261(3A) DC_2A_n261(4A)	DC_2A_n261A
DC_2A_n261(2G) DC_2A_n261(2H) DC_2A_n261(2I)	DC_2A_n261A DC_2A_n261G DC_2A_n261H DC_2A_n261I
DC_2A_n261(A-G) DC_2A_n261(A-2G) DC_2A_n261(A-H) DC_2A_n261(A-I) DC_2A_n261(A-K) DC_2A_n261(G-H) DC_2A_n261(G-I) DC_2A_n261(G-J) DC_2A_n261(H-I) DC_2A_n261(2A-G) DC_2A_n261(2A-I) DC_2A_n261(3A-G)	DC_2A_n261A DC_2A_n261G DC_2A_n261H DC_2A_n261I
DC_2A_n261(A-G-H) DC_2A_n261(A-G-I)	DC_2A_n261A DC_2A_n261G

	DC_2A_n261H DC_2A_n261I	
DC_3A_n257G DC_3A_n257H DC_3A_n257I	DC_3A_n257G DC_3A_n257H DC_3A_n257I	
DC_5A_n260A DC_5A_n260G DC_5A_n260H DC_5A_n260I DC_5A_n260J DC_5A_n260K DC_5A_n260L DC_5A_n260M DC_5A_n260O DC_5A_n260P DC_5A_n260Q DC_5B_n260A	DC_5A_n260A DC_5A_n260G DC_5A_n260H DC_5A_n260O DC_5A_n260P DC_5A_n260Q	
DC_5A_n261A DC_5A_n261G DC_5A_n261H DC_5A_n261I DC_5A_n261J DC_5A_n261M	DC_5A_n261A DC_5A_n261G DC_5A_n261H DC_5A_n261I	
DC_5A_n261(2A) DC_5A_n261(3A) DC_5A_n261(4A)	DC_5A_n261A DC_5A_n261G DC_5A_n261H DC_5A_n261I	
DC_8A_n257A DC_8A_n257D DC_8A_n257E DC_8A_n257F DC_8A_n257G DC_8A_n257H DC_8A_n257I DC_8A_n257J DC_8A_n257K DC_8A_n257L DC_8A_n257M	DC_8A_n257A	
DC_13A_n257A	DC_13A_n257A	
DC_13A_n260A DC_13A_n260G DC_13A_n260H DC_13A_n260I DC_13A_n260J DC_13A_n260M	DC_13A_n260A DC_13A_n260G DC_13A_n260H DC_13A_n260O	
DC_14A_n260A DC_14A_n260G DC_14A_n260H DC_14A_n260I	DC_14A_n260A DC_14A_n260G DC_14A_n260H DC_14A_n260I	
DC_18A_n257A	DC_18A_n257A	
DC_19A_n257A DC_19A_n257D DC_19A_n257E DC_19A_n257F DC_19A_n257G DC_19A_n257H DC_19A_n257I	DC_19A_n257A DC_19A_n257G DC_19A_n257H DC_19A_n257I	
DC_20A_n257A	DC_20A_n257A	
DC_21A_n257A DC_21A_n257G	DC_21A_n257A DC_21A_n257G	
DC_26A_n257A	DC_26A_n257A	
DC_66A_n260A DC_66A_n260D	DC_66A_n260A DC_66A_n260G	

DC_66A_n260E DC_66A_n260F DC_66A_n260G DC_66A_n260H DC_66A_n260I DC_66A_n260J DC_66A_n260K DC_66A_n260L DC_66A_n260M DC_66A_n260O DC_66A_n260P DC_66A_n260Q	DC_66A_n260H DC_66A_n260O DC_66A_n260P DC_66A_n260Q
DC_66A-66A_n260A DC_66A-66A_n260G DC_66A-66A_n260H DC_66A-66A_n260I DC_66A-66A_n260J DC_66A-66A_n260K DC_66A-66A_n260L DC_66A-66A_n260M	DC_66A_n260A DC_66A_n260G DC_66A_n260H DC_66A_n260I
DC_66A_n261G DC_66A_n261H DC_66A_n261I DC_66A_n261J DC_66A_n261K DC_66A_n261L DC_66A_n261M	DC_66A_n261A DC_66A_n261G DC_66A_n261H DC_66A_n261I
DC_66A_n261(2G) DC_66A_n261(2H) DC_66A_n261(2I)	DC_66A_n261A DC_66A_n261G DC_66A_n261H DC_66A_n261I
DC_66A_n261(A-K) DC_66A_n261(A-2G) DC_66A_n261(A-2H) DC_66A_n261(2A-G) DC_66A_n261(2A-H) DC_66A_n261(2A-I) DC_66A_n261(3A-G)	DC_66A_n261A DC_66A_n261G DC_66A_n261H DC_66A_n261I
DC_66A_n261(A-G-H) DC_66A_n261(A-G-I)	DC_66A_n261A DC_66A_n261G DC_66A_n261H DC_66A_n261I
DC_66A-66A_n260G DC_66A-66A_n260H DC_66A-66A_n260I DC_66A-66A_n260J DC_66A-66A_n260K DC_66A-66A_n260L DC_66A-66A_n260M	DC_66A_n261A DC_66A_n261G DC_66A_n261H DC_66A_n261I
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications. NOTE 2: Applicable for UE supporting inter-band EN-DC with mandatory simultaneous Rx/Tx capability for all of the above combinations.	

Table 5.5B.5.2-1: Inter-band EN-DC configurations including FR2 (three bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A-3A_n257A[2] DC_1A-3A_n257G DC_1A-3A_n257H DC_1A-3A_n257I	DC_1A_n257A DC_3A_n257A DC_3A_n257G DC_3A_n257H DC_3A_n257I
DC_1A-19A_n257A[2]	DC_1A_n257A

	DC_1A-19A_n257E[2] DC_1A-19A_n257F[2] DC_1A-19A_n257G DC_1A-19A_n257H DC_1A-19A_n257I	DC_1A_n257G DC_1A_n257H DC_1A_n257I DC_19A_n257A
	DC_1A-21A_n257A[2] DC_1A-21A_n257D[2] DC_1A-21A_n257E[2] DC_1A-21A_n257F[2] DC_1A-21A_n257G DC_1A-21A_n257H DC_1A-21A_n257I	DC_1A_n257A DC_1A_n257G DC_1A_n257H DC_1A_n257I DC_21A_n257A DC_21A_n257G DC_21A_n257H DC_21A_n257I
	DC_1A-42A_n257A DC_1A-42A_n257G DC_1A-42A_n257H DC_1A-42A_n257I DC_1A-42C_n257A DC_1A-42D_n257A DC_1A-42D_n257G DC_1A-42D_n257H DC_1A-42D_n257I DC_1A-42E_n257A DC_1A-42E_n257G DC_1A-42E_n257H DC_1A-42E_n257I	DC_1A_n257A DC_1A_n257G DC_1A_n257H DC_1A_n257I DC_42A_n257A
	DC_2A-5A_n257A[2]	DC_2A_n257A DC_5A_n257A
	DC_2A-5A_n260A DC_2A-5A_n260G DC_2A-5A_n260H DC_2A-5A_n260I DC_2A-5A_n260J DC_2A-5A_n260K DC_2A-5A_n260L DC_2A-5A_n260M	DC_2A_n260A DC_5A_n260A
	DC_2A-5A_n261A DC_2A-5A_n261G DC_2A-5A_n261H DC_2A-5A_n261I DC_2A-5A_n261J DC_2A-5A_n261K DC_2A-5A_n261L DC_2A-5A_n261M	DC_2A_n261A DC_5A_n261A DC_2A_n261G DC_5A_n261G DC_2A_n261H DC_5A_n261H DC_2A_n261I DC_5A_n261I
	DC_2A-13A_n257A[2]	DC_2A_n257A DC_13A_n257A
	DC_2A-13A_n260A[2]	DC_2A_n260A DC_13A_n260A
	DC_2A-13A_n261A DC_2A-13A_n261G DC_2A-13A_n261H DC_2A-13A_n261I DC_2A-13A_n261J DC_2A-13A_n261K DC_2A-13A_n261L DC_2A-13A_n261M	DC_2A_n261A DC_13A_n261A DC_2A_n261G DC_13A_n261G DC_2A_n261H DC_13A_n261H
	DC_2A-13A_n261(2A) DC_2A-13A_n261(2G) DC_2A-13A_n261(2H) DC_2A-13A_n261(3A) DC_2A-13A_n261(4A)	DC_2A_n261A DC_13A_n261A DC_2A_n261G DC_13A_n261G DC_2A_n261H DC_13A_n261H
	DC_2A-13A_n261(A-G) DC_2A-13A_n261(A-2G) DC_2A-13A_n261(A-H)	DC_2A_n261A DC_13A_n261A DC_2A_n261G

	DC_2A-13A_n261(A-I) DC_2A-13A_n261(A-J) DC_2A-13A_n261(A-K) DC_2A-13A_n261(G-H) DC_2A-13A_n261(G-I) DC_2A-13A_n261(G-J) DC_2A-13A_n261(H-I) DC_2A-13A_n261(2A-G) DC_2A-13A_n261(2A-H) DC_2A-13A_n261(2A-I) DC_2A-13A_n261(3A-G)	DC_13A_n261G DC_2A_n261H DC_13A_n261H	
	DC_2A-13A_n261(A-G-H) DC_2A-13A_n261(A-G-I)	DC_2A_n261A DC_13A_n261A DC_2A_n261G DC_13A_n261G DC_2A_n261H DC_13A_n261H	
	DC_2A-14A_n260A DC_2A-14A_n260G DC_2A-14A_n260H DC_2A-14A_n260I	DC_2A_n260A DC_2A_n260G DC_2A_n260H DC_2A_n260I DC_14A_n260A DC_14A_n260G DC_14A_n260H DC_14A_n260I	
	DC_2A-2A-14A_n260A DC_2A-2A-14A_n260G DC_2A-2A-14A_n260H DC_2A-2A-14A_n260I	DC_2A_n260A DC_2A_n260G DC_2A_n260H DC_2A_n260I DC_14A_n260A DC_14A_n260G DC_14A_n260H DC_14A_n260I	
	DC_2A-30A_n260A DC_2A-30A_n260G DC_2A-30A_n260H DC_2A-30A_n260I DC_2A-30A_n260J DC_2A-30A_n260K DC_2A-30A_n260L DC_2A-30A_n260M	DC_2A_n260A DC_30A_n260A	
	DC_2A-66A_n257A[2]	DC_2A_n257A DC_66A_n257A	
	DC_2A-66A_n260A DC_2A-66A_n260G DC_2A-66A_n260H DC_2A-66A_n260I DC_2A-66A_n260J DC_2A-66A_n260K DC_2A-66A_n260L DC_2A-66A_n260M	DC_2A_n260A DC_66A_n260A DC_2A_n260G DC_66A_n260G DC_2A_n260H DC_66A_n260H DC_2A_n260I DC_66A_n260I	
	DC_3A-5A_n257A[2]	DC_3A_n257A DC_5A_n257A	
	DC_3A-7A_n257A[2]	DC_3A_n257A DC_7A_n257A	
	DC_3A-7A-7A_n257A[2]	DC_3A_n257A DC_7A_n257A	
	DC_3A-19A_n257A[2] DC_3A-19A_n257D[2] DC_3A-19A_n257E[2] DC_3A-19A_n257F[2] DC_3A-19A_n257G DC_3A-19A_n257H DC_3A-19A_n257I	DC_3A_n257A DC_3A_n257D DC_3A_n257G DC_3A_n257H DC_3A_n257I DC_19A_n257A DC_19A_n257D	

	DC_3A-21A_n257A[2] DC_3A-21A_n257D[2] DC_3A-21A_n257E[2] DC_3A-21A_n257F[2] DC_3A-21A_n257G DC_3A-21A_n257H DC_3A-21A_n257I	DC_3A_n257A DC_3A_n257D DC_3A_n257G DC_3A_n257H DC_3A_n257I DC_21A_n257A DC_21A_n257D	
	DC_3A-28A_n257A[2] DC_3A-28A_n257D[2] DC_3A-28A_n257E[2] DC_3A-28A_n257F[2]	DC_3A_n257A DC_28A_n257A	
	DC_3A-41A_n257A	DC_3A_n257A DC_41A_n257A	
	DC_3A-42A_n257A[2] DC_3A-42A_n257D[2] DC_3A-42A_n257E[2] DC_3A-42A_n257F[2] DC_3A-42A_n257G DC_3A-42A_n257H DC_3A-42A_n257I DC_3A-42C_n257A[2] DC_3A-42C_n257D[2] DC_3A-42C_n257E[2] DC_3A-42C_n257F[2] DC_3A-42C_n257G DC_3A-42C_n257H DC_3A-42C_n257I DC_3A-42D_n257A[2] DC_3A-42D_n257G DC_3A-42D_n257H DC_3A-42D_n257I DC_3A-42E_n257A[2] DC_3A-42E_n257G DC_3A-42E_n257H DC_3A-42E_n257I	DC_3A_n257A DC_3A_n257D DC_3A_n257G DC_3A_n257H DC_3A_n257I DC_42A_n257A DC_42A_n257D	
	DC_5A-7A_n257A[2]	DC_5A_n257A DC_7A_n257A	
	DC_5A-7A-7A_n257A	DC_5A_n257A DC_7A_n257A	
	DC_5A-30A_n260A DC_5A-30A_n260G DC_5A-30A_n260H DC_5A-30A_n260I DC_5A-30A_n260J DC_5A-30A_n260K DC_5A-30A_n260L DC_5A-30A_n260M	DC_5A_n260A DC_30A_n260A	
	DC_5A-66A_n257A	DC_5A_n257A DC_66A_n257A	
	DC_5A-66A_n260A DC_5A-66A_n260G DC_5A-66A_n260H DC_5A-66A_n260I DC_5A-66A_n260J DC_5A-66A_n260K DC_5A-66A_n260L DC_5A-66A_n260M	DC_5A_n260A DC_66A_n260A	
	DC_12A-30A_n260A DC_12A-30A_n260G DC_12A-30A_n260H DC_12A-30A_n260I DC_12A-30A_n260J DC_12A-30A_n260K DC_12A-30A_n260L DC_12A-30A_n260M	DC_12A_n260A DC_30A_n260A	

DC_12A-66A_n260A DC_12A-66A_n260G DC_12A-66A_n260H DC_12A-66A_n260I DC_12A-66A_n260J DC_12A-66A_n260K DC_12A-66A_n260L DC_12A-66A_n260M	DC_12A_n260A DC_66A_n260A
DC_13A-66A_n257A[2]	DC_13A_n257A DC_66A_n257A
DC_13A-66A_n260A[2]	DC_13A_n260A DC_66A_n260A
DC_14A-30A_n260A DC_14A-30A_n260G DC_14A-30A_n260H DC_14A-30A_n260I	DC_14A_n260A DC_14A_n260G DC_14A_n260H DC_14A_n260I DC_30A_n260A DC_30A_n260G DC_30A_n260H DC_30A_n260I
DC_14A-66A_n260A DC_14A-66A_n260G DC_14A-66A_n260H DC_14A-66A_n260I	DC_14A_n260A DC_14A_n260G DC_14A_n260H DC_14A_n260I DC_66A_n260A DC_66A_n260G DC_66A_n260H DC_66A_n260I
DC_14A-66A-66A_n260A DC_14A-66A-66A_n260G DC_14A-66A-66A_n260H DC_14A-66A-66A_n260I	DC_14A_n260A DC_14A_n260G DC_14A_n260H DC_14A_n260I DC_66A_n260A DC_66A_n260G DC_66A_n260H DC_66A_n260I
DC_18A-28A_n257A[2]	DC_18A_n257A DC_28A_n257A
DC_19A-21A_n257A[2] DC_19A-21A_n257D[2] DC_19A-21A_n257E[2] DC_19A-21A_n257F[2] DC_19A-21A_n257G DC_19A-21A_n257H DC_19A-21A_n257I	DC_19A_n257A DC_19A_n257D DC_21A_n257A DC_21A_n257D DC_21A_n257G
DC_19A-42A_n257A[2] DC_19A-42A_n257D[2] DC_19A-42A_n257E[2] DC_19A-42A_n257F[2] DC_19A-42A_n257G[2] DC_19A-42A_n257H[2] DC_19A-42A_n257I[2] DC_19A-42C_n257A[2] DC_19A-42C_n257G[2] DC_19A-42C_n257H[2] DC_19A-42C_n257I[2]	DC_19A_n257A DC_19A_n257D DC_19A_n257G DC_19A_n257H DC_19A_n257I DC_42A_n257A DC_42A_n257D DC_42A_n257G DC_42A_n257H DC_42A_n257I
DC_21A-28A_n257A[2] DC_21A-28A_n257D[2]	DC_21A_n257A DC_28A_n257A
DC_21A-42A_n257A[2] DC_21A-42A_n257D[2] DC_21A-42A_n257E[2] DC_21A-42A_n257F[2] DC_21A-42A_n257G DC_21A-42A_n257H DC_21A-42A_n257I	DC_21A_n257A DC_21A_n257D DC_21A_n257G DC_21A_n257H DC_21A_n257I DC_42A_n257A DC_42A_n257D

DC_21A-42C_n257A[2] DC_21A-42C_n257G DC_21A-42C_n257H DC_21A-42C_n257I	
DC_28A-42C_n257A[2] DC_28A-42A_n257A[2]	DC_28A_n257A DC_42A_n257A
DC_30A-66A_n260A DC_30A-66A_n260G DC_30A-66A_n260H DC_30A-66A_n260I DC_30A-66A_n260J DC_30A-66A_n260K DC_30A-66A_n260L DC_30A-66A_n260M	DC_30A_n260A DC_66A_n260A
DC_41A-42A_n257A	DC_41A_n257A DC_42A_n257A
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications. NOTE 2: Applicable for UE supporting inter-band EN-DC with mandatory simultaneous Rx/Tx capability for all of the above combinations.	

Table 5.5B.5.3-1: Inter-band EN-DC configurations including FR2 (four bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A-3A-19A_n257A[2] DC_1A-3A-19A_n257G DC_1A-3A-19A_n257H DC_1A-3A-19A_n257I	DC_1A_n257A DC_3A_n257A DC_3A_n257G DC_3A_n257H DC_3A_n257I DC_19A_n257A
DC_1A-3A-21A_n257A[2] DC_1A-3A-21A_n257G DC_1A-3A-21A_n257H DC_1A-3A-21A_n257I	DC_1A_n257A DC_3A_n257A DC_3A_n257G DC_3A_n257H DC_3A_n257I DC_21A_n257A
DC_1A-3A-42A_n257A DC_1A-3A-42A_n257G DC_1A-3A-42A_n257H DC_1A-3A-42A_n257I DC_1A-3A-42C_n257A DC_1A-3A-42C_n257G DC_1A-3A-42C_n257H DC_1A-3A-42C_n257I DC_1A-3A-42D_n257G DC_1A-3A-42D_n257H DC_1A-3A-42D_n257I	DC_1A_n257A DC_1A_n257G DC_1A_n257H DC_1A_n257I DC_3A_n257A DC_3A_n257G DC_3A_n257H DC_3A_n257I
DC_1A-19A-21A_n257G DC_1A-19A-21A_n257H DC_1A-19A-21A_n257I	DC_1A_n257G DC_1A_n257H DC_1A_n257I DC_21A_n257G DC_21A_n257H DC_21A_n257I

	DC_1A-19A-42A_n257A DC_1A-19A-42A_n257G DC_1A-19A-42A_n257H DC_1A-19A-42A_n257I DC_1A-19A-42C_n257A DC_1A-19A-42C_n257D DC_1A-19A-42C_n257E DC_1A-19A-42C_n257F DC_1A-19A-42C_n257G DC_1A-19A-42C_n257H DC_1A-19A-42C_n257I	DC_1A_n257A DC_1A_n257G DC_1A_n257H DC_1A_n257I DC_19A_n257A DC_42A_n257A	
	DC_1A-21A-28A_n257A[2]	DC_1A_n257A DC_21A_n257A DC_28A_n257A	
	DC_1A-21A-42A_n257A DC_1A-21A-42A_n257G DC_1A-21A-42A_n257H DC_1A-21A-42A_n257I DC_1A-21A-42C_n257A DC_1A-21A-42C_n257D DC_1A-21A-42C_n257E DC_1A-21A-42C_n257F DC_1A-21A-42C_n257G DC_1A-21A-42C_n257H DC_1A-21A-42C_n257I	DC_1A_n257A DC_1A_n257G DC_1A_n257H DC_1A_n257I DC_21A_n257A DC_21A_n257G DC_21A_n257H DC_21A_n257I DC_42A_n257A DC_42A_n257D	
	DC_1A-28A-42A_n257A DC_1A-28A-42C_n257A	DC_1A_n257A DC_28A_n257A DC_42A_n257A	
	DC_1A-41A-42A_n257A DC_1A-41A-42C_n257A DC_1A-41C-42A_n257A DC_1A-41C-42C_n257A	DC_1A_n257A DC_41A_n257A DC_42A_n257A	
	DC_2A-14A-30A_n260A DC_2A-14A-30A_n260G DC_2A-14A-30A_n260H DC_2A-14A-30A_n260I	DC_2A_n260A DC_2A_n260G DC_2A_n260H DC_2A_n260I DC_14A_n260A DC_14A_n260G DC_14A_n260H DC_14A_n260I DC_30A_n260A DC_30A_n260G DC_30A_n260H DC_30A_n260I	
	DC_2A-14A-66A_n260A DC_2A-14A-66A_n260G DC_2A-14A-66A_n260H DC_2A-14A-66A_n260I	DC_2A_n260A DC_2A_n260G DC_2A_n260H DC_2A_n260I DC_14A_n260A DC_14A_n260G DC_14A_n260H DC_14A_n260I DC_66A_n260A DC_66A_n260G DC_66A_n260H DC_66A_n260I	
	DC_2A-14A-66A-66A_n260A DC_2A-14A-66A-66A_n260G DC_2A-14A-66A-66A_n260H DC_2A-14A-66A-66A_n260I	DC_2A_n260A DC_2A_n260G DC_2A_n260H DC_2A_n260I DC_14A_n260A DC_14A_n260G DC_14A_n260H DC_14A_n260I DC_66A_n260A DC_66A_n260G	

	DC_66A_n260H DC_66A_n260I
DC_3A-5A-7A_n257A[2]	DC_3A_n257A DC_5A_n257A DC_7A_n257A
DC_3A-5A-7A-7A_n257A[2]	DC_3A_n257A DC_5A_n257A DC_7A_n257A
DC_3A-19A-21A_n257A[2]	DC_3A_n257A DC_19A_n257A DC_21A_n257A
DC_3A-19A-42A_n257A DC_3A-19A-42A_n257G DC_3A-19A-42A_n257H DC_3A-19A-42A_n257I DC_3A-19A-42C_n257A DC_3A-19A-42C_n257D DC_3A-19A-42C_n257E DC_3A-19A-42C_n257F DC_3A-19A-42C_n257G DC_3A-19A-42C_n257H DC_3A-19A-42C_n257I	DC_3A_n257A DC_3A_n257D DC_3A_n257G DC_3A_n257H DC_3A_n257I DC_19A_n257A DC_19A_n257D DC_19A_n257G DC_19A_n257H DC_19A_n257I DC_42A_n257A DC_42A_n257D DC_42A_n257G DC_42A_n257H DC_42A_n257I
DC_3A-21A-42A_n257A DC_3A-21A-42A_n257G DC_3A-21A-42A_n257H DC_3A-21A-42A_n257I DC_3A-21A-42C_n257A DC_3A-21A-42C_n257D DC_3A-21A-42C_n257E DC_3A-21A-42C_n257F DC_3A-21A-42C_n257G DC_3A-21A-42C_n257H DC_3A-21A-42C_n257I	DC_3A_n257A DC_3A_n257D DC_3A_n257G DC_3A_n257H DC_3A_n257I DC_21A_n257A DC_21A_n257D DC_21A_n257G DC_21A_n257H DC_21A_n257I DC_42A_n257A DC_42A_n257D DC_42A_n257G DC_42A_n257H DC_42A_n257I
DC_3A-28A-42A_n257A DC_3A-28A-42C_n257A	DC_3A_n257A DC_28A_n257A DC_42A_n257A
DC_14A-30A-66A_n260A DC_14A-30A-66A_n260G DC_14A-30A-66A_n260H DC_14A-30A-66A_n260I	DC_14A_n260A DC_14A_n260G DC_14A_n260H DC_14A_n260I DC_30A_n260A DC_30A_n260G DC_30A_n260H DC_30A_n260I DC_66A_n260A DC_66A_n260G DC_66A_n260H DC_66A_n260I
DC_14A-30A-66A-66A_n260A DC_14A-30A-66A-66A_n260G DC_14A-30A-66A-66A_n260H DC_14A-30A-66A-66A_n260I	DC_14A_n260A DC_14A_n260G DC_14A_n260H DC_14A_n260I DC_30A_n260A DC_30A_n260G DC_30A_n260H DC_30A_n260I DC_66A_n260A

	DC_66A_n260G DC_66A_n260H DC_66A_n260I
DC_19A-21A-42A_n257A[2] DC_19A-21A-42A_n257G[2] DC_19A-21A-42A_n257H[2] DC_19A-21A-42A_n257I[2] DC_19A-21A-42C_n257A[2] DC_19A-21A-42C_n257D[2] DC_19A-21A-42C_n257E[2] DC_19A-21A-42C_n257F[2] DC_19A-21A-42C_n257G[2] DC_19A-21A-42C_n257H[2] DC_19A-21A-42C_n257I[2]	DC_19A_n257A DC_19A_n257D DC_19A_n257G DC_19A_n257H DC_19A_n257I DC_21A_n257A DC_21A_n257D DC_21A_n257G DC_21A_n257H DC_21A_n257I DC_42A_n257A DC_42A_n257D DC_42A_n257G DC_42A_n257H DC_42A_n257I
DC_21A-28A-42A_n257A[2] DC_21A-28A-42C_n257A[2]	DC_21A_n257A DC_28A_n257A DC_42A_n257A
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications. NOTE 2: Applicable for UE supporting inter-band EN-DC with mandatory simultaneous Rx/Tx capability for all of the above combinations.	

Table 5.5B.5.4-1: Inter-band EN-DC configurations including FR2 (five bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A-3A-19A-42A_n257A DC_1A-3A-19A-42A_n257D DC_1A-3A-19A-42A_n257E DC_1A-3A-19A-42A_n257F DC_1A-3A-19A-42A_n257G DC_1A-3A-19A-42A_n257H DC_1A-3A-19A-42A_n257I DC_1A-3A-19A-42C_n257A DC_1A-3A-19A-42C_n257D DC_1A-3A-19A-42C_n257E DC_1A-3A-19A-42C_n257F DC_1A-3A-19A-42C_n257G DC_1A-3A-19A-42C_n257H DC_1A-3A-19A-42C_n257I	DC_1A_n257A DC_3A_n257A DC_3A_n257G DC_3A_n257H DC_3A_n257I DC_19A_n257A DC_42A_n257A
DC_1A-3A-21A-42A_n257A DC_1A-3A-21A-42C_n257A DC_1A-3A-21A-42C_n257D DC_1A-3A-21A-42C_n257E DC_1A-3A-21A-42C_n257F DC_1A-3A-21A-42C_n257G DC_1A-3A-21A-42C_n257H DC_1A-3A-21A-42C_n257I	DC_1A_n257A DC_3A_n257A DC_3A_n257G DC_3A_n257H DC_3A_n257I DC_3A_n257J DC_21A_n257A DC_42A_n257A
DC_1A-19A-21A-42A_n257A DC_1A-19A-21A-42A_n257G DC_1A-19A-21A-42A_n257H DC_1A-19A-21A-42A_n257I DC_1A-19A-21A-42C_n257A DC_1A-19A-21A-42C_n257D DC_1A-19A-21A-42C_n257E DC_1A-19A-21A-42C_n257F DC_1A-19A-21A-42C_n257G DC_1A-19A-21A-42C_n257H DC_1A-19A-21A-42C_n257I	DC_1A_n257A DC_1A_n257G DC_1A_n257H DC_1A_n257I DC_19A_n257A DC_21A_n257A DC_21A_n257G DC_21A_n257H DC_21A_n257I DC_42A_n257A
DC_2A-14A-30A-66A_n260A DC_2A-14A-30A-66A_n260G	DC_2A_n260A DC_2A_n260G

DC_2A-14A-30A-66A_n260H DC_2A-14A-30A-66A_n260I	DC_2A_n260H DC_2A_n260I DC_14A_n260A DC_14A_n260G DC_14A_n260H DC_14A_n260I DC_30A_n260A DC_30A_n260G DC_30A_n260H DC_30A_n260I DC_66A_n260A DC_66A_n260G DC_66A_n260H DC_66A_n260I
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.	

