Recommendation ITU-R M.2012-7
(02/2026)

M Series: Mobile, radiodetermination, amateur and related satellite services

Detailed specifications of the terrestrial radio interfaces of International Mobile Telecommunications-Advanced (IMT-Advanced)

Foreword

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TF	Time signals and frequency standards emissions
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Note: *This ITU-R Recommendation was approved in English under the procedure detailed in Resolution ITU-R 1.*

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RECOMMENDATION ITU-R M.2012-7

Detailed specifications of the terrestrial radio interfaces of International Mobile Telecommunications-Advanced (IMT-Advanced)

(2012-2014-2015-2017-2019-2022-2023-2026)

Scope

This Recommendation identifies the terrestrial radio interface technologies of International Mobile Telecommunications-Advanced (IMT-Advanced) and provides the detailed radio interface specifications. These radio interface specifications detail the features and parameters of IMT-Advanced. This Recommendation includes the capability to ensure worldwide compatibility, international roaming, and access to high-speed data services.

Keywords

IMT, IMT-Advanced, LTE-Advanced, LTE-Advanced Pro, WirelessMAN-Advanced, radio interface specifications

Related ITU-R Recommendations, Reports and Resolutions[1]

Recommendation ITU-R M.1036 – Frequency arrangements for implementation of the terrestrial component of International Mobile Telecommunications (IMT) in the bands identified for IMT in the Radio Regulations (RR)

Recommendation ITU-R M.1224 – Vocabulary of Terms for International Mobile Telecommunications (IMT)

Recommendation ITU-R M.1579 – Global circulation of IMT terrestrial terminals

Recommendation ITU-R M.1645 – Framework and overall objectives of the future development of IMT-2000 and systems beyond IMT-2000

Recommendation ITU-R M.1822 – Framework for services supported by IMT

Recommendation ITU-R M.2047 – Detailed specifications of the satellite radio interface of International Mobile Telecommunications-Advanced (IMT-Advanced)

Recommendation ITU-R M.2070 – Generic unwanted emission characteristics of base stations using the terrestrial radio interfaces of IMT-Advanced

Recommendation ITU-R M.2071 – Generic unwanted emission characteristics of mobile stations using the terrestrial radio interfaces of IMT-Advanced

Recommendation ITU-R M.2090 – Specific unwanted emission limit of IMT mobile stations operating in the frequency band 694-790 MHz to facilitate protection of existing services in Region 1 in the frequency band 470-694 MHz

Report ITU-R M.2072 – World mobile telecommunication market forecast

Report ITU-R M.2074 – Radio aspects for the terrestrial component of IMT-2000 and systems beyond IMT-2000

Report ITU-R M.2133 – Requirements, evaluation criteria and submission templates for the development of IMT-Advanced

Report ITU-R M.2134 – Requirements related to technical performance for IMT-Advanced radio interface(s)

Report ITU-R M.2135 – Guidelines for evaluation of radio interface technologies for IMT-Advanced

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[1] The latest edition of the Recommendation/Reports in force should be used.

Report ITU-R M.2198 – The outcome of the evaluation, consensus building and decision of the IMT-Advanced process (steps 4-7), including characteristics of IMT-Advanced radio interfaces

Report ITU-R M.2291 – The use of International Mobile Telecommunications for the broadband public protection and disaster relief applications

Report ITU-R M.2320 – Future technology trends of terrestrial IMT systems

Report ITU-R M.2334 – Passive and active antenna systems for base stations of IMT systems

Report ITU-R M.2370 – IMT traffic estimates for the years 2020 to 2030

Report ITU-R M.2373 – Audio-visual capabilities and applications supported by terrestrial IMT systems

Report ITU-R M.2375 – Architecture and topology of IMT networks

Resolution ITU-R 56 – Naming for International Mobile Telecommunications

Resolution ITU-R 57 – Principles for the process of development of IMT-Advanced

Handbook on International Mobile Telecommunications.

The ITU Radiocommunication Assembly,

considering

a)   that IMT systems are mobile broadband systems including IMT-2000, IMT-Advanced and IMT-2020;

b)   that IMT-Advanced systems include the new capabilities of IMT that go beyond those of IMT-2000[2];

c)   that such systems provide access to a wide range of telecommunication services including advanced mobile services, supported by mobile and fixed networks, which are increasingly packet-based;

d)   that IMT-Advanced systems support low to high mobility applications and a wide range of data rates in accordance with user and service demands in multiple user environments;

e)   that IMT-Advanced also has capabilities for high-quality multimedia applications within a wide range of services and platforms providing a significant improvement in performance and quality of service;

f)   that the key features of IMT-Advanced are:

–   a high degree of commonality of functionality worldwide while retaining the flexibility to support a wide range of services and applications in a cost-efficient manner;

–   compatibility of services within IMT and with fixed networks;

–   capability of interworking with other radio access systems;

–   high-quality mobile services;

–   user equipment suitable for worldwide use;

–   user-friendly applications, services and equipment;

–   worldwide roaming capability;

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[2]   Recommendations ITU-R M.1457 and ITU-R M.2012 are two separate, independent, and self-contained Recommendations, each one with a specific scope. Both Recommendations will evolve independently, and there could be some overlap reflected by commonality in content between the two documents.

–   enhanced peak data rates to support advanced services and applications (100 Mbit/s for high and 1 Gbit/s for low mobility were established as targets for research)[3];

g)   that these features enable IMT-Advanced to address evolving user needs;

h)   that the capabilities of IMT-Advanced systems are being continuously enhanced in line with technology developments;

i)   the necessity of priority services (e.g. emergency calls shall be supported as higher priority than other commercial services);

j)   that due to the large effective bandwidths required to support the very high data rates needed for the various services offered, allowances must be made for either much larger single carrier bandwidths (even as spectral efficiencies increase) or aggregation of RF carriers;

k)   that the rapid development of information technology, including the Internet, has resulted in the aggregation and convergence of various networks and digital devices,

further considering

that Resolution ITU-R 57-2 on the "Principles for the process of development of IMT-Advanced" outlines the essential criteria and principles used in the process of developing the Recommendations and Reports for IMT-Advanced, including Recommendation(s) for the radio interface specification,

noting

that Report ITU-R M.2198 contains the outcome and conclusions of Steps 4 through 7 of the IMT-Advanced process, including the evaluation and consensus building, and provides the characteristics of the IMT-Advanced terrestrial radio interfaces for the first release of Recommendation ITU-R M.2012-0 (01-2012),

recommends

1   that the terrestrial radio interfaces for IMT-Advanced should be:

–   "LTE-Advanced"[4]; and

–   "WirelessMAN-Advanced"[5];

2   that the information provided or referenced in Annexes 1 and 2 should be used according to the terrestrial radio interfaces referred to in *recommends* 1 above as the complete set of standards for the detailed specifications of the terrestrial radio interfaces of IMT-Advanced.

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[3]   Data rates sourced from Recommendation ITU-R M.1645.

[4]   Developed by 3GPP as LTE Release 10 and Beyond (Long Term Evolution-Advanced).

[5]   Developed by IEEE as the WirelessMAN-Advanced specification incorporated in IEEE Std 802.16 beginning with approval of IEEE Std 802.16m.

Annex 1

Specification of the LTE-Advanced radio interface technology

Background

IMT-Advanced is a system with global development activity and the IMT-Advanced terrestrial radio interface specifications identified in this Recommendation have been developed by the ITU in collaboration with the GCS[6] Proponents and the Transposing Organizations. It is noted from Document IMT-ADV/24(Rev.3), that:

–   The GCS Proponent must be one of the RIT[7]/SRIT[8] Proponents for the relevant technology and must have legal authority to grant to ITU-R the relevant legal usage rights to the relevant specifications provided within a GCS corresponding to a technology in Recommendation ITU-R M.2012.

–   A Transposing Organization must have been authorized by the relevant GCS Proponent to produce transposed standards for a particular technology and must have the relevant legal usage rights.

It is further noted that GCS Proponents and Transposing Organizations must also qualify appropriately under the auspices of Resolution ITU-R 9-5 and the ITU-R "Guidelines for the contribution of material of other organizations to the work of the Study Groups and for inviting other organizations to take part in the study of specific matters (Resolution ITU-R 9-5)".

The ITU has provided the global and overall framework and requirements and has developed the Global Core Specification jointly with the GCS Proponent. The detailed standardization has been undertaken within the recognized Transposing Organizations which operate in concert with the GCS Proponent. This Recommendation therefore makes extensive use of references to externally developed specifications.

This approach was considered to be the most appropriate solution to enable completion of this Recommendation within the aggressive schedules set by the ITU and by the needs of administrations, operators and manufacturers.

This Recommendation has therefore been constructed to take full advantage of this method of work and to allow the global standardization time-scales to be maintained. The main body of this Recommendation has been developed by the ITU, with each Annex containing references pointing to the location of the more detailed information.

This Annex 1 contains the detailed information developed by the ITU and "ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, and TTC on behalf of 3GPP" (the GCS Proponent) and ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, and TTC (the Transposing Organizations).

Such use of referencing enables timely completion and update of the high-level elements of this Recommendation, with change control procedures, transposition, and public enquiry procedures being undertaken within the external organization. This information has generally been adopted unchanged, recognizing the need to minimize duplication of work, and the need to facilitate and support an ongoing maintenance and update process.

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[6]   A "GCS" (Global Core Specification) is the set of specifications that defines a single RIT, an SRIT, or a RIT within an SRIT.

[7]   Radio Interface Technology.

[8]   Set of Radio Interface Technologies.

This general agreement, noting that the detailed information of the radio interface should to a large extent be achieved by reference to the work of external organizations, highlights not only the ITU's significant role as a catalyst in stimulating, coordinating and facilitating the development of advanced telecommunications technologies, but also its forward-looking and flexible approach to the development of this and other telecommunications standards for the 21st century.

A more detailed understanding of the process for the development of the first release of this Recommendation may be found in Document IMT-ADV/24(Rev.3) whereas details on the process for the development of revisions of this Recommendation may be found in Document IMT-ADV/25(Rev.2).

1 Overview of the radio interface technology

1.1 Overview of the SRIT

The IMT-Advanced terrestrial radio interface specifications known as LTE-Advanced is based on LTE Release 10 and Beyond are developed by 3GPP. In 3GPP terminology, the term E-UTRA (Evolved-UTRA) is also used to indicate the LTE radio interface, and 3GPP LTE Release 13 and beyond is marked as "LTE-Advanced Pro".

LTE-Advanced is a Set of RITs (Radio Interface Technologies) consisting of one FDD RIT and one TDD RIT designed for operation in paired and unpaired spectrum, respectively. The TDD RIT is also known as TD-LTE Release 10 and Beyond or *TD-LTE-Advanced*. The two RITs have been jointly developed, providing a high degree of commonality while, at the same time, allowing for optimization of each RIT with respect to its specific spectrum/duplex arrangement.

Both the FDD RIT and the TDD RIT individually, and consequently the Set of RITs (SRIT), meet all the ITU IMT-Advanced minimum requirements in all four test environments defined in all aspects of Services, Spectrum and Technical performance. Furthermore, both the FDD RIT and TDD RIT individually, and consequently the SRIT, meet the requirements of Resolution ITU-R 57-2, *resolves* 6 *e)* and *f)* in all four test environments.

The complete set of standards for the terrestrial radio interface of IMT-Advanced identified as *LTE-Advanced* includes not only the key characteristics of IMT-Advanced but also the additional capabilities of *LTE-Advanced* both of which are continuing to be enhanced.

The radio aspects of *LTE-Advanced* also include the capabilities of LTE Release 8 and LTE Release 9. Furthermore, information on system and core network specifications is also provided for a complete system perspective. These system and core network specifications address the network, terminal, and service aspects required to provide an integrated mobility solution including aspects such as user services, connectivity, interoperability, mobility and roaming, security, codecs and media, operations and maintenance, charging, etc. Information on the Radio specifications Release 8 and Release 9 as well as on the System and Core Network specifications is provided in § 2.2.

1.2 Overview of the Radio Interface Technology (RIT)

1.2.1 Overview of the FDD RIT

The FDD RIT is the evolution of LTE FDD. The FDD RIT uses Frequency Division Duplex operation and therefore is applicable for operation with paired spectrum. Both full-duplex and half-duplex FDD are supported.

1.2.2   Overview of the TDD RIT

The TDD RIT, also known as *TD-LTE-Advanced*, is the evolution of TD-LTE. The TDD RIT uses Time-Division Duplex operation and therefore is applicable for operation with unpaired spectrum. The TDD RIT provides flexibility in terms of downlink-uplink resource allocation by supporting multiple uplink-downlink resource-allocation configurations that can be used to match different traffic scenarios. The uplink-downlink resource-allocation configuration can be adapted to the varying instantaneous traffic and interference conditions even during operation.

It is also designed to exploit the more extensive channel reciprocity inherent in case of TDD operation, e.g. for beamforming, and facilitates coexistence with TD-SCDMA as well as other TDD-based IMT-2000 technologies.

1.3   Overview of the system aspects of the SRIT

The FDD and TDD RITs represent the evolution of the first releases of LTE FDD and TDD, respectively. The two RITs share many of the underlying structures to simplify implementation of dual-mode radio-access equipment. Transmission bandwidths up to 640 MHz are supported, yielding peak data rates up to roughly 32 Gbit/s in the downlink and 13.6 Gbit/s in the uplink.

The downlink transmission scheme is based on conventional OFDM to provide a high degree of robustness against channel frequency selectivity while still allowing for low-complexity receiver implementations also at very large bandwidths.

The uplink transmission scheme is based on Discrete Fourier Transform-spread OFDM (DFTS-OFDM). The use of DFTS-OFDM transmission for the uplink is motivated by the lower Peak-to-Average Power Ratio (PAPR) of the transmitted signal compared to conventional OFDM. This allows for more efficient usage of the power amplifier at the terminal, which translates into an increased coverage and/or reduced terminal power consumption. The uplink numerology is aligned with the downlink numerology. The Narrow-band Internet of Things (NB-IoT) UL allows allocating a single-tone in addition to multi-tone DFTS-OFDM with the possibility of a lower subcarrier spacing in addition to the normal subcarrier spacing.

Channel coding is based on rate-1/3 Turbo coding (Tail Biting Convolutional Code for NB-IoT DL) and is complemented by Hybrid-ARQ with soft combining to handle decoding errors at the receiver side. Data modulation supports QPSK, 16-QAM, 64-QAM, and 256-QAM for both the downlink and the uplink. In downlink, 1 024-QAM is also supported.

NB-IoT, supports QPSK and 16-QAM on downlink and for uplink when multi-tones are allocated; pi/2-BPSK and pi/4-QPSK are supported in uplink when a single-tone is allocated.

LTE-M supports QPSK, 16-QAM, and 64-QAM in downlink and QPSK, 16-QAM in uplink; pi/2 BPSK is supported in uplink when two tones are allocated and QPSK is supported in uplink for sub-PRB allocation (physical resource block) with more than two tones.

The FDD and TDD RITs support bandwidths from approximately 1.4 MHz to 640 MHz. NB-IoT supports 200 kHz bandwidth. Carrier aggregation, i.e. the simultaneous transmission of multiple component carriers in parallel to/from the same terminal/eNB, is used to support bandwidths larger than 20 MHz. Component carriers do not have to be contiguous in frequency and can even be located in different frequency bands in order to enable exploitation of fragmented spectrum allocations by means of spectrum aggregation. Licensed-Assisted Access (LAA) allows secondary component carriers to operate in the unlicensed 5 GHz band. In order to fairly coexist, LAA uses a Listen-Before-Talk (LBT) medium access in the unlicensed frequency bands. Carrier Aggregation supports the functionality to aggregate TDD bands with different uplink and downlink allocations as well as the functionality to support multiple timing advancements. Carrier Aggregation also supports to

aggregate FDD and TDD component carriers. Dual Connectivity allows aggregating component carriers of different eNBs that are connected via a non-ideal backhaul over the X2 interface.

The RITs allow co-existence with NR and the operation of the RITs and NR on the same frequency is possible. NR is not part of this Recommendation, and its description is contained in Recommendation ITU-R M.2150-2, Annex 1, § 1.1.

Channel-dependent scheduling in both the time and frequency domains is supported for both downlink and uplink with the base-station scheduler being responsible for (dynamically) selecting the transmission resource as well as the data rate. The basic operation is dynamic scheduling, where the base-station scheduler takes a decision for each 1 ms Transmission Time Interval (TTI), but there is also a possibility for semi-persistent scheduling. Semi-persistent scheduling (SPS) enables transmission resources and data rates to be semi-statically allocated to a given User Equipment (UE) for a longer time period than one TTI to reduce the control-signalling overhead. For low latency UL transmissions, the SPS periodicity can be as low as 1 ms and UEs are allowed to skip the UL grant. For better uplink coverage, TTI bundling allows UEs to transmit in four consecutive TTIs. NB-IoT and enhanced Machine-type Communication (eMTC) allows for widespread coverage extension by means of scheduling multiple TTIs (up to several thousands).

For low latency communication there is support for reduced processing time as well as TTI shorter than 1 ms in the form of subslot or slot transmission, also referred to as short TTI (sTTI). The TTI for subslot transmission is two or three symbols and the TTI for slot transmission is half a subframe.

For increased reliability and lower latency, the SRIT provides functionality for transmission repetition and for packet duplication whereby packets can be transmitted over two paths using carrier aggregation or dual connectivity. The SRIT also supports provisioning of granular time reference.

To increase robustness and minimize interruption time during mobility, the SRIT supports techniques such as Dual Active Protocol Stack, where the UE maintains connectivity with the source eNB until successful completion of handover (HO) to the target eNB, and Conditional HO, where the UE maintains the connectivity with the source eNB until one or more HO execution conditions are met.

Multi-antenna transmission schemes are an integral part of both RITs. Multi-antenna precoding with dynamic rank adaptation supports both spatial multiplexing (single-user MIMO) and beam-forming. Beam-forming by means of two-dimensional antenna arrays can exploit the horizontal as well as the vertical domain. Spatial multiplexing with up to eight layers in the downlink and four layers in the uplink is supported. Multi-user MIMO, where multiple users (up to eight) are assigned the same time-frequency resources, is also supported. Coordinated MultiPoint (CoMP) operation is also supported, where multiple transmission points or reception points are coordinated in their transmission or reception respectively. The coordinated transmission points can belong to the same cell, to different cells of the same eNB or to different cells of different eNBs. A discovery reference signal can be used to identify transmission points or cells for CoMP and/or Carrier aggregation operation. In addition, non-coherent joint transmission is supported, where the transmission of the multiple MIMO layers is performed from two transmission points (TPs) without joint precoding across the TPs. Finally, transmit diversity based on Space-Frequency Block Coding (SFBC) or a combination of SFBC and Frequency Switched Transmit Diversity (FSTD) is supported. Large antenna arrays are efficiently supported, e.g. through codebook-based channel state information (CSI) feedback for up to 32 eNB antenna ports or beamformed CSI reference signals.

Inter-cell interference coordination (ICIC), where neighbour cells exchange information aiding the scheduling in order to reduce interference, is supported for the RITs. ICIC can be used for homogenous deployments with non-overlapping cells of similar transmission power, as well as for heterogeneous deployments where a higher-power cell overlays one or several lower-power nodes. In order to increase the potential of cell range expansion, functionality for terminal-side interference mitigation of reference and synchronization signals as well as the broadcast channel exists. A

terminal-side mitigation of inter-cell interference caused by the data channel is supported with network assistance. A network-side interference mitigation technique is supported, which is based on the ability to turn on and off secondary cells. Another network-based interference mitigation technique is also supported, in which the bandwidth of Cell Specific Reference Symbol (CRS) can be reduced when UEs do not perform any DL or UL operation requiring CRS.

Relaying functionality is included in both the FDD and TDD RITs. The relay node appears as a conventional eNB to terminals but is wirelessly backhauled to the remaining part of the radio-access network using the LTE radio-interface technology.

Both RITs support various types of machine-type communication. In order to better address the low-cost segment, a low-complexity terminal (Category 0) is supported, which approximately 50% has reduced modem complexity as compared to the least complex 'normal' UE (Category 1), e.g. by a single receive antenna, half-duplex operation and greatly reduced peak data rate support.

With the introduction of LTE-M, complexity is further reduced, e.g. by reducing the UE bandwidth down to 1.4 or 5 MHz and lower UE power classes (20 dBm/14 dBm). Two coverage extension modes have been added to LTE/LTE-M, one for moderate and another for large coverage extension basically using repetitions.