支持的带内EN-DC配置（包括FR1和FR2）在TS 38.521-3 [8]的表5.5B.6.2-1、表5.5B.6.3-1、表5.5B.6.4-1和表5.5B.6.5-1中规定。

Table 5.5B.6.2-1: Inter-band EN-DC configurations including FR1 and FR2 (three bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A_n77A-n257A[2] DC_1A_n77A-n257D[2] DC_1A_n77A-n257E[2] DC_1A_n77A-n257F[2] DC_1A_n77C-n257A[2] DC_1A_n77C-n257D[2] DC_1A_n77C-n257E[2] DC_1A_n77C-n257F[2]	DC_1A_n77A DC_1A_n257A DC_1A_n77A-n257A
DC_1A_n78A-n257A[2] DC_1A_n78A-n257D[2] DC_1A_n78A-n257E[2] DC_1A_n78A-n257F[2] DC_1A_n78C-n257A[2] DC_1A_n78C-n257D[2] DC_1A_n78C-n257E[2] DC_1A_n78C-n257F[2]	DC_1A_n78A DC_1A_n257A DC_1A_n78A-n257A
DC_1A_n79A-n257A[2] DC_1A_n79A-n257D[2] DC_1A_n79A-n257E[2] DC_1A_n79A-n257F[2] DC_1A_n79C-n257A[2] DC_1A_n79C-n257D[2] DC_1A_n79C-n257E[2] DC_1A_n79C-n257F[2]	DC_1A_n79A DC_1A_n257A DC_1A_n79A-n257A
DC_3A_n77A-n257A[2] DC_3A_n77A-n257D[2] DC_3A_n77A-n257E[2] DC_3A_n77A-n257F[2] DC_3A_n77C-n257A[2] DC_3A_n77C-n257D[2] DC_3A_n77C-n257E[2] DC_3A_n77C-n257F[2]	DC_3A_n77A DC_3A_n257A DC_3A_n77A-n257A
DC_3A_n78A-n257A[2] DC_3A_n78A-n257D[2] DC_3A_n78A-n257E[2] DC_3A_n78A-n257F[2] DC_3A_n78C-n257A[2] DC_3A_n78C-n257D[2] DC_3A_n78C-n257E[2] DC_3A_n78C-n257F[2]	DC_3A_n78A DC_3A_n257A DC_3A_n78A-n257A
DC_3A_n79A-n257A[2] DC_3A_n79A-n257D[2] DC_3A_n79A-n257E[2] DC_3A_n79A-n257F[2] DC_3A_n79C-n257A[2] DC_3A_n79C-n257D[2] DC_3A_n79C-n257E[2] DC_3A_n79C-n257F[2]	DC_3A_n79A DC_3A_n257A DC_3A_n79A-n257A
DC_5A_n78A-n257A[2]	DC_5A_n78A DC_5A_n257A
DC_7A_n78A-n257A[2]	DC_7A_n78A DC_7A_n257A
DC_7A-7A_n78A-n257[2]A	DC_7A_n78A DC_7A_n257A DC_7A_n78A-n257A
DC_19A_n77A-n257A[2] DC_19A_n77A-n257D[2] DC_19A_n77A-n257E[2] DC_19A_n77A-n257F[2] DC_19A_n77C-n257A[2] DC_19A_n77C-n257D[2]	DC_19A_n77A DC_19A_n257A DC_19A_n77A-n257A

DC_19A_n77C-n257E[2] DC_19A_n77C-n257F[2]	
DC_19A_n78A-n257A[2] DC_19A_n78A-n257D[2] DC_19A_n78A-n257E[2] DC_19A_n78A-n257F[2] DC_19A_n78C-n257A[2] DC_19A_n78C-n257D[2] DC_19A_n78C-n257E[2] DC_19A_n78C-n257F[2]	DC_19A_n78A DC_19A_n257A DC_19A_n78A-n257A
DC_19A_n79A-n257A[2] DC_19A_n79A-n257D[2] DC_19A_n79A-n257E[2] DC_19A_n79A-n257F[2] DC_19A_n79C-n257A[2] DC_19A_n79C-n257D[2] DC_19A_n79C-n257E[2] DC_19A_n79C-n257F[2]	DC_19A_n79A DC_19A_n257A DC_19A_n79A-n257A
DC_21A_n77A-n257A[2]	DC_21A_n77A DC_21A_n257A
DC_21A_n78A-n257A[2]	DC_21A_n78A DC_21A_n257A
DC_21A_n79A-n257A[2]	DC_21A_n79A DC_21A_n257A
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications. NOTE 2: Applicable for UE supporting inter-band EN-DC with mandatory simultaneous Rx/Tx capability.	

Table 5.5B.6.3-1: Inter-band EN-DC configurations including FR1 and FR2 (four bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A-3A_n78A-n257A[2] DC_1A-3A_n78A-n257G[2] DC_1A-3A_n78A-n257H[2] DC_1A-3A_n78A-n257I[2]	DC_1A_n78A DC_1A_n257A DC_1A_n257D DC_1A_n257G DC_1A_n257H DC_1A_n257I DC_3A_n78A DC_3A_n257A DC_3A_n257D DC_3A_n257G DC_3A_n257H DC_3A_n257I
DC_1A-5A_n78A-n257A	DC_1A_n78A DC_1A_n257A DC_5A_n78A DC_5A_n257A
DC_1A-7A_n78A-n257A	DC_1A_n78A DC_1A_n257A DC_7A_n78A DC_7A_n257A
DC_1A-7A-7A_n78A-n257A	DC_1A_n78A DC_1A_n257A DC_7A_n78A DC_7A_n257A
DC_3A-5A_n78A-n257A	DC_3A_n78A DC_3A_n257A DC_5A_n78A DC_5A_n257A
DC_3A-7A_n78A-n257A	DC_3A_n78A DC_3A_n257A DC_7A_n78A

	DC_7A_n257A
DC_3A-7A-7A_n78A-n257A	DC_3A_n78A DC_3A_n257A DC_7A_n78A DC_7A_n257A
DC_5A-7A_n78A-n257A	DC_5A_n78A DC_5A_n257A DC_7A_n78A DC_7A_n257A
DC_5A-7A-7A_n78A-n257A	DC_5A_n78A DC_5A_n257A DC_7A_n78A DC_7A_n257A
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications. NOTE 2: Applicable for UE supporting inter-band EN-DC with mandatory simultaneous Rx/Tx capability.	

Table 5.5B.6.4-1: Inter-band EN-DC configurations including FR1 and FR2 (five bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A-3A-5A_n78A-n257A	DC_1A_n78A DC_1A_n257A DC_3A_n78A DC_3A_n257A DC_5A_n78A DC_5A_n257A
DC_1A-3A-7A_n78A-n257A	DC_1A_n78A DC_1A_n257A DC_3A_n78A DC_3A_n257A DC_7A_n78A DC_7A_n257A
DC_1A-3A-7A-7A_n78A-n257A	DC_1A_n78A DC_1A_n257A DC_3A_n78A DC_3A_n257A DC_7A_n78A DC_7A_n257A
DC_1A-5A-7A_n78A-n257A	DC_1A_n78A DC_1A_n257A DC_5A_n78A DC_5A_n257A DC_7A_n78A DC_7A_n257A
DC_1A-5A-7A-7A_n78A-n257A	DC_1A_n78A DC_1A_n257A DC_5A_n78A DC_5A_n257A DC_7A_n78A DC_7A_n257A
DC_3A-5A-7A_n78A-n257A	DC_3A_n78A DC_3A_n257A DC_5A_n78A DC_5A_n257A DC_7A_n78A DC_7A_n257A
DC_3A-5A-7A-7A_n78A-n257A	DC_3A_n78A DC_3A_n257A DC_5A_n78A DC_5A_n257A DC_7A_n78A DC_7A_n257A

NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.

Table 5.5B.6.5-1: Inter-band EN-DC configurations including FR1 and FR2 (six bands)

EN-DC configuration	Uplink EN-DC configuration (NOTE 1)
DC_1A-3A-5A-7A_n78A-n257A	DC_1A_n78A DC_1A_n257A DC_3A_n78A DC_3A_n257A DC_5A_n78A DC_5A_n257A DC_7A_n78A DC_7A_n257A
NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.	

FR1和FR2之间支持的带内NR-DC配置在TS 38.5213 [8]的表5.5B.7-1中规定。

Table 5.5B.7-1: Inter-band NR-DC configurations between FR1 and FR2 (two bands)

Downlink NR-DC configuration	Uplink NR-DC configuration
DC_n77A-n257A DC_n77A-n257D DC_n77A-n257E DC_n77A-n257F DC_n77A-n257G DC_n77A-n257H DC_n77A-n257I DC_n77A-n257J DC_n77A-n257K DC_n77A-n257L DC_n77A-n257M DC_n77C-n257A DC_n77C-n257D DC_n77C-n257E DC_n77C-n257F	DC_n77A-n257A
DC_n78A-n257A DC_n78A-n257D DC_n78A-n257E DC_n78A-n257F DC_n78A-n257G DC_n78A-n257H DC_n78A-n257I DC_n78A-n257J DC_n78A-n257K DC_n78A-n257L DC_n78A-n257M DC_n78C-n257A DC_n78C-n257D DC_n78C-n257E DC_n78C-n257F	DC_n78A-n257A
DC_n79A-n257A DC_n79A-n257D DC_n79A-n257E DC_n79A-n257F DC_n79A-n257G DC_n79A-n257H DC_n79A-n257I DC_n79A-n257J	DC_n79A-n257A

DC_n79A-n257K DC_n79A-n257L DC_n79A-n257M DC_n79C-n257A DC_n79C-n257D DC_n79C-n257E DC_n79C-n257F	

E-UTRA和NR之间支持的V2X配置在TS 38.521-3 [8]的表5.5E.2-1、表5.5E.3-1和表5.5E.4.1-1中规定。

Table 5.5E.2-1: Intra-band contiguous V2X configurations

V2X configuration	SL transmission
V2X_(n)47AA	E-UTRA Band 47 or NR band n47
NOTE 1: Only single switched SL is supported.	

Table 5.5E.3-1: Intra-band non-contiguous V2X configurations

V2X configuration	SL transmission
V2X_47A_n47A	E-UTRA Band 47 or NR band n47
NOTE 1: Only single switched SL is supported.	

Table 5.5E.4.1-1: Inter-band V2X configurations

V2X configuration	V2X transmission configuration
V2X_20A_n38A	V2X_20A_n38A
V2X_n71A_47A	V2X_n71A_47A
NOTE 1: V2X transmission configurations are the configurations supported by the present release of specifications.	

4.1.5 定义、符号和缩写

4.1.5.1 定义

同流操作：边链路和Uu接口在操作时同时传输和接收每个接口上使用的业务是不可知的。

4.1.5.2 符号

就本文件而言，以下符号适用：

$\Delta R_{IB,c}$ 对服务小区c，由于支持CA或DC操作而允许的参考灵敏度放松

$\Delta T_{IB,c}$ 对服务小区c，由于支持CA或DC操作而允许的最大配置输出功率放松

$BWE\text{-}UTRA_{_Channel}$ E-UTRA载波的信道带宽

$BWE\text{-}UTRA_{_Channel_CA}$ 由带内连续CA E-UTRA载波组成的E-UTRA子块信道带宽

$BWNR_{_Channel}$ NR载波的信道带宽

$BWNR_{_Channel_CA}$ 由带内连续CA NR载波组成的NR子块信道带宽

$Ceil_{(x)}$ 向上取整函数：ceil(x) 为满足 ceil(x) ≥ x 的最小整数。

$EN\text{-}DC_{ACLR}$	以聚合子块带宽ENBW为中心的滤波平均功率与以相同大小ENBW相邻带宽为中心的滤波平均功率之比
$E\text{-}UTRA_{ACLR}$	E-UTRA ACLR
F_C	信道光栅上载波中心的射频参考频率
F_{DL_low}	下行链路操作频段的最低频率
F_{DL_high}	下行链路操作频段的最高频率
F_{UL_low}	上行链路操作频段的最低频率
F_{UL_high}	上行链路操作频段的最高频率
FOOB	NR带外发射和杂散发射域之间的边界
LCRB	传输带宽，以资源块（RB）为单位表示的连续资源块分配范围长度。
Max()	给定数字中的最大值
Min()	给定数字中的最小值
NR_{ACLR}	NR ACLR
N_{RB}	传输带宽配置，以资源块为单位表示
$NRB_{_agg}$	在完全分配的聚合信道带宽内聚合RB的数量
P_{CMAX}	配置的最大UE输出功率
RB_{start}	指示发射资源块的最低RB指数
Wgap	两个子块之间的子块间隔。

4.1.5.3 缩略语

ACLR	相邻信道泄漏比
ACS	相邻信道选择性
A-MPR	额外最大功率降低
BCS	带宽组合集
CA	载波聚合
CC	分量载波
DC	双连接
EN-DC	E-UTRA/NR DC
e.i.r.p.	等效全向辐射功率
EVM	误差矢量幅度
FR	频率范围
ENBW	E-UTRA子块和相邻NR子块的聚合带宽
ITS	智能交通系统

ITU-R 国际电信联盟无线电通信部门

MBW 为受保护频段确定的测量带宽

MPR 允许的最大功率降低

MSD 最大灵敏度下降

MCG 主单元组

NR 新空中接口

NS 网络信令

NSA 非独立模式，一种由另一无线电设备辅助操作的工作模式

OOB 带外

OOBE 带外发射

OTA 空中广播

PRB 物理资源块

PSCCH 物理侧链路控制信道

PSSCH的 物理侧链路共享停产

RE 资源元素

REFSENS 参考灵敏度

RF 射频

Rx 接收机

SCG 次小区组

SCS 副载波间隔

SEM 频谱发射掩模

SL 侧链路

SUL 补充上行链路

TDM 时分复用

Tx 发射机

UE 用户设备

UL 上行链路

UL MIMO 上行链路多天线发射

ULSUP UE视角的上行链路共用

V2X 车联网

4.1.6 最低要求的适用性

a) 在TS 38.101-3 [4]中，最低要求分为一般要求和附加要求。如果要求为一般要求，则规定在所有场景中都要满足该要求。

b) 对于规定了附加要求的特定场景，除满足一般要求之外，还强制要求UE满足附加要求。

c) 杂散发射功率限值适用于功率的长期平均值。为减少测量不确定度，可以在足够长的时间内对测量结果进行平均处理，以降低由信号随机统计特性带来的测量不确定性。

d) 支持EN-DC配置的终端应满足TS 36.101[1]中规定的E-UTRA要求和TS 38.101-1[2]以及TS 38.101-2[3]中的NR要求，除非TS 38.101-3[4]中另有规定。

e) 对于带内连续和带内非连续EN-DC，在假设E-UTRA中采用相同的上下行配置和特殊子帧配置，以及NR中采用由UL-DL-configurationCommon和UL-DL-configurationDedicated指示的相同时隙格式的条件下，所有相关要求均适用。

f) 对于包含E-UTRA和/或NR载波聚合配置的EN-DC组合，在假设NR的PSCell和SCell采用由UL-DL-configurationCommon和UL-DL-configurationDedicated指示的相同时隙格式，以及E-UTRA的PCell和SCell采用相同的上下行配置和特殊子帧配置的条件下，所有适用于E-UTRA和/或NR带内连续及带内非连续CA的要求均适用。

支持EN-DC配置的终端应支持：

– 如果EN-DC配置的任何子集未在TS 38.521-3 [8]第5.3B节中规定其自身的带宽组合集，则终端应支持其在E-UTRA–NR DC的E-UTRA CA配置部分声明支持的相同E-UTRA带宽组合集，并应支持其在E-UTRA–NR DC的NR CA配置部分声明支持的相同NR带宽组合集。

– 否则，如果EN-DC配置的某个子集在TS 38.521-3 [8]第5.3B节中规定了其自身的带宽组合集，则终端应支持其所声明支持的E-UTRA带宽组合集、NR带宽组合集以及其声明支持的EN-DC带宽组合集。

5.3B UE Channel bandwidth for EN-DC

5.3B.0 General

For intra-band contiguous EN-DC, the aggregated channel bandwidth is sum of the individual NR and E-UTRA channel bandwidths assuming nominal EN-DC channel with 0 kHz offset spacing as specified in clause 5.4.

$$ENBW = BW_{NR_Channel} + BW_{E\text{-}UTRA_Channel}$$

In the case where the NR sub-block and/or the E-UTRA sub-block itself is composed of intra-band contiguous CA carriers, the EN-DC aggregated channel bandwidth is the sum of the aggregated channel bandwidths of the NR and E-UTRA sub-blocks assuming nominal EN-DC channel spacing between the NR sub-block and E-UTRA sub-block.

$$ENBW = BW_{NR_Channel_CA} + BW_{E\text{-}UTRA_Channel_CA}$$

For NR inter-band dual connectivity specified in 5.5B.7, the corresponding NR CA configurations in 5.5A.1, i.e., dual uplink inter-band carrier aggregation between FR1 and FR2 with uplink assigned to two NR bands, are applicable to Dual Connectivity.

NOTE: Requirements for the dual connectivity configurations are defined in the clause corresponding NR uplink CA between FR1 and FR2 configurations, unless otherwise specified.

Intra-band contiguous EN-DC configurations are defined using intra-band contiguous EN-DC bandwidth class notation DC_(n)Xyz where the first EN-DC bandwidth class letter indicates the number of contiguous E-UTRA carriers and the second EN-DC bandwidth class letter indicates the number of contiguous NR carriers for the EN-DC combination of

E-UTRA Band X and NR Band nX. Applicable contiguous intraband EN-DC bandwidth classes are listed in Table 5.3B.0-1.

Table 5.3B.0-1: Intra-band contiguous EN-DC bandwidth classes

Intra-band contiguous EN-DC bandwidth class	Number of contiguous CC	
	E-UTRA	NR
AA	1	1
AB	1	2
CA	2	1
DA	3	1

5.3B.1 Intra-band EN-DC in FR1

5.3B.1.1 General

The requirements for intra-band EN-DC in this specification are defined for EN-DC configurations with associated bandwidth combination sets.

For each EN-DC configuration, requirements are specified for all bandwidth combinations contained in a *bandwidth combination set*, which is indicated per supported band combination in the UE radio access capability. A UE can indicate support of several bandwidth combination sets per band combination.

5.3B.1.2 BCS for Intra-band contiguous EN-DC

For intra-band contiguous EN-DC, an EN-DC configuration is a single operating band supporting an intra-band contiguous EN-DC bandwidth class.

Bandwidth combination sets for intra-band contiguous EN-DC are specified in Table 5.3B.1.2-1. The EN-DC configurations and bandwidth combination sets in Table 5.3B.1.2-1 also apply to higher order EN-DC combinations that include inter-band and intra-band EN-DC on the downlink and inter-band EN-DC on the uplink. If no BCS is reported in the UE capabilities for an intra-band combination the default is that the UE supports BCS0.

Table 5.3B.1.2-1: EN-DC configurations and bandwidth combination sets defined for intra-band contiguous EN-DC

E-UTRA – NR configuration / Bandwidth combination set						
Downlink EN-DC configuration	Uplink EN-DC configurations	Component carriers in order of increasing carrier frequency			Maximum aggregated bandwidth (MHz)	Bandwidth combination set
		Channel bandwidths for E-UTRA carrier (MHz)	Channel bandwidths for NR carrier (MHz)	Channel bandwidths for E-UTRA carrier (MHz)		
DC_(n)41AA	DC_(n)41AA	20	40, 60, 80,100		120	0
			40, 60, 80,100	20		
		20	40, 50, 60, 80,100		120	1
			40, 50, 60, 80,100	20		
DC_(n)41CA	DC_(n)41AA, DC_41A_n41A	20+20	40, 60, 80,100		140	0
			40, 60, 80,100	20+20		
		20+20	40, 50, 60, 80,100		140	1
			40, 50, 60, 80,100	20+20		
DC_(n)41DA	DC_(n)41AA, DC_41A_n41A	20+20+20	40, 60, 80,100		160	0

			40, 60, 80,100	20+20+20		
		20+20+20	40, 50, 60, 80,100		160	1
			40, 50, 60, 80,100	20+20+20		
DC_(n)71AA	DC_(n)71AA	15	5		20	0
		10	5, 10			
		5	5, 10, 15			
			5	15		
			5, 10	10		
			5, 10, 15	5		

NOTE 1: Void
NOTE 2: Void
NOTE 3: Void
NOTE 4: The channel bandwidths for E-UTRA or NR carrier should be at least supported in one of the BCS indicated in E-UTRA bandwidth combination sets or NR bandwidth combination sets if reported.

5.3B.1.3 BCS for Intra-band non-contiguous EN-DC

For intra-band non-contiguous EN-DC, an EN-DC configuration is a single operating band supporting E-UTRA and NR carriers, where E-UTRA configuration is indicated by using E-UTRA CA bandwidth class as defined in TS 36.101 [5] and NR configuration is indicated by using NR CA bandwidth class as defined in TS 38.101-1 [2].

Requirements for intra-band non-contiguous EN-DC are defined for the EN-DC configurations and bandwidth combination sets specified in Table 5.3B.1.3-1. The EN-DC configurations and bandwidth combination sets in Table 5.3B.1.3-1 also apply to higher order EN-DC combinations that include inter-band and intra-band EN-DC on the downlink and inter-band EN-DC on the uplink. If no BCS is reported in the UE capabilities for an intra-band combination the default is that the UE supports BCS0.

Table 5.3B.1.3-1: EN-DC configurations and bandwidth combination sets defined for intra-band non-contiguous EN-DC

E-UTRA – NR configuration / Bandwidth combination set						
Downlink EN-DC configuration	**Uplink EN-DC configurations**	**Component carriers in order of increasing carrier frequency**			**Maximum aggregated bandwidth (MHz)**	**Bandwidth combination set**
		Channel bandwidths for E-UTRA carrier (MHz)	**Channel bandwidths for NR carrier (MHz)**	**Channel bandwidths for E-UTRA carrier (MHz)**		
DC_3A_n3A	DC_3A_n3A(1)		5, 10, 15, 20, 25, 30	5, 10, 15, 20	50	0
DC_41A_n41A	DC_41A_n41A	20	40, 60, 80,100		120	0
			40, 60, 80,100	20		
		20	40, 50, 60, 80,100		120	1
			40, 50, 60, 80,100	20		
DC_41C_n41A	DC_41A_n41A	20+20	40, 60, 80,100		140	0
			40, 60, 80,100	20+20		
		20+20	40, 50, 60, 80,100		140	1
			40, 50, 60, 80,100	20+20		
DC_41D_n41A	DC_41A_n41A	20+20+20	40, 60, 80,100		160	0

			40, 60, 80,100	20+20+20		
		20+20+20	40, 50, 60, 80,100		160	1
			40, 50, 60, 80,100	20+20+20		
NOTE 1: Only single switched UL is supported in Rel-15.						

支持具有某种UL配置的带内EN-DC配置的终端应支持具有这种特定UL配置和该UL配置的备份的较低阶EN-DC组合的所有低阶DL配置。

支持CA或DC配置的终端，包括具有多个子块的FR2频段内CA组合，其中至少一个子块包含一个连续的CA组合，不需要支持所有可能的后备组合，但可以直接回退到单个FR2载波。停用CA或DC组合中的载波仍是可能的。

除非另有规定，支持FR1和FR2配置之间带内NR-DC的终端应满足对应CA配置（后缀A）的要求。

4.1.7 适用性和测试覆盖率规则

4.1.7.1 概述

(1) 仅适用于非独立（NSA）设备的适用性和测试覆盖率规则应包括以下内容：

a) 对于设备中的每个NR频段；根据TS 38.521-3[8]中的测试程序测试所有EN-DC例外测试要求。

b) 使用测试程序测试本规范中的所有EN-DC FR2无例外测试要求，这些测试程序适当地参考每个NR频段的第3节。按照第4.1.4节中的定义，使用LTE锚点不可知方法，对每个FR2频段仅测试一个EN-DC组合。

c) 使用测试程序测试本规范中的所有EN-DC FR1无例外测试要求，这些测试程序适当地参考每个NR频段的第2条。按照第4.1.4节中的定义，使用不依赖LTE锚点的方法为每个EN-DC配置，在每个FR1频段仅测试一个EN-DC组合。

(2) 独立（SA）和NSA功能的设备的适用性和测试覆盖率规则应包括以下内容：

a) 对于设备中的每个NR频段，根据TS 38.521-3[8]中的测试程序测试所有EN-DC例外测试要求。

b) 按照第3节中的测试程序，测试每个NR频段的所有独立FR2测试要求。这也满足了该NR频段的所有非例外EN-DC FR2测试要求，无需重新测试。如果无法测试独立FR2（由于测试用例不完整），则按照上述(1)(b)在EN-DC模式下进行测试。

c) 按照第2条中每个NR频段的测试程序测试所有独立FR1测试要求。这也满足了该NR频段的所有非例外EN-DC FR1测试要求，无需重新测试。如果无法测试独立FR1（由于测试用例不完整或UE不支持SA模式下的频段），则按照上述(1)(c)在EN-DC模式下进行测试。

4.1.7.2 测试5G NR连接选项的覆盖范围

本规范中的测试用例涵盖独立组网（FR1+FR2 CA无DC）以及非独立组网FR1和FR2（E-UTRA和5G NR互通）测试。以下是关于整个5G NR架构选项的覆盖范围的理解：

1) 除非在测试用例中另有说明，否则应理解，测试需求对于测试中配置的NSA架构选项是不可知的。通过在一个NSA选项中执行NSA测试用例，应认为已经完成了跨NSA选项的测试覆盖范围。随后，测试执行和测试结果可以用于其他NSA选项。

2) 在本测试规范内每个测试用例的定义中，只标识和使用一种SA或NSA架构选项类型。NSA测试用例使用连接EN-DC进行配置，即NSA选项3，独立（SA）测试用例使用连接NR进行配置，即SA选项2，这应该是分别用于NSA和SA测试执行的默认架构选项。

3) 如果UE不支持NSA选项3，则可以配置任何其他受支持的NSA选项来执行测试。将适用(1)中详述的杠杆规则。

4.2 输出射频频谱发射

4.2.1 FR1和FR2之间带内CA的输出RF频谱发射

对于FR1和FR2之间的带内NR CA，第2节和第3节规定的带外发射分别适用于每个频率范围。

4.2.2 EN-DC的输出RF频谱发射

4.2.2.1 带外发射

4.2.2.1.1 一般频谱发射掩模

对于带内连续EN-DC，一般NR频谱发射掩模限值在TS 38.521-3 [8]的表6.5B.2.1.1.5-1中定义，测试容限在表6.5B.2.1.1.5-2中定义。

Table 6.5B.2.1.1.5-1: General spectrum emission mask for intra-band contiguous EN-DC

Δf_{OOB} (MHz)	Spectrum emission limit (dBm)	Measurement bandwidth
± 0-1	Max(Round(10*log(0.15/ENBW)),-24)	30 kHz
± 1-5	–10 + TT	1 MHz
± 5 - ENBW	–13 + TT	1 MHz
± ENBW – (ENBW+5)	–25 + TT	1 MHz
NOTE: ENBW refers to the aggregated channel bandwidth in MHz as defined in clause 5.3B.		

Table 6.5B.2.1.1.5-2: Test Tolerance (Spectrum Emission Mask)

f ≤ 3.0 GHz	3.0 GHz < f ≤ 4.2 GHz	4.2 GHz < f ≤ 6.0 GHz
1.5 dB	1.8 dB	1.8 dB

对于带内不连续EN-DC，一般NR频谱发射掩模限值在TS 38.521-3 [8]中的第6.5B.2.2.1.5节定义。

6.5B.2.2.1.5 Test requirement

- For NR carrier frequency masks not overlapping with E-UTRA carrier frequency masks, the power of any UE emission shall fulfil requirements in Table 6.5.2.2.5-1 defined in TS 38.521-1 [8].

- For E-UTRA carrier frequency masks not overlapping with NR carrier frequency masks, the power of any UE emission shall fulfil requirements in Table 6.6.2.1.5-1 or 6.6.2.1.5-2 in TS 36.521-1 [10], as applicable.

- For NR carrier frequency masks overlapping with E-UTRA carrier frequency masks, the most relaxed limit is used between requirements in Table 6.5.2.2.5-1 defined in TS 38.521-1 [8] and Table 6.6.2.1.5-1 or 6.6.2.1.5-2 in TS 36.521-1 [10], as applicable.

Table 6.5.2.2.5-1: General NR spectrum emission mask

Spectrum emission limit (dBm) / Channel bandwidth														
Δf_{OOB} (MHz)	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**25 MHz**	**30 MHz**	**40 MHz**	**50 MHz**	**60 MHz**	**70 MHz**	**80 MHz**	**90 MHz**	**100 MHz**	**Measurement bandwidth**
± 0-1	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT							1 % channel bandwidth
± 0-1								-24 + TT	-24 + TT	-24 + TT	-24 + TT	-24 + TT	-24 + TT	30 kHz
± 1-5	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	1 MHz
± 5-6	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	
± 6-10	-25 + TT													
± 10-15		-25 + TT												
± 15-20			-25 + TT											
± 20-25				-25 + TT										
± 25-30					-25 + TT									
± 30-35						-25 + TT								
± 35-40														
± 40-45							-25 + TT							
± 45-50														
± 50-55								-25 + TT						
± 55-60														
± 60-65									-25 + TT					
± 65-70														
± 70-75										-25 + TT				
± 75-80														

± 80-85											-25 + TT			
± 85-90														
± 90-95												-25 + TT		
± 95-100														
±100-105													-25 + TT	

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and –0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: TT for each frequency and channel bandwidth is specified in Table 6.5.2.2.5-2.

Table 6.6.2.1.5-1: General E-UTRA spectrum emission mask, E-UTRA bands ≤ 3 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth**
0-1	–8.5	–11.5	–13.5	–16.5	–18.5	–19.5	30 kHz
1-2.5	–8.5						1 MHz
2.5-2.8	–23.5	–8.5	–8.5	–8.5	–8.5	–8.5	1 MHz
2.8-5							1 MHz
5-6		–23.5	–11.5	–11.5	–11.5	–11.5	1 MHz
6-10			–23.5				1 MHz
10-15				–23.5			1 MHz
15-20					–23.5		1 MHz
20-25						–23.5	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5MHz and -0.5MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

Table 6.6.2.1.5-2: General E-UTRA spectrum emission mask, 3 GHz < E-UTRA bands ≤ 4.2 GHz

	Spectrum emission limit (dBm)/ Channel bandwidth						
Δf_{OOB} (MHz)	**1.4 MHz**	**3.0 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth**
0-1	–8.2	–11.2	–13.2	–16.2	–18.2	–19.2	30 kHz
1-2.5	–8.2						1 MHz
2.5-2.8	–23.2	–8.2	–8.2	–8.2	–8.2	–8.2	1 MHz
2.8-5							1 MHz
5-6		–23.2	–11.2	–11.2	–11.2	–11.2	1 MHz
6-10			–23.2				1 MHz
10-15				–23.2			1 MHz
15-20					–23.2		1 MHz
20-25						–23.2	1 MHz

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and –0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: For the 2.5-2.8 MHz offset range with 1.4 MHz channel bandwidth, the measurement position is at Δf_{OOB} equals to 3 MHz.

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

对于FR1中的带内EN-DC，一般NR频谱发射掩模限值在TS 38.521-3 [8]中的第6.5B.2.3.1.5节定义。

6.5B.2.3.1.5 Test requirement

Power of any UE emission shall fulfil requirements in Table 6.5.2.2.5-1 defined in TS 38.521-1 [8] for the NR carrier.6.5B.2.3.2.

Table 6.5.2.2.5-1: General NR spectrum emission mask

Spectrum emission limit (dBm) / Channel bandwidth														
Δf_{OOB} (MHz)	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**25 MHz**	**30 MHz**	**40 MHz**	**50 MHz**	**60 MHz**	**70 MHz**	**80 MHz**	**90 MHz**	**100 MHz**	**Measurement bandwidth**
± 0-1	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT							1 % channel bandwidth
± 0-1								-24 + TT	-24 + TT	-24 + TT	-24 + TT	-24 + TT	-24 + TT	30 kHz
± 1-5	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	-10 + TT	1 MHz
± 5-6	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	-13 + TT	
± 6-10	-25 + TT													
± 10-15		-25 + TT												
± 15-20			-25 + TT											
± 20-25				-25 + TT										
± 25-30					-25 + TT									
± 30-35						-25 + TT								
± 35-40														
± 40-45							-25 + TT							
± 45-50														
± 50-55								-25 + TT						

± 55-60														
± 60-65									-25 + TT					
± 65-70														
± 70-75										-25 + TT				
± 75-80														
± 80-85											-25 + TT			
± 85-90														
± 90-95												-25 + TT		
±95-100														
±100-105													-25 + TT	

Note 1: The first and last measurement position with a 30 kHz filter is at Δf_{OOB} equals to 0.015 MHz and 0.985 MHz.
Note 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and –0.5 MHz, respectively.
Note 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.
Note 4: TT for each frequency and channel bandwidth is specified in Table 6.5.2.2.5-2.

6.5B.2.3.2 Additional Spectrum emissions mask for Inter-band EN-DC within FR1 (1 NR CC)

6.5B.2.3.2.1 Test purpose

Same test purpose as in clause 6.5.2.3.1 in TS 38.521-1 [8] for the NR carrier.

6.5B.2.3.2.2 Test applicability

This test case applies to all types of E-UTRA UE release 15 and forward, supporting inter-band EN-DC within FR1 with 1 NR UL.

6.5B.2.3.2.3 Minimum conformance requirements

Same minimum conformance requirements as in clause 6.5.2.3.3 in TS 38.521-1 [8] for the NR carrier.

The normative reference for this requirement is TS 38.101-3 [4] clause 6.5B.2.3.

No exception requirements applicable to NR or LTE. LTE anchor agnostic approach is applied.

6.5B.2.3.2.4 Test description

Same test description as in clause 6.5.2.3.4 in TS 38.521-1 [8] for the NR carrier with the following exception:

The initial test configurations for E-UTRA band consist of environmental conditions, test frequencies, and channel bandwidths based on E-UTRA bands specified in Table 4.6-1. For Initial conditions as in clause 6.5.2.3.4.1 in TS 38.521-1 [8], the following steps will be added to configure E-UTRA component:

2.1. The parameter settings for E-UTRA cell are set up according to TS 36.508 [11] clause 4.4.3.

3.1. The E-UTRA downlink signal level, uplink signal level are set according to Table 4.6-1 and propagation conditions are set according to Annex B.0 of TS 36.521-1 [10].

Step 6 of Initial conditions as in clause 6.5.2.3.4.1 in TS 38.521-1 [8] is replaced by the following two steps:

6. Ensure the UE is in state RRC_CONNECTED with generic procedure parameters Connectivity EN-DC, DC bearer MCG and SCG according to TS 38.508 [6] clause 4.5.

7. On the E-UTRA carrier, disable periodic and aperiodic CQI reports, disable SRS, set *TimeAlignmentTimerDedicated* IE to infinity and disable downlink and uplink scheduling, all as per Table 4.6-1 under clause 4.6.

6.5B.2.3.2.5 Test requirement

Power of any UE emission shall fulfil requirements in applicable table from Table 6.5.2.3.5-1 to Table 6.5.2.3.5.2-1 defined in TS 38.521-1 [8] for the NR carrier.

6.5B.2.3.3 Adjacent channel leakage ratio for inter-band EN-DC within FR1 (1 NR CC)

6.5B.2.3.3.1 NR - Adjacent channel leakage ratio for inter-band EN-DC within FR1 (1 NR CC)

6.5B.2.3.3.1.1 Test purpose

Same test purpose as in clause 6.5.2.4.1.1 in TS 38.521-1 [8].

6.5B.2.3.3.1.2 Test applicability

This test case applies to all types of E-UTRA UE release 15 and forward, supporting inter-band EN-DC within FR1 with 1 NR UL.

6.5B.2.3.3.1.3 Minimum conformance requirements

Same minimum conformance requirements as in clause 6.5.2.4.1.3 in TS 38.521-1 [8] for the NR carrier.

The normative reference for this requirement is TS 38.101-3 [4] clause 6.5B.2.3.

No exception requirements applicable to NR or LTE. LTE anchor agnostic approach is applied

6.5B.2.3.3.1.4 Test description

Same test description as in clause 6.5.2.4.1.4 in TS 38.521-1 [8] for the NR carrier with the following exception:

The initial test configurations for E-UTRA band consist of environmental conditions, test frequencies, and channel bandwidths based on E-UTRA bands specified in Table 4.6-1.

For Initial conditions as in clause 6.5.2.4.1.4.1 in TS 38.521-1 [8], the following steps will be added to configure E-UTRA component:

2.1. The parameter settings for E-UTRA cell are set up according to TS 36.508 [11] clause 4.4.3.

3.1. The E-UTRA downlink signal level, uplink signal level are set according to Table 4.6-1 and propagation conditions are set according to Annex B.0 of TS 36.521-1 [10].

Step 6 of Initial conditions as in clause 6.5.2.4.1.4.1 in TS 38.521-1 [8] is replaced by the following two steps:

6. Ensure the UE is in state RRC_CONNECTED with generic procedure parameters Connectivity EN-DC, DC bearer MCG and SCG, Connected without release *On* according to TS 38.508 [6] clause 4.5.

7. On the E-UTRA carrier, disable periodic and aperiodic CQI reports, disable SRS, set *TimeAlignmentTimerDedicated* IE to infinity and disable downlink and uplink scheduling, all as per Table 4.6-1 under clause 4.6.

6.5B.2.3.3.1.5 Test requirement

Same test requirement as in clause 6.5.2.4.1.5 in TS 38.521-1 [8].

6.5B.2.3.3.2 UTRA - Adjacent channel leakage ratio for inter-band EN-DC within FR1 (1 NR CC)

6.5B.2.3.3.2.1 Test purpose

Same test purpose as in clause 6.5.2.4.2.1 in TS 38.521-1 [8].

6.5B.2.3.3.2.2 Test applicability

This test case applies to all types of E-UTRA UE release 15 and forward, supporting inter-band EN-DC within FR1 with 1 NR UL.

6.5B.2.3.3.2.3 Minimum conformance requirements

Same minimum conformance requirements as in clause 6.5.2.4.2.3 in TS 38.521-1 [8] for the NR carrier.

The normative reference for this requirement is TS 38.101-3 [4] clause 6.5B.2.3.

No exception requirements applicable to NR or LTE. LTE anchor agnostic approach is applied

6.5B.2.3.3.2.4 Test description

Same test description as in clause 6.5.2.4.2.4 in TS 38.521-1 [8] for the NR carrier with the following exception:

The initial test configurations for E-UTRA band consist of environmental conditions, test frequencies, and channel bandwidths based on E-UTRA bands specified in Table 4.6-1.

For Initial conditions as in clause 6.5.2.4.2.4.1 in TS 38.521-1 [8], the following steps will be added to configure E-UTRA component:

2.1. The parameter settings for E-UTRA cell are set up according to TS 36.508 [11] clause 4.4.3.

3.1. The E-UTRA downlink signal level, uplink signal level are set according to Table 4.6-1 and propagation conditions are set according to Annex B.0 of TS 36.521-1 [10].

Step 6 of Initial conditions as in clause 6.5.2.4.2.4.1 in TS 38.521-1 [8] is replaced by the following two steps:

6. Ensure the UE is in state RRC_CONNECTED with generic procedure parameters Connectivity EN-DC, DC bearer MCG and SCG, Connected without release *On* according to TS 38.508 [6] clause 4.5.

7. On the E-UTRA carrier, disable periodic and aperiodic CQI reports, disable SRS, set *TimeAlignmentTimerDedicated* IE to infinity and disable downlink and uplink scheduling, all as per Table 4.6-1 under clause 4.6.

6.5B.2.3.3.2.5 Test requirement

Same test requirement as in clause 6.5.2.4.2.5 in TS 38.521-1 [8].

对于包括FR2在内的频段间EN-DC，一般NR频谱发射掩模限值在TS 38.521-3 [8]中的第6.5B.2.4.1.5、6.5B.2.4.1_1.1.5、6.5B.2.4.1_1.2.5和6.5B.2.4.1_1.3.5节定义。

6.5B.2.4.1.5 Test requirement

Same test requirement as in clause 6.5.2.1.5 in TS 38.521-2 [9] for the NR carrier.

6.5.2.1.5Test requirement

The measured TRP of any UE emission derived in step 5, shall fulfil requirements in Table.6.5.2.1.5-1.

Table 6.5.2.1.5-1: General NR spectrum emission mask for Range 2

Spectrum emission limit (dBm)/ Channel bandwidth					
Δf_{OOB} (MHz)	50 MHz	100 MHz	200 MHz	400 MHz	Measurement bandwidth
± 0-5	-5 + TT	-5 + TT	-5 + TT	-5 + TT	1 MHz
± 5-10	-13 + TT	-5 + TT	-5 + TT	-5 + TT	1 MHz
± 10-20	-13 + TT	-13 + TT	-5 + TT	-5 + TT	1 MHz
± 20-40	-13 + TT	-13 + TT	-13 + TT	-5 + TT	1 MHz

± 40-100	-13 + TT	-13 + TT	-13 + TT	-13 + TT	1 MHz
± 100-200		-13 + TT	-13 + TT	-13 + TT	1 MHz
± 200-400			-13 + TT	-13 +TT	1 MHz
± 400-800				-13 + TT	1 MHz
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5.2.1.5-1a NOTE 2: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and –0.5 MHz, respectively. NOTE 3: The measurements are to be performed above the upper edge of the channel and below the lower edge of the channel.					

Table 6.5.2.1.5-1a: Test Tolerance (Spectrum emission mask)

Test Metric	23.45GHz ≤ f ≤ 32.125GHz	32.125GHz < f ≤ 40.8GHz
IFF (Max device size ≤ 30 cm)	3.21 dB	3.46 dB

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

6.5B.2.4.1_1.1.5 Test Requirements

Same test requirement as in clause 6.5A.2.1.1.5 in TS 38.521-2 [9] for the *NR* carrier.

6.5A.2.1.1.5 Test Requirements

The measured TRP of any UE emission derived in step 7, shall fulfil requirements in Table.6.5A.2.1.1.5-1.

Table 6.5A.2.1.1.5-1: General NR spectrum emission mask for intra-band contiguous CA in frequency range 2

Δf_{OOB} (MHz)	Any carrier aggregation bandwidth class	Measurement bandwidth
± 0-0.1*$BW_{Channel_CA}$	–5 + TT	1 MHz
± 0.1*$BW_{Channel_CA}$ - 2*$BW_{Channel_CA}$	–13 + TT	1 MHz
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5A.2.1.1.5-1a NOTE 2: If carrier leakage or I/Q image lands inside the spectrum occupied by the configured UL and DL CCs, exception to the general spectrum emission mask limit applies. For carrier leakage the requirements specified in section 6.4A.2.2.0 shall apply. For I/Q image the requirements specified in section 6.4A.2.3.0 shall apply. NOTE 3: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and –0.5 MHz, respectively. NOTE 4: The measurements are to be performed above the upper edge of the aggregated channel bandwidth and below the lower edge of the aggregated channel bandwidth.		

Table 6.5A.2.1.1.5-1a: Test Tolerance (Aggregated BW ≤ 400 MHz)

Test Metric	FR2a	FR2b
IFF (Max device size ≤ 30 cm)	3.21 dB	3.46 dB

6.5B.2.4.1_1.2.5 Test Requirements

Same test requirement as in clause 6.5A.2.1.2.5 in TS 38.521-2 [9] for the *NR* carrier.

6.5A.2.1.2.5 Test Requirements

The measured TRP of any UE emission derived in step 7, shall fulfil requirements in Table.6.5A.2.1.2.5-1.

Table 6.5A.2.1.2.5-1: General NR spectrum emission mask for intra-band contiguous CA in frequency range 2

Δf_{OOB} (MHz)	Any carrier aggregation bandwidth class	Measurement bandwidth
$\pm$ 0-0.1*$BW_{Channel_CA}$	–5 + TT	1 MHz
$\pm$ 0.1*$BW_{Channel_CA}$ - 2*$BW_{Channel_CA}$	–13 + TT	1 MHz
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5A.2.1.2.5-1a NOTE 2: If carrier leakage or I/Q image lands inside the spectrum occupied by the configured UL and DL CCs, exception to the general spectrum emission mask limit applies. For carrier leakage the requirements specified in section 6.4A.2.2.0 shall apply. For I/Q image the requirements specified in section 6.4A.2.3.0 shall apply. NOTE 3: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and –0.5 MHz, respectively. NOTE 4: The measurements are to be performed above the upper edge of the aggregated channel bandwidth and below the lower edge of the aggregated channel bandwidth		

Table 6.5A.2.1.2.5-1a: Test Tolerance (Aggregated BW ≤ 400MHz)

Test Metric	FR2a	FR2b
IFF (Max device size ≤ 30 cm)	3.21 dB	3.46 dB

6.5B.2.4.1_1.3.5 Test Requirements

Same test requirement as in clause 6.5A.2.1.3.5 in TS 38.521-2 [9] for the *NR* carrier.

6.5A.2.1.3.5 Test Requirements

The measured TRP of any UE emission derived in step 7, shall fulfil requirements in Table.6.5A.2.1.3.5-1.

Table 6.5A.2.1.3.5-1: General NR spectrum emission mask for intra-band contiguous CA in frequency range 2

Δf_{OOB} (MHz)	Any carrier aggregation bandwidth class	Measurement bandwidth
$\pm$ 0-0.1*$BW_{Channel_CA}$	–5 + TT	1 MHz
$\pm$ 0.1*$BW_{Channel_CA}$ - 2*$BW_{Channel_CA}$	–13 + TT	1 MHz
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5A.2.1.3.5-1a NOTE 2: If carrier leakage or I/Q image lands inside the spectrum occupied by the configured UL and DL CCs, exception to the general spectrum emission mask limit applies. For carrier leakage the requirements specified in section 6.4A.2.2.0 shall apply. For I/Q image the requirements specified in section 6.4A.2.3.0 shall apply. NOTE 3: At the boundary of spectrum emission limit, the first and last measurement position with a 1 MHz filter is the inside of +0.5 MHz and –0.5 MHz, respectively. NOTE 4: The measurements are to be performed above the upper edge of the aggregated channel bandwidth and below the lower edge of the aggregated channel bandwidth.		

Table 6.5A.2.1.3.5-1a: Test Tolerance (Aggregated BW ≤ 400 MHz)

Test Metric	FR2a	FR2b
IFF (Max device size ≤ 30 cm)	3.21 dB	3.46 dB

对于包括UL-MIMO的FR2在内的频段间EN-DC，通用NR频谱发射掩模限值在TS 38.521-3 [8]中的第6.5B.2.4.1D.5节定义。

6.5B.2.4.1D.5 Test Requirement

Same test requirement as in clause 6.5D.2.1.5 of TS 38.521-2 [9] for the NR carrier.

6.5D.2.1.5 Test requirements

The test requirement is the same as in clause 6.5.2.1.5.

4.2.2.1.2 附加频谱发射掩模

对于带内连续EN-DC，NS_35的附加频谱发射掩模限值在TS 38.521-3 [8]的表6.5B.2.1.2.5.1-1中定义，测试容限在表6.5B.2.1.2.51中定义。

Table 6.5B.2.1.2.5.1-1: Additional requirements for "NS_35"

Δf_{OOB}	Frequency offset of measurement filter centre frequency, f_offset	Minimum requirement [dBm]	Measurement bandwidth
0 MHz ≤ Δf < 0.1 MHz	0.015 MHz ≤ f_offset < 0.085 MHz	–13+TT	30 kHz
0.1 MHz ≤ Δf < ENBW	0.15 MHz ≤ f_offset < ENBW – 0.05 MHz	–13+TT	100 kHz
ENBW ≤ Δf < ENBW +5 MHz	ENBW + 0.5 MHz ≤ f_offset < ENBW + 4.5 MHz	–25+TT	1 MHz
NOTE: ENBW is the aggregated bandwidth of an E-UTRA sub-block and an adjacent NR sub-block; there is no frequency separation between the said sub-blocks. The sub-block bandwidths include any internal guard bands.			

Table 6.5B.2.1.2.5-1: Test Tolerance (Additional Spectrum Emission Mask)

f ≤ 3.0 GHz	3.0 GHz < f ≤ 4.2 GHz	4.2 GHz < f ≤ 6.0 GHz
1.5 dB	1.8 dB	1.8 dB

对于带内连续EN-DC，NS_04的附加频谱发射掩模限值在TS 38.521-3 [8]的表6.5B.2.1.2.5.2-1中定义，测试容限在表6.5B.2.1.2.51中定义。

Table 6.5B.2.1.2.5.2-1: Additional requirements for n41 SEM with NS_04

	Spectrum emission limit (dBm)/ measurement bandwidth for each channel bandwidth						
Δf_{OOB} MHz	10 MHz	15 MHz	20 MHz	40 MHz	50 MHz	> 50 MHz	Measurement bandwidth
± 0 - 1	–18+TT	–20+TT	–21+TT	–24+TT	–25+TT		30 kHz
± 1 - 5	–10+TT						1 MHz
± 5 - X	–13+TT						
± X - (BWChannel + 5 MHz)	–25+TT						
NOTE 1: X is defined as the sum of the emission bandwidth of the component carriers plus the guard band between contiguous CCs.							

对于带内不连续EN-DC，附加频谱发射掩模限值在TS 38.521-3 [8]中的第6.5B.2.2.2.5节定义。

6.5B.2.2.2.5 Test requirement

For Wgap > NR Δf_{OOB} + E-UTRA Δf_{OOB}:

Power of any UE emission shall fulfil requirements in Table 6.5.2.3.5-1 defined in TS 38.521-1 [8] for the NR carrier.

Table 6.5.2.3.5-1: Test Tolerance (Additional spectrum emission mask)

	f ≤ 3.0 GHz	**3.0 GHz < f ≤ 4.2 GHz**	**4.2 GHz < f ≤ 6.0 GHz**
BW ≤ 100 MHz	1.5 dB	1.8 dB	1.8 dB

对于FR1中的带内EN-DC，附加频谱发射掩模限值在TS 38.521-3 [8]中的第6.5B.2.3.2.5节定义。

6.5B.2.3.2.5 Test requirement

Power of any UE emission shall fulfil requirements in applicable table from Table 6.5.2.3.5-1 to Table 6.5.2.3.5.2-1 defined in TS 38.521-1 [8] for the NR carrier.

Table 6.5.2.3.5-1: Test Tolerance (Additional spectrum emission mask)

	f ≤ 3.0 GHz	3.0 GHz < f ≤ 4.2 GHz	4.2 GHz < f ≤ 6.0 GHz
BW ≤ 100 MHz	1.5 dB	1.8 dB	1.8 dB

Table 6.5.2.3.5.1-1: Additional test requirements "NS_35"

Spectrum emission limit (dBm) / Channel bandwidth					
Δf_{OOB} (MHz)	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Measurement bandwidth (unless otherwise stated)**
± 0-0.1	–15.0 + TT	–18.0 + TT	–20.0 + TT	–21.0 + TT	30 kHz
± 0.1-6	–13.0 + TT-	–13.0 + TT	–13.0 + TT	–13.0 + TT	100 kHz
± 6-10	–25 [1] + TT	–13.0 + TT	–13.0 + TT	–13.0 + TT	100 kHz
± 10-15		–25[1] 0 + TT	–13.0 + TT	–13.0 + TT	100 kHz
± 15-20			–25 [1]0 + TT	–13.0 + TT	100 kHz
± 20-25				–25 + TT	1 MHz
NOTE 1: The measurement bandwidth shall be 1 MHz. NOTE 2: TT for each frequency and channel bandwidth is specified in Table 6.5.2.3.5-1.					

NOTE: As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. However, to improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth may be smaller than the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth in order to obtain the equivalent noise bandwidth of the measurement bandwidth.

Table 6.5.2.3.5.2-1: Additional test requirements for "NS_04"

Δf_{OOB} MHz	**Spectrum emission limit (dBm) / measurement bandwidth for each channel bandwidth (MHz)**											**Measurement bandwidth**
	10	**15**	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**	
± 0 - 1	-10+TT	-10+TT	-10+TT	-10+TT	-10+TT							2 % channel bandwidth
						-10						1 MHz
± 1 - 5	-10 + TT											1 MHz
± 5 - X	-13 + TT											
± X - ($BW_{Channel}$ + 5 MHz)	-25 + TT											
NOTE 1: X is defined in Table 6.5.2.3.3.2-1 for CP-OFDM and 6.5.2.3.3.2-2 for DFT-S-OFDM. NOTE 2: TT for each frequency and channel bandwidth is specified in Table 6.5.2.3.5-1.												

4.2.2.1.3 相邻信道泄漏比

对于带内连续EN-DC，相邻信道泄漏比限值在TS 38.521-3 [8]的表6.5B.2.1.3.5-1中定义，测试容差在表6.5B.2.1.3.5-2中定义。

Table 6.5B.2.1.3.5-1: ACLR requirement for intra-band EN-DC (contiguous sub-blocks)

	Power class 2	Power class 3
NR ACLR	31 - TT dBc	30 - TT dBc
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5B.2.1.3.5-2.		

Table 6.5B.2.1.3.5-2: Test Tolerance

	f ≤ 4.0GHz	4.0GHz < f ≤ 6.0GHz
BW ≤ 100 MHz	0.8 dB	1.0 dB

对于带内不连续EN-DC，相邻信道泄漏比限值在TS 38.521-3 [8]中的第6.5B.2.2.3.5节定义。

6.5B.2.2.3.5 Test requirement

For NR ACLR, if the measured adjacent channel power is greater than –50 dBm then the measured NR ACLR shall be higher than the limits in Table 6.5.2.4.1.5-2 defined in clause 6.5.2.4.1.5 in TS 38.521-1 [8] for the NR carrier.

For E-UTRA ACLR, if the measured adjacent channel power is greater than –50 dBm then the measured E-UTRA ACLR shall be higher than the limits in Table 6.6.2.3.5.1-1 defined in clause 6.6.2.3.5 in TS 36.521-1 [10] for the E-UTRA carrier.

对于FR1中的带内EN-DC，相邻信道泄漏比限值在TS 38.521-3 [8]中的第6.5B.2.3.3.3节定义。

6.5B.2.3.3 Adjacent channel leakage ratio for inter-band EN-DC within FR1 (1 NR CC)

6.5B.2.3.3.1 NR - Adjacent channel leakage ratio for inter-band EN-DC within FR1 (1 NR CC)

6.5B.2.3.3.1.1 Test purpose

Same test purpose as in clause 6.5.2.4.1.1 in TS 38.521-1 [8].

6.5B.2.3.3.1.2 Test applicability

This test case applies to all types of E-UTRA UE release 15 and forward, supporting inter-band EN-DC within FR1 with 1 NR UL.

6.5B.2.3.3.1.3 Minimum conformance requirements

Same minimum conformance requirements as in clause 6.5.2.4.1.3 in TS 38.521-1 [8] for the NR carrier.

The normative reference for this requirement is TS 38.101-3 [4] clause 6.5B.2.3.