NB-IoT is introduced aiming at extreme low complexity, e.g. by reducing the UE bandwidth down to 200 kHz, by even further limiting the UE peak data rate, and by introducing low UE power classes (20 dBm/14 dBm). Coverage extension of ~20 dB is enabled also basically through repetitions. NB-IoT can operate in band in LTE, in the LTE guardband, or standalone.

In order to improve UE power consumption, a Power Saving mode was introduced and extended Discontinuous Reception (eDRX) cycles range up to 10.24 s in connected mode, 43.69 min in idle mode for LTE-M and 2.91 h in idle mode for NB-IoT. For NB-IoT and LTE-M, further reduced UE power consumption has been enabled with support for: Wake-Up Signals (WUS) allowing the UE to reduce control channel processing before a WUS is detected; Early Data Transmission (EDT) and Transmission using Pre-configured UL Resource (PUR) which enable UEs to transmit and receive small data with minimal signalling; and relaxed monitoring for cell reselection when mobility is low. For LTE-M and NB-IoT, it is possible to configure an additional uplink and an additional downlink carrier for traffic which is dedicated to a particular User Equipment, whilst common transmissions such as synchronization signals, and uplink transmissions during cell access, occur on the same carrier for all User Equipment.

In order to enhance data offloading, both RITs support LTE/Wi-Fi interworking functionality via RAN-assisted and RAN-controlled WLAN interworking. Based on configurable rules or eNB command, the UE steers its data traffic to the most appropriate radio access. Additionally, from Release 13 onwards, both RITs support LTE-WLAN aggregation (LWA) and LTE-WLAN Radio Level Integration with IPSec Tunnel (LWIP). LWA allows utilizing both LTE and WLAN in the unlicensed 2.4 GHz and 5 GHz bands simultaneously under the control of eNB.

From Release 12 onwards, sidelink transmissions are defined for Proximity based Services (ProSe) Direct Discovery and ProSe Direct Communication between terminals. ProSe Direct Communication is targeting only Public Safety applications and allows terminals to communicate with each other directly without routing the data via the eNB. ProSe Direct Discovery allows discovering other terminals in close proximity. Direct communication is also supported when a terminal is out of LTE coverage. The sidelink has been further enhanced in order to address direct vehicle-to-vehicle (V2V) communication. The sidelink supports carrier aggregation and transmit diversity.

1.3.1 Network architecture

The *LTE-Advanced* radio-access network has a flat architecture with a single type of node, the *eNodeB*, which is responsible for all radio-related functions in one or several cells. The eNodeB is connected to the core network by means of the S1 interface, more specifically to the *serving gateway* (S-GW) by means of the user-plane part, S1-u, and to the *Mobility Management Entity* (MME) by means of the control-plane part, S1-c. One eNodeB can interface to multiple MMEs/S-GWs for the purpose of load sharing and redundancy. MMEs/S-GWs can be (re)selected for support of separate dedicated core networks that are designed to meet the requirements of a certain group of devices/customers.

The X2 interface, connecting eNodeBs to each other, is mainly used to support active-mode mobility. This interface may also be used for multi-cell *Radio Resource Management* (RRM) functions such as ICIC or CoMP. The X2 interface is also used to support lossless mobility between neighbouring cells by means of packet forwarding.

FIGURE 1

Radio-access network interfaces
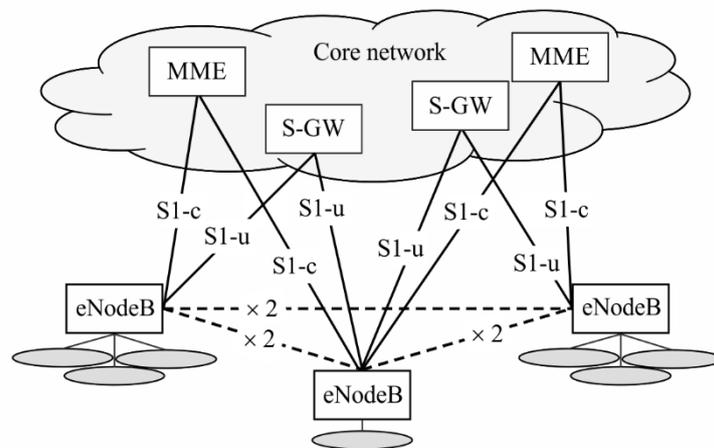
E-UTRA also supports other architectures. These other architectures are not part of this Recommendation, and their description is contained in Recommendation ITU-R M.2150-2, Annex 1, § 1.1.

1.3.2 Layer 2 protocol architecture

Layer 2 (L2) consists of several sub-layers: *Packet Data Convergence Protocol* (PDCP), *Radio Link Control* (RLC) and *Medium Access Control* (MAC). The downlink and uplink protocol structures are illustrated in Fig. 2 and Fig. 3, respectively. Layer 2 provides one or more Radio Bearers to higher layers to which IP packets are mapped according to their Quality-of-Service (QoS) requirements. L2/MAC PDUs, also referred to as transport blocks, are created according to instantaneous scheduling decisions and delivered to the physical layer on one or several transport channels (one transport channel of the same type per component carrier).

FIGURE 2

Downlink L2 protocol structure
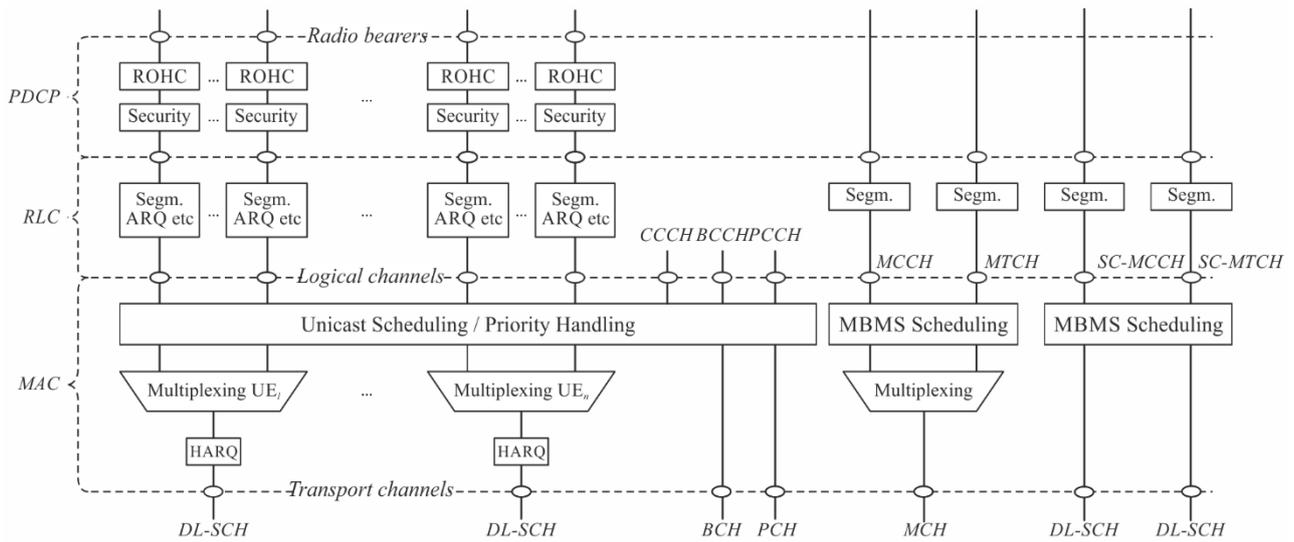
M.2012-02

FIGURE 3

Uplink L2 protocol structure
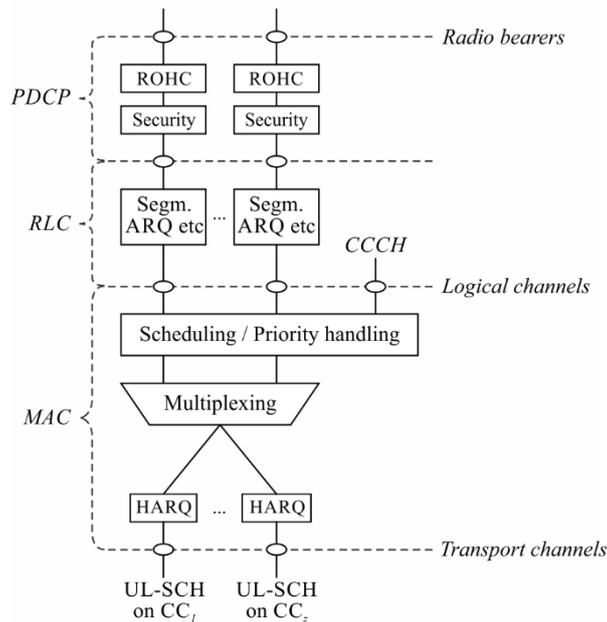
M.2012-03

In Dual Connectivity, a data radio bearer can be configured as Master Cell Group (MCG) bearer, Secondary Cell Group (SCG) bearer or a split bearer. The MCG bearer is served by the Master eNB (MeNB), SCG bearer by the Secondary eNB (SeNB) and the split bearer is served by both eNBs. For a split bearer, a common PDCP entity is located in the MeNB, but there are two RLC entities, one terminating in the MeNB and one in the SeNB.

1.3.2.1 Packet Data Convergence Protocol (PDCP)

Except for NB-IoT, the main services and functions of the PDCP sublayer for the user plane include:

– Header compression and decompression of IP data flows using ROHC.

–	Header compression and decompression of Ethernet packet streams.

–	Compression and decompression of uplink PDCP SDUs: DEFLATE based UDC only.

–	Transfer of user data.

–	In-sequence delivery of upper layer PDUs at PDCP re-establishment procedure for RLC AM.

–	For split bearers in Dual Connectivity (only support for RLC AM) and LWA bearers (only support for RLC AM and RLC UM): PDCP PDU routing for transmission and PDCP PDU reordering for reception.

–	Duplicate detection of lower layer SDUs at PDCP re-establishment procedure for RLC AM.

–	Retransmission of PDCP SDUs at handover and, for split bearers in DC and LWA bearers, of PDCP PDUs at PDCP data-recovery procedure, for RLC AM.

–	Ciphering and deciphering.

–	Timer-based SDU discard in uplink.

–	Duplication of PDCP PDUs.

–	For PDCP duplication, reordering and duplicate detection at the receiver.

For NB-IoT UE when AS security is activated, the main services and functions of the PDCP sublayer for the user plane include:

–	Header compression and decompression: ROHC only;

–	Transfer of user data;

–	In-sequence delivery of upper layer PDUs at PDCP re-establishment procedure for RLC AM;

–	Duplicate detection of lower layer SDUs at PDCP re-establishment procedure for RLC AM;

–	Ciphering and deciphering;

–	Timer-based SDU discard in uplink.

The main services and functions of the PDCP for the control plane include:

–	Ciphering and Integrity Protection and Verification.

–	Transfer of control plane data.

Except for NB-IoT, the main services and functions of the PDCP sublayer for the control plane also include:

–	Duplication of PDCP PDUs.

–	For PDCP duplication, reordering and duplicate detection at the receiver.

For a NB-IoT UE that supports Control Plane CIoT EPS optimizations only, PDCP is bypassed. For a NB-IoT UE that supports both Control Plane CIoT EPS optimizations and User Plane CIoT EPS optimizations PDCP is not used until AS security is activated.

PDCP uses the services provided by the RLC sub-layer. There is one PDCP entity per radio bearer configured for a UE.

### 1.3.2.2	Radio Link Control (RLC)

Radio Link Control (RLC) is responsible for:

–	Transfer of upper layer PDUs.

–	Error correction through ARQ (only for AM data transfer).

–	Concatenation, segmentation and reassembly of RLC SDUs (only for UM and AM data transfer).

–	Resegmentation of RLC data PDUs (only for AM data transfer).

–   Reordering of RLC data PDUs (only for UM and AM data transfer).

–   Duplicate detection (only for UM and AM data transfer).

–   Protocol error detection (only for AM data transfer).

–   RLC SDU discard (only for UM and AM data transfer).

–   RLC re-establishment.

Depending on the mode-of-operation, an RLC entity may provide all, a subset of, or none of the services above. The RLC can operate in three different modes:

–   *Transparent mode* (TM), where the RLC is completely transparent and is in essence bypassed. This configuration is used for control-plane broadcast channels such as Broadcast Control Channel (BCCH), Common Control Channel (CCCH) and Paging Control Channel (PCCH) only where the information should reach multiple users.

–   *Unacknowledged mode* (UM), where the RLC provides all the functionality above except error correction, is used when error-free delivery is not required, for example for Multicast Control Channel (MCCH) and Multicast Traffic Channel (MTCH) using Multimedia Broadcast over a Single Frequency Network (MBSFN) and for Voice-over-IP (VoIP).

–   *Acknowledged mode* (AM), where the RLC provides all the services above, is the main mode-of-operation for TCP/IP packet data transmission on the Downlink Shared Channel (DL-SCH). Segmentation/reassembly, in-sequence delivery and retransmissions of erroneous data are all supported.

The RLC offers services to the PDCP in the form of *radio bearers* and uses services from the MAC layer in the form of *logical channels*. There is one RLC entity per radio bearer configured for a terminal, except for radio bearers configured with PDCP duplication and for DAPS bearers, for which there are two for UL and DL, respectively.

1.3.2.3   Medium access control (MAC)

The MAC layer is responsible for:

–   Mapping between logical channels and transport channels.

–   Multiplexing/demultiplexing of MAC SDUs belonging to one or different logical channels into/from transport blocks delivered to/from the physical layer on transport channels.

–   Scheduling information reporting.

–   Error correction through N-process stop-and-wait hybrid-ARQ (HARQ) with synchronous (for the uplink) and asynchronous (for the downlink and optionally for the uplink) retransmissions.

–   Priority handling between logical channels of one UE.

–   Priority handling between UEs by means of dynamic scheduling.

–   Multimedia Broadcast/Multicast Service (MBMS) identification.

–   Transport format selection.

–   Padding.

The ProSe specific services and functions of the MAC sublayer include:

–   Radio resource selection.

–   Packet filtering for Prose Direct Communication.

In case of Dual Connectivity, the UE is configured with two independent MAC entities, one for MCG and one for SCG.

The MAC offers services to the RLC in the form of *logical channels*. A logical channel is defined by the *type* of information it carries and is generally classified as a *control channel*, used for transmission of control and configuration information necessary for operating an *LTE-Advanced* system, or as a *traffic channel*, used for the user data. The set of logical-channel types specified for *LTE-Advanced* includes:

–   *Broadcast Control Channel* (BCCH), used for broadcasting system control information.

–   *Bandwidth Reduced Broadcast Control Channel* (BR-BCCH), used for broadcasting system control information to bandwidth limited eMTC UEs.

–   *Paging Control Channel* (PCCH), a downlink channel used for paging when the network is not aware of the location of the UE and for system information change notifications.

–   *Common Control Channel* (CCCH), used for transmission of control information between UEs and network when the UE has no RRC connection.

–   *Dedicated Control Channel* (DCCH), used for transmission of control information to/from a mobile terminal when the UE has a RRC connection.

–   *Multicast Control Channel* (MCCH), used for transmission of control information required for reception of the MTCH.

–   *Single-Cell Multicast Control Channel* (SC-MCCH), used for transmission of control information required for reception of MBMS using single-cell point-to-multipoint (SC-PTM).

–   *Sidelink Broadcast Control Channel* (SBCCH) used for broadcasting sidelink system information from one UE to other UE(s). This channel is used only by ProSe Direct Communication capable UEs and V2X sidelink communication capable UEs.

–   *Dedicated Traffic Channel* (DTCH), used for transmission of user data to/from a mobile terminal. This is the logical channel type used for transmission of all uplink and non-MBSFN downlink user data. DTCH is not supported for a NB-IoT UE that only uses Control Plane CIoT EPS optimizations.

–   *Multicast Traffic Channel* (MTCH), used for downlink transmission of MBMS services.

–   *Single-Cell Multicast Traffic Channel* (SC-MTCH), used for downlink transmission of MBMS services using SC-PTM.

–   *Sidelink Traffic Channel* (STCH) is a point-to-multipoint channel, for transfer of user information from one UE to other UEs. This channel is used only by Prose Direct Communication capable UEs and V2X sidelink communication capable UEs.

For a NB-IoT UE that only uses Control Plane CIoT EPS optimizations there is only one dedicated logical channel per UE.

From the physical layer, the MAC layer uses services in the form of *Transport Channels*. A transport channel is defined by *how* and *with what characteristics* the information is transmitted over the radio interface. Data on a transport channel is organized into *transport blocks*. In each *Transmission Time Interval* (TTI), at most one or two (in case of spatial multiplexing) transport blocks are transmitted per component carrier.

Associated with each transport block is a *Transport Format* (TF), specifying *how* the transport block is to be transmitted over the radio interface. The transport format includes information about the transport-block size, the modulation scheme, and the antenna mapping. The scheduler is responsible for (dynamically) determining the uplink as well as downlink transport format in each TTI.

The following transport-channel types are defined:

– *Broadcast Channel* (BCH) has a fixed transport format, provided by the specifications. It is used for transmission of parts of the BCCH system information, more specifically the so-called *Master Information Block* (MIB).

– *Paging Channel* (PCH) is used for transmission of paging information from the PCCH logical channel. The PCH supports *discontinuous reception* (DRX) to allow the mobile terminal to save battery power by waking up to receive the PCH only at predefined time instants.

– *Downlink Shared Channel* (DL-SCH) is the main transport-channel type used for transmission of downlink data in *LTE-Advanced*. It supports dynamic rate adaptation and channel-dependent scheduling, hybrid-ARQ with soft combining, and spatial multiplexing. It also supports DRX to reduce mobile-terminal power consumption while still providing an always-on experience.

  The DL-SCH is also used for transmission of the parts of the BCCH system information not mapped to the BCH. In case of transmission to a terminal using multiple component carriers the UE receives one DL-SCH per component carrier.

– *Multicast Channel* (MCH) is used to support MBMS. It is characterized by a semi-static transport format and semi-persistent scheduling. In case of multi-cell transmission using MBSFN, the scheduling and transport format configuration is coordinated among the cells involved in the MBSFN transmission.

– *Uplink Shared Channel* (UL-SCH) is the uplink counterpart to the DL-SCH, i.e. it is the uplink transport channel used for transmission of uplink data.

– *Random Access Channel* (RACH) is also defined as an uplink transport channel although it does not carry transport blocks. The RACH is used in the uplink to respond to the paging message or to initiate the move to the RRC_CONNECTED state according to terminal data transmission needs.

– *Sidelink broadcast channel* (SL-BCH) uses a pre-defined transport format.

– *Sidelink discovery channel* (SL-DCH) supports both UE autonomous resource selection and scheduled resource allocation by eNodeB; it uses a fixed size, pre-defined format periodic broadcast transmission.

– *Sidelink shared channel* (SL-SCH) supports both UE autonomous resource selection and scheduled resource allocation by eNodeB; it supports HARQ combining and dynamic link adaptation by varying the transmit power, modulation and coding.

The mapping between logical channels, transport channels and physical channels (described in § 1.1.3.3) is illustrated in Fig. 4 for the downlink, Fig. 5 for the uplink, Fig. 6 for the sidelink, Fig. 7 for the NB-IoT downlink and Fig. 8 for the NB-IoT uplink.

FIGURE 4

Downlink channel mapping
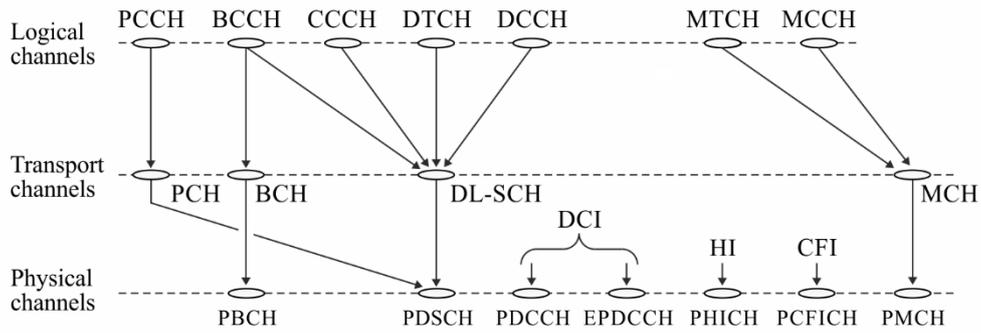
M.2012-04

FIGURE 5

Uplink channel mapping
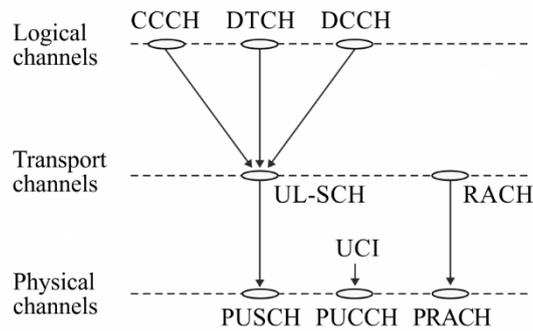
M.2012-05

FIGURE 6

Sidelink channel mapping
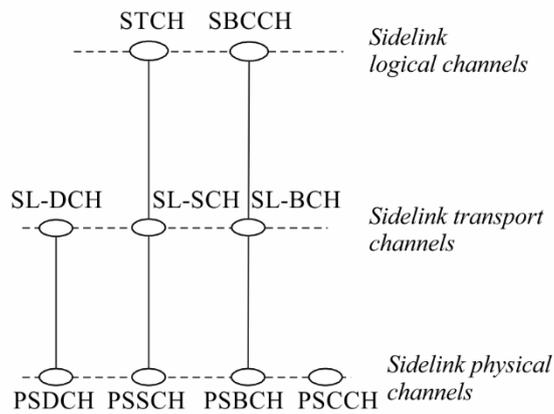
M.2012-06

FIGURE 7

NB-IoT DL channel mapping
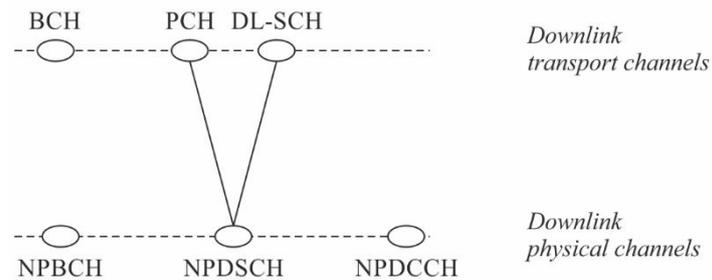
M.2012-07

FIGURE 8

NB-IoT UL channel mapping
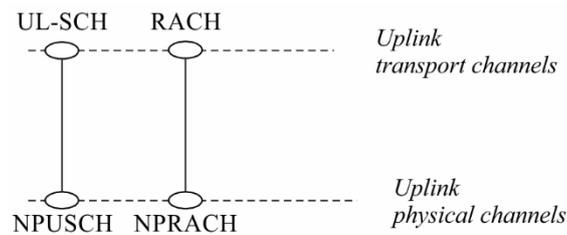
M.2012-08

1.3.3   Physical layer

The physical layer is responsible for:

–   Modulation and demodulation of physical channels.

–   Error detection on the transport channel and indication to higher layers.

–   Forward Error Correction (FEC) encoding and decoding of transport channels.

–   Rate matching of the coded transport channel to physical channels.

–   Mapping of the coded transport channel onto physical channels according to Fig. 4 (downlink) and Fig. 5 (uplink).

–   Hybrid ARQ soft-combining.

–   Frequency and time synchronization.

–   Power weighting of physical channels.

–   Multi-antenna processing and beamforming.

–   Characteristic measurements and indication to higher layers.

–   RF processing.

A simplified overview of the processing for the DL-SCH is given in Fig. 9.

FIGURE 9

Simplified physical-layer processing for DL-SCH on one component carrier
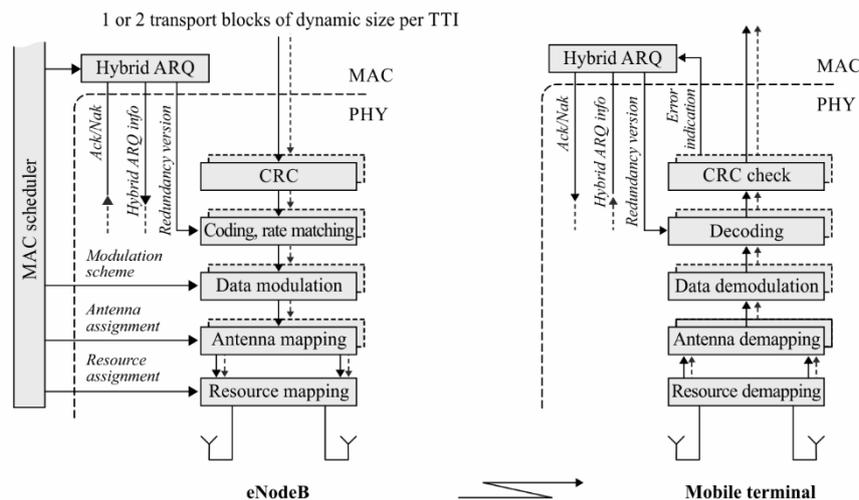
M.2012-09

1.3.3.1 Physical channels

The following different types of physical channels are defined for the downlink:

– Physical Downlink Shared Channel (PDSCH): Used for transmission of user and control plane data services.

– Physical Multicast Channel (PMCH): Used for transmission of control and user-plane broadcast services during MBSFN subframes.

– Physical Downlink Control Channel (PDCCH): Used for transmission of control information such as resource allocation, transport format and H-ARQ related information.

– Enhanced Physical Downlink Control Channel (EPDCCH): Used for transmission of control information such as resource allocation, transport format and HARQ related information.

– MTC physical downlink control channel (MPDCCH): Used for transmission of control information in bandwidth-reduced operation and/or using coverage extension mode.

– Short physical downlink control channel (SPDCCH): Used for transmission of control information such as resource allocation, transport format and HARQ related information.

– Physical Broadcast Channel (PBCH): Used for conveying cell and/or system specific information.

– Physical Control Format Indicator Channel (PCFICH): It indicates to the UE the control format (number of symbols comprising PDCCH, PHICH) of the current subframe.

– Physical Hybrid ARQ Indicator Channel (PHICH): It conveys the ACK/NAK information for UL (PUSCH) transmissions received at the eNodeB.

Three different types of physical channels are defined for the uplink:

– Physical Random Access Channel (PRACH): It conveys a preamble which is used to trigger a random-access procedure in the eNodeB.

– Physical Uplink Shared Channel (PUSCH): It conveys both user data and upper layer control information.

– Physical Uplink Control Channel (PUCCH): It conveys control information (scheduling requests, CQI, PMI, RI, HARQ ACK/NAK for PDSCH, etc.).

–   Short physical uplink control channel (SPUCCH): It conveys control information (scheduling requests, HARQ ACK/NAK for PDSCH, etc.).

The following types of physical channels are defined for the sidelink:

–   Physical sidelink broadcast channel (PSBCH): Carries system and synchronization related information, transmitted from the UE.

–   Physical sidelink discovery channel (PSDCH): Carries ProSe Direct Discovery message from the UE.

–   Physical sidelink control channel (PSCCH): Carries control from a UE for ProSe Direct Communication.

–   Physical sidelink shared channel (PSSCH): Carries data from a UE for ProSe Direct Communication.

The following types of physical channels are defined for NB-IoT:

–   Narrowband Physical broadcast channel (NPBCH): Carries the BCH for NB-IoT UEs. Used for conveying cell and/or system specific information using a transport block mapped to sixty-four subframes within a 640 ms interval.

–   Narrowband Physical downlink shared channel (NPDSCH): Carries the DL-SCH and PCH for NB-IoT UEs.

–   Narrowband Physical downlink control channel (NPDCCH): Informs the NB-IoT UE about the resource allocation of PCH and DL-SCH. Carries the uplink scheduling grant for the NB-IoT UE. Carries the direct indication information.

–   Narrowband Physical uplink shared channel (NPUSCH): Carries the UL-SCH and Hybrid ARQ ACK/NAKs in response to downlink transmission for the NB-IoT UE.

–   Narrowband Physical Random Access Channel (NPRACH): Carries the random access preamble for the NB-IoT UE.

1.3.3.2   Time-domain structure and duplex schemes

Figure 10 illustrates the high-level time-domain structure for transmission, with each (*radio*) *frame* of length 10 ms consisting of ten equally sized *subframes* of length 1 ms. Each subframe consists of two equally sized *slots* of length $T_{slot} = 0.5$ ms with each slot consisting of a number of OFDM symbols including cyclic prefix.

FIGURE 10

LTE-Advanced time-domain structure
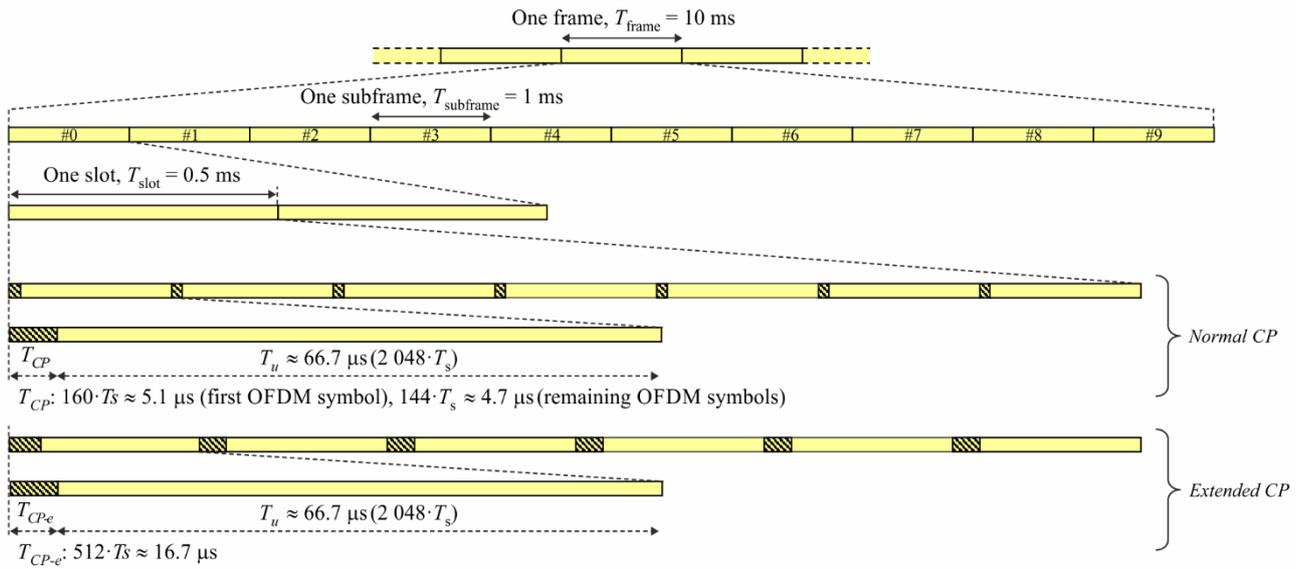
M.2012-10

LTE-Advanced can operate in both FDD and TDD as illustrated in Fig. 11. Although the time-domain structure is, in most respects, the same for FDD and TDD there are some differences between the two duplex modes, most notably the presence of a *special subframe* in case of TDD. The special subframe is used to provide the necessary guard time for downlink-to-uplink switching.

FIGURE 11

Uplink/downlink time/frequency structure in case of FDD and TDD
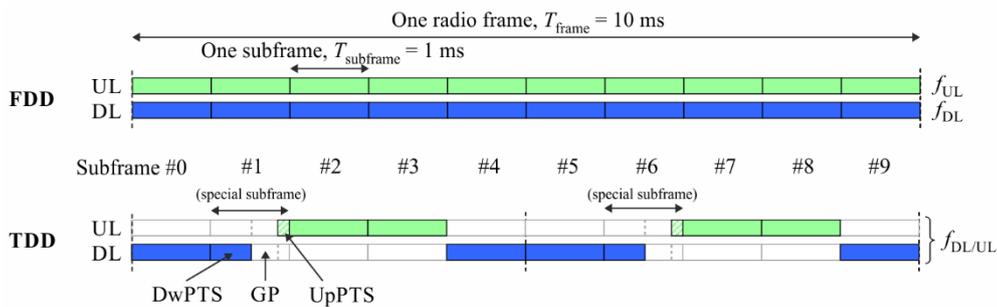
M.2012-11

In case of FDD operation (upper part of Fig. 11), there are two carrier frequencies for each component carrier, one for uplink transmission (f_{UL}) and one for downlink transmission (f_{DL}). During each frame, there are thus ten uplink subframes and ten downlink subframes and uplink and downlink transmission can occur simultaneously within a cell. Half-duplex operation at the UE side is supported by the scheduler ensuring non-simultaneous reception and transmission at the UE.

In case of TDD operation (lower part of Fig. 11), there is only a single carrier frequency per component carrier and uplink and downlink transmissions are always separated in time also on a cell basis. As seen in the figure, some subframes are allocated for uplink transmissions and some subframes for downlink transmission with the switch between downlink and uplink occurring in the *special subframe*. The special subframe is split into three parts: a downlink part (DwPTS), a guard period (GP) where the switch occurs, and an uplink part (UpPTS). The DwPTS is in essence treated as a normal downlink subframe, although the amount of data that it is possible to transmit is smaller due to the reduced length of the DwPTS. The UpPTS can be used for UL data transmission, channel

sounding or random access. The DwPTS, GP, and UpPTS have configurable individual lengths to support different deployment scenarios, and a total length of 1 ms.

Different asymmetries in terms of the amount of resources allocated for uplink and downlink transmission, respectively, are provided through seven different downlink/uplink configurations as shown in Fig. 12. In case of carrier aggregation, the downlink/uplink configuration is identical across component carriers in the same band and may be the same or different across component carriers in different bands.

Coexistence between the TDD RIT and other (IMT-2000) TDD systems such as TD-SCDMA is catered for by aligning the switch points between the two systems and selecting the appropriate special subframe configuration and uplink-downlink asymmetry.

FIGURE 12

Uplink-downlink asymmetries supported by the TDD RIT
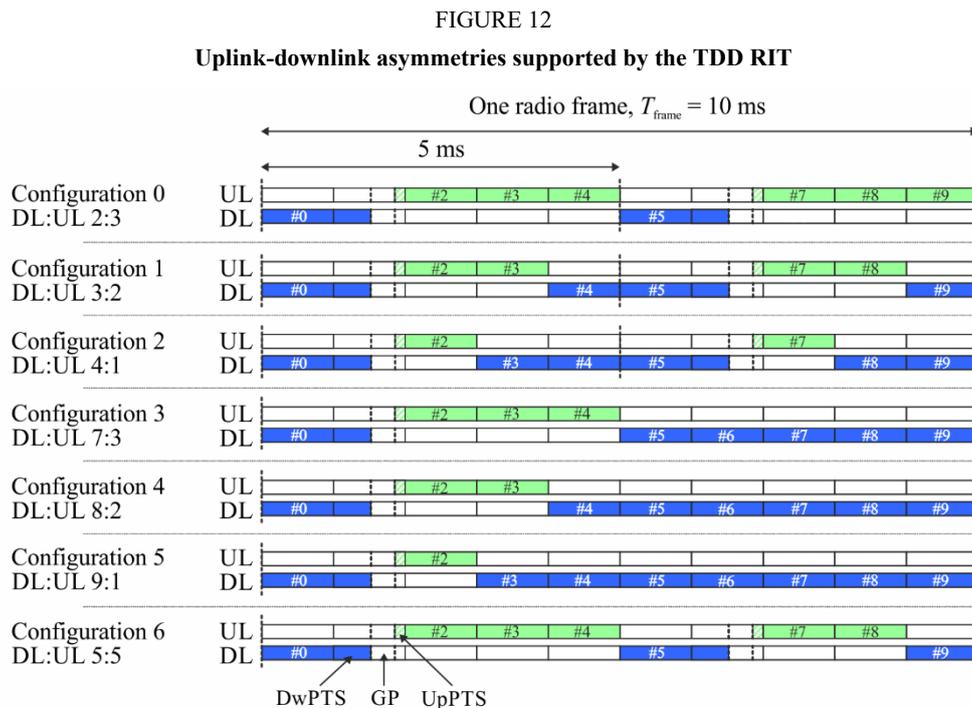
M.2012-12

Sidelink transmissions use the same frame structure as the frame structure that is defined for uplink and downlink when UEs are in network coverage. However, the sidelink transmissions are restricted to a sub-set of the uplink resources in time and frequency domain.

The physical channel structure is similar to uplink transmissions and the same basic transmission scheme as the UL transmission scheme is used. However, sidelink is limited to single cluster transmissions and it uses a 1 symbol gap at the end of each sidelink subframe.

1.3.3.3   Physical layer processing

To the transport block(s) to be transmitted on a DL-SCH or UL-SCH, a CRC is attached, followed by rate-1/3 Turbo coding for error correction (Tail Biting Convolutional Code for NPDSCH). Rate matching is used not only to match the number of coded bits to the amount of resources allocated for the DL-SCH/UL-SCH transmission, but also to generate the different redundancy versions as controlled by the hybrid-ARQ protocol. In case of spatial multiplexing, the processing is duplicated for the two transport blocks. After rate matching, the coded bits are modulated (QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM). In case of multi-antenna transmission, the modulation symbols are mapped to multiple layers and precoded before being mapped to the different antenna ports.

Alternatively, transmit diversity can be applied. Finally, the (precoded) modulation symbols are mapped to the time-frequency resources allocated for the transmission.

Downlink transmission is based on conventional OFDM with a cyclic prefix. The subcarrier spacing is $\Delta f = 15$ kHz and two cyclic prefix lengths are supported: normal cyclic prefix ≈ 4.7 µs and extended cyclic prefix ≈ 16.7 µs. In the frequency domain, the number of resource blocks can range from 6 to 100 per component carrier (for channel bandwidths ranging from 1.4 to 20 MHz respectively), where a resource block is 180 kHz in the frequency domain. There can be up to 32 component carriers transmitted in parallel implying an overall bandwidth up to 640 MHz. In inband mode, NB-IoT allocates a single resource block. In standalone mode, NB-IoT uses a channel bandwidth of 200 kHz. MBSFN subframes can use subcarrier spacings of $\Delta f = 7.5$ kHz or $\Delta f = 1.25$ kHz with an extended cyclic prefix of ≈ 33.4 µs and ≈ 200 µs, respectively. PMCH additionally supports 100 µs cyclic prefix and $\Delta f = 2.5$ kHz subcarrier spacing for support of high mobility scenarios (up to 250 km/h) and 300 µs cyclic prefix and approximately $\Delta f \approx 0.37$ kHz subcarrier spacing for support of rooftop reception.

Uplink transmission is based on DFT-spread OFDM (DFTS-OFDM). DFTS-OFDM can be seen as a DFT precoder, followed by conventional OFDM with the same numerology as in the downlink. The NB-IoT UL allows allocating a single-tone with $\Delta f = 3.75$ kHz or $\Delta f = 15$ kHz subcarrier spacing. Multiple DFT precoding sizes, corresponding to transmission with different scheduled bandwidths, can be used.

The remaining downlink transport channels (PCH, BCH, MCH) are based on the same general physical-layer processing as DL-SCH, although with some restrictions in the set of features used.

1.3.3.4 Multi-antenna transmission

A wide range of multi-antenna transmission schemes are supported in the downlink:

– Single-antenna transmission using a single cell-specific reference signal.

– Closed-loop spatial multiplexing, also known as codebook-based beam-forming or precoding, of up to four layers using cell-specific reference signals. Feedback reports from the terminal are used to assist the eNodeB in selecting a suitable precoding matrix.

– Open-loop spatial multiplexing, also known as large-delay cyclic delay diversity, of up to four layers using cell-specific reference signals.

– Spatial multiplexing of up to eight layers using UE-specific reference signals. The eNodeB may use feedback reports or exploit channel reciprocity to set the beam-forming weights.

– Transmit diversity based on space-frequency block coding (SFBC) or a combination of SFBC and Frequency Switched Transmit Diversity (FSTD).

– Multi-user MIMO where multiple terminals are assigned overlapping time-frequency resources.

– Non-precoded CSI-RS operation is supported, which comprises schemes where different CSI-RS ports have the same wide beam width and direction and hence generally cell wide coverage.

– Beamformed CSI-RS operation is supported, which comprises schemes where (at least at a given time/frequency) CSI-RS ports have narrow beam widths and hence not cell wide coverage, and (at least from the eNB perspective) at least some CSI-RS port-resource combinations have different beam directions.

– Downlink Coordinated MultiPoint (DL-CoMP) operation where multiple transmission points are coordinated.