No exception requirements applicable to NR or LTE. LTE anchor agnostic approach is applied

6.5B.2.3.3.1.4 Test description

Same test description as in clause 6.5.2.4.1.4 in TS 38.521-1 [8] for the NR carrier with the following exception:

The initial test configurations for E-UTRA band consist of environmental conditions, test frequencies, and channel bandwidths based on E-UTRA bands specified in Table 4.6-1.

For Initial conditions as in clause 6.5.2.4.1.4.1 in TS 38.521-1 [8], the following steps will be added to configure E-UTRA component:

2.1. The parameter settings for E-UTRA cell are set up according to TS 36.508 [11] clause 4.4.3.

3.1. The E-UTRA downlink signal level, uplink signal level are set according to Table 4.6-1 and propagation conditions are set according to Annex B.0 of TS 36.521-1 [10].

Step 6 of Initial conditions as in clause 6.5.2.4.1.4.1 in TS 38.521-1 [8] is replaced by the following two steps:

6. Ensure the UE is in state RRC_CONNECTED with generic procedure parameters Connectivity EN-DC, DC bearer MCG and SCG, Connected without release *On* according to TS 38.508 [6] clause 4.5.

7. On the E-UTRA carrier, disable periodic and aperiodic CQI reports, disable SRS, set *TimeAlignmentTimerDedicated* IE to infinity and disable downlink and uplink scheduling, all as per Table 4.6-1 under clause 4.6.

6.5B.2.3.3.1.5 Test requirement

Same test requirement as in clause 6.5.2.4.1.5 in TS 38.521-1 [8].

6.5B.2.3.3.2 UTRA - Adjacent channel leakage ratio for inter-band EN-DC within FR1 (1 NR CC)

6.5B.2.3.3.2.1 Test purpose

Same test purpose as in clause 6.5.2.4.2.1 in TS 38.521-1 [8].

6.5B.2.3.3.2.2 Test applicability

This test case applies to all types of E-UTRA UE release 15 and forward, supporting inter-band EN-DC within FR1 with 1 NR UL.

6.5B.2.3.3.2.3 Minimum conformance requirements

Same minimum conformance requirements as in clause 6.5.2.4.2.3 in TS 38.521-1 [8] for the NR carrier.

The normative reference for this requirement is TS 38.101-3 [4] clause 6.5B.2.3.

No exception requirements applicable to NR or LTE. LTE anchor agnostic approach is applied

6.5B.2.3.3.2.4 Test description

Same test description as in clause 6.5.2.4.2.4 in TS 38.521-1 [8] for the NR carrier with the following exception:

The initial test configurations for E-UTRA band consist of environmental conditions, test frequencies, and channel bandwidths based on E-UTRA bands specified in Table 4.6-1.

For Initial conditions as in clause 6.5.2.4.2.4.1 in TS 38.521-1 [8], the following steps will be added to configure E-UTRA component:

2.1. The parameter settings for E-UTRA cell are set up according to TS 36.508 [11] clause 4.4.3.

3.1. The E-UTRA downlink signal level, uplink signal level are set according to Table 4.6-1 and propagation conditions are set according to Annex B.0 of TS 36.521-1 [10].

Step 6 of Initial conditions as in clause 6.5.2.4.2.4.1 in TS 38.521-1 [8] is replaced by the following two steps:

6. Ensure the UE is in state RRC_CONNECTED with generic procedure parameters Connectivity EN-DC, DC bearer MCG and SCG, Connected without release *On* according to TS 38.508 [6] clause 4.5.

7. On the E-UTRA carrier, disable periodic and aperiodic CQI reports, disable SRS, set *TimeAlignmentTimerDedicated* IE to infinity and disable downlink and uplink scheduling, all as per Table 4.6-1 under clause 4.6.

6.5B.2.3.3.2.5 Test requirement

Same test requirement as in clause 6.5.2.4.2.5 in TS 38.521-1 [8].

对于包括FR2在内的频段间EN-DC，相邻信道泄漏比限值在TS 38.521-3 [8]中的第6.5B.2.4.3.5和6.5B.2.4.3_1.1.5节定义。

6.5B.2.4.3.5 Test requirement

Same test requirement as in clause 6.5.2.3.5 in TS 38.521-2 [9] for the NR carrier.

6.5.2.3.5 Test requirement

The measured NR ACLR, derived in step 7, shall be higher than the limits in Table 6.5.2.3.5-1.

Table 6.5.2.3.5-1: General requirements for NR_{ACLR}

	Channel bandwidth / NR_{ACLR} / Measurement bandwidth			
	50 MHz	**100 MHz**	**200 MHz**	**400 MHz**
NR_{ACLR} for band n257, n258, n261	17 - TT – R dB	17 - TT – R dB	17 - TT – R dB	17 - TT – R dB
NR_{ACLR} for band n260	16 - TT dB	16 - TT dB	16 - TT dB	16 - TT dB
NR channel Measurement bandwidth (MHz)	47.58	95.16	190.20	380.28
Adjacent channel centre frequency offset [MHz]	+50 / -50	+100 / -100	+200 / -200	+400 / -400
NOTE 1: TT for each frequency and channel bandwidth is specified in Table 6.5.2.3.5-1a. NOTE 2: R for each frequency, channel bandwidth and test point is specified in Table 6.5.2.3.5-1b.				

Table 6.5.2.3.5-1a: Test Tolerance (Adjacent channel leakage ratio)

		Channel bandwidth / NR_{ACLR} / Measurement bandwidth			
	Test ID	**50 MHz**	**100 MHz**	**200 MHz**	**400 MHz**
NR_{ACLR} for band n257, n258, n261	1-2, 4-5	4.10	4.49	4.66	5.06
	3, 6	4.08	4.45	4.59	5.06
	7-9	4.15	4.59	4.85	3.34
	10-12	4.36	4.98	4.06	1.46
	13-15	4.17	4.62	4.91	2.99
NR_{ACLR} for band n260	1-2, 4-5	4.48	4.65	4.97	-
	3, 6	4.45	4.58	4.84	-
	7-9	4.58	4.84	5.31	-
	10-12	4.97	-	-	-
	13-15	4.62	4.90	-	-

Table 6.5.2.3.5-1b: Relaxation due to testability limit (Adjacent channel leakage ratio)

		Channel bandwidth / NR_{ACLR} / Measurement bandwidth			
	Test ID	**50 MHz**	**100 MHz**	**200 MHz**	**400 MHz**
NR_{ACLR} for band n257, n258, n261	1-6	0	0	0	0
	7	0	0	0	2.5
	8	0	0	0	2.5
	9	0	0	0	2.5
	10	0	0	1.5	5.5
	11	0	0	1.5	5.5
	12	0	0	1.5	5.5
	13	0	0	0	3
	14	0	0	0	3
	15	0	0	0	3
NOTE 1: Relaxation value is derived by Table 6.5.2.3.5-1c for FR2a.					

NOTE 2: Relaxation value is 0 for FR2b.

Table 6.5.2.3.5-1c: Relaxation value for FR2a ACLR

	CA bandwidth class		
MPR	**100 MHz**	**200 MHz**	**400 MHz**
0	0	0	0
0.5	0	0	0
1	0	0	0
1.5	0	0	0
2	0	0	0
2.5	0	0	0
3	0	0	0
3.5	0	0	0.5
4	0	0	1
4.5	0	0	2.5
5	0	0	3
5.5	0	1.5	4.5
6	0	2	5
6.5	0	2.5	5.5
7	0	3	6
7.5	0.5	3.5	6.5
8	1	4	7
8.5	1.5	4.5	7.5
9	2	5	8

6.5B.2.4.3_1.1.5 Test Requirements

Same test requirement as in clause 6.5A.2.2.1.5 in TS 38.521-2 [9] for the *NR* carrier.

6.5A.2.2.1.5 Test Requirements

If the measured adjacent channel power, derived in step 8, is greater than -35 dBm then the measured NR_{ACLR}, derived in step 9, shall be higher than the limits in Table 6.5A.2.2.1.5-1.

Table 6.5A.2.2.1.5-1: General requirements for CA NR_{ACLR}

	CA bandwidth class / CA NR_{ACLR} / Measurement bandwidth
	Any CA bandwidth class
CA NR_{ACLR} for band n257, n258, n261	17 - TT- R dB
CA NR_{ACLR} for band n260	16 - TT dB
NR channel measurement bandwidth[1]	$BW_{Channel_CA} - 2*BW_{GB}$
Adjacent channel centre frequency offset (in MHz)	+ $BW_{Channel_CA}$ / - $BW_{Channel_CA}$
NOTE 1: BW_{GB} is defined in clause 5.3A.2. NOTE 2: TT for each frequency and channel bandwidth is specified in Table 6.5A.2.2.1.5-1a. NOTE 3: R for each frequency, channel bandwidth and test point is specified in Table 6.5A.2.2.1.5-1b.	

Table 6.5A.2.2.1.5-1a: Test Tolerance (Aggregated BW ≤ 400 MHz)

Test Metric	**Any CA bandwidth class**	**23.45GHz ≤ f ≤ 30.3GHz**	**30.3GHz < f ≤ 40.8GHz**
IFF (Max device size ≤ 30 cm)	$BW_{Channel_CA}$ ≤ 100 MHz	4.96 dB	4.96 dB
	100 MHz < $BW_{Channel_CA}$ ≤ 200 MHz	4.96 dB	4.96 dB
	200 MHz < $BW_{Channel_CA}$ ≤ 400 MHz	4.96 dB	4.96 dB

Table 6.5A.2.2.1.5-1b: Relaxation due to testability limit (Aggregated BW ≤ 400 MHz)

		Channel bandwidth / NR_{ACLR} / Measurement bandwidth		
	Test ID	$BW_{Channel_CA}$ ≤ 100 MHz	100 MHz < $BW_{Channel_CA}$ ≤ 200 MHz	200 MHz < $BW_{Channel_CA}$ ≤ 400 MHz
NR_{ACLR} for band n257, n258, n261	1	0	3	6
	2	0	3	6
	3	0	0	3
	4	0	3	6
	5	0	3	6
	6	0	0	3
	7	0	3	6
	8	0	3	6
	9	0	2.5	5.5
	10	2	5	8
	11	0	3	6
	12	0	3	6
	13	0	0	3
NOTE 1: Relaxation value is 0 for FR2b.				

对于UL-MIMO的带内EN-DC（包括FR2），相邻信道泄漏比限值在TS 38.521-3 [8]中的第6.5B.2.4D.3.5节定义。

6.5B.2.4D.3.5 Test Requirement

Same test requirement as in clause 6.5D.2.2 of TS 38.521-2 [9] for the NR carrier.

6.5D.2.2 Adjacent channel leakage ratio for UL MIMO

6.5D.2.2.1 Test purpose

To verify that the power of any UE emission shall not exceed specified lever for the specified channel bandwidth.

6.5.2.2.2 Test applicability

This test case applies to all types of NR UE release 15 and forward supporting UL MIMO.

6.5D.2.2.3 Minimum conformance requirements

For UE(s) supporting UL MIMO, the Adjacent channel leakage ratio requirements in clause 6.5.2.3.3 apply. The requirements shall be met with the UL MIMO configurations specified in Table 6.2D.1.0-1.

The normative reference for this requirement is TS 38.101-2 [3] clause 6.5D.2.

6.5D.2.2.4 Test description

6.5D.2.2.4.1 Initial condition

Same initial condition in clause 6.5.2.3.4.1 with following exceptions:

- Instead of Table 6.5.2.3.4.1-1→ use Table 6.5D.2.2.4.1-1.
- Instead of Table 6.5.2.3.4.1-2 → use Table 6.5D.2.2.4.1-2.

Table 6.5D.2.2.4.1-1: Test Configuration Table (Power Class 1)

Default Conditions	
Test Environment as specified in TS 38.508-1 [10] subclause 4.1	Normal, TL, TH

Test Frequencies as specified in TS 38.508-1 [10] subclause 4.3.1	Low range, Mid range, High range
Test Channel Bandwidths as specified in TS 38.508-1 [10] subclause 4.3.1	Lowest, Highest
Test SCS as specified in Table 5.3.5-1	Lowest, Highest

Test Parameters						
Test ID	**Freq**	**ChBw**	**SCS**	**Downlink Configuration**	**Uplink Configuration**	
		Default	Default	-	**Modulation**	**RB allocation (NOTE 1)**
1	Low				CP-OFDM QPSK	8@0
2	High				CP-OFDM QPSK	8@N_{RB}-8
3	Mid				CP-OFDM QPSK	Outer_Full
4	Low				CP-OFDM 16-QAM	8@0
5	High				CP-OFDM 16-QAM	8@N_{RB}-8
6	Mid				CP-OFDM 16-QAM	Outer_Full
7	Low				CP-OFDM 64-QAM	8@0
8	High				CP-OFDM 64-QAM	8@N_{RB}-8
9	Mid				CP-OFDM 64-QAM	Outer_Full

NOTE 1: The specific configuration of each RF allocation is defined in Table 6.1-1 for PC2, PC3 and PC4 or Table 6.1-2 for PC1.
NOTE 2: All test points in this table must also exist in Table 6.2.2.4.1-1, Table 6.2.2.4.1-2, Table 6.2.2.4.1-3 (MPR).

Table 6.5D.2.2.4.1-2: Test Configuration Table (Power Class 2, 3 and 4)

Default Conditions	
Test Environment as specified in TS 38.508-1 [10] subclause 4.1	Normal, TL, TH
Test Frequencies as specified in TS 38.508-1 [10] subclause 4.3.1	Low range, High range
Test Channel Bandwidths as specified in TS 38.508-1 [10] subclause 4.3.1	Lowest, Highest
Test SCS as specified in Table 5.3.5-1	Lowest, Highest

Test Parameters						
Test ID	**Freq**	**ChBw**	**SCS**	**Downlink Configuration**	**Uplink Configuration**	
		Default	Default	-	**Modulation**	**RB allocation (NOTE 1)**
1	Low				CP-OFDM QPSK	Outer_1RB_Left
2	High				CP-OFDM QPSK	Outer_1RB_Right
3	Default				CP-OFDM QPSK	Outer Full
4	Low				CP-OFDM 16-QAM	Outer_1RB_Left
5	High				CP-OFDM 16-QAM	Outer_1RB_Right
6	Default				CP-OFDM 16-QAM	Outer Full
7	Low				CP-OFDM 64-QAM	Outer_1RB_Left
8	High				CP-OFDM 64-QAM	Outer_1RB_Right
9	Default				CP-OFDM 64-QAM	Outer Full

NOTE 1: The specific configuration of each RF allocation is defined in Table 6.1-1 for PC2, PC3 and PC4 or Table 6.1-2 for PC1.
NOTE 2: Following Test IDs shall be skipped for FR2b
- All Test IDs for 400 MHz Channel Bandwidth
- All Test IDs for 200 MHz Channel Bandwidth
- Test ID 7-9 for 100 MHz Channel Bandwidth

NOTE 3: All test points in this table must also exist in Table 6.2D.2.4.1-4, Table 6.2D.2.4.1-5, Table 6.2D.2.4.1-6 (MPR).

6.5D.2.2.4.2 Test procedure

Same test procedure as in clause 6.5.2.3.4.2.

6.5D.2.2.4.3 Message contents

Message contents are according to TS 38.508-1 [10] subclause 4.6 ensuring Table 4.6.3-182 with condition 2TX_UL_MIMO.

6.5D.2.2.5 Test requirements

The test requirement is the same as in clause 6.5.2.3.5 with the following exceptions:

- Instead of Table 6.5.2.3.5-1b→ use Table 6.5D.2.2.5-1 for Power class 3.

Table 6.5D.2.2.5-1: Relaxation due to testability limit (Adjacent channel leakage ratio) for (Power Class 3)

		Channel bandwidth / NR_{ACLR} / Measurement bandwidth			
	Test ID	50 MHz	100 MHz	200 MHz	400 MHz
NR_{ACLR} for band n257, n258, n261	1	0	0	0	3
	2	0	0	0	3
	3	0	0	0	3
	4	0	0	0	5.5
	5	0	0	0	5.5
	6	0	0	0	5.5
	7	0	0.5	3.5	8
	8	0	0.5	3.5	8
	9	0	0.5	3.5	8
NOTE 1: Relaxation value is derived by Table 6.5.2.3.5-1c for FR2a.					

4.2.2.2 发射机杂散发射

4.2.2.2.1 一般杂散发射要求

对于带内连续EN-DC，一般杂散发射限值在TS 38.521-3 [8]的表6.5B.3.1.1.5-1中定义。

Table 6.5B.3.1.1.5-1: General spurious emissions test requirements

Frequency Range	Maximum Level	Measurement bandwidth	NOTE
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	4
	–25 dBm	1 MHz	3
12.75 GHz ≤ f < 5th harmonic of the upper frequency edge of the UL operating band in GHz	–30 dBm	1 MHz	1
12.75 GHz < f < 26 GHz	–30 dBm	1 MHz	2
NOTE 1: Applies for Band that the upper frequency edge of the UL Band more than 2.69 GHz. NOTE 2: Applies for Band that the upper frequency edge of the UL Band more than 5.2 GHz. NOTE 3: Applies for Band n41, CA configurations including Band n41, and EN-DC configurations that include n41 specified in clause 5.2B of TS 36.101 [5] when NS_04 is signalled. NOTE 4: Does not apply for Band n41, CA configurations including Band n41, and EN-DC configurations that include n41 specified in subclause 5.2B of TS 38.101-3 [4] when NS_04 is signalled.			

对于带内不连续EN-DC，一般杂散发射限值在TS 38.521-3 [8]中的第6.5B.3.2.1.5节定义。

6.5B.3.2.1.5 Test Requirement

Same test requirement as in clause 6.5B.3.1.1.5.

6.5B.3.1.1.5 Test Requirement

The measured average power of spurious emission, derived in step 5, shall not exceed the described value in Table 6.5B.3.1.1.5-1.

Unless otherwise stated, the spurious emission limits apply for the frequency ranges that are more than Δf_{OOB} (MHz) from the edge of the channel bandwidth shown in Table 6.5.3.1.3-1 of TS 38.521-1 [8] for NR carrier, and Table 6.6.3.1.3-1 of TS 36.521-1[10] for E-UTRA carrier.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.5B.3.1.1.5-1: General spurious emissions test requirements

Frequency Range	Maximum Level	Measurement bandwidth	NOTE
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz	
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	4
	–25 dBm	1 MHz	3
12.75 GHz ≤ f < 5th harmonic of the upper frequency edge of the UL operating band in GHz	–30 dBm	1 MHz	1
12.75 GHz < f < 26 GHz	–30 dBm	1 MHz	2

NOTE 1: Applies for Band that the upper frequency edge of the UL Band more than 2.69 GHz.
NOTE 2: Applies for Band that the upper frequency edge of the UL Band more than 5.2 GHz.
NOTE 3: Applies for Band n41, CA configurations including Band n41, and EN-DC configurations that include n41 specified in clause 5.2B of TS 36.101 [5] when NS_04 is signalled.
NOTE 4: Does not apply for Band n41, CA configurations including Band n41, and EN-DC configurations that include n41 specified in subclause 5.2B of TS 38.101-3 [4] when NS_04 is signalled.

对于FR1中的频段间EN-DC，一般杂散发射限值在TS 38.521-3 [8]的表6.5B.3.3.1.5-1中定义。

Table 6.5B.3.3.1.5-1: General spurious emissions test requirements

Frequency Range	Maximum Level	Measurement Bandwidth	Note
Test requirements for DC_1A_n3A configuration			
135 MHz ≤ f ≤ 270 MHz	–36 dBm	100 kHz	
1 440 MHz ≤ f ≤ 1 650 MHz 2 055 MHz ≤ f ≤ 2 250 MHz 3 630 MHz ≤ f ≤ 3 765 MHz 5 340 MHz ≤ f ≤ 5 745 MHz	–30 dBm	1 MHz	
Test requirements for DC_1A_n5A configuration			
222 MHz ≤ f ≤ 332 MHz	–36 dBm	100 kHz	
1 071 MHz ≤ f ≤ 1 156 MHz 2 744 MHz ≤ f ≤ 2 829 MHz 2 991 MHz ≤ f ≤ 3 136 MHz 3 568 MHz ≤ f ≤ 3 678 MHz 4 664 MHz ≤ f ≤ 4 809 MHz	–30 dBm	1 MHz	
Test requirements for DC_1A_n7A configuration			
520 MHz ≤ f ≤ 650 MHz	–36 dBm	100 kHz	
1 270 MHz ≤ f ≤ 1 460 MHz 3 020 MHz ≤ f ≤ 3 220 MHz 4 420 MHz ≤ f ≤ 4 550 MHz 6 340 MHz ≤ f ≤ 6 530 MHz 6 920 MHz ≤ f ≤ 7 120 MHz	–30 dBm	1 MHz	
Test requirements for DC_1A_n8A configuration			
90 MHz ≤ f ≤ 220 MHz	–36 dBm	100 kHz	
1 005 MHz ≤ f ≤ 1 100 MHz 2 800 MHz ≤ f ≤ 2 895 MHz 2 925 MHz ≤ f ≤ 3 080 MHz 3 680 MHz ≤ f ≤ 3 810 MHz 4 720 MHz ≤ f ≤ 4 875 MHz	–30 dBm	1 MHz	
Test requirements for DC_1A_n28A configuration			
424 MHz ≤ f ≤ 574 MHz	–36 dBm	100 kHz	
1 172 MHz ≤ f ≤ 1 277 MHz 2 623 MHz ≤ f ≤ 2 728 MHz 3 092 MHz ≤ f ≤ 3 257 MHz 3 326 MHz ≤ f ≤ 3 476 MHz 4 543 MHz ≤ f ≤ 4 708 MHz	–30 dBm	1 MHz	
Test requirements for DC_1A_n77A Configuration			
360 MHz ≤ f ≤ 660 MHz	–36 dBm	100 kHz	
1 320 MHz ≤ f ≤ 2 280 MHz 4 620 MHz ≤ f ≤ 6 480 MHz 7 140 MHz ≤ f ≤ 8 160 MHz 8 520 MHz ≤ f ≤ 10 380 MHz	–30 dBm	1 MHz	
Test requirements for DC_1A_n78A Configuration			
40 MHz ≤ f ≤ 660 MHz	–36 dBm	100 kHz	
1 320 MHz ≤ f ≤ 1 880 MHz 4 620 MHz ≤ f ≤ 5 780 MHz 7 140 MHz ≤ f ≤ 7 760 MHz 8 520 MHz ≤ f ≤ 9 580 MHz	–30 dBm	1 MHz	
Test requirements for DC_1A_n79A Configuration			
440 MHz ≤ f ≤ 1 000 MHz	–36 dBm	100 kHz	
1 000 MHz ≤ f ≤ 1 160 MHz 2 420 MHz ≤ f ≤ 3 080 MHz 6 320 MHz ≤ f ≤ 8 080 MHz 8 240 MHz ≤ f ≤ 8 960 MHz 10 720 MHz ≤ f ≤ 11 980 MHz	–30 dBm	1 MHz	
Test requirements for DC_2A_n5A Configuration			
152 MHz ≤ f ≤ 262 MHz	–36 dBm	100 kHz	
2 674 MHz ≤ f ≤ 2 759 MHz 2 851 MHz ≤ f ≤ 2 996 MHz 3 498 MHz ≤ f ≤ 3 608 MHz	–30 dBm	1 MHz	

4 524 MHz ≤ f ≤ 4 669 MHz			
Test requirements for DC_2A_n71A Configuration			
454 MHz ≤ f ≤ 584 MHz	–36 dBm	100 kHz	
1 152 MHz ≤ f ≤ 1 247 MHz 2 513 MHz ≤ f ≤ 2 608 MHz 3 002 MHz ≤ f ≤ 3 157 MHz 3 176 MHz ≤ f ≤ 3 306 MHz 4 363 MHz ≤ f ≤ 4 518 MHz	–30 dBm	1 MHz	
Test requirements for DC_2A_n77A Configuration			
500 MHz ≤ f ≤ 520 MHz	–36 dBm	100 kHz	
1 390 MHz ≤ f ≤ 2 350 MHz 4 690 MHz ≤ f ≤ 6 550 MHz 7 000 MHz ≤ f ≤ 8 020 MHz 8 450 MHz ≤ f ≤ 10 310 MHz	–30 dBm	1 MHz	
Test requirements for DC_3A_n1A Configuration			
135 MHz ≤ f ≤ 270 MHz	–36 dBm	100 kHz	
1 440 MHz ≤ f ≤ 1 650 MHz 2 055 MHz ≤ f ≤ 2 250 MHz 3 630 MHz ≤ f ≤ 3 765 MHz 5 340 MHz ≤ f ≤ 5 745 MHz	–30 dBm	1 MHz	
Test requirements for DC_3A_n5A Configuration			
12 MHz ≤ f ≤ 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f ≤ 137 MHz 861 MHz ≤ f ≤ 961 MHz	–36 dBm	100 kHz	
2 534 MHz ≤ f ≤ 2 746 MHz 3 358 MHz ≤ f ≤ 3 483 MHz 4 244 MHz ≤ f ≤ 4 419 MHz	–30 dBm	1 MHz	
Test requirements for DC_3A_n7A Configuration			
715 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 000 MHz ≤ f ≤ 1 070 MHz 3 215 MHz ≤ f ≤ 3 430 MHz 4 210 MHz ≤ f ≤ 4 355 MHz 5 920 MHz ≤ f ≤ 6 140 MHz 6 710 MHz ≤ f ≤ 6 925 MHz	–30 dBm	1 MHz	
Test requirements for DC_3A_n28A Configuration			
214 MHz ≤ f ≤ 379 MHz 962 MHz ≤ f ≤ 1 000 MHz	–36 dBm	100 kHz	
1 000 MHz ≤ f ≤ 1 082 MHz 2 413 MHz ≤ f ≤ 2 533 MHz 2 672 MHz ≤ f ≤ 2 867 MHz 3 116 MHz ≤ f ≤ 3 281 MHz 4 123 MHz ≤ f ≤ 4 318 MHz	–30 dBm	1 MHz	
Test requirements for DC_3A_n41A Configuration			
711 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 000 MHz ≤ f ≤ 1 074 MHz 3 207 MHz ≤ f ≤ 3 670 MHz 4 206 MHz ≤ f ≤ 4 475 MHz 5 916 MHz ≤ f ≤ 6 260 MHz 6 702 MHz ≤ f ≤ 7 165 MHz	–30 dBm	1 MHz	2
1 000 MHz ≤ f ≤ 1 074 MHz 3 207 MHz ≤ f ≤ 3 670 MHz 4 206 MHz ≤ f ≤ 4 475 MHz 5 916 MHz ≤ f ≤ 6 260 MHz 6 702 MHz ≤ f ≤ 7 165 MHz	–25 dBm	1 MHz	1
Test requirements for DC_3A_n77A Configuration			
270 MHz ≤ f ≤ 780 MHz	–36 dBm	100 kHz	
1 515 MHz ≤ f ≤ 2 490 MHz 4 815 MHz ≤ f ≤ 6 690 MHz 6 720 MHz ≤ f ≤ 7 770 MHz 8 310 MHz ≤ f ≤ 10 185 MHz	–30 dBm	1 MHz	
Test requirements for DC_3A_n78A Configuration			
270 MHz ≤ f ≤ 380 MHz	–36 dBm	100 kHz	
1 515 MHz ≤ f ≤ 2 090 MHz 4 815 MHz ≤ f ≤ 5 890 MHz	–30 dBm	1 MHz	