The following multi-antenna transmission schemes are supported in the uplink:

–   Single-antenna transmission.

–   Precoding supporting rank-adaptive spatial multiplexing with one up to four layers.

–   Uplink Coordinated MultiPoint (UL-CoMP) operation where multiple reception points are coordinated.

1.3.3.5   Link adaptation and power control

According to the radio channel conditions, the Modulation and Coding Scheme (MCS) can be adapted flexibly. The same modulation and coding is applied to all resource units assigned to the same transport block within a TTI. Uplink power control determines the average power over a DFTS-OFDM symbol in which the physical channel is transmitted.

1.3.3.6   L1/L2 control signalling

Downlink control information (DCI) is transmitted on either a PDCCH, an EPDCCH or an SPDCCH. In bandwidth-reduced operation and/or when using coverage extension mode, a DCI is transmitted on an MPDCCH. For NB-IoT, a DCI is transmitted on NPDCCH.

The PDCCH is transmitted in the first one to three OFDM symbols of each downlink subframe in each component carrier with the number of OFDM symbols being indicated on the PCFICH. Downlink and uplink scheduling grants (consisting of UE identity, time-frequency resources and transport format) and hybrid-ARQ acknowledgements are transmitted on the PDCCH and PHICH, respectively. Each grant is transmitted on a separate PDCCH using QPSK modulation and cell-specific reference signals.

The EPDCCH/MPDCCH is transmitted in pairs of Physical Resource Blocks (PRBs) multiplexed in frequency with the PDSCH; it carries downlink and uplink scheduling grants (consisting of UE identity, time-frequency resources and transport format). The EPDCCH/MPDCCH uses QPSK modulation and demodulation reference signals, and it may use either frequency-localized or frequency-distributed transmission.

The SPDCCH is transmitted in UE-specifically configured physical resource blocks and carries downlink and uplink scheduling grants.

For NB-IoT, the NPDCCH is transmitted in all available OFDM symbols of pairs of PRBs, with no multiplexing with NPDSCH; it carries downlink and uplink scheduling grants (consisting of UE identity, time-frequency resources and transport format). The NPDCCH uses QPSK modulation and narrowband reference signals.

Sidelink resource allocation can be transmitted on the PDCCH/EPDCCH.

Uplink control information (UCI), consisting of channel-state information (CSI), scheduling requests and hybrid-ARQ acknowledgements, is transmitted at the band edges of the primary uplink component carrier. Alternatively, parts of the control signalling can be multiplexed with data on PUSCH. To support downlink CoMP transmission, a UE may be configured with multiple CSI processes.

1.3.3.7   MBSFN operation

Multicast/Broadcast over Single Frequency Network (MBSFN) transmission, where the same signal is transmitted from multiple, time-synchronized cells, is supported by the MCH transport channel. One component carrier can support simultaneous unicast and broadcast support through time-domain multiplexing of MCH and DL-SCH transmissions.

2 Detailed specifications of the radio interface technology

Detailed specifications described in this Annex are developed around a Global Core Specification (GCS), which is related to externally developed materials incorporated by specific references for a specific technology. The process and use of the GCS, references, and related notifications and certifications are found as Document IMT-ADV/24(Rev.3).

The IMT-Advanced standards contained in this section are derived from the global core specification for LTE-Advanced contained at Global Core Specifications M.2012-7. For information, additional specifications are contained in Recommendation ITU-R M.2150-3, Annex 1, section 1.2. The following notes apply to the sections below:

1)   The identified Transposing Organizations[9] should make their reference material available from their website.

2)   This information was supplied by the Transposing Organizations and relates to their own deliverables of the transposed global core specification.

Section 2.1 contains titles and synopses of the Global Core Specification of IMT-Advanced radio interface technology entitled LTE-Advanced and the related hyperlinks to the transposed standards. Specifications listed in § 2.2 are not part of the LTE-Advanced GCS.

The specific 3GPP specifications of the GCS for LTE-Advanced that are being transposed in § 2.1 are summarized in Table 1.

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[9] The following identified Transposing Organizations have provided their transposed sets of standards information contained in this section:
– Association of Radio Industries and Businesses (ARIB)
– Alliance for Telecommunications Industry Solutions (ATIS)
– China Communications Standards Association (CCSA)
– European Telecommunications Standards Institute (ETSI)
– Telecommunications Standards Development Society, India (TSDSI)
– Telecommunications Technology Association (TTA)
– Telecommunication Technology Committee (TTC).

TABLE 1

3GPP specifications in § 2.1 that are to be transposed

36.100 Series	36.200 Series	36.300 Series	36.400 Series	36.500 series	37.xxx Series	25.400 Series
TS 36.101	TS 36.201	TS 36.300	TS 36.401	TS 36.508	TS 37.104	TS 25.446
TS 36.104	TS 36.211	TS 36.302	TS 36.410	TS 36.509	TS 37.105	
TS 36.106	TS 36.212	TS 36.304	TS 36.411	TS 36.521-1	TS 37.113	
TS 36.111	TS 36.213	TS 36.305	TS 36.412	TS 36.521-2	TS 37.114	
TS 36.112	TS 36.214	TS 36.306	TS 36.413	TS 36.521-3	TS 37.141	
TS 36.113	TS 36.216	TS 36.307	TS 36.414	TS 36.523-1	TS 37.144	
TS 36.116		TS 36.314	TS 36.420	TS 36.523-2	TS 37.145-1	
TS 36.117		TS 36.321	TS 36.421	TS 36.523-3	TS 37.145-2	
TS 36.124		TS 36.322	TS 36.422	TS 36.579-1	TS 37.171	
TS 36.133		TS 36.323	TS 36.423	TS 36.579-2	TS 37.320	
TS 36.141		TS 36.331	TS 36.424	TS 36.579-3	TS 37.324	
TS 36.143		TS 36.355	TS 36.425	TS 36.579-4	TS 37.355	
TS 36.171		TS 36.360	TS 36.440	TS 36.579-5	TS 37.460	
		TS 36.361	TS 36.441	TS 36.579-6	TS 37.461	
			TS 36.442	TS 36.579-7	TS 37.462	
			TS 36.443		TS 37.466	
			TS 36.444		TS 37.470	
			TS 36.445		TS 37.471	
			TS 36.455		TS 37.472	
			TS 36.456		TS 37.473	
			TS 36.457		TS 37.480	
			TS 36.458		TS 37.481	
			TS 36.459		TS 37.482	
			TS 36.461		TS 37.483	
			TS 36.462		TS 37.544	
			TS 36.463		TS 37.571-1	
			TS 36.464		TS 37.571-2	
			TS 36.465		TS 37.571-3	
					TS 37.571-4	
					TS 37.571-5	

2.1 Titles and synopses of the global core specification and the transposed standards

2.1.1 Introduction

The standards documents referenced below, as transposed from the relevant 3GPP specifications, are provided by the identified *Transposing Organizations* as the transposed sets of standards for the terrestrial radio interface of IMT-Advanced identified as *LTE-Advanced* and includes not only the key characteristics of IMT-Advanced but also the additional capabilities of *LTE-Advanced* both of which are continuing to be enhanced.

2.1.2 Radio Layer 1

2.1.2.1 TS 36.201

Evolved Universal Terrestrial Radio Access (E-UTRA); LTE physical layer; General description

This document provides a general description of the physical layer of the E-UTRA radio interface. This document also describes the document structure of the 3GPP E-UTRA physical layer specifications, i.e. TS 36.200 series. The TS 36.200 series specifies the Uu point for the LTE mobile system, and defines the minimum level of specifications required for basic connections in terms of mutual connectivity and compatibility.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.201.V10.0.0	10.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36201-a00.pdf
ATIS	ATIS.3GPP.36.201V1000	10.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.201V1000	10.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.201V1000.doc
ETSI	ETSI TS 136 201 V10.0.0 (2011-01)	10.0.0	Published	13.01.2011	https://www.etsi.org/deliver/etsi_ts\136200_136299\136201\10.00.00_60\ts_136201v100000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.201-10.0.0 V1.0.0	10.0.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/CkP4xfyfSRqQ4Da
TTA	TTAT.3G-36.201V10.0.0	10.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.201V10.0.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.201.V11.1.0	11.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36201-b10.pdf
ATIS	ATIS.3GPP.36.201V1110	11.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.201V1110	11.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.201V1110.doc
ETSI	ETSI TS 136 201 V11.1.0 (2013-02)	11.1.0	Published	04.02.2013	https://www.etsi.org/deliver/etsi_ts\136200_136299\136201\11.01.00_60\ts_136201v110100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.201-11.1.0 V1.0.0	11.1.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/FzDjGsepx3zk9d7
TTA	TTAT.3G-36.201V11.1.0	11.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.201V11.1.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-36.201.V12.2.0	12.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36201-c20.pdf
ATIS	ATIS.3GPP.36.201V1220	12.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.201V1220	12.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.201V1220.doc
ETSI	ETSI TS 136 201 V12.2.0 (2015-04)	12.2.0	Published	17.04.2015	https://www.etsi.org/deliver/etsi_ts\136200_136299\136201\12.02.00_60\ts_136201v120200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.201-12.2.0 V1.0.0	12.2.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/XLwbA8a6PZyYbR3

TTA	TTAT.3G-36.201V12.2.0	12.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.201V12.2.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.201.V13.3.0	13.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36201-d30.pdf
ATIS	ATIS.3GPP.36.201V1330	13.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.201V1330	13.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.201V1330.doc
ETSI	ETSI TS 136 201 V13.3.0 (2017-04)	13.3.0	Published	11.04.2017	https://www.etsi.org/deliver/etsi_ts\136200_136299\136201\13.03.00_60\ts_136201v130300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.201-13.3.0 V1.0.0	13.3.0	Published	30.08.2021	https://members.tsdsi.in/s/raBS3ixmFo6pANJ
TTA	TTAT.3G-36.201V13.3.0	13.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.201V13.3.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.201.V14.1.0	14.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36201-e10.pdf
ATIS	ATIS.3GPP.36.201V1410	14.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.201V1410	14.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.201V1410.doc
ETSI	ETSI TS 136 201 V14.1.0 (2017-04)	14.1.0	Published	11.04.2017	https://www.etsi.org/deliver/etsi_ts\136200_136299\136201\14.01.00_60\ts_136201v140100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.201-14.1.0 V1.0.0	14.1.0	Published	30.08.2021	https://members.tsdsi.in/s/STjpRNQQbyCfEb6
TTA	TTAT.3G-36.201V14.1.0	14.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.201V14.1.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.201.V15.3.0	15.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36201-f30.pdf
ATIS	ATIS.3GPP.36.201V1530	15.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.201V1530	15.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.201V1530.docx
ETSI	ETSI TS 136 201 V15.3.0 (2020-04)	15.3.0	Published	14.04.2020	https://www.etsi.org/deliver/etsi_ts\136200_136299\136201\15.03.00_60\ts_136201v150300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.201-15.3.0 V1.0.0	15.3.0	Published	30.08.2021	https://members.tsdsi.in/s/ms4x69FQeza6QQ3
TTA	TTAT.3G-36.201V15.3.0	15.3.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.201V15.3.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.201.V16.0.0	16.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36201-g00.pdf
ATIS	ATIS.3GPP.36.201V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.201V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.201V1600.docx
ETSI	ETSI TS 136 201 V16.0.0 (2020-07)	16.0.0	Published	20.07.2020	https://www.etsi.org/deliver/etsi_ts\136200_136299\136201\16.00.00_60\ts_136201v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.201-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/wnKRSr83S6kQns6
TTA	TTAT.3G-36.201V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.201V16.0.0&searchCate=TTAS

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ARIB	ARIB STD-T120-36.201.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36201-h00.pdf
ATIS	ATIS.3GPP.36.201.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.201.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.201.V17.0.0.docx
ETSI	ETSI TS 136 201 V17.0.0 (2022-04)	17.0.0	Published	20.04.2022	https://www.etsi.org/deliver/etsi_ts\136200_136299\136201\17.00.00_60\ts_136201v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.201-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/aLNbSqRYX96WcKE

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Release 18

ARIB	ARIB STD-T120-36.201.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36201-i00.pdf
ATIS	ATIS.3GPP.36.201.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.201.V18.0.0 7_ATIS/CCSA.3GPP.36.201.V18.0.0.docx	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 201 V18.0.0 (2024-05)	18.0.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136200_136299\136201\18.00.00_60\ts_136201v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.201-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/sCGsWxcG8yWrB3p
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2.1.2.2 TS 36.211

Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation

This document describes the physical channels and modulation for E-UTRA.

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Release 10					
ARIB	ARIB STD-T120-36.211.V10.7.0	10.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36211-a70.pdf
ATIS	ATIS.3GPP.36.211V1070	10.7.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.211V1070 7_ATIS/CCSA.3GPP.36.211V1070.doc	10.7.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 211 V10.7.0 (2013-04)	10.7.0	Published	19.04.2013	https://www.etsi.org/deliver/etsi_ts\136200_136299\136211\10.07.00_60\ts_136211v100700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.211-10.7.0 V1.0.0	10.7.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/oFRtHQJp5dZHPtY
TTA	TTAT.3G-36.211V10.7.0 36.211V10.7.0&searchCate=TTAS	10.7.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
Release 11					
ARIB	ARIB STD-T120-36.211.V11.7.0	11.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36211-b70.pdf
ATIS	ATIS.3GPP.36.211V1170	11.7.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.211V1170 7_ATIS/CCSA.3GPP.36.211V1170.doc	11.7.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 211 V11.7.0 (2017-04)	11.7.0	Published	11.04.2017	https://www.etsi.org/deliver/etsi_ts\136200_136299\136211\11.07.00_60\ts_136211v110700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.211-11.7.0 V1.0.0	11.7.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/RyWXiRrmXQ2HcoW
TTA	TTAT.3G-36.211V11.7.0 36.211V11.7.0&searchCate=TTAS	11.7.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
Release 12					
ARIB	ARIB STD-T120-36.211.V12.9.0	12.9.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36211-c90.pdf
ATIS	ATIS.3GPP.36.211V1290	12.9.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.211V1290 7_ATIS/CCSA.3GPP.36.211V1290.doc	12.9.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 211 V12.9.0 (2017-04)	12.9.0	Published	11.04.2017	https://www.etsi.org/deliver/etsi_ts\136200_136299\136211\12.09.00_60\ts_136211v120900p.pdf
TSDSI	TSDSI STD T1.3GPP 36.211-12.9.0 V1.0.0	12.9.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/RkQSCmMHiFs3rWj
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ARIB	ARIB STD-T120-36.211.V13.13.0	13.13.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36211-dd0.pdf
ATIS	ATIS.3GPP.36.211V13130	13.13.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.211V13130	13.13.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.211V13130.docx
ETSI	ETSI TS 136 211 V13.13.0 (2020-01)	13.13.0	Published	17.01.2020	https://www.etsi.org/deliver/etsi_ts\136200_136299\136211\13.13.00_60\ts_136211v131300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.211-13.13.0 V1.1.0	13.13.0	Published	30.08.2021	https://members.tsdsi.in/s/7BmM7TXXGizijpW
TTA	TTAT.3G-36.211V13.13.0	13.13.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.211V13.13.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.211.V14.15.0	14.15.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36211-ef0.pdf
ATIS	ATIS.3GPP.36.211V14150	14.15.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.211V14150	14.15.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.211V14150.zip
ETSI	ETSI TS 136 211 V14.15.0 (2020-09)	14.15.0	Published	24.09.2020	https://www.etsi.org/deliver/etsi_ts\136200_136299\136211\14.15.00_60\ts_136211v141500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.211-14.15.0 V1.1.0	14.15.0	Published	30.08.2021	https://members.tsdsi.in/s/kAL3MezoKxpm8gz
TTA	TTAT.3G-36.211V14.15.0	14.15.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.211V14.15.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.211.V15.14.0	15.14.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36211-fe0.pdf
ATIS	ATIS.3GPP.36.211.V15.14.0	15.14.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.211.V15.14.0	15.14.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.211.V15.14.0.zip
ETSI	ETSI TS 136 211 V15.14.0 (2021-10)	15.14.0	Published	22.10.2021	https://www.etsi.org/deliver/etsi_ts\136200_136299\136211\15.14.00_60\ts_136211v151400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.211-15.14.0 V1.1.0	15.14.0	Published	01.11.2022	https://members.tsdsi.in/s/SqDqFG2N9XdxzYS
TTA	TTAT.3G-36.211V15.14.0	15.14.0	Published	27.01.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.211V15.14.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.211.V16.8.0	16.8.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36211-g80.pdf
ATIS	ATIS.3GPP.36.211.V16.8.0	16.8.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.211.V16.8.0	16.8.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.211.V16.8.0.zip
ETSI	ETSI TS 136 211 V16.8.0 (2023-09)	16.8.0	Published	29.09.2023	https://www.etsi.org/deliver/etsi_ts\136200_136299\136211\16.08.00_60\ts_136211v160800p.pdf
TSDSI	TSDSI STD T1.3GPP 36.211-16.8.0 V1.2.0	16.8.0	Published	23.02.2024	https://members.tsdsi.in/s/PoYeyKC63dtGNbe
TTA	TTAT.3G-36.211V16.8.0	16.8.0	Published	13.02.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.211V16.8.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.211.V17.4.0	17.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36211-h40.pdf
ATIS	ATIS.3GPP.36.211.V17.4.0	17.4.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.211.V17.4.0	17.4.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.211.V17.4.0.zip
ETSI	ETSI TS 136 211 V17.4.0 (2023-09)	17.4.0	Published	29.09.2023	https://www.etsi.org/deliver/etsi_ts\136200_136299\136211\17.04.00_60\ts_136211v170400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.211-17.4.0 V1.3.0	17.4.0	Published	23.02.2024	https://members.tsdsi.in/s/LMtTkzBGfxdiYD7
TTA	TTAT.3G-36.211V17.4.0	17.4.0	Published	13.02.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.211V17.4.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.211.V18.0.1	18.0.1	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36211-i01.pdf
ATIS	ATIS.3GPP.36.211.V18.0.1	18.0.1	Published	13.02.2025	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.211.V18.0.1	18.0.1	Published	13.02.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.211.V18.0.1.zip
ETSI	ETSI TS 136 211 V18.0.1 (2024-05)	18.0.1	Published	06.05.2024	https://www.etsi.org/deliver/etsi_ts\136200_136299\136211\18.00.01_60\ts_136211v180001p.pdf
TSDSI	TSDSI STD T1.3GPP 36.211-18.0.1 V1.0.0	18.0.1	Published	19.11.2024	https://members.tsdsi.in/s/o2PEwCd2YQwbKmL
TTA	TTAT.3G-36.211V18.0.1	18.0.1	Published	01.08.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.211V18.0.1&searchCate=TTAS

2.1.2.3   TS 36.212

Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding

This document specifies the coding, multiplexing and mapping to physical channels for E-UTRA.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.212.V10.9.0	10.9.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36212-a90.pdf
ATIS	ATIS.3GPP.36.212V1090	10.9.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.212V1090	10.9.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.212V1090.doc
ETSI	ETSI TS 136 212 V10.9.0 (2015-10)	10.9.0	Published	19.10.2015	https://www.etsi.org/deliver/etsi_ts\136200_136299\136212\10.09.00_60\ts_136212v100900p.pdf
TSDSI	TSDSI STD T1.3GPP 36.212-10.9.0 V1.0.0	10.9.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/MWNtRYCid7xqWrR
TTA	TTAT.3G-36.212V10.9.0	10.9.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.212V10.9.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.212.V11.7.0	11.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36212-b70.pdf
ATIS	ATIS.3GPP.36.212V1170	11.7.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.212V1170	11.7.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.212V1170.doc
ETSI	ETSI TS 136 212 V11.7.0 (2016-04)	11.7.0	Published	22.04.2016	https://www.etsi.org/deliver/etsi_ts\136200_136299\136212\11.07.00_60\ts_136212v110700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.212-11.7.0 V1.0.0	11.7.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/Fzdmrp9QP3JQ9kE
TTA	TTAT.3G-36.212V11.7.0	11.7.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.212V11.7.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-36.212.V12.9.1	12.9.1	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36212-c91.pdf
ATIS	ATIS.3GPP.36.212V1291	12.9.1	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.212V1291	12.9.1	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.212V1291.doc
ETSI	ETSI TS 136 212 V12.9.1 (2018-01)	12.9.1	Published	25.01.2018	https://www.etsi.org/deliver/etsi_ts\136200_136299\136212\12.09.01_60\ts_136212v120901p.pdf
TSDSI	TSDSI STD T1.3GPP 36.212-12.9.1 V1.0.0	12.9.1	Published	30.08.2021	https://members.tsdsi.in/index.php/s/Ak8pxoGm7LdkWcS
TTA	TTAT.3G-36.212V12.9.1	12.9.1	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.212V12.9.1&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.212.V13.11.0	13.11.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36212-db0.pdf
ATIS	ATIS.3GPP.36.212.V13.11.0	13.11.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.212.V13.11.0	13.11.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.212.V13.11.0.doc
ETSI	ETSI TS 136 212 V13.11.0 (2021-04)	13.11.0	Published	19.04.2021	https://www.etsi.org/deliver/etsi_ts\136200_136299\136212\13.11.00_60\ts_136212v131100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.212-13.11.0 V1.1.0	13.11.0	Published	17.01.2023	https://members.tsdsi.in/s/pXcewFMf4g6WqWo
TTA	TTAT.3G-36.212V13.11.0	13.11.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.212V13.11.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.212.V14.16.0	14.16.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36212-eg0.pdf
ATIS	ATIS.3GPP.36.212.V14.16.0	14.16.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.212.V14.16.0	14.16.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.212.V14.16.0.doc
ETSI	ETSI TS 136 212 V14.16.0 (2021-08)	14.16.0	Published	19.08.2021	https://www.etsi.org/deliver/etsi_ts\136200_136299\136212\14.16.00_60\ts_136212v141600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.212-14.16.0 V1.1.0	14.16.0	Published	17.01.2023	https://members.tsdsi.in/s/brgtZXZM3yPoPG8
TTA	TTAT.3G-36.212V14.16.0	14.16.0	Published	30.09.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.212V14.16.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.212.V15.15.0	15.15.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36212-ff0.pdf
ATIS	ATIS.3GPP.36.212.V15.15.0	15.15.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.212.V15.15.0	15.15.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.212.V15.15.0.docx
ETSI	ETSI TS 136 212 V15.15.0 (2022-01)	15.15.0	Published	25.01.2022	https://www.etsi.org/deliver/etsi_ts\136200_136299\136212\15.15.00_60\ts_136212v151500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.212-15.15.0 V1.1.0	15.15.0	Published	01.11.2022	https://members.tsdsi.in/s/aWiCGKiDJ6Nofgx
TTA	TTAT.3G-36.212V15.15.0	15.15.0	Published	14.03.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.212V15.15.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.212.V16.7.0	16.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36212-g70.pdf
ATIS	ATIS.3GPP.36.212.V16.7.0	16.7.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.212.V16.7.0	16.7.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.212.V16.7.0.docx
ETSI	ETSI TS 136 212 V16.7.0 (2022-01)	16.7.0	Published	25.01.2022	https://www.etsi.org/deliver/etsi_ts\136200_136299\136212\16.07.00_60\ts_136212v160700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.212-16.7.0 V1.1.0	16.7.0	Published	29.07.2022	https://members.tsdsi.in/s/bqPinspGrEcBTco
TTA	TTAT.3G-36.212V16.7.0	16.7.0	Published	14.03.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.212V16.7.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.212.V17.1.0	17.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36212-h10.pdf
ATIS	ATIS.3GPP.36.212.V17.1.0	17.1.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.212.V17.1.0	17.1.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.212.V17.1.0.docx
ETSI	ETSI TS 136 212 V17.1.0 (2022-04)	17.1.0	Published	25.04.2022	https://www.etsi.org/deliver/etsi_ts\136200_136299\136212\17.01.00_60\ts_136212v170100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.212-17.1.0 V1.0.0	17.1.0	Published	29.07.2022	https://members.tsdsi.in/s/Wnbq6RFM2Jyozps
TTA	TTAT.3G-36.212V17.1.0	17.1.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.212V17.1.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.212.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36212-i00.pdf
ATIS	ATIS.3GPP.36.212.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.212.V18.0.0 7_ATIS/CCSA.3GPP.36.212.V18.0.0.docx	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 212 V18.0.0 (2024-05)	18.0.0	Published	23.05.2024	https://www.etsi.org/deliver/etsi_ts\136200_136299\136212\18.00.00_60\ts_136212v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.212-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/CaFcdB4aJaXGm7F
TTA	TTAT.3G-36.212V18.0.0 36.212V18.0.0&searchCate=TTAS	18.0.0	Published	13.02.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

2.1.2.4   TS 36.213

Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures

This document specifies and establishes the characteristics of the physical layer procedures for E-UTRA.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.213.V10.13.0	10.13.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36213-ad0.pdf
ATIS	ATIS.3GPP.36.213V10130	10.13.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.213V10130 7_ATIS/CCSA.3GPP.36.213V10130.doc	10.13.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 213 V10.13.0 (2015-07)	10.13.0	Published	27.07.2015	https://www.etsi.org/deliver/etsi_ts\136200_136299\136213\10.13.00_60\ts_136213v101300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.213-10.13.0 V1.0.0	10.13.0	Published	30.08.2021	https://members.tsdsi.in/s/bnnR35eGokGjwSs
TTA	TTAT.3G-36.213V10.13.0 36.213V10.13.0&searchCate=TTAS	10.13.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
Release 11					
ARIB	ARIB STD-T120-36.213.V11.13.0	11.13.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36213-bd0.pdf
ATIS	ATIS.3GPP.36.213V11130	11.13.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.213V11130 7_ATIS/CCSA.3GPP.36.213V11130.doc	11.13.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 213 V11.13.0 (2017-10)	11.13.0	Published	10.10.2017	https://www.etsi.org/deliver/etsi_ts\136200_136299\136213\11.13.00_60\ts_136213v111300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.213-11.13.0 V1.0.0	11.13.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/MC4Ex9wNswYJdYo
TTA	TTAT.3G-36.213V11.13.0 36.213V11.13.0&searchCate=TTAS	11.13.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
Release 12					
ARIB	ARIB STD-T120-36.213.V12.13.0	12.13.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36213-cd0.pdf
ATIS	ATIS.3GPP.36.213V12130	12.13.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.213V12130 7_ATIS/CCSA.3GPP.36.213V12130.zip	12.13.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 213 V12.13.0 (2019-03)	12.13.0	Published	14.03.2019	https://www.etsi.org/deliver/etsi_ts\136200_136299\136213\12.13.00_60\ts_136213v121300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.213-12.13.0 V1.1.0	12.13.0	Published	30.08.2021	https://members.tsdsi.in/s/PEcFnaos2axNEeS
TTA	TTAT.3G-36.213V12.13.0 36.213V12.13.0&searchCate=TTAS	12.13.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 13

ARIB	ARIB STD-T120-36.213.V13.16.0	13.16.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36213-dg0.pdf
ATIS	ATIS.3GPP.36.213V13160	13.16.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.213V13160	13.16.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.213V13160.zip
ETSI	ETSI TS 136 213 V13.16.0 (2020-04)	13.16.0	Published	23.04.2020	https://www.etsi.org/deliver/etsi_ts\136200_136299\136213\13.16.00_60\ts_136213v131600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.213-13.16.0 V1.1.0	13.16.0	Published	30.08.2021	https://members.tsdsi.in/s/TkNBTArSQpHmtD7
TTA	TTAT.3G-36.213V13.16.0	13.16.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.213V13.16.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.213.V14.17.0	14.17.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36213-eh0.pdf
ATIS	ATIS.3GPP.36.213.V14.17.0	14.17.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.213.V14.17.0	14.17.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.213.V14.17.0.zip
ETSI	ETSI TS 136 213 V14.17.0 (2021-09)	14.17.0	Published	17.09.2021	https://www.etsi.org/deliver/etsi_ts\136200_136299\136213\14.17.00_60\ts_136213v141700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.213-14.17.0 V1.1.0	14.17.0	Published	17.01.2023	https://members.tsdsi.in/s/FMFq4DPtHy4959L
TTA	TTAT.3G-36.213V14.17.0	14.17.0	Published	30.09.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.213V14.17.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.213.V15.16.0	15.16.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36213-fg0.pdf
ATIS	ATIS.3GPP.36.213.V15.16.0	15.16.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.213.V15.16.0	15.16.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.213.V15.16.0.zip
ETSI	ETSI TS 136 213 V15.16.0 (2022-10)	15.16.0	Published	19.10.2022	https://www.etsi.org/deliver/etsi_ts\136200_136299\136213\15.16.00_60\ts_136213v151600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.213-15.16.0 V1.2.0	15.16.0	Published	17.01.2023	https://members.tsdsi.in/s/xBAbmCPNHkaTarf
TTA	TTAT.3G-36.213V15.16.0	15.16.0	Published	11.01.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.213V15.16.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.213.V16.10.0	16.10.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36213-ga0.pdf
ATIS	ATIS.3GPP.36.213.V16.10.0	16.10.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.213.V16.10.0	16.10.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.213.V16.10.0.zip
ETSI	ETSI TS 136 213 V16.10.0 (2024-02)	16.10.0	Published	15.02.2024	https://www.etsi.org/deliver/etsi_ts\136200_136299\136213\16.10.00_60\ts_136213v161000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.213-16.10.0 V1.3.0	16.10.0	Published	29.05.2024	https://members.tsdsi.in/s/LrJWnrdijRkfcEH
TTA	TTAT.3G-36.213V16.10.0	16.10.0	Published	08.05.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.213V16.10.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.213.V17.6.0	17.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36213-h60.pdf
ATIS	ATIS.3GPP.36.213.V17.6.0	17.6.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.213.V17.6.0	17.6.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.213.V17.6.0.zip
ETSI	ETSI TS 136 213 V17.6.0 (2024-02)	17.6.0	Published	15.02.2024	https://www.etsi.org/deliver/etsi_ts\136200_136299\136213\17.06.00_60\ts_136213v170600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.213-17.6.0 V1.5.0	17.6.0	Published	29.05.2024	https://members.tsdsi.in/s/dtBjqnm8FkLRLHs
TTA	TTAT.3G-36.213V17.6.0	17.6.0	Published	08.05.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.213V17.6.0&searchCate=TTAS

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ARIB	ARIB STD-T120-36.213.V18.2.0	18.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36213-i20.pdf
ATIS	ATIS.3GPP.36.213.V18.2.0	18.2.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.213.V18.2.0	18.2.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.213.V18.2.0.zip
ETSI	ETSI TS 136 213 V18.2.0 (2024-06)	18.2.0	Published	14.06.2024	https://www.etsi.org/deliver/etsi_ts\136200_136299\136213\18.02.00_60\ts_136213v180200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.213-18.2.0 V1.0.0	18.2.0	Published	19.11.2024	https://members.tsdsi.in/s/YQAW7CgScfdzASw
TTA	TTAT.3G-36.213V18.2.0	18.2.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.213V18.2.0&searchCate=TTAS

2.1.2.5   TS 36.214

Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer; Measurements

This document contains the description and definition of the measurements done at the UE and network in order to support operation in idle mode and connected mode in E-UTRA.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.214.V10.1.0	10.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36214-a10.pdf
ATIS	ATIS.3GPP.36.214V1010	10.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.214V1010	10.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.214V1010.doc
ETSI	ETSI TS 136 214 V10.1.0 (2011-04)	10.1.0	Published	01.04.2011	https://www.etsi.org/deliver/etsi_ts\136200_136299\136214\10.01.00_60\ts_136214v100100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.214-10.1.0 V1.0.0	10.1.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/529AzawnHz8oRiA
TTA	TTAT.3G-36.214V10.1.0	10.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.214V10.1.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.214.V11.1.0	11.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36214-b10.pdf
ATIS	ATIS.3GPP.36.214V1110	11.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.214V1110	11.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.214V1110.doc
ETSI	ETSI TS 136 214 V11.1.0 (2013-02)	11.1.0	Published	05.02.2013	https://www.etsi.org/deliver/etsi_ts\136200_136299\136214\11.01.00_60\ts_136214v110100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.214-11.1.0 V1.0.0	11.1.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/S4p9jRzAPXgg4ay
TTA	TTAT.3G-36.214V11.1.0	11.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.214V11.1.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-36.214.V12.3.0	12.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36214-c30.pdf
ATIS	ATIS.3GPP.36.214V1230	12.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.214V1230	12.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.214V1230.doc
ETSI	ETSI TS 136 214 V12.3.0 (2016-10)	12.3.0	Published	06.10.2016	https://www.etsi.org/deliver/etsi_ts\136200_136299\136214\12.03.00_60\ts_136214v120300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.214-12.3.0 V1.0.0	12.3.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/ngJb3tsfkto3ica
TTA	TTAT.3G-36.214V12.3.0	12.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.214V12.3.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.214.V13.5.0	13.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36214-d50.pdf
ATIS	ATIS.3GPP.36.214V1350	13.5.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.214V1350	13.5.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.214V1350.doc
ETSI	ETSI TS 136 214 V13.5.0 (2017-10)	13.5.0	Published	09.10.2017	https://www.etsi.org/deliver/etsi_ts\136200_136299\136214\13.05.00_60\ts_136214v130500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.214-13.5.0 V1.0.0	13.5.0	Published	30.08.2021	https://members.tsdsi.in/s/cfTM5WqoFBrnKDf
TTA	TTAT.3G-36.214V13.5.0	13.5.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.214V13.5.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.214.V14.4.0	14.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36214-e40.pdf
ATIS	ATIS.3GPP.36.214V1440	14.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.214V1440	14.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.214V1440.doc
ETSI	ETSI TS 136 214 V14.4.0 (2018-01)	14.4.0	Published	17.01.2018	https://www.etsi.org/deliver/etsi_ts\136200_136299\136214\14.04.00_60\ts_136214v140400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.214-14.4.0 V1.0.0	14.4.0	Published	30.08.2021	https://members.tsdsi.in/s/yHW2Zdm8yY46zSC
TTA	TTAT.3G-36.214V14.4.0	14.4.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.214V14.4.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.214.V15.5.0	15.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36214-f50.pdf
ATIS	ATIS.3GPP.36.214V1550	15.5.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.214V1550	15.5.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.214V1550.docx
ETSI	ETSI TS 136 214 V15.5.0 (2020-01)	15.5.0	Published	17.01.2020	https://www.etsi.org/deliver/etsi_ts\136200_136299\136214\15.05.00_60\ts_136214v150500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.214-15.5.0 V1.0.0	15.5.0	Published	30.08.2021	https://members.tsdsi.in/s/X4wisHJeDRXnaPn
TTA	TTAT.3G-36.214V15.5.0	15.5.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.214V15.5.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.214.V16.2.0	16.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36214-g20.pdf
ATIS	ATIS.3GPP.36.214.V16.2.0	16.2.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.214.V16.2.0	16.2.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.214.V16.2.0.docx
ETSI	ETSI TS 136 214 V16.2.0 (2021-04)	16.2.0	Published	20.04.2021	https://www.etsi.org/deliver/etsi_ts\136200_136299\136214\16.02.00_60\ts_136214v160200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.214-16.2.0 V1.1.0	16.2.0	Published	30.08.2021	https://members.tsdsi.in/s/ExaoPZDGAkQaHFs
TTA	TTAT.3G-36.214V16.2.0	16.2.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.214V16.2.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.214.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36214-h00.pdf
ATIS	ATIS.3GPP.36.214.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.214.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.214.V17.0.0.docx
ETSI	ETSI TS 136 214 V17.0.0 (2022-04)	17.0.0	Published	20.04.2022	https://www.etsi.org/deliver/etsi_ts\136200_136299\136214\17.00.00_60\ts_136214v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.214-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/dEWxwbbjLcTzoFd
TTA	TTAT.3G-36.214V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.214V17.0.0&searchCate=TTAS

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ARIB	ARIB STD-T120-36.214.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36214-i00.pdf
ATIS	ATIS.3GPP.36.214.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.214.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.214.V18.0.0.docx
ETSI	ETSI TS 136 214 V18.0.0 (2024-05)	18.0.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136200_136299\136214\18.00.00_60\ts_136214v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.214-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/QsCJb8C8AoWJqLN
TTA	TTAT.3G-36.214V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.214V18.0.0&searchCate=TTAS

2.1.2.6   TS 36.216

Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer for relaying operation

This document describes the characteristics of eNodeB – relay node transmissions.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.216.V10.3.1	10.3.1	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36216-a31.pdf
ATIS	ATIS.3GPP.36.216V1031	10.3.1	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.216V1031	10.3.1	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.216V1031.doc
ETSI	ETSI TS 136 216 V10.3.1 (2011-10)	10.3.1	Published	18.10.2011	https://www.etsi.org/deliver/etsi_ts\136200_136299\136216\10.03.01_60\ts_136216v100301p.pdf
TSDSI	TSDSI STD T1.3GPP 36.216-10.3.1 V1.0.0	10.3.1	Published	30.08.2021	https://members.tsdsi.in/index.php/s/i8qcdizdsLWpB7T
TTA	TTAT.3G-36.216V10.3.1	10.3.1	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.216V10.3.1&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.216.V11.0.0	11.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36216-b00.pdf
ATIS	ATIS.3GPP.36.216V1100	11.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.216V1100	11.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.216V1100.doc
ETSI	ETSI TS 136 216 V11.0.0 (2012-10)	11.0.0	Published	02.10.2012	https://www.etsi.org/deliver/etsi_ts\136200_136299\136216\11.00.00_60\ts_136216v110000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.216-11.0.0 V1.0.0	11.0.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/LbSK2LwctpTMH4x
TTA	TTAT.3G-36.216V11.0.0	11.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.216V11.0.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-36.216.V12.0.0	12.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36216-c00.pdf
ATIS	ATIS.3GPP.36.216V1200	12.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.216V1200	12.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.216V1200.doc
ETSI	ETSI TS 136 216 V12.0.0 (2014-10)	12.0.0	Published	02.10.2014	https://www.etsi.org/deliver/etsi_ts\136200_136299\136216\12.00.00_60\ts_136216v120000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.216-12.0.0 V1.0.0	12.0.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/Ps4aDkbqjnxkZAT
TTA	TTAT.3G-36.216V12.0.0	12.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.216V12.0.0&searchCate=TTAS

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ARIB	ARIB STD-T120-36.216.V13.0.0	13.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36216-d00.pdf
ATIS	ATIS.3GPP.36.216V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.216V1300	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.216V1300.doc				
ETSI	ETSI TS 136 216 V13.0.0 (2016-01)	13.0.0	Published	26.01.2016	https://www.etsi.org/deliver/etsi_ts\136200_136299\136216\13.00.00_60\ts_136216v130000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.216-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/GZy4fd83A3JCnyY
TTA	TTAT.3G-36.216V13.0.0	13.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.216V13.0.0&searchCate=TTAS				

Release 14

ARIB	ARIB STD-T120-36.216.V14.0.0	14.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36216-e00.pdf
ATIS	ATIS.3GPP.36.216V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.216V1400	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.216V1400.doc				
ETSI	ETSI TS 136 216 V14.0.0 (2017-04)	14.0.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\136200_136299\136216\14.00.00_60\ts_136216v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.216-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/MtEDZpyzw4qkpM6
TTA	TTAT.3G-36.216V14.0.0	14.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.216V14.0.0&searchCate=TTAS				

Release 15

ARIB	ARIB STD-T120-36.216.V15.0.0	15.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36216-f00.pdf
ATIS	ATIS.3GPP.36.216V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.216V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.216V1500.doc				
ETSI	ETSI TS 136 216 V15.0.0 (2018-07)	15.0.0	Published	12.07.2018	https://www.etsi.org/deliver/etsi_ts\136200_136299\136216\15.00.00_60\ts_136216v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.216-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/Ki8YRnPA2AHngS3
TTA	TTAT.3G-36.216V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.216V15.0.0&searchCate=TTAS				

Release 16

ARIB	ARIB STD-T120-36.216.V16.0.0	16.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36216-g00.pdf
ATIS	ATIS.3GPP.36.216V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.216V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.216V1600.doc				
ETSI	ETSI TS 136 216 V16.0.0 (2020-07)	16.0.0	Published	20.07.2020	https://www.etsi.org/deliver/etsi_ts\136200_136299\136216\16.00.00_60\ts_136216v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.216-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/3DcKBZ9rge7SXd3
TTA	TTAT.3G-36.216V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.216V16.0.0&searchCate=TTAS				

Release 17

ARIB	ARIB STD-T120-36.216.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36216-h00.pdf
ATIS	ATIS.3GPP.36.216.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.216.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.216.V17.0.0.docx				
ETSI	ETSI TS 136 216 V17.0.0 (2022-04)	17.0.0	Published	20.04.2022	https://www.etsi.org/deliver/etsi_ts\136200_136299\136216\17.00.00_60\ts_136216v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.216-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/C9r4zbRo7dooB2i
TTA	TTAT.3G-36.216V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.216V17.0.0&searchCate=TTAS				