6 720 MHz ≤ f ≤ 7 370 MHz 8 310 MHz ≤ f ≤ 9 385 MHz			
Test requirements for DC_3A_n79A Configuration			
830 MHz ≤ f ≤ 1 000 MHz	–36 dBm	100 kHz	
1 000 MHz ≤ f ≤ 1 580 MHz 2 615 MHz ≤ f ≤ 3 290 MHz 6 110 MHz ≤ f ≤ 6 785 MHz 7 015 MHz ≤ f ≤ 8 570 MHz 10 510 MHz ≤ f ≤ 11 785 MHz	–30 dBm	1 MHz	
Test requirements for DC_5A_n2A Configuration			
152 MHz ≤ f ≤ 262 MHz	–36 dBm	100 kHz	
1 001 MHz ≤ f ≤ 1 086 MHz 2 674 MHz ≤ f ≤ 2 759 MHz 2 851 MHz ≤ f ≤ 2 996 MHz 3 498 MHz ≤ f ≤ 3 608 MHz 4 524 MHz ≤ f ≤ 4 669 MHz	–30 dBm	1 MHz	
Test requirements for DC_5A_n66A Configuration			
12 MHz ≤ f ≤ 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f ≤ 132 MHz 861 MHz ≤ f ≤ 956 MHz	–36 dBm	100 kHz	
2 534 MHz ≤ f ≤ 2 736 MHz 3 358 MHz ≤ f ≤ 3 478 MHz 4 244 MHz ≤ f ≤ 4 409 MHz	–30 dBm	1 MHz	
Test requirements for DC_5A_n77A Configuration			
1 602 MHz ≤ f ≤ 3 376 MHz 4 124 MHz ≤ f ≤ 9 249 MHz	–30 dBm	1 MHz	
Test requirements for DC_5A_n78A Configuration			
1 602 MHz ≤ f ≤ 2 152 MHz 2 451 MHz ≤ f ≤ 2 976 MHz 4 124 MHz ≤ f ≤ 4 649 MHz 4 948 MHz ≤ f ≤ 5 498 MHz 5 751 MHz ≤ f ≤ 6 776 MHz 7 424 MHz ≤ f ≤ 8 449 MHz	–30 dBm	1 MHz	
Test requirements for DC_7A_n1A Configuration			
520 MHz ≤ f ≤ 650 MHz	–36 dBm	100 kHz	
1 270 MHz ≤ f ≤ 1 460 MHz 3 020 MHz ≤ f ≤ 3 220 MHz 4 420 MHz ≤ f ≤ 4 550 MHz 6 340 MHz ≤ f ≤ 6 530 MHz 6 920 MHz ≤ f ≤ 7 120 MHz	–30 dBm	1 MHz	
Test requirements for DC_7A_n3A Configuration			
715 MHz ≤ f < 1000 MHz	–36 dBm	100 kHz	
1 000 MHz ≤ f ≤ 1 070 MHz 3 215 MHz ≤ f ≤ 3 430 MHz 4 210 MHz ≤ f ≤ 4 355 MHz 5 920 MHz ≤ f ≤ 6 140 MHz 6 710 MHz ≤ f ≤ 6 925 MHz	–30 dBm	1 MHz	
Test requirements for DC_7A_n5A Configuration			
802 MHz ≤ f ≤ 922 MHz	–36 dBm	100 kHz	
1 651 MHz ≤ f ≤ 1 746 MHz 3 324 MHz ≤ f ≤ 3 419 MHz 4 148 MHz ≤ f ≤ 4 316 MHz 5 824 MHz ≤ f ≤ 5 989 MHz	–30 dBm	1 MHz	
Test requirements for DC_7A_n8A Configuration			
670 MHz ≤ f ≤ 810 MHz	–36 dBm	100 kHz	
1 585 MHz ≤ f ≤ 1 690 MHz 3 380 MHz ≤ f ≤ 3 485 MHz 4 085 MHz ≤ f ≤ 4 400 MHz 5 880 MHz ≤ f ≤ 6 055 MHz	–30 dBm	1 MHz	
Test requirements for DC_7A_n28A Configuration			
1 004 MHz ≤ f ≤ 1 164 MHz 1 752 MHz ≤ f ≤ 1 867 MHz 3 203 MHz ≤ f ≤ 3 318 MHz 3 906 MHz ≤ f ≤ 4 066 MHz 4 252 MHz ≤ f ≤ 4 437 MHz 5 703 MHz ≤ f ≤ 5 888 MHz	–30 dBm	1 MHz	
Test requirements for DC_7A_n78A Configuration			

730 MHz ≤ f ≤ 1 000 MHz	–36 dBm	100 kHz	
1 000 MHz ≤ f ≤ 1 840 MHz 4 030 MHz ≤ f ≤ 5 100 MHz 5 800 MHz ≤ f ≤ 6 370 MHz 8 300 MHz ≤ f ≤ 8 940 MHz 9 100 MHz ≤ f ≤ 10 170 MHz	–30 dBm	1 MHz	
Test requirements for DC_8A_n1A Configuration			
90 MHz ≤ f ≤ 220 MHz	–36 dBm	100 kHz	
1 005 MHz ≤ f ≤ 1 100 MHz 2 800 MHz ≤ f ≤ 2 895 MHz 2 925 MHz ≤ f ≤ 3 080 MHz 3 680 MHz ≤ f ≤ 3 810 MHz 4 720 MHz ≤ f ≤ 4 875 MHz	–30 dBm	1 MHz	
Test requirements for DC_8A_n3A Configuration			
25 MHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f ≤ 120 MHz 795 MHz ≤ f ≤ 905 MHz	–36 dBm	100 kHz	
2 505 MHz ≤ f ≤ 2 700 MHz 3 470 MHz ≤ f ≤ 3 615 MHz 4 300 MHz ≤ f ≤ 4 485 MHz	–30 dBm	1 MHz	
Test requirements for DC_8A_n20A Configuration			
18 MHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f ≤ 83 MHz 749 MHz ≤ f ≤ 844 MHz 898 MHz ≤ f ≤ 998 MHz	–36 dBm	100 kHz	
1 712 MHz ≤ f ≤ 1 777 MHz 2 544 MHz ≤ f ≤ 2 692 MHz	–30 dBm	1 MHz	
Test requirements for DC_8A_n28A Configuration			
132 MHz ≤ f ≤ 212 MHz 491 MHz ≤ f ≤ 616 MHz	–36 dBm	100 kHz	
1 012 MHz ≤ f ≤ 1 127 MHz 1 583 MHz ≤ f ≤ 1 663 MHz 2 286 MHz ≤ f ≤ 2 411 MHz 2 463 MHz ≤ f ≤ 2 578 MHz	–30 dBm	1 MHz	
Test requirements for DC_8A_n41A Configuration			
666 MHz ≤ f < 930 MHz	–36 dBm	100 kHz	
1 581 MHz ≤ f ≤ 1 810 MHz 3 376 MHz ≤ f ≤ 3 605 MHz 4 077 MHz ≤ f ≤ 4 520 MHz 5 872 MHz ≤ f ≤ 6 295 MHz	–30 dBm	1 MHz	2
1 581 MHz ≤ f ≤ 1 810 MHz 3 376 MHz ≤ f ≤ 3 605 MHz 4 077 MHz ≤ f ≤ 4 520 MHz 5 872 MHz ≤ f ≤ 6 295 MHz	–25 dBm	1 MHz	1
Test requirements for DC_8A_n77A Configuration			
1 470 MHz ≤ f ≤ 3 320 MHz 4 180 MHz ≤ f ≤ 9 315 MHz	–30 dBm	1 MHz	
Test requirements for DC_8A_n78A Configuration			
1 470 MHz ≤ f ≤ 2 040 MHz 2 385 MHz ≤ f ≤ 2 920 MHz 4 180 MHz ≤ f ≤ 4 715 MHz 5 060 MHz ≤ f ≤ 5 630 MHz 5 685 MHz ≤ f ≤ 6 720 MHz 7 480 MHz ≤ f ≤ 8 515 MHz	–30 dBm	1 MHz	
Test requirements for DC_11A_n77A Configuration			
404.2 MHz ≤ f ≤ 1000 MHz	–36 dBm	100 kHz	
1 000 MHz ≤ f ≤ 1 344.2 MHz 1 852.1 MHz ≤ f ≤ 2 772.1 MHz 4 727.9 MHz ≤ f ≤ 7 095.8 MHz 8 027.9 MHz ≤ f ≤ 9 847.9 MHz	–30 dBm	1 MHz	
Test requirements for DC_11A_n78A Configuration			
404.2 MHz ≤ f ≤ 944.2 MHz	–36 dBm	100 kHz	
1 852.1 MHz ≤ f ≤ 2 372.1 MHz 4 727.9 MHz ≤ f ≤ 6 695.8 MHz 8 027.9 MHz ≤ f ≤ 9 047.9 MHz	–30 dBm	1 MHz	
Test requirements for DC_11A_n79A Configuration			

1 504.2 MHz ≤ f ≤ 2 144.2 MHz 2 952.1 MHz ≤ f ≤ 3 572.1 MHz 5 827.9 MHz ≤ f ≤ 6 447.9 MHz 7 255.8 MHz ≤ f ≤ 8 572.1 MHz 10 227.9 MHz ≤ f ≤ 11 447.9 MHz	–30 dBm	1 MHz	
Test requirements for DC_12A_n66A Configuration			
278 MHz ≤ f ≤ 382 MHz 994 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 000 MHz ≤ f ≤ 1 081 MHz 2 409 MHz ≤ f ≤ 2 496 MHz 2 704 MHz ≤ f ≤ 2 861 MHz 3 108 MHz ≤ f ≤ 3 212 MHz 4 119 MHz ≤ f ≤ 4 276 MHz	–30 dBm	1 MHz	
Test requirements for DC_12A_n78A Configuration			
1 868 MHz ≤ f ≤ 2 402 MHz 2 584 MHz ≤ f ≤ 3 101 MHz 3 999 MHz ≤ f ≤ 4 516 MHz 4 698 MHz ≤ f ≤ 5 232 MHz 5 884 MHz ≤ f ≤ 6 901 MHz 7 299 MHz ≤ f ≤ 8 316 MHz	–30 dBm	1 MHz	
Test requirements for DC_13A_n2A Configuration			
276 MHz ≤ f ≤ 356 MHz	–36 dBm	100 kHz	
1063 MHz ≤ f ≤ 1133 MHz 2627 MHz ≤ f ≤ 2697 MHz 2913 MHz ≤ f ≤ 3043 MHz 3404 MHz ≤ f ≤ 3484 MHz 4477 MHz ≤ f ≤ 4607 MHz	–30 dBm	1 MHz	
Test requirements for DC_13A_n66A Configuration			
136 MHz ≤ f ≤ 226 MHz 923 MHz ≤ f ≤ 1 000 MHz	–36 dBm	100 kHz	
1 000 MHz ≤ f ≤ 1 003 MHz 2 487 MHz ≤ f ≤ 2 567 MHz 2 633 MHz ≤ f ≤ 2 783 MHz 3 264 MHz ≤ f ≤ 3 354 MHz 4 197 MHz ≤ f ≤ 4 347 MHz	–30 dBm	1 MHz	
Test requirements for DC_13A_n77A Configuration			
1 726 MHz ≤ f ≤ 3 423 MHz 4 077 MHz ≤ f ≤ 5 774 MHz 5 813 MHz ≤ f ≤ 9 187 MHz	–30 dBm	1 MHz	
Test requirements for DC_14A_n2A Configuration			
254 MHz ≤ f ≤ 334 MHz	–36 dBm	100 kHz	
1 052 MHz ≤ f ≤ 1 122 MHz 2 638 MHz ≤ f ≤ 2 708 MHz 2 902 MHz ≤ f ≤ 3 032 MHz 3 426 MHz ≤ f ≤ 3 506 MHz 4 488 MHz ≤ f ≤ 4 618 MHz	–30 dBm	1 MHz	
Test requirements for DC_14A_n66A Configuration			
114 MHz ≤ f ≤ 204 MHz 912 MHz ≤ f ≤ 992 MHz	–36 dBm	100 kHz	
2 498 MHz ≤ f ≤ 2 578 MHz 2 622 MHz ≤ f ≤ 2 772 MHz 3 286 MHz ≤ f ≤ 3 376 MHz 4 208 MHz ≤ f ≤ 4 358 MHz	–30 dBm	1 MHz	
Test requirements for DC_19A_n1A Configuration			
230 MHz <= f <= 320 MHz	–36 dBm	100 kHz	
1 075 MHz <= f <= 1 150 MHz 2 750 MHz <= f <= 2 825 MHz 2 995 MHz <= f <= 3 130 MHz 3 580 MHz <= f <= 3 670 MHz 4 670 MHz <= f <= 4 805 MHz	–30 dBm	1 MHz	
Test requirements for DC_19A_n77A Configuration			
1 610 MHz ≤ f ≤ 3 370 MHz 4 130 MHz ≤ f ≤ 5 890 MHz 5 755 MHz ≤ f ≤ 9 245 MHz	–30 dBm	1 MHz	
Test requirements for DC_19A_n78A Configuration			

1 610 MHz ≤ f ≤ 2 140 MHz 2 455 MHz ≤ f ≤ 2 970 MHz 4 130 MHz ≤ f ≤ 4 645 MHz 4 960 MHz ≤ f ≤ 5 490 MHz 5 755 MHz ≤ f ≤ 6 770 MHz 7 430 MHz ≤ f ≤ 8 445 MHz	–30 dBm	1 MHz	
Test requirements for DC_19A_n79A Configuration			
2 710 MHz ≤ f ≤ 3 340 MHz 3 555 MHz ≤ f ≤ 4 170 MHz 5 230 MHz ≤ f ≤ 5 845 MHz 6 060 MHz ≤ f ≤ 6 690 MHz 7 955 MHz ≤ f ≤ 9 170 MHz 9 630 MHz ≤ f ≤ 10 845 MHz	–30 dBm	1 MHz	
Test requirements for DC_20A_n1A Configuration			
196 MHz ≤ f ≤ 316 MHz	–36 dBm	100 kHz	
1 058 MHz ≤ f ≤ 1 148 MHz 2 752 MHz ≤ f ≤ 2 842 MHz 2 978 MHz ≤ f ≤ 3 128 MHz 3 584 MHz ≤ f ≤ 3 704 MHz 4 672 MHz ≤ f ≤ 4 822 MHz	–30 dBm	1 MHz	
Test requirements for DC_20A_n3A Configuration			
14 MHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f ≤ 121 MHz 848 MHz ≤ f ≤ 953 MHz	–36 dBm	100 kHz	
2 542 MHz ≤ f ≤ 2 738 MHz 3 374 MHz ≤ f ≤ 3 509 MHz 4 252 MHz ≤ f ≤ 4 432 MHz	–30 dBm	1 MHz	
Test requirements for DC_20A_n7A Configuration			
776 MHz ≤ f ≤ 906 MHz	–36 dBm	100 kHz	
1 638 MHz ≤ f ≤ 1 738 MHz 3 332 MHz ≤ f ≤ 3 432 MHz 4 138 MHz ≤ f ≤ 4 308 MHz 5 832 MHz ≤ f ≤ 6 002 MHz	–30 dBm	1 MHz	
Test requirements for DC_20A_n8A Configuration			
18 MHz ≤ f < 30 MHz	–36 dBm	10 kHz	
30 MHz ≤ f ≤ 83 MHz 749 MHz ≤ f ≤ 844 MHz 898 MHz ≤ f ≤ 998 MHz	–36 dBm	100 kHz	
1 712 MHz ≤ f ≤ 1 777 MHz 2 544 MHz ≤ f ≤ 2 692 MHz	–30 dBm	1 MHz	
Test requirements for DC_20A_n28A Configuration			
84 MHz ≤ f ≤ 159 MHz 544 MHz ≤ f ≤ 664 MHz 916 MHz ≤ f ≤ 1 000 MHz	–36 dBm	100 kHz	
1 000 MHz ≤ f ≤ 1 021 MHz 1 535 MHz ≤ f ≤ 1 610 MHz 2 238 MHz ≤ f ≤ 2 358 MHz 2 367 MHz ≤ f ≤ 2 472 MHz	–30 dBm	1 MHz	
Test requirements for DC_20A_n78A Configuration			
1 576 MHz ≤ f ≤ 2 136 MHz 2 438 MHz ≤ f ≤ 2 968 MHz 4 132 MHz ≤ f ≤ 4 662 MHz 4 964 MHz ≤ f ≤ 5 524 MHz 5 738 MHz ≤ f ≤ 6 768 MHz 7 432 MHz ≤ f ≤ 8 462 MHz	–30 dBm	1 MHz	
Test requirements for DC_21A_n1A Configuration			
457.1 MHz ≤ f ≤ 532.1 MHz 915.8 MHz ≤ f ≤ 1 000 MHz	–36 dBm	100 kHz	
2 377.1 MHz ≤ f ≤ 2 512.1 MHz 3 367.9 MHz ≤ f ≤ 3 442.9 MHz 4 815.8 MHz ≤ f ≤ 4 905.8 MHz 5 287.9 MHz ≤ f ≤ 5 422.9 MHz	–30 dBm	1 MHz	
Test requirements for DC_21A_n77A Configuration			
374.2 MHz ≤ f ≤ 1 000 MHz	–36 dBm	100 kHz	
1 000 MHz ≤ f ≤ 1 304.2 MHz 1 837.1 MHz ≤ f ≤ 2 752.1 MHz	–30 dBm	1 MHz	

4 747.9 MHz ≤ f ≤ 7 125.8 MHz 8 047.9 MHz ≤ f ≤ 9 862.9 MHz			
Test requirements for DC_21A_n78A Configuration			
374.2 MHz ≤ f ≤ 904.2 MHz	–36 dBm	100 kHz	
1 837.1 MHz ≤ f ≤ 2 352.1 MHz 4 747.9 MHz ≤ f ≤ 6 152.1 MHz 6 195.8 MHz ≤ f ≤ 6 725.8 MHz 8 047.9 MHz ≤ f ≤ 9 062.9 MHz	–30 dBm	1 MHz	
Test requirements for DC_21A_n79A Configuration			
1474.2 MHz ≤ f ≤ 2 104.2 MHz 2937.1 MHz ≤ f ≤ 3 552.1 MHz 5847.9 MHz ≤ f ≤ 6 462.9 MHz 7 295.8 MHz ≤ f ≤ 8 552.1 MHz 10 247.9 MHz ≤ f ≤ 11 462.9 MHz	–30 dBm	1 MHz	
Test requirements for DC_25A_n41A Configuration			
581 MHz ≤ f ≤ 840 MHz	–36 dBm	100 kHz	
1 010 MHz ≤ f ≤ 1 334 MHz 3 077 MHz ≤ f ≤ 3 530 MHz 4 346 MHz ≤ f ≤ 4 605 MHz 6 196 MHz ≤ f ≤ 6 520 MHz 6 842 MHz ≤ f ≤ 7 295 MHz	–30 dBm	1 MHz	2
1 010 MHz ≤ f ≤ 1 334 MHz 3 077 MHz ≤ f ≤ 3 530 MHz 4 346 MHz ≤ f ≤ 4 605 MHz 6 196 MHz ≤ f ≤ 6 520 MHz 6 842 MHz ≤ f ≤ 7 295 MHz	–25 dBm	1 MHz	1
Test requirements for DC_26A_n41A Configuration			
798 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 000 MHz ≤ f ≤ 1 062 MHz 1 647 MHz ≤ f ≤ 1 876 MHz 3 310 MHz ≤ f ≤ 3 539 MHz 4 124 MHz ≤ f ≤ 4 566 MHz 5 806 MHz ≤ f ≤ 6 229 MHz	–30 dBm	1 MHz	2
1 000 MHz ≤ f ≤ 1 062 MHz 1 647 MHz ≤ f ≤ 1 876 MHz 3 310 MHz ≤ f ≤ 3 539 MHz 4 124 MHz ≤ f ≤ 4 566 MHz 5 806 MHz ≤ f ≤ 6 229 MHz	–25 dBm	1 MHz	1
Test requirements for DC_26A_n77A Configuration			
1 602 MHz ≤ f ≤ 3 386 MHz 4 114 MHz ≤ f ≤ 5 898 MHz 5 751 MHz ≤ f ≤ 9 249 MHz	–30 dBm	1 MHz	
Test requirements for DC_26A_n78A Configuration			
1 602 MHz ≤ f ≤ 2 172 MHz 2 451 MHz ≤ f ≤ 2 986 MHz 4 114 MHz ≤ f ≤ 4 649 MHz 4 928 MHz ≤ f ≤ 5 498 MHz 5 751 MHz ≤ f ≤ 6 786 MHz 7 414 MHz ≤ f ≤ 8 449 MHz	–30 dBm	1 MHz	
Test requirements for DC_26A_n79A Configuration			
2 702 MHz ≤ f ≤ 3 372 MHz 3 551 MHz ≤ f ≤ 4 186 MHz 5 214 MHz ≤ f ≤ 5 849 MHz 6 028 MHz ≤ f ≤ 6 698 MHz 7 951 MHz ≤ f ≤ 9 186 MHz 9 614 MHz ≤ f ≤ 10 849 MHz	–30 dBm	1 MHz	
Test requirements for DC_28A_n3A Configuration			
214 MHz ≤ f ≤ 379 MHz 962 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz	
1 000 MHz ≤ f ≤ 1 082 MHz 2 413 MHz ≤ f ≤ 2 533 MHz 2 672 MHz ≤ f ≤ 2 867 MHz 3 116 MHz ≤ f ≤ 3 281 MHz 4 123 MHz ≤ f ≤ 4 318 MHz	–30 dBm	1 MHz	
Test requirements for DC_28A_n5A Configuration			
76 MHz ≤ f ≤ 146 MHz	–36 dBm	100 kHz	

557 MHz ≤ f ≤ 672 MHz 900 MHz ≤ f ≤ 995 MHz			
1 527 MHz ≤ f ≤ 1 597 MHz 2 230 MHz ≤ f ≤ 2 345 MHz 2 351 MHz ≤ f ≤ 2 446 MHz	–30 dBm	1 MHz	
Test requirements for DC_28A_n7A Configuration			
1 004 MHz ≤ f ≤ 1 164 MHz 1 752 MHz ≤ f ≤ 1 867 MHz 3 203 MHz ≤ f ≤ 3 318 MHz 3 906 MHz ≤ f ≤ 4 066 MHz 4 252 MHz ≤ f ≤ 4 437 MHz 5 703 MHz ≤ f ≤ 5 888 MHz	–30 dBm	1 MHz	
Test requirements for DC_28A_n77A Configuration			
1 804 MHz ≤ f ≤ 3 497 MHz 4 003 MHz ≤ f ≤ 5 696 MHz 5 852 MHz ≤ f ≤ 9 148 MHz	–30 dBm	1 MHz	
Test requirements for DC_28A_n78A Configuration			
1804 MHz ≤ f ≤ 2394 MHz 2552 MHz ≤ f ≤ 3097 MHz 4003 MHz ≤ f ≤ 4548 MHz 4706 MHz ≤ f ≤ 5296 MHz 5852 MHz ≤ f ≤ 6897 MHz 7303 MHz ≤ f ≤ 8348 MHz	–30 dBm	1 MHz	
Test requirements for DC_28A_n79A Configuration			
2 904 MHz ≤ f ≤ 3 594 MHz 3 652 MHz ≤ f ≤ 4 297 MHz 5 103 MHz ≤ f ≤ 5 748 MHz 5 806 MHz ≤ f ≤ 6 496 MHz 8 052 MHz ≤ f ≤ 9 297 MHz 9 503 MHz ≤ f ≤ 10 748 MHz	–30 dBm	1 MHz	
Test requirements for DC_30A_n5A Configuration			
607 MHz ≤ f ≤ 667 MHz	–36 dBm	100 kHz	
1 456 MHz ≤ f ≤ 1 491 MHz 3 129 MHz ≤ f ≤ 3 164 MHz 3 761 MHz ≤ f ≤ 3 806 MHz 3 953 MHz ≤ f ≤ 4 013 MHz 5 434 MHz ≤ f ≤ 5 479 MHz	–30 dBm	1 MHz	
Test requirements for DC_39A_n41A Configuration			
576 MHz ≤ f < 810 MHz	–36 dBm	100 kHz	
1 070 MHz ≤ f ≤ 1 344 MHz 3 072 MHz ≤ f ≤ 3 500 MHz 4 376 MHz ≤ f ≤ 4 610 MHz 6 256 MHz ≤ f ≤ 6 530 MHz 6 872 MHz ≤ f ≤ 7 300 MHz	–30 dBm	1 MHz	2
1 070 MHz ≤ f ≤ 1 344 MHz 3 072 MHz ≤ f ≤ 3 500 MHz 4 376 MHz ≤ f ≤ 4 610 MHz 6 256 MHz ≤ f ≤ 6 530 MHz 6 872 MHz ≤ f ≤ 7 300 MHz	–25 dBm	1 MHz	1
Test requirements for DC_39A_n79A Configuration			
560 MHz ≤ f ≤ 1000 MHz	–36 dBm	100 kHz	
1 000 MHz ≤ f ≤ 1 240 MHz 2 480 MHz ≤ f ≤ 3 120 MHz 6 280 MHz ≤ f ≤ 8 120 MHz 8 160 MHz ≤ f ≤ 8 840 MHz 10 680 MHz ≤ f ≤ 11 920 MHz	–30 dBm	1 MHz	
Test requirements for DC_40A_n1A Configuration			
320 MHz ≤ f ≤ 480 MHz	–36 dBm	100 kHz	
1 440 MHz ≤ f ≤ 1 660 MHz 2 620 MHz ≤ f ≤ 2 880 MHz 4 220 MHz ≤ f ≤ 4 380 MHz 6 140 MHz ≤ f ≤ 6 360 MHz 6 520 MHz ≤ f ≤ 6 780 MHz	–30 dBm	1 MHz	
Test requirements for DC_40A_n41A Configuration			
96 MHz ≤ f < 390 MHz	–36 dBm	100 kHz	
1 910 MHz ≤ f ≤ 2 304 MHz 2 592 MHz ≤ f ≤ 3 080 MHz	–30 dBm	1 MHz	2

	4 796 MHz ≤ f ≤ 5 090 MHz 7 096 MHz ≤ f ≤ 7 780 MHz			
	1 910 MHz ≤ f ≤ 2 304 MHz 2 592 MHz ≤ f ≤ 3 080 MHz 4 796 MHz ≤ f ≤ 5 090 MHz 7 096 MHz ≤ f ≤ 7 780 MHz	–25 dBm	1 MHz	1
	Test requirements for DC_40A_n78A Configuration			
	800 MHz ≤ f ≤ 1 000 MHz	–36 dBm	100 kHz	
	1 000 MHz ≤ f ≤ 1 500 MHz 4 200 MHz ≤ f ≤ 5 300 MHz 5 600 MHz ≤ f ≤ 6 200 MHz 7 900 MHz ≤ f ≤ 8 600 MHz 8 900 MHz ≤ f ≤ 10 000 MHz	–30 dBm	1 MHz	
	Test requirements for DC_40A_n79A Configuration			
	2 000 MHz ≤ f ≤ 2 700 MHz 6 400 MHz ≤ f ≤ 7 700 MHz 9 000 MHz ≤ f ≤ 9 800 MHz 11 100 MHz ≤ f ≤ 12 400 MHz	–30 dBm	1 MHz	
	Test requirements for DC_41A_n77A Configuration			
	610 MHz ≤ f ≤ 1 000 MHz	–36 dBm	100 kHz	
	1 000 MHz ≤ f ≤ 2 080 MHz 3 910 MHz ≤ f ≤ 6 890 MHz 8 292 MHz ≤ f ≤ 11 090 MHz	–30 dBm	1 MHz	
	Test requirements for DC_41A_n78A Configuration			
	610 MHz ≤ f ≤ 1000 MHz	–36 dBm	100 kHz	
	1 000 MHz ≤ f ≤ 2 080 MHz 3 910 MHz ≤ f ≤ 5 104 MHz 5 796 MHz ≤ f ≤ 6 490 MHz 8 292 MHz ≤ f ≤ 10 290 MHz	–30 dBm	1 MHz	
	Test requirements for DC_41A_n79A Configuration			
	8 MHz ≤ f ≤ 30 MHz	–36 dBm	10 kHz	
	30 MHz ≤ f ≤ 980 MHz	–36 dBm	100 kHz	
	1 710 MHz ≤ f ≤ 2 504 MHz 6 110 MHz ≤ f ≤ 7 690 MHz 9 392 MHz ≤ f ≤ 10 380 MHz 11 296 MHz ≤ f ≤ 12 690 MHz	–30 dBm	1 MHz	
	Test requirements for DC_42A_n77A Configuration			
	300 MHz ≤ f ≤ 800 MHz	–36 dBm	100 kHz	
	2 600 MHz ≤ f ≤ 5 000 MHz 6 700 MHz ≤ f ≤ 7 800 MHz 10 000 MHz ≤ f ≤ 12 000 MHz	–30 dBm	1 MHz	
	Test requirements for DC_66A_n5A Configuration			
	12 MHz ≤ f ≤ 30 MHz	–36 dBm	10 kHz	
	30 MHz ≤ f ≤ 132 MHz 861 MHz ≤ f ≤ 956 MHz	–36 dBm	100 kHz	
	2 534 MHz ≤ f ≤ 2 736 MHz 3 358 MHz ≤ f ≤ 3 478 MHz 4 244 MHz ≤ f ≤ 4 409 MHz	–30 dBm	1 MHz	
	Test requirements for DC_66A_n71A Configuration			
	314 MHz ≤ f ≤ 454 MHz	–36 dBm	100 kHz	
	1 102 MHz ≤ f ≤ 1 117 MHz 2 373 MHz ≤ f ≤ 2 478 MHz 2 722 MHz ≤ f ≤ 2 897 MHz 3 036 MHz ≤ f ≤ 3 176 MHz 4 083 MHz ≤ f ≤ 4 258 MHz	–30 dBm	1 MHz	
	Test requirements for DC_66A_n77A Configuration			
	260 MHz ≤ f ≤ 780 MHz	–36 dBm	100 kHz	
	1 520 MHz ≤ f ≤ 2 490MHz 5 010 MHz ≤ f ≤ 6 690 MHz 6 720 MHz ≤ f ≤ 7 760 MHz 8 310 MHz ≤ f ≤ 10 180 MHz	–30 dBm	1 MHz	
	Test requirements for DC_66A_n78A Configuration			
	260 MHz ≤ f ≤ 380 MHz	–36 dBm	100 kHz	
	1 520 MHz ≤ f ≤ 2 090 MHz 4 820 MHz ≤ f ≤ 5 890 MHz 6 720 MHz ≤ f ≤ 7 360 MHz 8 310 MHz ≤ f ≤ 9 380 MHz	–30 dBm	1 MHz	

NOTE 1: Applies for Band n41, CA configurations including Band n41, and EN-DC configurations that include n41 specified in clause 5.2B of TS 36.101 [5] when NS_04 is signalled. NOTE 2: Does not apply for Band n41, CA configurations including Band n41, and EN-DC configurations that include n41 specified in subclause 5.2B of TS 38.101-3 [4] when NS_04 is signalled.	