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ARIB	ARIB STD-T120-36.216.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36216-i00.pdf
ATIS	ATIS.3GPP.36.216.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.216.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.216.V18.0.0.docx
ETSI	ETSI TS 136 216 V18.0.0 (2024-05)	18.0.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136200_136299\136216\18.00.00_60\ts_136216v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.216-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/DCdxFD3YpBQny6d
TTA	TTAT.3G-36.216V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.216V18.0.0&searchCate=TTAS

2.1.3   Radio Layers 2 and 3

2.1.3.1   TS 36.300

Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2

This document provides an overview and overall description of the E-UTRAN radio interface protocol architecture. Details of the radio interface protocols are specified in companion specifications of the 36 series.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.300.V10.12.0	10.12.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36300-ac0.pdf
ATIS	ATIS.3GPP.36.300V10120	10.12.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.300V10120	10.12.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.300V10120.doc
ETSI	ETSI TS 136 300 V10.12.0 (2015-02)	10.12.0	Published	04.02.2015	https://www.etsi.org/deliver/etsi_ts\136300_136399\136300\10.12.00_60\ts_136300v101200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.300-10.12.0 V1.0.0	10.12.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/4Kcs93XrdJ774s5
TTA	TTAT.3G-36.300V10.12.0	10.12.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.300V10.12.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.300.V11.14.0	11.14.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36300-be0.pdf
ATIS	ATIS.3GPP.36.300V11140	11.14.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.300V11140	11.14.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.300V11140.doc
ETSI	ETSI TS 136 300 V11.14.0 (2016-01)	11.14.0	Published	18.01.2016	https://www.etsi.org/deliver/etsi_ts\136300_136399\136300\11.14.00_60\ts_136300v111400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.300-11.14.0 V1.0.0	11.14.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/kbdtF3gLjiWSZ9R
TTA	TTAT.3G-36.300V11.14.0	11.14.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.300V11.14.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-36.300.V12.10.0	12.10.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36300-ca0.pdf
ATIS	ATIS.3GPP.36.300V12100	12.10.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.300V12100	12.10.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.300V12100.doc
ETSI	ETSI TS 136 300 V12.10.0 (2016-08)	12.10.0	Published	24.08.2016	https://www.etsi.org/deliver/etsi_ts\136300_136399\136300\12.10.00_60\ts_136300v121000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.300-12.10.0 V1.0.0	12.10.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/s6TwxTRPEP3oQHX

TTA	TTAT.3G-36.300V12.10.0	12.10.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.300V12.10.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.300.V13.14.0	13.14.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36300-de0.pdf
ATIS	ATIS.3GPP.36.300V13140	13.14.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.300V13140	13.14.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.300V13140.docx
ETSI	ETSI TS 136 300 V13.14.0 (2020-04)	13.14.0	Published	16.04.2020	https://www.etsi.org/deliver/etsi_ts\136300_136399\136300\13.14.00_60\ts_136300v131400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.300-13.14.0 V1.1.0	13.14.0	Published	30.08.2021	https://members.tsdsi.in/s/ArHsWHWM4woN6Fi
TTA	TTAT.3G-36.300V13.14.0	13.14.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.300V13.14.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.300.V14.13.0	14.13.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36300-ed0.pdf
ATIS	ATIS.3GPP.36.300.V14.13.0	14.13.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.300.V14.13.0	14.13.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.300.V14.13.0.docx
ETSI	ETSI TS 136 300 V14.13.0 (2021-01)	14.13.0	Published	20.01.2021	https://www.etsi.org/deliver/etsi_ts\136300_136399\136300\14.13.00_60\ts_136300v141300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.300-14.13.0 V1.1.0	14.13.0	Published	17.01.2023	https://members.tsdsi.in/s/86iCkqXEnbMAzLz
TTA	TTAT.3G-36.300V14.13.0	14.13.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.300V14.13.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.300.V15.14.0	15.14.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36300-fe0.pdf
ATIS	ATIS.3GPP.36.300.V15.14.0	15.14.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.300.V15.14.0	15.14.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.300.V15.14.0.docx
ETSI	ETSI TS 136 300 V15.14.0 (2023-01)	15.14.0	Published	19.01.2023	https://www.etsi.org/deliver/etsi_ts\136300_136399\136300\15.14.00_60\ts_136300v151400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.300 15.14.0 V1.2.0	15.14.0	Published	02.05.2023	https://members.tsdsi.in/s/CjfnNjcAx7bg4i5
TTA	TTAT.3G-36.300V15.14.0	15.14.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.300V15.14.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.300.V16.9.0	16.9.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36300-g90.pdf
ATIS	ATIS.3GPP.36.300.V16.9.0	16.9.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.300.V16.9.0	16.9.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.300.V16.9.0.docx
ETSI	ETSI TS 136 300 V16.9.0 (2023-01)	16.9.0	Published	19.01.2023	https://www.etsi.org/deliver/etsi_ts\136300_136399\136300\16.09.00_60\ts_136300v160900p.pdf
TSDSI	TSDSI STD T1.3GPP 36.300 16.9.0 V1.2.0	16.9.0	Published	02.05.2023	https://members.tsdsi.in/s/HNfDj2GeNL3BjeN
TTA	TTAT.3G-36.300V16.9.0	16.9.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.300V16.9.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.300.V17.9.0	17.9.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36300-h90.pdf
ATIS	ATIS.3GPP.36.300.V17.9.0	17.9.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.300.V17.9.0	17.9.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.300.V17.9.0.docx
ETSI	ETSI TS 136 300 V17.9.0 (2024-10)	17.9.0	Published	14.10.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136300\17.09.00_60\ts_136300v170900p.pdf
TSDSI	TSDSI STD T1.3GPP 36.300-17.9.0 V1.9.0	17.9.0	Published	02.03.2025	https://members.tsdsi.in/s/tmN4Co2LgsT8zXo

TTA	TTAT.3G-36.300V17.9.0	17.9.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.300V17.9.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.300.V18.3.0	18.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36300-i30.pdf
ATIS	ATIS.3GPP.36.300.V18.3.0	18.3.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.300.V18.3.0	18.3.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.300.V18.3.0.docx
ETSI	ETSI TS 136 300 V18.3.0 (2024-10)	18.3.0	Published	14.10.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136300\18.03.00_60\ts_136300v180300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.300-18.3.0 V1.1.0	18.3.0	Published	02.03.2025	https://members.tsdsi.in/s/eiCpWgbNPpKHCCe
TTA	TTAT.3G-36.300V18.3.0	18.3.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.300V18.3.0&searchCate=TTAS

2.1.3.2　TS 36.302

Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer

This document is a technical specification of the services provided by the physical layer of E-UTRA to upper layers.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.302.V10.6.0	10.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36302-a60.pdf
ATIS	ATIS.3GPP.36.302V1060	10.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.302V1060	10.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.302V1060.doc
ETSI	ETSI TS 136 302 V10.6.0 (2013-09)	10.6.0	Published	25.09.2013	https://www.etsi.org/deliver/etsi_ts\136300_136399\136302\10.06.00_60\ts_136302v100600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.302-10.6.0 V1.0.0	10.6.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/xYZaRqaXYroyqEj
TTA	TTAT.3G-36.302V10.6.0	10.6.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.302V10.6.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.302.V11.5.0	11.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36302-b50.pdf
ATIS	ATIS.3GPP.36.302V1150	11.5.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.302V1150	11.5.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.302V1150.doc
ETSI	ETSI TS 136 302 V11.5.0 (2014-03)	11.5.0	Published	26.03.2014	https://www.etsi.org/deliver/etsi_ts\136300_136399\136302\11.05.00_60\ts_136302v110500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.302-11.5.0 V1.0.0	11.5.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/GZWSNoaWDbAN7J6
TTA	TTAT.3G-36.302V11.5.0	11.5.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.302V11.5.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-36.302.V12.8.0	12.8.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36302-c80.pdf
ATIS	ATIS.3GPP.36.302V1280	12.8.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.302V1280	12.8.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.302V1280.doc
ETSI	ETSI TS 136 302 V12.8.0 (2016-10)	12.8.0	Published	05.10.2016	https://www.etsi.org/deliver/etsi_ts\136300_136399\136302\12.08.00_60\ts_136302v120800p.pdf
TSDSI	TSDSI STD T1.3GPP 36.302-12.8.0 V1.0.0	12.8.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/p5kfHpLy26EMbqx
TTA	TTAT.3G-36.302V12.8.0	12.8.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.302V12.8.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.302.V13.8.0	13.8.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36302-d80.pdf
ATIS	ATIS.3GPP.36.302V1380	13.8.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.302V1380	13.8.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.302V1380.doc
ETSI	ETSI TS 136 302 V13.8.0 (2020-07)	13.8.0	Published	31.07.2020	https://www.etsi.org/deliver/etsi_ts\136300_136399\136302\13.08.00_60\ts_136302v130800p.pdf
TSDSI	TSDSI STD T1.3GPP 36.302-13.8.0 V1.1.0	13.8.0	Published	30.08.2021	https://members.tsdsi.in/s/xfycttrQTWL45N4
TTA	TTAT.3G-36.302V13.8.0	13.8.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.302V13.8.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.302.V14.6.0	14.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36302-e60.pdf
ATIS	ATIS.3GPP.36.302V1460	14.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.302V1460	14.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.302V1460.docx
ETSI	ETSI TS 136 302 V14.6.0 (2020-07)	14.6.0	Published	31.07.2020	https://www.etsi.org/deliver/etsi_ts\136300_136399\136302\14.06.00_60\ts_136302v140600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.302-14.6.0 V1.1.0	14.6.0	Published	30.08.2021	https://members.tsdsi.in/s/eZ3kQQwAzprb8Yx
TTA	TTAT.3G-36.302V14.6.0	14.6.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.302V14.6.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.302.V15.3.0	15.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36302-f30.pdf
ATIS	ATIS.3GPP.36.302V1530	15.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.302V1530	15.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.302V1530.docx
ETSI	ETSI TS 136 302 V15.3.0 (2020-07)	15.3.0	Published	31.07.2020	https://www.etsi.org/deliver/etsi_ts\136300_136399\136302\15.03.00_60\ts_136302v150300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.302-15.3.0 V1.0.0	15.3.0	Published	30.08.2021	https://members.tsdsi.in/s/4Pxo9pXYjjT35xk
TTA	TTAT.3G-36.302V15.3.0	15.3.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.302V15.3.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.302.V16.1.0	16.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36302-g10.pdf
ATIS	ATIS.3GPP.36.302V1610	16.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.302V1610	16.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.302V1610.docx
ETSI	ETSI TS 136 302 V16.1.0 (2020-07)	16.1.0	Published	30.07.2020	https://www.etsi.org/deliver/etsi_ts\136300_136399\136302\16.01.00_60\ts_136302v160100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.302-16.1.0 V1.0.0	16.1.0	Published	30.08.2021	https://members.tsdsi.in/s/WQsLX9Yt2eTbRk7
TTA	TTAT.3G-36.302V16.1.0	16.1.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.302V16.1.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.302.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36302-h00.pdf
ATIS	ATIS.3GPP.36.302.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.302.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.302.V17.0.0.docx
ETSI	ETSI TS 136 302 V17.0.0 (2022-05)	17.0.0	Published	06.05.2022	https://www.etsi.org/deliver/etsi_ts\136300_136399\136302\17.00.00_60\ts_136302v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.302-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/Z2wLkXa95gADRsC
TTA	TTAT.3G-36.302V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.302V17.0.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.302.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36302-i00.pdf
ATIS	ATIS.3GPP.36.302.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.302.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.302.V18.0.0.docx
ETSI	ETSI TS 136 302 V18.0.0 (2024-05)	18.0.0	Published	15.05.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136302\18.00.00_60\ts_136302v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.302-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/L98HDYzDSi8MxRt
TTA	TTAT.3G-36.302V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.302V18.0.0&searchCate=TTAS

2.1.3.3 TS 36.304

Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode

This document specifies the Access Stratum (AS) part of the Idle Mode procedures applicable to a UE. This document specifies the model for the functional division between the NAS and AS in a UE. This document applies to all UEs that support at least E-UTRA, including multi-RAT UEs as described in 3GPP specifications, in the following cases: (i) When the UE is camped on an E-UTRA cell; (ii) When the UE is searching for a cell to camp on.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.304.V10.9.0	10.9.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36304-a90.pdf
ATIS	ATIS.3GPP.36.304V1090	10.9.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.304V1090	10.9.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.304V1090.doc
ETSI	ETSI TS 136 304 V10.9.0 (2016-01)	10.9.0	Published	15.01.2016	https://www.etsi.org/deliver/etsi_ts\136300_136399\136304\10.09.00_60\ts_136304v100900p.pdf
TSDSI	TSDSI STD T1.3GPP 36.304-10.9.0 V1.0.0	10.9.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/HyQg4omwaSmtYpY
TTA	TTAT.3G-36.304V10.9.0	10.9.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.304V10.9.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.304.V11.7.0	11.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36304-b70.pdf
ATIS	ATIS.3GPP.36.304V1170	11.7.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.304V1170	11.7.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.304V1170.doc
ETSI	ETSI TS 136 304 V11.7.0 (2016-01)	11.7.0	Published	15.01.2016	https://www.etsi.org/deliver/etsi_ts\136300_136399\136304\11.07.00_60\ts_136304v110700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.304-11.7.0 V1.0.0	11.7.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/bkr6nfiWPSADLns
TTA	TTAT.3G-36.304V11.7.0	11.7.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.304V11.7.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-36.304.V12.8.0	12.8.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36304-c80.pdf
ATIS	ATIS.3GPP.36.304V1280	12.8.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.304V1280	12.8.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.304V1280.doc
ETSI	ETSI TS 136 304 V12.8.0 (2016-08)	12.8.0	Published	25.08.2016	https://www.etsi.org/deliver/etsi_ts\136300_136399\136304\12.08.00_60\ts_136304v120800p.pdf
TSDSI	TSDSI STD T1.3GPP 36.304-12.8.0 V1.0.0	12.8.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/dbS9rG6BqgbDL6y
TTA	TTAT.3G-36.304V12.8.0	12.8.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.304V12.8.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.304.V13.8.0	13.8.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36304-d80.pdf
ATIS	ATIS.3GPP.36.304V1380	13.8.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.304V1380	13.8.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.304V1380.doc
ETSI	ETSI TS 136 304 V13.8.0 (2018-01)	13.8.0	Published	17.01.2018	https://www.etsi.org/deliver/etsi_ts\136300_136399\136304\13.08.00_60\ts_136304v130800p.pdf
TSDSI	TSDSI STD T1.3GPP 36.304-13.8.0 V1.0.0	13.8.0	Published	30.08.2021	https://members.tsdsi.in/s/NmjgKx67mDA7oen
TTA	TTAT.3G-36.304V13.8.0	13.8.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.304V13.8.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.304.V14.7.0	14.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36304-e70.pdf
ATIS	ATIS.3GPP.36.304V1470	14.7.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.304V1470	14.7.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.304V1470.doc
ETSI	ETSI TS 136 304 V14.7.0 (2018-10)	14.7.0	Published	17.10.2018	https://www.etsi.org/deliver/etsi_ts\136300_136399\136304\14.07.00_60\ts_136304v140700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.304-14.7.0 V1.1.0	14.7.0	Published	30.08.2021	https://members.tsdsi.in/s/bbwF2MDiLjgmQ6i
TTA	TTAT.3G-36.304V14.7.0	14.7.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.304V14.7.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.304.V15.8.0	15.8.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36304-f80.pdf
ATIS	ATIS.3GPP.36.304.V15.8.0	15.8.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.304.V15.8.0	15.8.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.304.V15.8.0.docx
ETSI	ETSI TS 136 304 V15.8.0 (2022-05)	15.8.0	Published	06.05.2022	https://www.etsi.org/deliver/etsi_ts\136300_136399\136304\15.08.00_60\ts_136304v150800p.pdf
TSDSI	TSDSI STD T1.3GPP 36.304-15.8.0 V1.1.0	15.8.0	Published	01.11.2022	https://members.tsdsi.in/s/S8ZEjSHxZcwLjya
TTA	TTAT.3G-36.304V15.8.0	15.8.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.304V15.8.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.304.V16.9.0	16.9.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36304-g90.pdf
ATIS	ATIS.3GPP.36.304.V16.9.0	16.9.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.304.V16.9.0	16.9.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.304.V16.9.0.docx
ETSI	ETSI TS 136 304 V16.9.0 (2024-01)	16.9.0	Published	31.01.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136304\16.09.00_60\ts_136304v160900p.pdf
TSDSI	TSDSI STD T1.3GPP 36.304-16.9.0 V1.3.0	16.9.0	Published	29.05.2024	https://members.tsdsi.in/s/DG6qeK4y6tG8g4e
TTA	TTAT.3G-36.304V16.9.0	16.9.0	Published	08.05.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.304V16.9.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.304.V17.5.0	17.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36304-h50.pdf
ATIS	ATIS.3GPP.36.304.V17.5.0	17.5.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.304.V17.5.0	17.5.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.304.V17.5.0.docx
ETSI	ETSI TS 136 304 V17.5.0 (2024-01)	17.5.0	Published	31.01.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136304\17.05.00_60\ts_136304v170500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.304-17.5.0 V1.5.0	17.5.0	Published	29.05.2024	https://members.tsdsi.in/s/efd3yCJjHjkreY2
TTA	TTAT.3G-36.304V17.5.0	17.5.0	Published	08.05.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.304V17.5.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.304.V18.2.0	18.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36304-i20.pdf
ATIS	ATIS.3GPP.36.304.V18.2.0	18.2.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.304.V18.2.0	18.2.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.304.V18.2.0.docx
ETSI	ETSI TS 136 304 V18.2.0 (2024-08)	18.2.0	Published	08.08.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136304\18.02.00_60\ts_136304v180200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.304-18.2.0 V1.0.0	18.2.0	Published	19.11.2024	https://members.tsdsi.in/s/DTEaqQstkm3j5sX
TTA	TTAT.3G-36.304V18.2.0	18.2.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.304V18.2.0&searchCate=TTAS

2.1.3.4 TS 36.305

Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Stage 2 functional specification of User Equipment (UE) positioning in E-UTRAN

This document specifies the stage 2 of the UE positioning function of E-UTRAN, which provides the mechanisms to support or assist the calculation of the geographical position of a UE. The purpose of this stage 2 specification is to define the E-UTRAN UE Positioning architecture, functional entities and operations to support positioning methods. This description is confined to the E-UTRAN Access Stratum. This stage 2 specification covers the E-UTRAN positioning methods, state descriptions, and message flows to support UE positioning.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.305.V10.5.0	10.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36305-a50.pdf
ATIS	ATIS.3GPP.36.305V1050	10.5.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.305V1050	10.5.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.305V1050.doc
ETSI	ETSI TS 136 305 V10.5.0 (2013-02)	10.5.0	Published	05.02.2013	https://www.etsi.org/deliver/etsi_ts\136300_136399\136305\10.05.00_60\ts_136305v100500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.305-10.5.0 V1.0.0	10.5.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/MkXjpx2FZ25n9r3
TTA	TTAT.3G-36.305V10.5.0	10.5.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.305V10.5.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.305.V11.3.0	11.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36305-b30.pdf
ATIS	ATIS.3GPP.36.305V1130	11.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.305V1130	11.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.305V1130.doc
ETSI	ETSI TS 136 305 V11.3.0 (2013-04)	11.3.0	Published	19.04.2013	https://www.etsi.org/deliver/etsi_ts\136300_136399\136305\11.03.00_60\ts_136305v110300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.305-11.3.0 V1.0.0	11.3.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/kTFyaQBA37CNpiF
TTA	TTAT.3G-36.305V11.3.0	11.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.305V11.3.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-36.305.V12.2.0	12.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36305-c20.pdf
ATIS	ATIS.3GPP.36.305V1220	12.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.305V1220	12.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.305V1220.doc
ETSI	ETSI TS 136 305 V12.2.0 (2015-02)	12.2.0	Published	04.02.2015	https://www.etsi.org/deliver/etsi_ts\136300_136399\136305\12.02.00_60\ts_136305v120200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.305-12.2.0 V1.0.0	12.2.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/pnkQqk3gPKE5yjS

| TTA | TTAT.3G-36.305V12.2.0 | 12.2.0 | Published | 02.08.2021 | https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.305V12.2.0&searchCate=TTAS |

Release 13

ARIB	ARIB STD-T120-36.305.V13.0.0	13.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36305-d00.pdf
ATIS	ATIS.3GPP.36.305V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.305V1300	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.305V1300.doc
ETSI	ETSI TS 136 305 V13.0.0 (2016-01)	13.0.0	Published	27.01.2016	https://www.etsi.org/deliver/etsi_ts\136300_136399\136305\13.00.00_60\ts_136305v130000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.305-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/gR9LnM8CqmAmgXM
TTA	TTAT.3G-36.305V13.0.0	13.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.305V13.0.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.305.V14.3.0	14.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36305-e30.pdf
ATIS	ATIS.3GPP.36.305V1430	14.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.305V1430	14.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.305V1430.doc
ETSI	ETSI TS 136 305 V14.3.0 (2017-10)	14.3.0	Published	09.10.2017	https://www.etsi.org/deliver/etsi_ts\136300_136399\136305\14.03.00_60\ts_136305v140300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.305-14.3.0 V1.0.0	14.3.0	Published	30.08.2021	https://members.tsdsi.in/s/gXHMqoLSpjsDFJo
TTA	TTAT.3G-36.305V14.3.0	14.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.305V14.3.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.305.V15.6.0	15.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36305-f60.pdf
ATIS	ATIS.3GPP.36.305.V15.6.0	15.6.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.305.V15.6.0	15.6.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.305.V15.6.0.docx
ETSI	ETSI TS 136 305 V15.6.0 (2023-07)	15.6.0	Published	24.07.2023	https://www.etsi.org/deliver/etsi_ts\136300_136399\136305\15.06.00_60\ts_136305v150600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.305-15.6.0 V1.1.0	15.6.0	Published	02.11.2023	https://members.tsdsi.in/s/Txo4NAJefPoxPD4
TTA	TTAT.3G-36.305V15.6.0	15.6.0	Published	27.10.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.305V15.6.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.305.V16.5.0	16.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36305-g50.pdf
ATIS	ATIS.3GPP.36.305.V16.5.0	16.5.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.305.V16.5.0	16.5.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.305.V16.5.0.docx
ETSI	ETSI TS 136 305 V16.5.0 (2023-07)	16.5.0	Published	24.07.2023	https://www.etsi.org/deliver/etsi_ts\136300_136399\136305\16.05.00_60\ts_136305v160500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.305-16.5.0 V1.2.0	16.5.0	Published	02.11.2023	https://members.tsdsi.in/s/tcKTkdE9QGa2AkS
TTA	TTAT.3G-36.305V16.5.0	16.5.0	Published	27.10.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.305V16.5.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.305.V17.3.0	17.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36305-h30.pdf
ATIS	ATIS.3GPP.36.305.V17.3.0	17.3.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.305.V17.3.0	17.3.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.305.V17.3.0.docx
ETSI	ETSI TS 136 305 V17.3.0 (2023-07)	17.3.0	Published	24.07.2023	https://www.etsi.org/deliver/etsi_ts\136300_136399\136305\17.03.00_60\ts_136305v170300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.305-17.3.0 V1.3.0	17.3.0	Published	02.11.2023	https://members.tsdsi.in/s/z9PsLAt88dwKMoG

| TTA | TTAT.3G-36.305V17.3.0 36.305V17.3.0&searchCate=TTAS | 17.3.0 | Published | 27.10.2023 | https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.305V17.3.0&searchCate=TTAS |

Release 18

ARIB	ARIB STD-T120-36.305.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36305-i00.pdf
ATIS	ATIS.3GPP.36.305.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.305.V18.0.0 7_ATIS/CCSA.3GPP.36.305.V18.0.0.docx	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.305.V18.0.0.docx
ETSI	ETSI TS 136 305 V18.0.0 (2024-05)	18.0.0	Published	23.05.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136305\18.00.00_60\ts_136305v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.305-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/r8g6idDpWi9nD8a
TTA	TTAT.3G-36.305V18.0.0 36.305V18.0.0&searchCate=TTAS	18.0.0	Published	08.05.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.305V18.0.0&searchCate=TTAS

2.1.3.5   TS 36.306

Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities

This document defines the E-UTRA UE Radio Access Capability Parameters.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.306.V10.15.0	10.15.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36306-af0.pdf
ATIS	ATIS.3GPP.36.306V10150	10.15.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.306V10150 7_ATIS/CCSA.3GPP.36.306V10150.doc	10.15.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.306V10150.doc
ETSI	ETSI TS 136 306 V10.15.0 (2016-01)	10.15.0	Published	27.01.2016	https://www.etsi.org/deliver/etsi_ts\136300_136399\136306\10.15.00_60\ts_136306v101500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.306-10.15.0 V1.0.0	10.15.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/M4MNdTEYEq8G9pQ
TTA	TTAT.3G-36.306V10.15.0 36.306V10.15.0&searchCate=TTAS	10.15.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.306V10.15.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.306.V11.14.0	11.14.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36306-be0.pdf
ATIS	ATIS.3GPP.36.306V11140	11.14.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.306V11140 7_ATIS/CCSA.3GPP.36.306V11140.doc	11.14.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.306V11140.doc
ETSI	ETSI TS 136 306 V11.14.0 (2017-02)	11.14.0	Published	16.02.2017	https://www.etsi.org/deliver/etsi_ts\136300_136399\136306\11.14.00_60\ts_136306v111400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.306-11.14.0 V1.0.0	11.14.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/DRpsNfDyk6r5aEo
TTA	TTAT.3G-36.306V11.14.0 36.306V11.14.0&searchCate=TTAS	11.14.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.306V11.14.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-36.306.V12.13.0	12.13.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36306-cd0.pdf
ATIS	ATIS.3GPP.36.306V12130	12.13.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.306V12130 7_ATIS/CCSA.3GPP.36.306V12130.doc	12.13.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.306V12130.doc
ETSI	ETSI TS 136 306 V12.13.0 (2017-10)	12.13.0	Published	09.10.2017	https://www.etsi.org/deliver/etsi_ts\136300_136399\136306\12.13.00_60\ts_136306v121300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.306-12.13.0 V1.0.0	12.13.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/M2mCX6DWjRwZWzg
TTA	TTAT.3G-36.306V12.13.0 36.306V12.13.0&searchCate=TTAS	12.13.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.306V12.13.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.306.V13.13.0	13.13.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36306-dd0.pdf
ATIS	ATIS.3GPP.36.306V13130	13.13.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.306V13130	13.13.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.306V13130.docx
ETSI	ETSI TS 136 306 V13.13.0 (2020-07)	13.13.0	Published	31.07.2020	https://www.etsi.org/deliver/etsi_ts\136300_136399\136306\13.13.00_60\ts_136306v131300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.306-13.13.0 V1.1.0	13.13.0	Published	30.08.2021	https://members.tsdsi.in/s/opFCZ6LXZt2sD5W
TTA	TTAT.3G-36.306V13.13.0	13.13.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.306V13.13.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.306.V14.12.0	14.12.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36306-ec0.pdf
ATIS	ATIS.3GPP.36.306V14120	14.12.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.306V14120	14.12.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.306V14120.docx
ETSI	ETSI TS 136 306 V14.12.0 (2020-07)	14.12.0	Published	31.07.2020	https://www.etsi.org/deliver/etsi_ts\136300_136399\136306\14.12.00_60\ts_136306v141200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.306-14.12.0 V1.1.0	14.12.0	Published	30.08.2021	https://members.tsdsi.in/s/jCc2Pzy2F7nRSm8
TTA	TTAT.3G-36.306V14.12.0	14.12.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.306V14.12.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.306.V15.12.0	15.12.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36306-fc0.pdf
ATIS	ATIS.3GPP.36.306.V15.12.0	15.12.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.306.V15.12.0	15.12.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.306.V15.12.0.docx
ETSI	ETSI TS 136 306 V15.12.0 (2024-08)	15.12.0	Published	02.08.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136306\15.12.00_60\ts_136306v151200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.306-15.12.0 V1.2.0	15.12.0	Published	19.11.2024	https://members.tsdsi.in/s/3np5GbLRS7D4SJY
TTA	TTAT.3G-36.306V15.12.0	15.12.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.306V15.12.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.306.V16.13.0	16.13.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36306-gd0.pdf
ATIS	ATIS.3GPP.36.306.V16.13.0	16.13.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.306.V16.13.0	16.13.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.306.V16.13.0.docx
ETSI	ETSI TS 136 306 V16.13.0 (2024-08)	16.13.0	Published	02.08.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136306\16.13.00_60\ts_136306v161300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.306-16.13.0 V1.5.0	16.13.0	Published	19.11.2024	https://members.tsdsi.in/s/9F8CfpH3RMCccpf
TTA	TTAT.3G-36.306V16.13.0	16.13.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.306V16.13.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.306.V17.7.0	17.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36306-h70.pdf
ATIS	ATIS.3GPP.36.306.V17.7.0	17.7.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.306.V17.7.0	17.7.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.306.V17.7.0.docx
ETSI	ETSI TS 136 306 V17.7.0 (2024-08)	17.7.0	Published	02.08.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136306\17.07.00_60\ts_136306v170700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.306-17.7.0 V1.7.0	17.7.0	Published	19.11.2024	https://members.tsdsi.in/s/mx5y5XALCDRXCkt
TTA	TTAT.3G-36.306V17.7.0	17.7.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.306V17.7.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.306.V18.3.0	18.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36306-i30.pdf
ATIS	ATIS.3GPP.36.306.V18.3.0	18.3.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.306.V18.3.0	18.3.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.306.V18.3.0.docx
ETSI	ETSI TS 136 306 V18.3.0 (2024-10)	18.3.0	Published	14.10.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136306\18.03.00_60\ts_136306v180300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.306-18.3.0 V1.1.0	18.3.0	Published	03.02.2025	https://members.tsdsi.in/s/mctbmki57TCxM7s
TTA	TTAT.3G-36.306V18.3.0	18.3.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.306V18.3.0&searchCate=TTAS

2.1.3.6   TS 36.314

Evolved Universal Terrestrial Radio Access (E-UTRA); Layer 2 – Measurements

This document contains the description and definition of the measurements performed by E-UTRAN that are transferred over the standardized interfaces in order to support E-UTRA radio link operations, radio resource management (RRM), network operations and maintenance (OAM), and self-organizing networks (SON).

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.314.V10.2.0	10.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36314-a20.pdf
ATIS	ATIS.3GPP.36.314V1020	10.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.314V1020	10.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.314V1020.doc
ETSI	ETSI TS 136 314 V10.2.0 (2011-11)	10.2.0	Published	02.11.2011	https://www.etsi.org/deliver/etsi_ts\136300_136399\136314\10.02.00_60\ts_136314v100200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.314-10.2.0 V1.0.0	10.2.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/FGXSMLTjL7mNiR2
TTA	TTAT.3G-36.314V10.2.0	10.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.314V10.2.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.314.V11.1.0	11.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36314-b10.pdf
ATIS	ATIS.3GPP.36.314V1110	11.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.314V1110	11.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.314V1110.doc
ETSI	ETSI TS 136 314 V11.1.0 (2013-02)	11.1.0	Published	12.02.2013	https://www.etsi.org/deliver/etsi_ts\136300_136399\136314\11.01.00_60\ts_136314v110100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.314-11.1.0 V1.0.0	11.1.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/jN3HcJtF3B5N2H6
TTA	TTAT.3G-36.314V11.1.0	11.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.314V11.1.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-36.314.V12.0.0	12.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36314-c00.pdf
ATIS	ATIS.3GPP.36.314V1200	12.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.314V1200	12.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.314V1200.doc
ETSI	ETSI TS 136 314 V12.0.0 (2014-09)	12.0.0	Published	29.09.2014	https://www.etsi.org/deliver/etsi_ts\136300_136399\136314\12.00.00_60\ts_136314v120000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.314-12.0.0 V1.0.0	12.0.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/9y3LibSNNGj2XpQ
TTA	TTAT.3G-36.314V12.0.0	12.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.314V12.0.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.314.V13.1.0	13.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36314-d10.pdf
ATIS	ATIS.3GPP.36.314V1310	13.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.314V1310	13.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.314V1310.doc				
ETSI	ETSI TS 136 314 V13.1.0 (2016-04)	13.1.0	Published	26.04.2016	https://www.etsi.org/deliver/etsi_ts\136300_136399\136314\13.01.00_60\ts_136314v130100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.314-13.1.0 V1.0.0	13.1.0	Published	30.08.2021	https://members.tsdsi.in/s/Q9tzJyZHnprZFY6
TTA	TTAT.3G-36.314V13.1.0	13.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.314V13.1.0&searchCate=TTAS				

Release 14

ARIB	ARIB STD-T120-36.314.V14.0.0	14.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36314-e00.pdf
ATIS	ATIS.3GPP.36.314V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.314V1400	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.314V1400.doc				
ETSI	ETSI TS 136 314 V14.0.0 (2017-04)	14.0.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\136300_136399\136314\14.00.00_60\ts_136314v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.314-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/AHyg6G8TzyotY6a
TTA	TTAT.3G-36.314V14.0.0	14.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.314V14.0.0&searchCate=TTAS				

Release 15

ARIB	ARIB STD-T120-36.314.V15.2.0	15.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36314-f20.pdf
ATIS	ATIS.3GPP.36.314V1520	15.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.314V1520	15.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.314V1520.doc				
ETSI	ETSI TS 136 314 V15.2.0 (2019-04)	15.2.0	Published	17.04.2019	https://www.etsi.org/deliver/etsi_ts\136300_136399\136314\15.02.00_60\ts_136314v150200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.314-15.2.0 V1.0.0	15.2.0	Published	30.08.2021	https://members.tsdsi.in/s/XSbPf74eG82nk9F
TTA	TTAT.3G-36.314V15.2.0	15.2.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.314V15.2.0&searchCate=TTAS				

Release 16

ARIB	ARIB STD-T120-36.314.V16.0.0	16.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36314-g00.pdf
ATIS	ATIS.3GPP.36.314V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.314V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.314V1600.doc				
ETSI	ETSI TS 136 314 V16.0.0 (2020-07)	16.0.0	Published	31.07.2020	https://www.etsi.org/deliver/etsi_ts\136300_136399\136314\16.00.00_60\ts_136314v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.314-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/QSLYKAb3n79HGLT
TTA	TTAT.3G-36.314V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.314V16.0.0&searchCate=TTAS				

Release 17

ARIB	ARIB STD-T120-36.314.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36314-h00.pdf
ATIS	ATIS.3GPP.36.314.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.314.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.314.V17.0.0.doc				
ETSI	ETSI TS 136 314 V17.0.0 (2022-05)	17.0.0	Published	06.05.2022	https://www.etsi.org/deliver/etsi_ts\136300_136399\136314\17.00.00_60\ts_136314v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.314-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/RomT9EANpLCPjik
TTA	TTAT.3G-36.314V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.314V17.0.0&searchCate=TTAS				

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ARIB	ARIB STD-T120-36.314.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36314-i00.pdf
ATIS	ATIS.3GPP.36.314.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.314.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.314.V18.0.0.doc
ETSI	ETSI TS 136 314 V18.0.0 (2024-05)	18.0.0	Published	15.05.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136314\18.00.00_60\ts_136314v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.314-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/AD8Rb2drawNLnNM
TTA	TTAT.3G-36.314V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.314V18.0.0&searchCate=TTAS

2.1.3.7 TS 36.321

Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification

This document specifies the E-UTRA Medium Access Control (MAC) protocol.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.321.V10.10.0	10.10.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36321-aa0.pdf
ATIS	ATIS.3GPP.36.321V10100	10.10.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.321V10100	10.10.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.321V10100.doc
ETSI	ETSI TS 136 321 V10.10.0 (2014-01)	10.10.0	Published	28.01.2014	https://www.etsi.org/deliver/etsi_ts\136300_136399\136321\10.10.00_60\ts_136321v101000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.321-10.10.0 V1.0.0	10.10.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/AFyYQpHcWzSLs5Z
TTA	TTAT.3G-36.321V10.10.0	10.10.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.321V10.10.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.321.V11.6.0	11.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36321-b60.pdf
ATIS	ATIS.3GPP.36.321V1160	11.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.321V1160	11.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.321V1160.doc
ETSI	ETSI TS 136 321 V11.6.0 (2015-04)	11.6.0	Published	21.04.2015	https://www.etsi.org/deliver/etsi_ts\136300_136399\136321\11.06.00_60\ts_136321v110600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.321-11.6.0 V1.0.0	11.6.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/ABkjBg9xCmBWQtS
TTA	TTAT.3G-36.321V11.6.0	11.6.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.321V11.6.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-36.321.V12.10.0	12.10.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36321-ca0.pdf
ATIS	ATIS.3GPP.36.321V12100	12.10.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.321V12100	12.10.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.321V12100.doc
ETSI	ETSI TS 136 321 V12.10.0 (2017-10)	12.10.0	Published	09.10.2017	https://www.etsi.org/deliver/etsi_ts\136300_136399\136321\12.10.00_60\ts_136321v121000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.321-12.10.0 V1.0.0	12.10.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/D7nXdQ3Tk5DyxQ7
TTA	TTAT.3G-36.321V12.10.0	12.10.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.321V12.10.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.321.V13.9.0	13.9.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36321-d90.pdf
ATIS	ATIS.3GPP.36.321V1390	13.9.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.321V1390	13.9.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.321V1390.doc
ETSI	ETSI TS 136 321 V13.9.0 (2018-07)	13.9.0	Published	16.07.2018	https://www.etsi.org/deliver/etsi_ts\136300_136399\136321\13.09.00_60\ts_136321v130900p.pdf
TSDSI	TSDSI STD T1.3GPP 36.321-13.9.0 V1.1.0	13.9.0	Published	30.08.2021	https://members.tsdsi.in/s/L6CPdGgWMGpHWR4
TTA	TTAT.3G-36.321V13.9.0	13.9.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.321V13.9.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.321.V14.13.0	14.13.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36321-ed0.pdf
ATIS	ATIS.3GPP.36.321.V14.13.0	14.13.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.321.V14.13.0	14.13.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.321.V14.13.0.docx
ETSI	ETSI TS 136 321 V14.13.0 (2020-11)	14.13.0	Published	13.11.2020	https://www.etsi.org/deliver/etsi_ts\136300_136399\136321\14.13.00_60\ts_136321v141300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.321-14.13.0 V1.1.0	14.13.0	Published	17.01.2023	https://members.tsdsi.in/s/oydWPjJe3QiJSLz
TTA	TTAT.3G-36.321V14.13.0	14.13.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.321V14.13.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.321.V15.11.0	15.11.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36321-fb0.pdf
ATIS	ATIS.3GPP.36.321.V15.11.0	15.11.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.321.V15.11.0	15.11.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.321.V15.11.0.docx
ETSI	ETSI TS 136 321 V15.11.0 (2021-01)	15.11.0	Published	20.01.2021	https://www.etsi.org/deliver/etsi_ts\136300_136399\136321\15.11.00_60\ts_136321v151100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.321-15.11.0 V1.1.0	15.11.0	Published	01.11.2022	https://members.tsdsi.in/s/aRno3GMk2xMdRA2
TTA	TTAT.3G-36.321V15.11.0	15.11.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.321V15.11.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.321.V16.9.0	16.9.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36321-g90.pdf
ATIS	ATIS.3GPP.36.321.V16.9.0	16.9.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.321.V16.9.0	16.9.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.321.V16.9.0.docx
ETSI	ETSI TS 136 321 V16.9.0 (2024-01)	16.9.0	Published	31.01.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136321\16.09.00_60\ts_136321v160900p.pdf
TSDSI	TSDSI STD T1.3GPP 36.321-16.9.0 V1.2.0	16.9.0	Published	29.05.2024	https://members.tsdsi.in/s/kmKGA2BD2gfLHYb
TTA	TTAT.3G-36.321V16.9.0	16.9.0	Published	08.05.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.321V16.9.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.321.V17.7.0	17.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36321-h70.pdf
ATIS	ATIS.3GPP.36.321.V17.7.0	17.7.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.321.V17.7.0	17.7.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.321.V17.7.0.docx
ETSI	ETSI TS 136 321 V17.7.0 (2024-01)	17.7.0	Published	31.01.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136321\17.07.00_60\ts_136321v170700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.321-17.7.0 V1.7.0	17.7.0	Published	29.05.2024	https://members.tsdsi.in/s/AfnKGnrFxssFPRi
TTA	TTAT.3G-36.321V17.7.0	17.7.0	Published	08.05.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.321V17.7.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.321.V18.3.0	18.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36321-i30.pdf
ATIS	ATIS.3GPP.36.321.V18.3.0	18.3.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.321.V18.3.0	18.3.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.321.V18.3.0.docx
ETSI	ETSI TS 136 321 V18.3.0 (2024-10)	18.3.0	Published	14.10.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136321\18.03.00_60\ts_136321v180300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.321-18.3.0 V1.1.0	18.3.0	Published	02.03.2025	https://members.tsdsi.in/s/ERdHxiCJ9CWibkC
TTA	TTAT.3G-36.321V18.3.0	18.3.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.321V18.3.0&searchCate=TTAS