对于包括FR2在内的频段间EN-DC，一般杂散发射限值在TS 38.521-3 [8]中的第6.5B.3.4.1.5和6.5B.3.4.1_1.1.5节定义。

6.5B.3.4.1.5 Test requirement

Same test requirement as in clause 6.5.3.1.5 in TS 38.521-2 [9] for the NR carrier.

6.5.3.1.5 Test requirement

This clause specifies the requirements for the specified *NR* band for Transmitter Spurious emissions requirement with frequency range as indicated in Table 6.5.3.1.5-1.

The maximum TRP power of spurious emission, measured using RMS detector, shall not exceed the described value in Table 6.5.3.1.5-1.

Unless otherwise stated, the spurious emission limits apply for the frequency ranges that are more than F_{OOB} (MHz) in Table 6.5.3.1.3-1 starting from the edge of the assigned *NR* channel bandwidth. The spurious emission limits in Table 6.5.3.1.5-1 apply for all transmitter band configurations (NRB) and channel bandwidths.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.5.3.1.5-1: Spurious emissions test requirements

Frequency Range	Maximum Level	Measurement bandwidth	NOTE
6 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	
12.75 GHz ≤ f ≤ 2nd harmonic of the upper frequency edge of the UL operating band in GHz	–13 dBm	1 MHz	
NOTE 1: Applies for Band n257, n258, n260, n261			

6.5B.3.4.1_1.1.5 Test Requirements

Same test requirement as in clause 6.5A.3.1.1.5 in TS 38.521-2 [9] for the *NR* carrier.

6.5A.3.1.1.5 Test Requirements

This clause specifies the requirements for the specified *NR* band for Transmitter Spurious emissions requirement with frequency range as indicated in Table 6.5A.3.1.1.5-1.

The maximum TRP power of spurious emission, measured using RMS detector, shall not exceed the described value in Table 6.5A.3.1.1.5-1.

Unless otherwise stated, the spurious emission limits apply for the frequency ranges that are more than F_{OOB} (MHz) in Table 6.5.3.1.3-1 starting from the edge of the assigned *NR* channel bandwidth. The spurious emission limits in Table 6.5A.3.1.1.5-1 apply for all transmitter band configurations (NRB) and channel bandwidths.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.5A.3.1.1.5-1: Spurious emissions for CA test requirements

Frequency Range	Maximum Level	Measurement bandwidth	NOTE
6 GHz ≤ f < 12.75 GHz	–30 dBm	1 MHz	
12.75 GHz ≤ f ≤ 2nd harmonic of the upper	–13 dBm	1 MHz	

frequency edge of the UL operating band in GHz			
NOTE 1: Applies for Band n257, n258, n260			

对于UL-MIMO的带内EN-DC（包括FR2），一般杂散发射限值在TS 38.521-3 [8]中的第6.5B.3.4.1D.5节定义。

6.5B.3.4.1D.5 Test Requirement

Same test requirement as specified in clause 6.5D.3.1.5 of TS 38.521-2 [9] for the NR carrier(s).

6.5D.3.1.5 Test requirements

The test requirement is the same as in clause 6.5.3.1.5.

4.2.2.2.2 杂散发射频段UE共存

对于带内连续EN-DC，一般杂散发射限值在TS 38.521-3 [8]中的第6.5B.3.1.2.5节定义。

6.5B.3.1.2.5 Test Requirement

Test requirements for Spurious Emissions UE Co-existence for intra-band contiguous EN-DC are the same as the minimum requirements described in clause 6.5B.3.1.2.3 minimum requirements and are not repeated in this clause.

For EN-DC only capable devices, in addition to Table 6.5B.3.1.2.3-1, test requirements for NR carrier are the same as Table 6.5.3.2.5-1 in TS 38.521-1 [8].

6.5B.3.1.2.3 Minimum conformance requirements

This clause specifies the requirements for the specified EN-DC configurations for coexistence with protected bands.

The requirements in Table 6.5B.3.1.2.3-1 apply on each component carrier with all component carriers are active.

Table 6.5B.3.1.2.3-1: Requirements for intra band contiguous EN-DC

EN-DC Configuration	Spurious emission						
	Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
DC_(n)71	E-UTRA Band 4, 5, 12, 13, 14, 17, 24, 26, 30, 48, 66	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 2, 25, 41, 70 NR Band n77 [5]	F_{DL_low}	-	F_{DL_high}	–50	1	2
	E-UTRA Band 29	F_{DL_low}	-	F_{DL_high}	–38	1	3
	E-UTRA Band 71	F_{DL_low}	-	F_{DL_high}	–50	1	3
DC_(n)41	E-UTRA Band 1, 2, 3, 4, 5, 8, 10, 11, 12, 13, 14, 17, 18, 19, 21, 24, 25, 26, 27, 28, 29, 30, 34, 39, 42, 44, 45, 48, 50, 51, 66, 70, 71, 73, 74 NR Band n77, n78	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	4
	NR Band n79	F_{DL_low}	-	F_{DL_high}	–50	1	2

NOTE 1: F_{DL_low} and F_{DL_high} refer to each frequency band specified in Table 5.5-1 in TS 36.101 [5] or in Table 5.2-1 in TS 38.101-1 [2].

NOTE 2: As exceptions, measurements with a level up to the applicable requirements defined in Table 6.6.3.1-2 in TS 36.101 [5] and Table 6.5.3.1-2 in TS 38.101-1 [2] are permitted for each assigned carrier used in the measurement due to 2nd, 3rd, 4th or 5th harmonic spurious emissions. Due to spreading of the harmonic emission the exception is also allowed for the first 1 MHz frequency range immediately outside the harmonic emission on both sides of the harmonic emission. This results in an overall exception interval centred at the harmonic emission of (2 MHz + N x L_{CRB} x 180 kHz), where N is 2, 3, 4, 5 for the 2nd, 3rd, 4th or 5th harmonic respectively. The exception is allowed if the measurement bandwidth (MBW) totally or partially overlaps the overall exception interval.

NOTE 3: These requirements also apply for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1-1, Table 6.6.3.1A-1 in TS 36.101 [5] or in Table 6.5.3.1-1 in TS 38.101-1 [2] from the edge of the channel bandwidth.

NOTE 4: Applicable when co-existence with PHS system operating in 1 884.5-1 915.7 MHz.

NOTE 5: Only applies to NR UE release 16 and forward supporting intra-band contiguous EN-DC.

NOTE: To simplify the above Table, E-UTRA band numbers are listed for bands which are specified only for E-UTRA operation or both E-UTRA and NR operation. NR band numbers are listed for bands which are specified only for NR operation.

The normative reference for this requirement is TS 38.101-3 [4] clause 6.5B.3.1.2.

Exception requirements for both NR and E-UTRA are defined for this test and therefore LTE anchor agnostic approach is not applied. E-UTRA test point analysis is included, and E-UTRA measurements are performed.

Table 6.5.3.2.5-1: UE Requirements according to UE NR release and supported E-UTRA and NR band

UE Requirements per release			
NR Band	**Rel-15**	**Rel-16**	**R17**
n1	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n2	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n3	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n5	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n7	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n8	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n12	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n14	Table 6.5.3.2.3-2	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n18	Table 6.5.3.2.3-2	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n20	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n24	Table 6.5.3.2.3-3	Table 6.5.3.2.3-3	Table 6.5.3.2.3-3
n25	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n26	Table 6.5.3.2.3-2	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n28	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n30	Table 6.5.3.2.3-2	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n34	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n38	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n39	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n40	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n41	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n48	Table 6.5.3.2.3-2	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n50	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n51	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n53	Table 6.5.3.2.3-2	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n65	Table 6.5.3.2.3-2	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n66	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n70	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n71	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n74	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n77, n78	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3
n79	Table 6.5.3.2.3-1	Table 6.5.3.2.3-2	Table 6.5.3.2.3-3

NOTE 1: The frequency range applicable with network signalling values of NS_04, NS_17, NS_18, NS_05, NS_43, NS_37, NS_38, NS_39, NS_40, NS_41, NS_42, NS_45 and NS_56 are covered in subclause 6.5.3.3 Additional Spurious Emissions.

NOTE 2: The restriction on the maximum uplink transmission to 54 RB in Notes 21 and 22 of Tables 6.5.3.2.3-1 to 6.5.3.2.3-3 is intended for conformance testing and may be applied to network operation to facilitate coexistence when the aggressor and victim bands are deployed in the same geographical area. The applicable spurious emission requirement of -15.5 dBm/5 MHz is a least restrictive technical condition for FDD/TDD coexistence and may have to be revised in the future.

对于带内不连续EN-DC，一般杂散发射限值在TS 38.521-3 [8]中的第6.5B.3.2.2.5节定义。

6.5B.3.2.2.5 Test Requirement

Test requirements for Spurious Emissions UE Co-existence for intra-band non-contiguous EN-DC are the same as the minimum requirements described in clause 6.5B.3.2.2.3 and are not repeated in this clause.

For EN-DC only capable devices, in addition to Table 6.5B.3.2.2.3-1, test requirements for NR carrier are the same as Table 6.5.3.2.5-1 in TS 38.521-1 [8].

6.5B.3.2.2.3 Minimum conformance requirements

This clause specifies the requirements for the specified EN-DC configurations for co-existence with protected bands.

The requirements in Table 6.5B.3.2.2.3-1 apply with all component carriers are active.

Table 6.5B.3.2.2.3-1: Requirements for intra-band non-contiguous EN-DC

EN-DC Configuration	Spurious emission						
	Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
...							
DC_41A_n41A	E-UTRA Band 1, 2, 3, 4, 5, 8, 10, 11, 12, 13, 14, 17, 18, 19, 21, 24, 25, 26, 27, 28, 29, 34, 39, 42, 44, 45, 48, 50, 51, 66, 70, 71, 73, 74 NR Band n77, n78 and n79	F_{DL_low}	-	F_{DL_high}	-50	1	
	Frequency range	1 884.5	-	1 915.7	-41	0.3	3
	E-UTRA Band 30, 40	F_{DL_low}	-	F_{DL_high}	-40	1	
…							

NOTE 1: F_{DL_low} and F_{DL_high} refer to each E-UTRA frequency band specified in Table 5.5-1 in TS 36.101 [5] or in Table 5.2-1 in TS 38.101-1 [2].

NOTE 2: As exceptions, measurements with a level up to the applicable requirements defined in Table 6.6.3.1-2 in TS 36.101 [5] and Table 6.5.3.1-2 in TS 38.101-1 [2] are permitted for each assigned carrier used in the measurement due to 2nd, 3rd, 4th, or 5th harmonic spurious emissions. Due to spreading of the harmonic emission the exception is also allowed for the first 1 MHz frequency range immediately outside the harmonic emission on both sides of the harmonic emission. This results in an overall exception interval centred at the harmonic emission of (2 MHz + N x L_{CRB} x 180 kHz), where N is 2, 3, 4, 5 for the 2nd, 3rd, 4th or 5th harmonic respectively. The exception is allowed if the measurement bandwidth (MBW) totally or partially overlaps the overall exception interval.

NOTE 3: Applicable when co-existence with PHS system operating in 1 884.5-1 915.7 MHz.

NOTE: To simplify the above Table, E-UTRA band numbers are listed for bands which are specified only for EUTRA operation or both E-UTRA and NR operation. NR band numbers are listed for bands which are specified only for NR operation.

对于FR1中的带内EN-DC，一般杂散发射限值在TS 38.521-3 [8]的表6.5B.3.3.2.5-1和6.5B.3.3.2.5-2中定义。

Table 6.5B.3.3.2.5-1: Requirements for inter-band within FR1 for Rel-15

EN-DC Configuration	Spurious emission						
	Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
DC_1_n28	E-UTRA Band 7, 31, 41, 72, 73 NR Band n79	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 42, 52 NR Band n77, n78	F_{DL_low}	-	F_{DL_high}	–50	1	2
	Frequency range	470	-	694	–42	8	5, 17
	Frequency range	470	-	710	–26.2	6	14
DC_1_n77	E-UTRA Band 1, 3, 11, 21, 34, 65, 74	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 880	-	1 895	–40	1	5, 8
	Frequency range	1 895	-	1 915	–15.5	5	5, 7, 8
	Frequency range	1 915	-	1 920	1.6	5	5, 7, 8
DC_1_n78	E-UTRA Band 3, 11, 21, 74	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 880	-	1 895	–40	1	5, 8
DC_1_n79	E-UTRA Band 5, 7, 8, 18, 19, 26, 28, 41	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_2_n5	E-UTRA Band 42, 48	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 41, 43	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_2_n66	E-UTRA Band 4, 10, 24, 50, 66, 70, 74	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 2, 25	F_{DL_low}	-	F_{DL_high}	–50	1	5
	E-UTRA Band 42, 48	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_2_n71	E-UTRA Band 41	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_2_n78	E-UTRA Band 24, 50, 51, 74	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 2, 25	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_3_n7	E-UTRA Band 5, 8, 20, 26, 27, 28, 44, 67	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_3_n28	NR band n77	F_{DL_low}	-	F_{DL_high}	–50	1	2
	E-UTRA Band 7, 41	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_3_n77	E-UTRA Band 1, 3, 28, 34, 39, 40, 65, 74	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
DC_3_n78	E-UTRA Band 3, 34, 39	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
DC_3_n79	E-UTRA Band 5, 8, 11, 18, 19, 21, 41, 74	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_5_n66	E-UTRA Band 5, 6, 7, 8, 38	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 26	859	-	869	–27	1	
	E-UTRA Band 41, 42, 52	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_5_n78	E-UTRA Band 1, 2, 3, 4, 7, 25, 34, 38, 65, 66, 70	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 41	F_{DL_low}	-	F_{DL_high}	–50	1	2, 7
DC_7_n28	E-UTRA Band 3	F_{DL_low}	-	F_{DL_high}	–50	1	
	NR band n78	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_7_n78	E-UTRA Band 3, 5, 8, 11, 18, 19, 20, 21, 26, 27, 28, 32, 50, 51, 67, 68, 74, 75, 76	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_8_n77	E-UTRA Band 1, 32, 33, 34, 38, 39, 40,50, 65, 69, 74, 75	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA band 3, 7, 41	F_{DL_low}	-	F_{DL_high}	–50	1	2
	E-UTRA Band 11, 21	F_{DL_low}	-	F_{DL_high}	–50	1	12
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3, 12
DC_8_n78	E-UTRA band 34, 39, 40, 74	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 3, 7, 41	F_{DL_low}	-	F_{DL_high}	–50	1	2
	E-UTRA Band 11, 21	F_{DL_low}	-	F_{DL_high}	–50	1	12
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3, 12
DC_11_n77	E-UTRA Band 1, 3, 18, 19, 28, 34, 40, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	945	-	960	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
	Frequency range	2 545	-	2 575	–50	1	
	Frequency range	2 595	-	2 645	–50	1	
DC_11_n78	E-UTRA Band 1, 3, 18, 19, 28, 34, 40, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
DC_11_n79	E-UTRA Band 1, 3, 18, 19, 28, 34, 40, 42, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3

	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
	Frequency range	2545	-	2575	–50	1	
	Frequency range	2595	-	2645	–50	1	
DC_12_n66	E-UTRA Band 41	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_19_n77	E-UTRA Band 1, 3, 34, 40, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
	Frequency range	2 545	-	2 575	–50	1	
	Frequency range	2 595	-	2 645	–50	1	
DC_19_n78	E-UTRA Band 1, 3, 34, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
	Frequency range	2 545	-	2 575	–50	1	
	Frequency range	2 595	-	2 645	–50	1	
DC_19_n79	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_20_n28	E-UTRA Band 8	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_20_n78	E-UTRA Band 1, 3, 7, 33, 34, 65	FDL_low	-	FDL_high	–50	1	
	E-UTRA Band 38, 69	FDL_low	-	FDL_high	–50	1	2
DC_21_n77	E-UTRA Band 1, 3, 18, 19, 28, 34, 40, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	945	-	960	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
	Frequency range	2 545	-	2 575	–50	1	
	Frequency range	2 595	-	2 645	–50	1	
DC_21_n78	E-UTRA Band 1, 3, 18, 19, 28, 34, 40, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
DC_21_n79	E-UTRA Band 3, 21, 34, 42	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
DC_25_n41	E-UTRA Band 12, 13, 14, 17, 28, 29, 42, 71	F_{DL_low}	-	F_{DL_high}	–50	1	
	NR Band n77	F_{DL_low}	-	F_{DL_high}	–50	1	5
DC_26_n41	E-UTRA Band 3, 5, 18, 19, 26, 42	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	799	-	803	–40	1	5
	Frequency range	945	-	960	–50	1	
DC_26_n77	E-UTRA Band 1, 3, 34, 39, 40, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 41	F_{DL_low}	-	F_{DL_high}	–50	1	2
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
	Frequency range	2 545	-	2 575	–50	1	
	Frequency range	2 595	-	2 645	–50	1	
DC_26_n78	E-UTRA Band 1, 3, 34, 39, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 41	F_{DL_low}	-	F_{DL_high}	–50	1	2
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
	Frequency range	2 545	-	2 575	–50	1	2
	Frequency range	2 595	-	2 645	–50	1	
DC_28_n77	E-UTRA Band 3, 7, 34, 39, 40, 41	FDL_low	-	FDL_high	–50	1	
	E-UTRA Band 1, 65	FDL_low	-	FDL_high	–50	1	2
	E-UTRA Band 1	FDL_low	-	FDL_high	–50	1	9, 11
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3, 9
DC_28_n78 DC_28_n83_ULSUP-TDM_n78	E-UTRA Band 3, 7, 34, 39, 40, 41	F_{DL_low}	-	F_{DL_high}	-50	1	
	E-UTRA Band 1, 65	F_{DL_low}	-	F_{DL_high}	–50	1	2
	E-UTRA Band 1	F_{DL_low}	-	F_{DL_high}	–50	1	9, 11
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
DC_28_n79	E-UTRA Band 42	FDL_low	-	FDL_high	–50	1	2
DC_30_n5	E-UTRA Band 71	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_39_n41	E-UTRA Band 42, 44	F_{DL_low}	-	F_{DL_high}	–50	1	
	NR Band n77, n78, n79	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_39_n79	E-UTRA Band 8, 41, 44	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_40_n41	Bands 1, 34, 39, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	NR Band n79	F_{DL_low}	-	F_{DL_high}	–50	1	2
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3, 19
DC_41_n77	E-UTRA Band 3, 5, 8, 11, 18, 19, 21, 26, 28, 33, 34, 39, 44, 45, 74	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5		1 915.7	–41	0.3	3
DC_41_n78	E-UTRA Band 3, 5, 8, 11, 18, 19, 21, 26, 28, 34, 39, 44, 45, 74	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
DC_41_n79	E-UTRA Band 1, 3, 5, 8, 18, 19, 26, 28, 34, 40, 44, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
DC_66_n5	E-UTRA Band 5, 6, 7, 8, 26, 38	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 41, 42, 52	F_{DL_low}	-	F_{DL_high}	–50	1	2

DC_66_n78	E-UTRA Band 3, 34, 39	F_{DL_low}	-	F_{DL_high}	–50	1	

NOTE 1: F_{DL_low} and F_{DL_high} refer to each frequency band specified in Table 5.5-1 of TS 36.101 [5] or in Table 5.2-1 in TS 38.101-1 [2].

NOTE 2: As exceptions, measurements with a level up to the applicable requirements defined in Table 6.6.3.1-2 in TS 36.101 [5] and Table 6.5.3.1-2 in TS 38.101-1 [2] are permitted for each assigned carrier used in the measurement due to 2nd, 3rd, 4th or 5th harmonic spurious emissions. Due to spreading of the harmonic emission the exception is also allowed for the first 1 MHz frequency range immediately outside the harmonic emission on both sides of the harmonic emission. This results in an overall exception interval centred at the harmonic emission of (2 MHz + N x L_{CRB} x 180 kHz), where N is 2, 3, 4, 5 for the 2nd, 3rd, 4th or 5th harmonic respectively. The exception is allowed if the measurement bandwidth (MBW) totally or partially overlaps the overall exception interval.

NOTE 3: Applicable when co-existence with PHS system operating in 1 884.5-1 915.7 MHz.

NOTE 4: Void.

NOTE 5: These requirements also apply for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1-1, Table 6.6.3.1A-1in TS 36.101 [5] or in Table 6.5.3.1-1 in TS 38.101-1 [2] from the edge of the channel bandwidth.

NOTE 6: This requirement is applicable for any channel bandwidths within the range 2500 - 2570 MHz with the following restriction: for carriers of 15 MHz bandwidth when carrier centre frequency is within the range 2560.5 - 2562.5 MHz and for carriers of 20 MHz bandwidth when carrier centre frequency is within the range 2 552-2 560 MHz the requirement is applicable only for an uplink transmission bandwidth less than or equal to 54 RB.

NOTE 7: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.

NOTE 8: This requirement is applicable for any channel bandwidths within the range 1 920-1 980 MHz with the following restriction: for carriers of 15 MHz bandwidth when carrier centre frequency is within the range 1 927.5-1 929.5 MHz and for carriers of 20 MHz bandwidth when carrier centre frequency is within the range 1 930-1 938 MHz the requirement is applicable only for an uplink.

NOTE 9: Applicable when the assigned E-UTRA or NR carrier is confined within 718 MHz and 748 MHz and when the channel bandwidth used is 5 or 10 MHz.

NOTE 10: As exceptions, measurements with a level up to the applicable requirement of –38 dBm/MHz is permitted for each assigned E-UTRA carrier used in the measurement due to 2nd harmonic spurious emissions. An exception is allowed if there is at least one individual RB within the transmission bandwidth (see Figure 5.6-1) for which the 2nd harmonic totally or partially overlaps the measurement bandwidth (MBW).

NOTE 11: As exceptions, measurements with a level up to the applicable requirement of –36 dBm/MHz is permitted for each assigned E-UTRA carrier used in the measurement due to 3rd harmonic spurious emissions. An exception is allowed if there is at least one individual RB within the transmission bandwidth (see Figure 5.6-1) for which the 3rd harmonic totally or partially overlaps the measurement bandwidth (MBW).

NOTE 12: This requirement is applicable only for the following cases:
A: for carriers of 5 MHz channel bandwidth when carrier centre frequency (Fc) is within the range 902.5 MHz ≤ Fc < 907.5 MHz with an uplink transmission bandwidth less than or equal to 20 RB:
B: for carriers of 5 MHz channel bandwidth when carrier centre frequency (Fc) is within the range 907.5 MHz ≤ Fc ≤ 912.5 MHz without any restriction on uplink transmission bandwidth;
C: for carriers of 10 MHz channel bandwidth when carrier centre frequency (Fc) is Fc = 910 MHz with an uplink transmission bandwidth less than or equal to 32 RB with RBstart > 3.

NOTE 13: Void.

NOTE 14: This requirement is applicable for 5 and 10 MHz E-UTRA or NR channel bandwidth allocated within 718-728 MHz. For carriers of 10 MHz bandwidth, this requirement applies for an uplink transmission bandwidth less than or equal to 30 RB with RBstart > 1 and RBstart < 48.

NOTE 15: Void.

NOTE 16: This requirement is applicable for any channel bandwidths within the range 1 920-1 980 MHz with the following restriction: for carriers of 15 MHz bandwidth when carrier centre frequency is within the range 1 927.5-1 929.5 MHz and for carriers of 20 MHz bandwidth when carrier centre frequency is within the range 1 930-1 938 MHz the requirement is applicable only for an uplink transmission bandwidth less than or equal to 54 RB.

NOTE 17: This requirement is applicable in the case of a 10 MHz E-UTRA carrier confined within 703 MHz and 733 MHz, otherwise the requirement of –25 dBm with a measurement bandwidth of 8 MHz applies.

NOTE 18: This requirement is only applicable for E-UTRA carriers with bandwidth confined within 1 885-1 920 MHz (requirement for carriers with at least 1RB confined within 1 880-1 885 MHz is not specified). This requirement applies for an uplink transmission bandwidth less than or equal to 54 RB for E-UTRA carriers of 15 MHz bandwidth when carrier centre frequency is within the range 1 892.5-1 894.5 MHz and for E-UTRA carriers of 20 MHz bandwidth when carrier centre frequency is within the range 1 895-1 903 MHz.

NOTE 19: Void.

Table 6.5B.3.3.2.5-2: Requirements for inter-band within FR1 for Rel-16

EN-DC Configuration	Spurious emission						
	Protected band	Frequen cy range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
DC_1_n3	E-UTRA Band 1, 11, 21, 32, 43, 50, 65, 74, 75	F_{DL_low}	-	F_{DL_high}	–50	1	
	NR Band 77, 78	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_1_n5	E-UTRA Band 22, 42, 43	F_{DL_low}	-	F_{DL_high}	–50	1	
	NR Band n77, n78, n79	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_1_n7	E-UTRA Band 32, 50, 51, 75, 76	F_{DL_low}	-	F_{DL_high}	–50	1	
	NR Band n79	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_1_n8	E-UTRA Band 43 NR band n77, n78, n79	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_1_n28	E-UTRA Band 7, 31, 41, 72, 73 NR Band n79	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 42, 52 NR Band n77, n78	F_{DL_low}	-	F_{DL_high}	–50	1	2
	Frequency range	470	-	694	–42	8	5, 17
	Frequency range	470	-	710	–26.2	6	14
DC_1_n77	E-UTRA Band 1, 3, 11, 21, 34, 65, 74	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 880	-	1 895	–40	1	5, 8
	Frequency range	1 895	-	1 915	–15.5	5	5, 7, 8
	Frequency range	1 915	-	1 920	1.6	5	5, 7, 8
DC_1_n78	E-UTRA Band 3, 11, 21, 74	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 880	-	1 895	–40	1	5, 8
DC_1_n79	E-UTRA Band 5, 7, 8, 18, 19, 26, 28, 41	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_2_n5	E-UTRA Band 42, 48 NR band n77	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 41, 43	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_2_n41	E-UTRA Band 12, 13, 14, 17, 28, 29, 42, 71	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Bands 2	F_{DL_low}	-	F_{DL_high}	–50	1	5
DC_2_n66	E-UTRA Band 4, 10, 24, 50, 66, 70, 74	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 2, 25	F_{DL_low}	-	F_{DL_high}	–50	1	5
	E-UTRA Band 42, 48	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_2_n71	E-UTRA Band 41	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_2_n78	E-UTRA Band 24, 50, 51, 74	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 2, 25	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_3_n1	E-UTRA Band 1, 11, 21, 32, 50, 65, 74, 75	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_3_n5	E-UTRA Band 5, 7, 8, 18,19, 26, 38	F_{DL_low}	-	F_{DL_high}	–50	1	
	NR Band n79	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 42, 52	F_{DL_low}	-	F_{DL_high}	–50	1	2
	NR Band n77, n78	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_3_n7	E-UTRA Band 5, 8, 20, 26, 27, 28, 44, 67	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_3_n28	NR band n77	F_{DL_low}	-	F_{DL_high}	–50	1	2
	E-UTRA Band 7, 41	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_3_n41	E-UTRA Band 5, 8, 20, 26, 27, 28, 44	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 18, 19	F_{DL_low}	-	F_{DL_high}	–50	1	14, 20
	E-UTRA Band 42, NR Band n77, n78, n79	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_3_n77	E-UTRA Band 1, 3, 28, 34, 39, 40, 65, 74	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
DC_3_n78	E-UTRA Band 3, 34, 39	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
DC_3_n79	E-UTRA Band 5, 8, 11, 18, 19, 21, 41, 74	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_5_n2	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 41, 43 NR Band n77	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_5_n66	E-UTRA Band 5, 6, 7, 8, 38	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 26	859	-	869	–27	1	
	E-UTRA Band 41, 42, 52	F_{DL_low}	-	F_{DL_high}	–50	1	2
	NR Band n77						
DC_5_n78	E-UTRA Band 1, 2, 3, 4, 7, 25, 34, 38, 65, 66, 70	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 41	F_{DL_low}	-	F_{DL_high}	–50	1	2, 7
DC_7_n1	E-UTRA Band 32, 50, 51, 75, 76 or NR Band n79	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_7_n3	E-UTRA Band 5, 8, 20, 26, 27, 28, 67, 68	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA band 42, 52 NR Band n77, n78	F_{DL_low}	-	F_{DL_high}	–50	1	2

DC_7_n5	E-UTRA Band 5, 26, 28, 42	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 52	F_{DL_low}	-	F_{DL_high}	–50	1	2
	NR Band n77, n78	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_7_n8	E-UTRA Band 20, 28, 67, 68	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 42, 52 NR band n77, n78	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_7_n28	E-UTRA Band 3	F_{DL_low}	-	F_{DL_high}	–50	1	
	NR band n78	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_7_n66	E-UTRA Band 5, 12, 13, 14, 17, 26, 27, 28, 29, 85	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA band 42	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_7_n78	E-UTRA Band 3, 5, 8, 11, 18, 19, 20, 21, 26, 27, 28, 32, 50, 51, 67, 68, 74, 75, 76	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_8_n1	E-UTRA Band 43 or NR Band n77, n78, n79	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_8_n3	E-UTRA Band 20, 28, 38, 44	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 7, 22, 41, 42, 43 or NR Band n77, n78, n79	F_{DL_low}	-	F_{DL_high}	–50	1	2
	Frequency range	860	-	890	–40	1	5, 12
DC_8_n20	E-UTRA Band 67, 68	749	-	783	–50	1	
	E-UTRA Band 7, 38, 69	2 570	-	2 690	–50	1	2
	E-UTRA Band 8, 20	F_{DL_low}	-	F_{DL_high}	–50	1	5
	Frequency range	758	-	788	–50	1	
DC_8_n28	E-UTRA Band 38, 40	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 41	F_{DL_low}	-	F_{DL_high}	–50	1	2
	Frequency range	491	-	616	–42	8	5, 17
	Frequency range	491	-	616	–26.2	6	14
DC_8_n41	E-UTRA Band 28	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA band 3, 42, 52 NR Band n77, n78, n79	F_{DL_low}	-	F_{DL_high}	–50	1	2
	E-UTRA Band 8	F_{DL_low}	-	F_{DL_high}	–50	1	5
	Frequency range	860	-	890	–40	1	5, 12
DC_8_n77	E-UTRA Band 1, 32, 33, 34, 38, 39, 40,50, 65, 69, 74, 75	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA band 3, 7, 41	F_{DL_low}	-	F_{DL_high}	–50	1	2
	E-UTRA Band 11, 21	F_{DL_low}	-	F_{DL_high}	–50	1	12
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3, 12
DC_8_n78	E-UTRA band 34, 39, 40, 74	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 3, 7, 41	F_{DL_low}	-	F_{DL_high}	–50	1	2
	E-UTRA Band 11, 21	F_{DL_low}	-	F_{DL_high}	–50	1	12
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3, 12
DC_11_n77	E-UTRA Band 1, 3, 18, 19, 28, 34, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	945	-	960	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
	Frequency range	2 545	-	2 575	–50	1	
	Frequency range	2 595	-	2 645	–50	1	
DC_11_n78	E-UTRA Band 1, 3, 18, 19, 28, 34, 40, 65	F_{DL_low}	-	F_{DL_high}	-50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
DC_11_n79	E-UTRA Band 1, 3, 34, 42, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
DC_12_n78	E-UTRA Band 2, 7, 25, 41	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 4, 66	F_{DL_low}	-	F_{DL_high}	–50	1	2
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
DC_13_n2	E-UTRA Band 41	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_13_n66	E-UTRA Band 41, 53	F_{DL_low}	-	F_{DL_high}	–50	1	
	NR Band n77	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_14_n2	E-UTRA Band 41	F_{DL_low}	-	F_{DL_high}	–50	1	
	NR Band n77	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_14_n66	E-UTRA Band 41	F_{DL_low}	-	F_{DL_high}	–50	1	
	NR Band n77	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_19_n77	E-UTRA Band 1, 3, 34, 40, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
	Frequency range	2 545	-	2 575	–50	1	
	Frequency range	2 595	-	2 645	–50	1	
DC_19_n78	E-UTRA Band 1, 3, 34, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
	Frequency range	2 545	-	2 575	–50	1	
	Frequency range	2 595	-	2 645	–50	1	
DC_19_n79	E-UTRA Band 42	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_20_n1	E-UTRA Band 22, 42, 43	F_{DL_low}	-	F_{DL_high}	–50	1	
	NR Band 77, 78	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_20_n3	E-UTRA Band 7, 8	F_{DL_low}	-	F_{DL_high}	–50	1	

	E-UTRA Band 38, 42, 52	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_20_n7	E-UTRA Band 68	776	-	783	–50	1	
	E-UTRA Band 42, 52	3 332	-	3 432	–50	1	2
	NR band n77, n78	3 332	-	3 432	–50	1	2
	E-UTRA Band 20	F_{DL_low}	-	F_{DL_high}	–50	1	5
DC_20_n8	E-UTRA Band 28	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 7, 38	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_20_n28	E-UTRA Band 8	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_20_n78	E-UTRA Band 1, 3, 7, 33, 34, 65	FDL_low	-	FDL_high	–50	1	
	E-UTRA Band 38, 69	FDL_low	-	FDL_high	–50	1	2
DC_21_n77	E-UTRA Band 1, 3, 18, 19, 28, 34, 40, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	945	-	960	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
	Frequency range	2 545	-	2 575	–50	1	
	Frequency range	2 595	-	2 645	–50	1	
DC_21_n78	E-UTRA Band 1, 3, 18, 19, 28, 34, 40, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
DC_21_n79	E-UTRA Band 3, 21, 34, 42	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
DC_25_n41	E-UTRA Band 12, 13, 14, 17, 28, 29, 42, 71	F_{DL_low}	-	F_{DL_high}	–50	1	
	NR Band n77	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_26_n41	E-UTRA Band 3, 5, 18, 19, 26, 42	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	799	-	803	–40	1	5
	Frequency range	945	-	960	–50	1	
DC_26_n77	E-UTRA Band 1, 3, 34, 39, 40, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 41	F_{DL_low}	-	F_{DL_high}	–50	1	2
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
	Frequency range	2 545	-	2 575	–50	1	
	Frequency range	2 595	-	2 645	–50	1	
DC_26_n78	E-UTRA Band 1, 3, 34, 39, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 41	F_{DL_low}	-	F_{DL_high}	–50	1	2
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
	Frequency range	2 545	-	2 575	–50	1	2
	Frequency range	2 595	-	2 645	–50	1	
DC_28_n3	NR Band n77	F_{DL_low}	-	F_{DL_high}	–50	1	2
	E-UTRA Band 7, 41	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_28_n5	E-UTRA Band 8, 40, 71	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 24	1 527	-	1 559	–50	1	
	E-UTRA Band 30	2 351	-	2 360	–50	1	
	Frequency range	557	-	672	–42	8	5, 17
	Frequency range	557	-	672	–26.2	6	14
	Frequency range	662	-	672	–26.2	6	5
DC_28_n7	E-UTRA Band 3	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 52	F_{DL_low}	-	F_{DL_high}	–50	1	2
	NR band n77, n78	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_28_n77	E-UTRA Band 3, 7, 34, 39, 40, 41	FDL_low	-	FDL_high	–50	1	
	E-UTRA Band 1, 65	FDL_low	-	FDL_high	–50	1	2
	E-UTRA Band 1	FDL_low	-	FDL_high	–50	1	9, 11
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3, 9
DC_28_n78 DC_28_n83_ULSUP-TDM_n78	E-UTRA Band 3, 7, 34, 39, 40, 41	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 1, 65	F_{DL_low}	-	F_{DL_high}	–50	1	2
	E-UTRA Band 1	F_{DL_low}	-	F_{DL_high}	–50	1	9, 11
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
DC_28_n79	E-UTRA Band 42	FDL_low	-	FDL_high	–50	1	2
DC_30_n5	E-UTRA Band 71	F_{DL_low}	-	F_{DL_high}	–50	1	
	NR band n77	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_39_n41	E-UTRA Band 42, 44	F_{DL_low}	-	F_{DL_high}	–50	1	
	NR Band n77, n78, n79	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_39_n79	E-UTRA Band 8, 28, 41, 44	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_40_n1	E-UTRA Band 7, 31, 32, 41, 45, 50, 72, 73, 74, 75	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_40_n41	Bands 1, 34, 39, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	NR Band n79	F_{DL_low}	-	F_{DL_high}	–50	1	2
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3, 19
DC_40_n78	E-UTRA Band 5, 8, 11, 18, 19, 20, 21, 26, 27, 28, 32, 44, 45, 50, 51, 74, 75, 76	F_{DL_low}	-	F_{DL_high}	–50	1	
	NR Band n79	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_40_n79	E-UTRA Band 1, 34, 41, 65	F_{DL_low}	-	F_{DL_high}	–50	1	

DC_41_n77	E-UTRA Band 3, 5, 8, 11, 18, 19, 21, 26, 28, 33, 34, 39, 44, 45, 74	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5		1 915.7	–41	0.3	3
DC_41_n78	E-UTRA Band 3, 5, 8, 11, 18, 19, 21, 26, 28, 34, 39, 44, 45, 74	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
DC_41_n79	E-UTRA Band 1, 3, 5, 8, 9, 18, 19, 26, 28, 34, 40, 44, 65	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
DC_48_n5	E-UTRA Band 25, 70	F_{DL_low}	-	F_{DL_high}	–50	1	
	Frequency range	1 884.5	-	1 915.7	–41	0.3	3
DC_48_n66	E-UTRA Band 2, 25	F_{DL_low}	-	F_{DL_high}	–50	1	
DC_66_n2	E-UTRA Band 4, 10, 22, 24, 50, 66, 70, 74	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 2, 25	F_{DL_low}	-	F_{DL_high}	–50	1	5
	E-UTRA Band 42, 43 NR Band n77	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_66_n5	E-UTRA Band 5, 6, 7, 8, 26, 38	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 41, 42, 52 NR Band n77	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_66_n41	E-UTRA Band 5, 12, 13, 14, 17, 26, 27, 28, 29, 43, 85	F_{DL_low}	-	F_{DL_high}	–50	1	
	E-UTRA Band 42, 48, NR band n77	F_{DL_low}	-	F_{DL_high}	–50	1	2
DC_66_n78	E-UTRA Band 3, 34, 39	F_{DL_low}	-	F_{DL_high}	–50	1	

NOTE 1: F_{DL_low} and F_{DL_high} refer to each frequency band specified in Table 5.5-1 in TS 36.101 [5] or in Table 5.2-1 in TS 38.101-1 [2].

NOTE 2: As exceptions, measurements with a level up to the applicable requirements defined in Table 6.6.3.1-2 in TS 36.101 [5] and Table 6.5.3.1-2 in TS 38.101-1 [2] are permitted for each assigned carrier used in the measurement due to 2nd, 3rd, 4th or 5th harmonic spurious emissions. Due to spreading of the harmonic emission the exception is also allowed for the first 1 MHz frequency range immediately outside the harmonic emission on both sides of the harmonic emission. This results in an overall exception interval centred at the harmonic emission of (2 MHz + N x L_{CRB} x 180 kHz), where N is 2, 3, 4, 5 for the 2nd, 3rd, 4th or 5th harmonic respectively. The exception is allowed if the measurement bandwidth (MBW) totally or partially overlaps the overall exception interval.

NOTE 3: Applicable when co-existence with PHS system operating in 1 884.5-1 915.7 MHz

NOTE 4: Void.

NOTE 5: These requirements also apply for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.6.3.1-1, Table 6.6.3.1A-1 in TS 36.101 [5] or in Table 6.5.3.1-1 in TS 38.101-1 [2] from the edge of the channel bandwidth.

NOTE 6: This requirement is applicable for any channel bandwidths within the range 2 500-2 570 MHz with the following restriction: for carriers of 15 MHz bandwidth when carrier centre frequency is within the range 2 560.5-2 562.5 MHz and for carriers of 20 MHz bandwidth when carrier centre frequency is within the range 2 552-2 560 MHz the requirement is applicable only for an uplink transmission bandwidth less than or equal to 54 RB.

NOTE 7: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.

NOTE 8: This requirement is applicable for any channel bandwidths within the range 1 920-1 980 MHz with the following restriction: for carriers of 15 MHz bandwidth when carrier centre frequency is within the range 1 927.5-1 929.5 MHz and for carriers of 20 MHz bandwidth when carrier centre frequency is within the range 1 930-1 938 MHz the requirement is applicable only for an uplink

NOTE 9: Applicable when the assigned E-UTRA or NR carrier is confined within 718 MHz and 748 MHz and when the channel bandwidth used is 5 or 10 MHz.

NOTE 10: As exceptions, measurements with a level up to the applicable requirement of –38 dBm/MHz is permitted for each assigned E-UTRA carrier used in the measurement due to 2nd harmonic spurious emissions. An exception is allowed if there is at least one individual RB within the transmission bandwidth (see Figure 5.6-1) for which the 2nd harmonic totally or partially overlaps the measurement bandwidth (MBW).

NOTE 11: As exceptions, measurements with a level up to the applicable requirement of –36 dBm/MHz is permitted for each assigned E-UTRA carrier used in the measurement due to 3rd harmonic spurious emissions. An exception is allowed if there is at least one individual RB within the transmission bandwidth (see Figure 5.6-1) for which the 3rd harmonic totally or partially overlaps the measurement bandwidth (MBW).

NOTE 12: This requirement is applicable only for the following cases: A: for carriers of 5 MHz channel bandwidth when carrier centre frequency (Fc) is within the range 902.5 MHz ≤ Fc < 907.5 MHz with an uplink transmission bandwidth less than or equal to 20 RB; B: for carriers of 5 MHz channel bandwidth when carrier centre frequency (Fc) is within the range 907.5 MHz ≤ Fc ≤ 912.5 MHz without any restriction on uplink transmission bandwidth; C: for carriers of 10 MHz channel bandwidth when carrier centre frequency (Fc) is Fc = 910 MHz with an uplink transmission bandwidth less than or equal to 32 RB with RB_{start} > 3.

NOTE 13: Void.

NOTE 14: This requirement is applicable for 5 and 10 MHz E-UTRA or NR channel bandwidth allocated within 718-728 MHz. For carriers of 10 MHz bandwidth, this requirement applies for an uplink transmission bandwidth less than or equal to 30 RB with RB_{start} > 1 and RB_{start} < 48.

NOTE 15: Void.

NOTE 16: This requirement is applicable for any channel bandwidths within the range 1 920-1 980 MHz with the following restriction: for carriers of 15 MHz bandwidth when carrier centre frequency is within the range 1 927.5-1 929.5 MHz and for carriers of 20 MHz bandwidth when carrier centre frequency is within the range 1 930-1 938 MHz the requirement is applicable only for an uplink transmission bandwidth less than or equal to 54 RB.

NOTE 17: This requirement is applicable in the case of a 10 MHz E-UTRA carrier confined within 703 MHz and 733 MHz, otherwise the requirement of –25 dBm with a measurement bandwidth of 8 MHz applies.

NOTE 18: This requirement is only applicable for E-UTRA carriers with bandwidth confined within 1 885-1 920 MHz (requirement for carriers with at least 1RB confined within 1 880-1 885 MHz is not specified). This requirement applies for an uplink transmission bandwidth less than or equal to 54 RB for E-UTRA carriers of 15 MHz bandwidth when carrier centre frequency is within the range 1 892.5-1 894.5 MHz and for E-UTRA carriers of 20 MHz bandwidth when carrier centre frequency is within the range 1 895-1 903 MHz.
NOTE 19: Void.
NOTE 20: Void.
NOTE 21: Void.

对于包括FR2的频段间EN-DC，一般杂散发射限值在TS 38.521-3 [8]中的第6.5B.3.4.2.5节定义。

6.5B.3.4.2.5 Test requirement

Same Test requirement as in clause 6.5.3.2.5 in TS 38.521-2 [9] for the *NR* carrier.

6.5.3.2.5 Test requirement

This clause specifies the requirements for the specified *NR* band for Transmitter Spurious emissions for UE co-existence requirement with frequency range as indicated in Table 6.5.3.2.5-1.

The maximum TRP power of spurious emission for UE co-existence, measured using RMS detector, shall not exceed the described value in Table 6.5.3.2.5-1.

The spurious emission UE co-existence limits in Table 6.5.3.2.5-1 apply for all transmitter band configurations (NRB) and channel bandwidths.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.5.3.2.5-1: Spurious emissions UE co-existence test requirements

NR Band	Spurious emission						
	Protected band/frequency range	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
n257	NR Band n260	F_{DL_low}	-	F_{DL_high}	-2 + 5.0	100	NOTE 3
	Frequency range	57 000	-	66 000	2	100	
	Frequency range	23 600	-	24 000	1 + 0.3	200	NOTE 6
n258	Frequency range	57 000	-	66 000	2	100	
n259	NR Band 257	F_{DL_low}	-	F_{DL_high}	-5 + 3.3	100	n259, NOTE 4
	NR Band 261	F_{DL_low}	-	F_{DL_high}	-5 + 3.3	100	NOTE 4
	Frequency range	36 000	-	37 000	7 + 6.0	1000	NOTE 5
	Frequency range	57 000	-	66 000	2	100	
n260	NR Band 257	F_{DL_low}	-	F_{DL_high}	-5 + 3.3	100	NOTE 4
	NR Band 261	F_{DL_low}	-	F_{DL_high}	-5 + 3.3	100	NOTE 4
	Frequency range	57 000	-	66 000	2	100	
n261	NR Band 260	F_{DL_low}	-	F_{DL_high}	-2 + 5.0	100	NOTE 3
	Frequency range	57 000	-	66 000	2	100	

NOTE 1: F_{DL_low} and F_{DL_high} refer to each NR frequency band specified in Table 5.2-1.
NOTE 2: Void.
NOTE 3: 5.0 dB relaxation due to testability limit.
NOTE 4: 3.3 dB relaxation due to testability limit.
NOTE 5: 6.0 dB relaxation due to testability limit.
NOTE 6: 0.3 dB relaxation due to testability limit.

4.2.2.2.3 附加杂散发射

对于带内连续EN-DC，附加杂散发射限值在TS 38.521-3 [8]中的第6.5B.4.1.5节定义。

6.5B.4.1.5 Test Requirement

Test requirements for additional spurious emissions for intra-band contiguous EN-DC are the same as the minimum requirements described in clause 6.5B.4.1.3 and are not repeated in this clause.

6.5B.4.1.3 Minimum conformance requirements

These requirements are specified in terms of an additional spectrum emission requirement. Additional spurious emission requirements are signalled by the network to indicate that the UE shall meet an additional requirement for a specific deployment scenario as part of the cell handover/broadcast message.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

6.5B.4.1.3.1 Minimum requirement (network signalled value "NS_04")

When "NS 04" is indicated in the cell, the power of any UE emission shall not exceed the levels specified in Table 6.5B.4.1.3.1-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1.3-1 of TS 38.521-1 [8] from the edge of the channel bandwidth.

Table 6.5B.4.1.3.1-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
2495 ≤ f < 2496	-13	1% of Channel BW for contiguous BW up to 100 MHz, 1 MHz for contiguous BW > 100 MHz
2490.5 ≤ f < 2495	-13	1 MHz
0 < f < 2490.5	-25	1 MHz

The normative reference for this requirement is TS 38.101-3 [4] clause 6.5B.4.1.1.

Exception requirements for both NR and E-UTRA are defined for this test. LTE anchor agnostic approach is not applied. E-UTRA test point analysis is included, and E-UTRA measurements are performed.

对于带内不连续EN-DC，附加杂散发射限值在TS 38.521-3 [8]中的第6.5B.4.2.5节定义。

6.5B.4.2.5 Test Requirement

Test requirements for Spurious Emissions for intra-band non-contiguous EN-DC are the same as the minimum requirements described in 6.5B.4.2.3 and are not repeated in this clause.

6.5B.4.2.3 Minimum conformance requirements

Same minimum conformance requirements as in clause 6.5B.4.1.3.

对于FR1中的频段间EN-DC，附加杂散发射限值在TS 38.521-3 [8]中的第6.5B.4.3.5节定义。

6.5B.4.3.5 Test Requirement

Same test requirement as in clause 6.5.3.3.5 in TS 38.521-1 [8] for the NR carrier.

6.5.3.3.5Test requirement

This clause specifies the requirements for the specified NR band for an additional spectrum emission requirement with protected bands as indicated from Table 6.5.3.3.5.1 to Table 6.5.3.3.5.27 for different NS_values.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

6.5.3.3.5.1 Test requirement (network signalling value “NS_04”)

When "NS 04" is indicated in the cell,

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3.5-2 for power class 2 UE, and Table 6.2.3.5-3 for power class 3 UE.

The power of any UE emission shall not exceed the levels specified in Table 6.5.3.3.5.1-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth.

Table 6.5.3.3.5.1-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 (MHz)	
2 495 ≤ f < 2 496	–13	1% of Channel BW
2 490.5 ≤ f < 2 495	–13	1 MHz
0.009 < f < 2 490.5	–25	1 MHz

6.5.3.3.5.2 Test requirement (network signalling value “NS_17”)

When "NS_17" is indicated in the cell,

The power of any UE emission shall not exceed the levels specified in Table 6.5.3.3.5.2-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1.3-1 and Table 6.5.3.1.3-2 from the edge of the channel bandwidth.

Table 6.5.3.3.5.2-1: Additional requirements for "NS_17"

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	NOTE
	5, 10 MHz		
470 ≤ f ≤ 710	–26.2	6 MHz	1
NOTE 1: Applicable when the assigned E-UTRA carrier is confined within 718 MHz and 748 MHz and when the channel bandwidth used is 5 or 10 MHz.			

6.5.3.3.5.3 Test requirement (network signalling value “NS_18”)

When "NS_18" is indicated in the cell,

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3.5-8 for power class 3 UE.

The power of any UE emission shall not exceed the levels specified in Table 6.5.3.3.5.3-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth.

Table 6.5.3.3.5.3-1: Additional requirements for "NS_18"

Frequency range (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	
	5, 10, 15, 20, 30 MHz		
692-698	–26.2	6 MHz	

6.5.3.3.5.4 Test requirement (network signalling value “NS_05”)

When "NS 05" is indicated in the cell,

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3.5-6 for power class 3 UE.

The power of any UE emission shall not exceed the levels specified in Table 6.5.3.3.5.4-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth.

Table 6.5.3.3.5.4-1: Additional requirements for "NS_05"

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth	
	5, 10, 15, 20 MHz		
1 884.5 ≤ f ≤ 1 915.7	–41	300 kHz	

6.5.3.3.5.5 Test requirement (network signalling value “NS_43”)

When "NS_43" is indicated in the cell,

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3.5-10 for power class 3 UE.

The power of any UE emission shall not exceed the levels specified in Table 6.5.3.3.5.5-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth.

Table 6.5.3.3.5.5-1: Additional requirement for "NS_43"

Frequency range (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5, 10, 15 MHz	
860 ≤ f ≤ 890	–40	1 MHz
NOTE 1: Applicable for 5 MHz and 15 MHz channel BW confined between 900 MHz and 915 MHz and for 10 MHz channel BW confined between 905 MHz and 915 MHz		

6.5.3.3.5.6 Test requirement (network signalling value “NS_37”)

When "NS_37" is indicated in the cell,

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3.5-14 for power class 3 UE.

The power of any UE emission shall not exceed the levels specified in Table 6.5.3.3.5.6-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth.

Table 6.5.3.3.5.6-1: Additional requirement for "NS_37"

Frequency band (MHz)	Channel bandwidth (MHz) / Spectrum emission limit (dBm)	Measurement bandwidth
	5, 10, 15, 20	
1 475.9 ≤ f ≤ 1 510.9	–35	1 MHz

6.5.3.3.5.7 Test requirement (network signalling value “NS_38”)

Not available

6.5.3.3.5.8 Test requirement (network signalling value “NS_39”)

Not available

6.5.3.3.5.9 Test requirement (network signalling value “NS_40”)

Not available

6.5.3.3.5.10 Test requirement (network signalling value “NS_41”)

Not available

6.5.3.3.5.11 Test requirement (network signalling value “NS_42”)

Not available

6.5.3.3.5.12 Test requirement (network signalling value “NS_21”)

When "NS_21" is indicated in the cell, the power of any UE emission shall not exceed the levels specified in Table 6.5.3.3.5.12-1. These requirements also apply for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth.

Table 6.5.3.3.5.12-1: Additional requirements for "NS_21"

Frequency band (MHz)	Channel bandwidth (MHz) / Spectrum emission limit (dBm)	Measurement bandwidth
	5, 10	
2 200 ≤ f < 2 288	–40	1 MHz
2 288 ≤ f < 2 292	–37	1 MHz
2 292 ≤ f < 2 296	–31	1 MHz

2 296 ≤ f < 2 300	–25	1 MHz
2 320 ≤ f < 2 324	–25	1 MHz
2 324 ≤ f < 2 328	–31	1 MHz
2 328 ≤ f < 2 332	–37	1 MHz
2 332 ≤ f ≤ 2 395	–40	1 MHz

6.5.3.3.5.13 Test requirement (network signalling value “NS_24”)

When "NS 24" is indicated in the cell,

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3.5-17.

The power of any UE emission shall not exceed the levels specified in Table 6.5.3.3.5.13-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth.

Table 6.5.3.3.5.13-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5 MHz, 10 MHz, 15 MHz, 20 MHz	
2 010 ≤ f ≤ 2 025	–50	1 MHz
NOTE 1: This requirement applies at a frequency offset equal or larger than 5 MHz from the upper edge of the channel bandwidth, whenever these frequencies overlap with the specified frequency band.		

6.5.3.3.5.14 Test requirement (network signalling value “NS_27”)

When "NS_27" is indicated in the cell,

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3.5-18 for power class 3 UE.

The power of any UE emission shall not exceed the levels specified in Table 6.5.3.3.5.14-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth.

Table 6.5.3.3.5.14-1: Additional requirement for "NS_27"

Frequency range (MHz)	Channel bandwidth (MHz) / Spectrum emission limit (dBm)	Measurement bandwidth
	5, 10, 15, 20, 40	
9 kHz – 3 530 MHz	–40	1 MHz
3 530 MHz – 3 540 MHz	–25	
3 710 MHz – 3 720 MHz	–25	
3 720 MHz – 12.75 GHz	–40	

6.5.3.3.5.15 Test requirement (network signalling value “NS_47”)

When "NS 47" is indicated in the cell, the power of any UE emission shall not exceed the levels specified in Table 6.5.3.3.5.15-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth.

Table 6.5.3.3.5.15-1: Additional requirement for "NS_47"

Frequency band (MHz)	Channel bandwidth (MHz) / Spectrum emission limit (dBm)	Measurement bandwidth
	30	
2 530 ≤ f ≤ 2 535	–25	1 MHz
2 505 ≤ f ≤ 2 530	–30	1 MHz

6.5.3.3.5.16 Test requirement (network signalling value “NS_50”)

When "NS_50" is indicated in the cell, the power of any UE emission shall not exceed the levels specified in Table 6.5.3.3.5.16-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth.

Table 6.5.3.3.5.16-1: Additional requirements for "NS_50"

Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
Frequency range	1 805	-	1 855	–40	1	1
Frequency range	1 855	-	1 880	–15.5	5	1, 2, 3
NOTE 1: This requirement is applicable for carriers with aggregated channel bandwidths confined in 1 885-1 920 MHz for ≤ 30 MHz channel BWs and confined in 1 880-1 920 MHz for 40 MHz channel BW.						
NOTE 2: The requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth.						
NOTE 3: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.						

6.5.3.3.5.17 Test requirement (network signalling value “NS_12”)

Table 6.5.3.3.5.17-1: Additional requirements for “NS_12”

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5 MHz, 10 MHz	
806 ≤ f ≤ 813.5	–42	6.25 kHz
NOTE 1: The requirement applies for E-UTRA carriers with lower channel edge at or above 814 MHz.		
NOTE 2: The emissions measurement shall be sufficiently power averaged to ensure a standard deviation < 0.5 dB.		

6.5.3.3.5.18 Test requirement (network signalling value “NS_13”)

Table 6.5.3.3.5.18-1: Additional requirements for “NS_13”

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5 MHz	
806 ≤ f ≤ 816	–42	6.25 kHz
NOTE 1: The requirement applies for E-UTRA carriers with lower channel edge at or above 817 MHz.		
NOTE 2: The emissions measurement shall be sufficiently power averaged to ensure a standard deviation < 0.5 dB.		

6.5.3.3.5.19 Test requirement (network signalling value “NS_14”)

Table 6.5.3.3.5.19-1: Additional requirements for “NS_14”

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	10 MHz, 15 MHz, 20 MHz	
806 ≤ f ≤ 816	–42	6.25 kHz
NOTE 1: The requirement applies for E-UTRA carriers with lower channel edge at or above 817 MHz. NOTE 2: The emissions measurement shall be sufficiently power averaged to ensure a standard deviation < 0.5 dB.		

6.5.3.3.5.20 Test requirement (network signalling value “NS_15”)

Table 6.5.3.3.5.20-1: Additional requirements for “NS_15”

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)	Measurement bandwidth
	5 MHz, 10 MHz, 15 MHz, 20 MHz	
851 ≤ f ≤ 859	–53	6.25 kHz
NOTE 1: The emissions measurement shall be sufficiently power averaged to ensure a standard deviation < 0.5 dB.		

6.5.3.3.5.21 Test requirement (network signalling value “NS_45”)

When "NS 45" is indicated in the cell,

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3.5-29.

The power of any UE emission shall not exceed the levels specified in Table 6.5.3.3.5.21-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth.

Table 6.5.3.3.5.21-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit (dBm)		Measurement bandwidth
	5 MHz	10 MHz	
0.009 < f ≤ 2 473.5	–25	–25	1 MHz
2 473.5 < f ≤ 2 477.5	–25	–13	1 MHz
2 477.5 < f ≤ 2 478.5	–13	–13	1 MHz
2 478.5< f ≤ 2 483.5	–10	–10	1 MHz
2 495 ≤ f < 2 496	–13	–13	1% of Channel Bandwidth
2 496 ≤ f < 2 501	–13	–13	1 MHz
2 501 < f ≤ 2 505	–25	–13	1 MHz
2 505 ≤ f ≤ 5th harmonic of the upper frequency edge of the UL operating band	–25	–25	1 MHz

6.5.3.3.5.22 Test requirement (network signalling value “NS_48”)

When "NS 48" is indicated in the cell,

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3.5-24.

The power of any UE emission shall not exceed the levels specified in Table 6.5.3.3.5.22-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth.

Table 6.5.3.3.5.22-1: Additional requirements

Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
E-UTRA band 34 – NR band n34	F_{DL_low}	-	F_{DL_high}	–50	1	
Frequency range	1 900	-	1 915	–15.5	5	1
Frequency range	1 915	-	1 920	+1.6	5	1
NOTE 1: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.						

6.5.3.3.5.23 Test requirement (network signalling value “NS_49”)

When "NS 49" is indicated in the cell,

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3.5-33.

The power of any UE emission shall not exceed the levels specified in Table 6.5.3.3.5.23-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth.

Table 6.5.3.3.5.23-1: Additional requirements

Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
E-UTRA band 34 - NR band n34	F_{DL_low}	-	F_{DL_high}	–50	1	
Frequency range	1 880	-	1 895	–40	1	
Frequency range	1 895		1 915	–15.5	5	1
Frequency range	1 915	-	1 920	1.6	5	1
NOTE 1: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.						

6.5.3.3.5.24 Test requirement (network signalling value “NS_44”)

When "NS 44" is indicated in the cell,

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3.5-31.

The power of any UE emission shall not exceed the levels specified in Table 6.5.3.3.5.24-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth.

Table 6.5.3.3.5.24-1: Additional requirements

Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
Frequency range	2 620	-	2 645	–15.5	5	1, 2
Frequency range	2 645	-	2 690	–40	1	1
NOTE 1: This requirement is applicable for carriers confined in 2570-2615 MHz. NOTE 2: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.						

6.5.3.3.5.25 Test requirement (network signalling value “NS_46”)

When "NS_46" is indicated in the cell, the measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3.5-30. The power of any UE emission shall not exceed the levels specified in Table 6.5.3.3.5.25-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth.

Table 6.5.3.3.25-1: Additional requirements for “NS_46”

Protected band	Frequency range (MHz)			Maximum Level (dBm)	MBW (MHz)	NOTE
Frequency range	2 570	-	2 575	+1.6	5	1, 2
Frequency range	2 575	-	2 595	–15.5	5	1, 2
Frequency range	2 595	-	2 620	–40	1	1
NOTE 1: This requirement is applicable for all carriers confined in 2 500-2 570 MHz. Special restrictions apply for channel bandwidths up to 20 MHz: For carriers of 15 MHz bandwidth when carrier centre frequency is within the range 2 560.5-2 562.5 MHz and for carriers of 20 MHz bandwidth when carrier centre frequency is within the range 2 552-2 560 MHz the requirement is applicable only for an uplink transmission bandwidth less than or equal to 54 RB with the minimum supported SCS of 15 KHz. NOTE 2: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.						

6.5.3.3.5.26 Test requirement (network signalling value “NS_07”)

Not available

6.5.3.3.5.27 Test requirement (network signalling value “NS_56”)

When "NS 56" is indicated in the cell,

The measured UE mean power in the channel bandwidth, derived in step 3, shall fulfil requirements in Table 6.2.3.5-36.

The power of any UE emission shall not exceed the levels specified in Table 6.5.3.3.5.27-1. This requirement also applies for the frequency ranges that are less than F_{OOB} (MHz) in Table 6.5.3.1.3-1 from the edge of the channel bandwidth.

Table 6.5.3.3.5.27-1: Additional requirements

Frequency band (MHz)	Channel bandwidth / Spectrum emission limit[1] (dBm)	Measurement bandwidth	NOTE
	5 MHz, 10 MHz		
1 541 ≤ f ≤ 1 559	–102	2 kHz	Averaged over any 2 millisecond active transmission interval
1 559≤ f ≤ 1 608	–85	700 Hz	
1 608≤ f ≤ 1 610	–85 +5/2 (f-1608)	700 Hz	
1 610≤ f ≤ 1 625	–80+ 66/15 (f-1610)	700 Hz	
1 541 ≤ f ≤ 1 608	-75	1 MHz	Averaged over any 2 millisecond active transmission interval
1 608≤ f ≤ 1 610	–75 + 5/2 (f-1608)	1 MHz	
1 610≤ f ≤ 1 627.5	–70+ 57/17.5 (f-1610)	1 MHz	
1 627.5	–37	4 kHz	
1 638.5 ≤f ≤ 1 645.5	–28	4 kHz	
1 657.5 ≤f ≤ 1 660.5	–28	4 kHz	
NOTE 1: The EIRP requirement in regulation is converted to conducted requirement using a 0 dBi antenna.			

4.2.2.3 接收机杂散发射

对于带内连续EN-DC，在TS 38.5213 [8]中的第7.9B.1.5节定义了接收机杂散发射限值。

7.9B.1.5 Test requirement

Same test requirement as in clause 7.9.5 in TS 38.521-1 [8].

7.9.5 Test requirement

The measured spurious emissions derived in step 1), shall not exceed the maximum level specified in Table 7.9.5-1.

Table 7.9.5-1: General receiver spurious emission requirements

Frequency range	Measurement bandwidth	Maximum level	NOTE
30 MHz ≤ f < 1 GHz	100 kHz	–57 dBm	
1 GHz ≤ f ≤ 12.75 GHz	1 MHz	–47 dBm	
12.75 GHz ≤ f ≤ 5th harmonic of the upper frequency edge of the DL operating band in GHz	1 MHz	–47 dBm	2
12.75 GHz – 26 GHz	1 MHz	–47 dBm	3
NOTE 1: Unused PDCCH resources are padded with resource element groups with power level given by PDCCH as defined in Annex C.3.1. NOTE 2: Applies for Band that the upper frequency edge of the DL Band more than 2.69 GHz. NOTE 3: Applies for Band that the upper frequency edge of the DL Band more than 5.2 GHz.			

对于带内不连续EN-DC，在TS 38.521-3 [8]中的第7.9B.2.5节定义了接收机杂散发射限值。

7.9B.2.5 Test requirement

Same test requirement as in clause 7.9.5 in TS 38.521-1 [8].

对于FR1中的带内EN-DC，附加接收机发射限值在TS 38.521-3 [8]中的第7.9B.3.5和7.9B.3_1.1.5节定义。

7.9B.3.5 Test requirement

Same test requirement as in clause 7.9.5 in TS 38.521-1 [8].

7.9B.3_1.1.5 Test requirement

Same test requirement as in clause 7.9.5 in TS 38.521-1 [8].

对于包括FR2的频段间EN-DC，在TS 38.521-3 [8]中的第7.9B.4.5节定义了接收机杂散发射限值。

7.9B.4.5 Test requirements

Same test requirement as in clause 7.9.5 in TS 38.521-2 [9] for the *NR* carrier.

7.9.5 Test requirement

The measured spurious emissions derived in step 5, shall not exceed the maximum level specified in Table 7.9.5-1.

Table 7.9.5-1: General receiver spurious emission requirements (Band n257, n258, n260, n261)

Frequency range	Measurement bandwidth	Maximum level	NOTE
6 GHz ≤ f < 20 GHz	1 MHz	–47 + 10.2 dBm	1
20 GHz ≤ f < 40 GHz	1 MHz	–47 + 17.2 dBm	1
40 GHz ≤ f ≤ 2nd harmonic of the upper frequency edge of the DL operating band in GHz	1 MHz	–47 + 33.1 dBm	1
NOTE 1: Unused PDCCH resources are padded with resource element groups with power level given by PDCCH as defined in Annex C.3.1.			

5 参考文献

[1] ARIB STD-T120-36.101 V17.6.0, ETSI TS 136 101 V17.6.0 or TTAT.3G-36.101V17.6.0 these standards refer to 3GPP TS 36.101 V17.6.0 (2022-06), “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception (Release 17)”

[2] ARIB STD-T120-38.101-1 V17.6.0, ETSI TS 138 101-1 V17.6.0 or TTAT.3G-38.101-1V17.6.0 these standards refer to 3GPP TS 38.101-1 V17.6.0 (2022-06), “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; NR; User Equipment (UE) radio transmission and reception; Part 1: Range 1 Standalone (Release 17)”

[3] ARIB STD-T120-38.101-2 V17.6.0, ETSI TS 138 101-2 V17.6.0 or TTAT.3G-38.101-2V17.6.0 these standards refer to 3GPP TS 38.101-2 V17.6.0 (2022-06), “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; NR; User Equipment (UE) radio transmission and reception; Part 2: Range 2 Standalone (Release 17)”

[4] ARIB STD-T120-38.101-3 V17.6.0, ETSI TS 138 101-3 V17.6.0 or TTAT.3G-38.101-3V17.6.0 these standards refer to 3GPP TS 38.101-3 V17.6.0 (2022-06), “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; NR; User Equipment (UE) radio transmission and reception; Part 3: Range 1 and Range 2 Interworking operation with other radios (Release 17)”

[5] ARIB STD-T120-36.521-1 V17.3.0, ETSI TS 136 521-1 V17.3.0 or TTA TTAT.3G-36.521-1V17.3.0 these standards refer to 3GPP TS 36.521-1[5] (2022-06), “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance Testing (Release 17)”

[6] ARIB STD-T120-38.521-1 V17.5.0, ETSI TS 138 521-1 V17.5.0 or TTA TTAT.3G-38.521-1V17.5.0, these standards refer to 3GPP 38.521-1 V17.5.0 (2022-06), “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Range 1 Standalone; (Release 17)”

[7] ARIB STD-T120-38.521-2 V16.12.0, ETSI TS 138 521-2 V16.12.0 or TTA TTAT.3G-38.521-2V16.12.0 these standards refer to 3GPP 38.521-2 V16.12.0 (2022-06), “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Range 2 Standalone (Release 16)”

[8] ARIB STD-T120-38.521-3 V17.5.0, ETSI TS 138 521-3 V17.5.0 or TTA TTAT.3G-38.521-3V17.5.0 these standards refer to 3GPP 38.521-3 V17.5.0 (2022-06), “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Range 1 and Range 2 Interworking operation with other radios (Release 17)”

[9] Recommendation ITU-R SM.329: "Unwanted emissions in the spurious domain".

[10] Recommendation ITU-R M.1545: "Measurement uncertainty as it applies to test limits for the terrestrial component of International Mobile Telecommunications-2000".

附件1的附录1

测试容限的定义

测试容限

参考ITU-RM.1545建议书[10]，“测试容限”是ITU-RM.1545建议书[10]建议2中提到的宽松值，即核心规范值和测试限值之间的差值，按照ITU-R M.1545 [10]建议书附件1图2和图3，应用风险共担原则进行评估。在核心规范值等于试验限值的情况下（ITU-RM.1545建议书[10]附件1图3），“试验容差”等于0。

附件2

3GPP 5G-RIT

3GPP 5G-RIT移动电台的无用发射特性见本建议书附件1“3GPP 5G-SRIT”的第2、3和4节。

附件3

5Gi RIT

附件2中的无用发射特性应适用于5Gi RIT。

附件4

DECT-2020 NR – RIT组件

简介

DECT 5G-SRIT由两个组件组成：

- DECT-2020 NR-RIT组件。
- 3GPP NR-RIT组件。

本附件提供了使用DECT-2020 NR无线接口[1]和[2]的移动电台（PT模式下的无线电设备）的无用发射特性。

本建议书的附件2提供了使用3GPP NR无线接口的移动电台的无用发射特性。

1 DECT-2020 NR的无用发射特性

1.1 操作频段

操作频段编号定义见表A4-1和表A4-2。无线电设备可根据其能力实现支持一个或多个频段。

表A4-1

操作频段编号

由DECT-2020 NR使用并在《无线电规则》中为IMT确定的频段

频段号	接收频段（MHz）	发射频段（MHz）	为各国/各区域确定IMT频段或其中一部分的脚注
1	1 880 至 1 900	1 880 至 1 900	**5.388**
2	1 900 至 1 920	1 900 至 1 920	**5.388**
5	450 至 470	450 至 470	**5.286AA**
6	698 至 806	698 至 806	**5.312B 5.317A**
7	716 至 728	716 至 728	**5.312B 5.317A**
8	1 432 至 1 517	1 432 至 1 517	**5.341A、 5.341B、 5.341C**
9	1 920 至 1 930	1 920 至 1 930	**5.388**
10	2 010 至 2 025	2 010 至 2 025	**5.388**
11	2 300 至 2 400	2 300 至 2 400	**5.384A**
12	2 500 至 2 620	2 500 至 2 620	**5.384A**
13	3 300 至 3 400	3 300 至 3 400	**5.429G**
14	3 400 至 3 600	3 400 至 3 600	**5.431A 5.431B**
15	3 600 至 3 700	3 600 至 3 700	**5.434**
16	4 800 至 4 990	4 800 至 4 990	**5.440A 5.441A 5.441B**
21	3 700 至 3 800	3 700 至 3 800	**5.435B**
22	1 910 至 1 930	1 910 至 1 930	**5.388**

表A4-2

操作频段编号

由DECT-2020 NR使用但未在《无线电规则》中确定用于IMT的频段

频段号	接收频段（MHz）	发射频段（MHz）
3	2 400至2 483.5	2 400至2 483.5
4	902至928	902至928
17	5 725至5 875	5 725至5 875
18	5 150至5 350	5 150至5 350
19	5 470至5 725	5 470至5 725
20	3 800至4 200	3 800至4 200

1.2 定义、符号和缩写

1.2.1 符号

β 傅立叶变换比例因子[2]

μ 副载波比例因子[2]

Δf_{oob} 带外发射的Δ频率[1]

B_N 标称信道带宽

B_G 标称信道带宽与传输带宽之间的差值

Fc 载波中心频率

$Pmax$ 无线电设备功率等级的最大传输功率

1.2.2 缩略语

ACLR 相邻信道泄漏比

DFT 离散傅立叶变换

MBW 测量带宽

2 DECT-2020的发射机频谱发射要求

2.1 概述

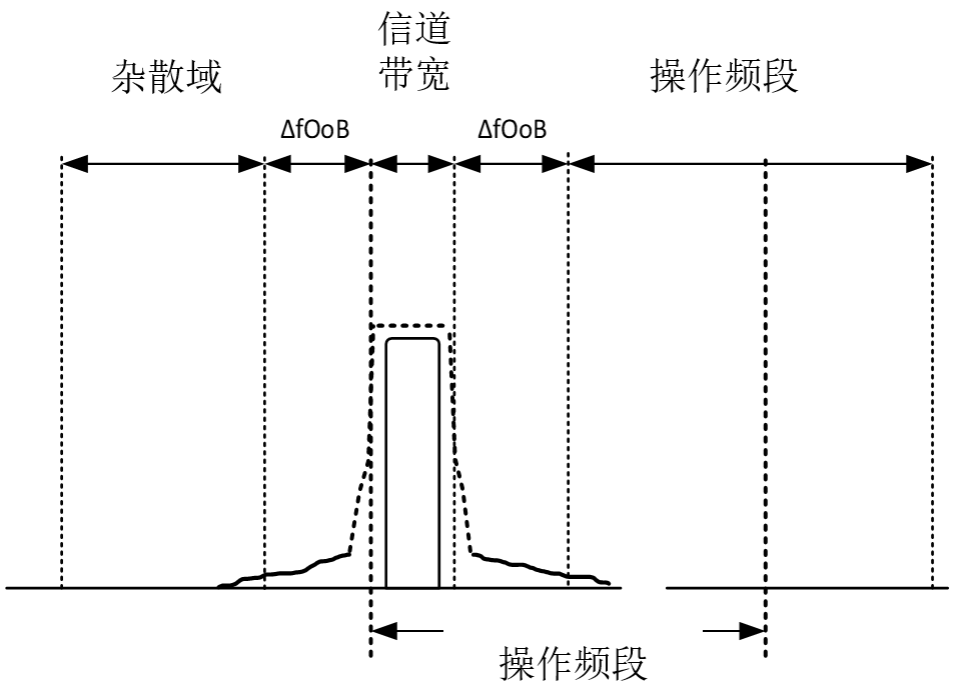
无线电设备发射机的频谱发射包括占用信道发射、带外发射和杂散发射。这些发射组成部分之间的关系如图A4-1所示。

发射机特性是在无线电设备的天线连接器端口处规定的。对于仅配备内置天线的无线电设备，应假定每个天线端口对应一个增益为0 dBi的参考天线。

功率值适用于非AAS工作模式。

图A4-1

发射机的射频频谱



2.2 占用信道带宽

占用带宽是指这样一种带宽，即在低于频率下限之下或高于频率上限的情况下，发射的平均功率各等于总平均发射功率的0.5%。

占用带宽应小于表A4-3中规定的标称信道带宽。

表A4-3

信道带宽

参数	操作信道带宽I	操作信道带宽II	操作信道带宽III		
标称信道带宽（MHz）	1.728	3.456	6.912		
(μ, β)	(1,1)	(1,2)	(2,1)	(1,4)	(2,2)
传输信道带宽（MHz）	1.539	3.051	6.075	6.102	6.156

2.3 最大输出功率

最大输出功率（*Pmax*）定义为所发射分组的平均功率。最大发射机输出功率定义见表A4-4。无线电装置在其操作中可使用一个或多个功率类别。

表A4-4

最大输出功率

无线电设备功率等级	操作信道带宽（MHz）		
	1,728	3,456	6,912
	输出功率（dBm）		
I类	23	23	23
II 类	21	21	21
III 级	19	19	19
IV类	10	10	10

注1：测量带宽等于表A4-3中规定的操作信道带宽的传输带宽。

2.4 带外发射

带外发射是由调制过程和发射机的非线性引起的、紧邻指配信道带宽外的无用发射，但不包括杂散发射。

无线电设备（RD）的频谱发射掩模适用于从指定信道的±边缘（即$F_c + B_N/2$或$F_c - B_N/2$）起、频率偏移为Δf_{OOB}的频率范围。对于频率偏移大于表A4-4规定的Δf_{OOB}的频率，应适用第2.5节规定的杂散发射要求。

表A4-5

频谱发射限值30 kHz测量带宽

Δf_{oob}		限值（dBm）	测量带宽（kHz）
$B_G/2$ 1 MHz≥	$B_G/2$ < 1 MHz		
-	0 到 $B_G/2$	$-10 - 10\log10(B_N/1{,}728)$	30
-	-0 到 $-B_G/2$	$-10 - 10\log10(B_N/1{,}728)$	30
0 至 1 MHz	$B_G/2$ 至 1 MHz	$-21 - 10\log10(B_N/1{,}728)$	30
0 至 1 MHz−	$-B_G/2$ 至 1 MHz−	$-21 - 10\log10(B_N/1{,}728)$	30

注1：30 kHz测量滤波器的第一中心频率在Δf_{oob}= 0,015 MHz处，即距载波中心频率$B_N/2$ + 0,015MHz。

注2：在从$B_G/2$到1MHz的范围内，30 kHz测量滤波器的第一中心频率在$\Delta f_{oob} = B_G/2 + 0{,}015$ MHz处，即距载波中心频率的$B_N/2 + B_G/2 + 0{,}015$ MHz

注3：在负Δf_{oob}频率上，对称性类似注1和注2

表A4-6

频谱发射限值1MHz测量

Δf_{oob}	限值（dbm）		测量带宽（MHz）
	$B_N \leq 6.912\ MHz$	$B_N > 6.912\ MHz$	
1 MHz 至 B_N	-10	$-10 - 10\log10(B_N/6{,}912)$	1
MHz 到 $-B_N$	-10	$-10 - 10\log10(B_N/6{,}912)$	1
B_N 至 $2B_N$	-25	$-25 - 10\log10(B_N/6{,}912)$	1
$-B_N$ 至 $-2B_N$	-25	$-25 - 10\log10(B_N/6{,}912)$	1

注1：1 MHz至B_N范围内的1 MHz测量滤波器第一中心频率 B_N为Δf_{oob}= 1.5 MHz。

注 2：1 MHz 测量滤波器的第一中心频率，在B_N至$2B_N$ 范围内，位于Δf_{oob}= B_N + 0.5 MHz 处。

注 3：在负Δf_{oob}频率上与注 1 和注 2 对称类似。

测量设备的分辨带宽应等于测量带宽 （MBW）。不过，为了提高测量精确度、灵敏度和效率，分辨带宽可能小于测量带宽，或者可以使用具有非常陡过渡响应的矩形通道滤波器。当分辨带宽小于测量带宽时，结果应在测量带宽上积分，以便获得测量带宽的等效噪声带宽。

2.5 杂散发射

杂散发射是由无用发射机效应引起的发射，如谐波发射、寄生发射、互调产物和变频产物，但带外发射除外，除非另有说明。杂散发射限值是根据ITU-RSM.329建议书的一般要求来规定的。

除非另有说明，杂散发射限值适用于距离信道带宽边缘大于Δf_{oob}（MHz）的频率范围，如表A4-4所示。表A4-5中的杂散发射限值适用于所有发射机频段和信道带宽。

杂散发射应在发射机工作的时间段内测量，不包括任何瞬态周期。

对于在每个频率范围边缘的测量条件，在每个频率范围中测量位置的最低频率应设定在频率范围的最低边界加上MBW/2。在每个频率范围内，测量位置的最高频率应设定在频率范围的最高边界减去MBW/2。MBW表示为受保护频段定义的测量带宽。

表A4-7

杂散发射限值

频率范围	最高电平	测量带宽
9 kHz ≤ f < 150 kHz	–36 dBm	1 kHz
150 kHz ≤ f < 30 MHz	–36 dBm	10 kHz
30 MHz ≤ f < 1 000 MHz	–36 dBm	100 kHz
1 GHz ≤ f < 12,75 GHz	–30 dBm	1 MHz
12.75 GHz ≤ f <上部频率边缘的五次谐波，单位为GHz	–30 dBm	1 MHz

2.6 相邻信道泄漏比

相邻信道泄漏比（ACLR）用于衡量发射功率泄漏到相邻信道的程度。ACLR定义为：以指定信道中心频率为中心、经滤波后的平均功率，与以相邻信道中心频率为中心、且测量带宽等于传输带宽时经滤波后的平均功率之比。

ACLR采用相邻信道上的矩形窗进行测量。首先对发射信号进行DFT，然后利用相应频率单元的能量计算相邻信道功率。

对于从−40 dBm到最大功率等级*PMAX*的所有发射功率，均应满足表A4-8规定的ACLR要求。

表A4-8

相邻信道泄漏比限值

限值（dBc）
–30

3 参考文献

[1] ETSI TS 103 636-2 v1.5.1: DECT-2020 NR New Radio (NR); Part 2: Radio reception and transmission requirements, release 1

[2] ETSI TS 103 636-3 v1.5.1: DECT-2020 NR New Radio (NR); Part 3: Physical layer, release 1

[3] Recommendation ITU-R SM.329: “Unwanted emissions in the spurious domain”.

[4] Recommendation ITU-R M.1545: “Measurement uncertainty as it applies to test limits for the terrestrial component of International Mobile Telecommunications-2000”.

附件4的后附资料1

测试容限的定义

测试容限

参考ITU-RM.1545建议书[10]，“测试容限”是ITU-RM.1545建议书[10]建议2中提到的宽松值，即核心规范值和测试限值之间的差值，按照ITU-R M.1545 [10]建议书附件1图2和图3，应用风险共担原则进行评估。在核心规范值等于试验限值的情况下（ITU-RM.1545建议书[10]附件1图3），“试验容差”等于0。