2.1.3.8   TS 36.322

Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Link Control (RLC) protocol specification

This document specifies the E-UTRA Radio Link Control (RLC) protocol.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.322.V10.0.0	10.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36322-a00.pdf
ATIS	ATIS.3GPP.36.322V1000	10.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.322V1000	10.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.322V1000.doc
ETSI	ETSI TS 136 322 V10.0.0 (2011-01)	10.0.0	Published	13.01.2011	https://www.etsi.org/deliver/etsi_ts\136300_136399\136322\10.00.00_60\ts_136322v100000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.322-10.0.0 V1.0.0	10.0.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/wcdaZfpzgpp4JA4
TTA	TTAT.3G-36.322V10.0.0	10.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.322V10.0.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.322.V11.0.0	11.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36322-b00.pdf
ATIS	ATIS.3GPP.36.322V1100	11.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.322V1100	11.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.322V1100.doc
ETSI	ETSI TS 136 322 V11.0.0 (2012-10)	11.0.0	Published	02.10.2012	https://www.etsi.org/deliver/etsi_ts\136300_136399\136322\11.00.00_60\ts_136322v110000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.322-11.0.0 V1.0.0	11.0.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/N8PyCWiPC8ZKRfb
TTA	TTAT.3G-36.322V11.0.0	11.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.322V11.0.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-36.322.V12.4.0	12.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36322-c40.pdf
ATIS	ATIS.3GPP.36.322V1240	12.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.322V1240	12.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.322V1240.doc
ETSI	ETSI TS 136 322 V12.4.0 (2016-08)	12.4.0	Published	25.08.2016	https://www.etsi.org/deliver/etsi_ts\136300_136399\136322\12.04.00_60\ts_136322v120400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.322-12.4.0 V1.0.0	12.4.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/D7nXdQ3Tk5DyxQ7
TTA	TTAT.3G-36.322V12.4.0	12.4.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.322V12.4.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.322.V13.4.0	13.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36322-d40.pdf
ATIS	ATIS.3GPP.36.322V1340	13.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.322V1340 7_ATIS/CCSA.3GPP.36.322V1340.doc	13.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 322 V13.4.0 (2017-10)	13.4.0	Published	09.10.2017	https://www.etsi.org/deliver/etsi_ts\136300_136399\136322\13.04.00_60\ts_136322v130400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.322-13.4.0 V1.0.0	13.4.0	Published	30.08.2021	https://members.tsdsi.in/s/eLLQnEP8xtZS2Z3
TTA	TTAT.3G-36.322V13.4.0 36.322V13.4.0&searchCate=TTAS	13.4.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 14

ARIB	ARIB STD-T120-36.322.V14.1.0	14.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36322-e10.pdf
ATIS	ATIS.3GPP.36.322V1410	14.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.322V1410 7_ATIS/CCSA.3GPP.36.322V1410.doc	14.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 322 V14.1.0 (2017-10)	14.1.0	Published	09.10.2017	https://www.etsi.org/deliver/etsi_ts\136300_136399\136322\14.01.00_60\ts_136322v140100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.322-14.1.0 V1.0.0	14.1.0	Published	30.08.2021	https://members.tsdsi.in/s/rJ9pbk22KE9xC3R
TTA	TTAT.3G-36.322V14.1.0 36.322V14.1.0&searchCate=TTAS	14.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 15

ARIB	ARIB STD-T120-36.322.V15.4.0	15.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36322-f40.pdf
ATIS	ATIS.3GPP.36.322V1540	15.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.322V1540 7_ATIS/CCSA.3GPP.36.322V1540.docx	15.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 322 V15.4.0 (2020-07)	15.4.0	Published	31.07.2020	https://www.etsi.org/deliver/etsi_ts\136300_136399\136322\15.04.00_60\ts_136322v150400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.322-15.4.0 V1.0.0	15.4.0	Published	30.08.2021	https://members.tsdsi.in/s/mG3Xqrx2jqpyXD2
TTA	TTAT.3G-36.322V15.4.0 36.322V15.4.0&searchCate=TTAS	15.4.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 16

ARIB	ARIB STD-T120-36.322.V16.0.0	16.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36322-g00.pdf
ATIS	ATIS.3GPP.36.322V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.322V1600 7_ATIS/CCSA.3GPP.36.322V1600.docx	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 322 V16.0.0 (2020-07)	16.0.0	Published	31.07.2020	https://www.etsi.org/deliver/etsi_ts\136300_136399\136322\16.00.00_60\ts_136322v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.322-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/g3KfGmQJFwxf627
TTA	TTAT.3G-36.322V16.0.0 36.322V16.0.0&searchCate=TTAS	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 17

ARIB	ARIB STD-T120-36.322.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36322-h00.pdf
ATIS	ATIS.3GPP.36.322.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.322.V17.0.0 7_ATIS/CCSA.3GPP.36.322.V17.0.0.docx	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 322 V17.0.0 (2022-05)	17.0.0	Published	06.05.2022	https://www.etsi.org/deliver/etsi_ts\136300_136399\136322\17.00.00_60\ts_136322v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.322-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/zWPEXbBAa5iYXA4
TTA	TTAT.3G-36.322V17.0.0 36.322V17.0.0&searchCate=TTAS	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ARIB	ARIB STD-T120-36.322.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36322-i00.pdf
ATIS	ATIS.3GPP.36.322.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.322.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.322.V18.0.0.docx
ETSI	ETSI TS 136 322 V18.0.0 (2024-05)	18.0.0	Published	15.05.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136322\18.00.00_60\ts_136322v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.322-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/WEjNxqmpX9qMHx4
TTA	TTAT.3G-36.322V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.322V18.0.0&searchCate=TTAS

2.1.3.9 TS 36.323

Evolved Universal Terrestrial Radio Access (E-UTRA); Packet Data Convergence Protocol (PDCP) specification

This document specifies the E-UTRA Packet Data Convergence Protocol (PDCP).

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.323.V10.3.0	10.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36323-a30.pdf
ATIS	ATIS.3GPP.36.323V1030	10.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.323V1030	10.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.323V1030.doc
ETSI	ETSI TS 136 323 V10.3.0 (2014-07)	10.3.0	Published	22.07.2014	https://www.etsi.org/deliver/etsi_ts\136300_136399\136323\10.03.00_60\ts_136323v100300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.323-10.3.0 V1.0.0	10.3.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/wsfs5KC45P4225G
TTA	TTAT.3G-36.323V10.3.0	10.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.323V10.3.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.323.V11.4.0	11.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36323-b40.pdf
ATIS	ATIS.3GPP.36.323V1140	11.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.323V1140	11.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.323V1140.doc
ETSI	ETSI TS 136 323 V11.4.0 (2014-09)	11.4.0	Published	29.09.2014	https://www.etsi.org/deliver/etsi_ts\136300_136399\136323\11.04.00_60\ts_136323v110400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.323-11.4.0 V1.0.0	11.4.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/DxdBroaiet35Rpj
TTA	TTAT.3G-36.323V11.4.0	11.4.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.323V11.4.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-36.323.V12.6.0	12.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36323-c60.pdf
ATIS	ATIS.3GPP.36.323V1260	12.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.323V1260	12.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.323V1260.doc
ETSI	ETSI TS 136 323 V12.6.0 (2016-08)	12.6.0	Published	25.08.2016	https://www.etsi.org/deliver/etsi_ts\136300_136399\136323\12.06.00_60\ts_136323v120600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.323-12.6.0 V1.0.0	12.6.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/b5NcoRoBC43rsgw
TTA	TTAT.3G-36.323V12.6.0	12.6.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.323V12.6.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.323.V13.6.0	13.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36323-d60.pdf
ATIS	ATIS.3GPP.36.323V1360	13.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.323V1360	13.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.323V1360.doc
ETSI	ETSI TS 136 323 V13.6.0 (2017-07)	13.6.0	Published	27.07.2017	https://www.etsi.org/deliver/etsi_ts\136300_136399\136323\13.06.00_60\ts_136323v130600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.323-13.6.0 V1.0.0	13.6.0	Published	30.08.2021	https://members.tsdsi.in/s/dKrJiH4A9gEoCWW
TTA	TTAT.3G-36.323V13.6.0	13.6.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.323V13.6.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.323.V14.5.0	14.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36323-e50.pdf
ATIS	ATIS.3GPP.36.323V1450	14.5.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.323V1450	14.5.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.323V1450.doc
ETSI	ETSI TS 136 323 V14.5.0 (2018-01)	14.5.0	Published	19.01.2018	https://www.etsi.org/deliver/etsi_ts\136300_136399\136323\14.05.00_60\ts_136323v140500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.323-14.5.0 V1.0.0	14.5.0	Published	30.08.2021	https://members.tsdsi.in/s/FcMxfqY7WqsPDya
TTA	TTAT.3G-36.323V14.5.0	14.5.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.323V14.5.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.323.V15.7.0	15.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36323-f70.pdf
ATIS	ATIS.3GPP.36.323.V15.7.0	15.7.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.323.V15.7.0	15.7.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.323.V15.7.0.docx
ETSI	ETSI TS 136 323 V15.7.0 (2022-01)	15.7.0	Published	20.01.2022	https://www.etsi.org/deliver/etsi_ts\136300_136399\136323\15.07.00_60\ts_136323v150700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.323-15.7.0 V1.1.0	15.7.0	Published	01.11.2022	https://members.tsdsi.in/s/9a7MmrwzArnApdS
TTA	TTAT.3G-36.323V15.7.0	15.7.0	Published	14.03.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.323V15.7.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.323.V16.7.0	16.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36323-g70.pdf
ATIS	ATIS.3GPP.36.323.V16.7.0	16.7.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.323.V16.7.0	16.7.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.323.V16.7.0.docx
ETSI	ETSI TS 136 323 V16.7.0 (2023-01)	16.7.0	Published	19.01.2023	https://www.etsi.org/deliver/etsi_ts\136300_136399\136323\16.07.00_60\ts_136323v160700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.323 16.7.0 V1.2.0	16.7.0	Published	02.05.2023	https://members.tsdsi.in/s/jRWNwn6EZdoS4Yy
TTA	TTAT.3G-36.323V16.7.0	16.7.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.323V16.7.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.323.V17.2.0	17.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36323-h20.pdf
ATIS	ATIS.3GPP.36.323.V17.2.0	17.2.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.323.V17.2.0	17.2.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.323.V17.2.0.docx
ETSI	ETSI TS 136 323 V17.2.0 (2023-01)	17.2.0	Published	19.01.2023	https://www.etsi.org/deliver/etsi_ts\136300_136399\136323\17.02.00_60\ts_136323v170200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.323 17.2.0 V1.2.0	17.2.0	Published	02.05.2023	https://members.tsdsi.in/s/Nc9cW4xA7t94wLE
TTA	TTAT.3G-36.323V17.2.0	17.2.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.323V17.2.0&searchCate=TTAS

Release 18

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ARIB	ARIB STD-T120-36.323.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36323-i00.pdf
ATIS	ATIS.3GPP.36.323.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.323.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.323.V18.0.0.docx
ETSI	ETSI TS 136 323 V18.0.0 (2024-05)	18.0.0	Published	15.05.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136323\18.00.00_60\ts_136323v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.323-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/Wc57E8baTJyNNc6
TTA	TTAT.3G-36.323V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.323V18.0.0&searchCate=TTAS

2.1.3.10   TS 36.331

Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification

This document specifies the Radio Resource Control protocol for the radio interface between UE and E-UTRAN as well as for the radio interface between RN and E-UTRAN. The scope of this document also includes: (i) the radio related information transported in a transparent container between source eNodeB and target eNodeB upon inter eNodeB handover; (ii) the radio related information transported in a transparent container between a source or target eNodeB and another system upon inter RAT handover.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.331.V10.22.0	10.22.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36331-am0.pdf
ATIS	ATIS.3GPP.36.331V10220	10.22.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.331V10220	10.22.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.331V10220.doc
ETSI	ETSI TS 136 331 V10.22.0 (2018-07)	10.22.0	Published	24.07.2018	https://www.etsi.org/deliver/etsi_ts\136300_136399\136331\10.22.00_60\ts_136331v102200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.331-10.22.0 V1.1.0	10.22.0	Published	30.08.2021	https://members.tsdsi.in/s/QWjj6SeapXQBxXc
TTA	TTAT.3G-36.331V10.22.0	10.22.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.331V10.22.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.331.V11.19.0	11.19.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36331-bj0.pdf
ATIS	ATIS.3GPP.36.331V11190	11.19.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.331V11190	11.19.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.331V11190.doc
ETSI	ETSI TS 136 331 V11.19.0 (2018-07)	11.19.0	Published	24.07.2018	https://www.etsi.org/deliver/etsi_ts\136300_136399\136331\11.19.00_60\ts_136331v111900p.pdf
TSDSI	TSDSI STD T1.3GPP 36.331-11.19.0 V1.1.0	11.19.0	Published	30.08.2021	https://members.tsdsi.in/s/qTKKpTjqweSBEKK
TTA	TTAT.3G-36.331V11.19.0	11.19.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.331V11.19.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-36.331.V12.20.0	12.20.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36331-ck0.pdf
ATIS	ATIS.3GPP.36.331.V12.20.0	12.20.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.331.V12.20.0	12.20.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.331.V12.20.0.docx
ETSI	ETSI TS 136 331 V12.20.0 (2021-01)	12.20.0	Published	20.01.2021	https://www.etsi.org/deliver/etsi_ts\136300_136399\136331\12.20.00_60\ts_136331v122000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.331 12.20.0 V1.1.0	12.20.0	Published	02.05.2023	https://members.tsdsi.in/s/RTk4E7w5Fz34Qn8

| TTA | TTAT.3G-36.331V12.20.0 | 12.20.0 | Published | 16.03.2023 | https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.331V12.20.0&searchCate=TTAS |

Release 13

ARIB	ARIB STD-T120-36.331.V13.17.0	13.17.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36331-dh0.pdf
ATIS	ATIS.3GPP.36.331.V13.17.0	13.17.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.331.V13.17.0	13.17.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.331.V13.17.0.docx
ETSI	ETSI TS 136 331 V13.17.0 (2021-01)	13.17.0	Published	20.01.2021	https://www.etsi.org/deliver/etsi_ts\136300_136399\136331\13.17.00_60\ts_136331v131700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.331-13.17.0 V1.1.0	13.17.0	Published	17.01.2023	https://members.tsdsi.in/s/QsrLmG6KoNKH8ze
TTA	TTAT.3G-36.331V13.17.0	13.17.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.331V13.17.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.331.V14.18.0	14.18.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36331-ei0.pdf
ATIS	ATIS.3GPP.36.331.V14.18.0	14.18.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.331.V14.18.0	14.18.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.331.V14.18.0.docx
ETSI	ETSI TS 136 331 V14.18.0 (2024-10)	14.18.0	Published	17.10.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136331\14.18.00_60\ts_136331v141800p.pdf
TSDSI	TSDSI STD T1.3GPP 36.331-14.18.0 V1.3.0	14.18.0	Published	02.03.2025	https://members.tsdsi.in/s/YyKjqYKJd297cxD
TTA	TTAT.3G-36.331V14.18.0	14.18.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.331V14.18.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.331.V15.23.0	15.23.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36331-fn0.pdf
ATIS	ATIS.3GPP.36.331.V15.23.0	15.23.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.331.V15.23.0	15.23.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.331.V15.23.0.docx
ETSI	ETSI TS 136 331 V15.23.0 (2024-10)	15.23.0	Published	17.10.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136331\15.23.00_60\ts_136331v152300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.331-15.23.0 V1.6.0	15.23.0	Published	02.03.2025	https://members.tsdsi.in/s/oToRwdAMZ4Q8JdF
TTA	TTAT.3G-36.331V15.23.0	15.23.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.331V15.23.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.331.V16.17.0	16.17.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36331-gh0.pdf
ATIS	ATIS.3GPP.36.331.V16.17.0	16.17.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.331.V16.17.0	16.17.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.331.V16.17.0.docx
ETSI	ETSI TS 136 331 V16.17.0 (2024-11)	16.17.0	Published	20.11.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136331\16.17.00_60\ts_136331v161700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.331-16.17.0 V1.9.0	16.17.0	Published	02.03.2025	https://members.tsdsi.in/s/2rPpQd9YEj4ByZz
TTA	TTAT.3G-36.331V16.17.0	16.17.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.331V16.17.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.331.V17.10.0	17.10.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36331-ha0.pdf
ATIS	ATIS.3GPP.36.331.V17.10.0	17.10.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.331.V17.10.0	17.10.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.331.V17.10.0.docx
ETSI	ETSI TS 136 331 V17.10.0 (2024-10)	17.10.0	Published	17.10.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136331\17.10.00_60\ts_136331v171000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.331-17.10.0 V1.10.0	17.10.0	Published	02.03.2025	https://members.tsdsi.in/s/L4LHZzws59AcBL8

TTA	TTAT.3G-36.331V17.10.0	17.10.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.331V17.10.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.331.V18.3.1	18.3.1	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36331-i31.pdf
ATIS	ATIS.3GPP.36.331.V18.3.1	18.3.1	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.331.V18.3.1	18.3.1	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.331.V18.3.1.docx
ETSI	ETSI TS 136 331 V18.3.1 (2024-10)	18.3.1	Published	17.10.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136331\18.03.01_60\ts_136331v180301p.pdf
TSDSI	TSDSI STD T1.3GPP 36.331-18.3.1 V1.1.0	18.3.1	Published	02.03.2025	https://members.tsdsi.in/s/QiZ339bA9gWxADP
TTA	TTAT.3G-36.331V18.3.1	18.3.1	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.331V18.3.1&searchCate=TTAS

2.1.3.11   TS 36.355

Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)

This document contains the definition of the LTE Positioning Protocol (LPP).

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Release 10					
ARIB	ARIB STD-T120-36.355.V10.12.0	10.12.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36355-ac0.pdf
ATIS	ATIS.3GPP.36.355V10120	10.12.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.355V10120	10.12.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.355V10120.doc
ETSI	ETSI TS 136 355 V10.12.0 (2014-07)	10.12.0	Published	18.07.2014	https://www.etsi.org/deliver/etsi_ts\136300_136399\136355\10.12.00_60\ts_136355v101200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.355-10.12.0 V1.0.0	10.12.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/Ke67SZMfsGExCdr
TTA	TTAT.3G-36.355V10.12.0	10.12.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.355V10.12.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.355.V11.6.0	11.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36355-b60.pdf
ATIS	ATIS.3GPP.36.355V1160	11.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.355V1160	11.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.355V1160.doc
ETSI	ETSI TS 136 355 V11.6.0 (2014-07)	11.6.0	Published	22.07.2014	https://www.etsi.org/deliver/etsi_ts\136300_136399\136355\11.06.00_60\ts_136355v110600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.355-11.6.0 V1.0.0	11.6.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/EmjKc5H93SBjwGi
TTA	TTAT.3G-36.355V11.6.0	11.6.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.355V11.6.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-36.355.V12.5.0	12.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36355-c50.pdf
ATIS	ATIS.3GPP.36.355V1250	12.5.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.355V1250	12.5.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.355V1250.doc
ETSI	ETSI TS 136 355 V12.5.0 (2016-01)	12.5.0	Published	15.01.2016	https://www.etsi.org/deliver/etsi_ts\136300_136399\136355\12.05.00_60\ts_136355v120500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.355-12.5.0 V1.0.0	12.5.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/okx3pWTLjcPNEWN
TTA	TTAT.3G-36.355V12.5.0	12.5.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.355V12.5.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.355.V13.3.0	13.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36355-d30.pdf
ATIS	ATIS.3GPP.36.355V1330	13.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.355V1330	13.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.355V1330.doc
ETSI	ETSI TS 136 355 V13.3.0 (2017-02)	13.3.0	Published	16.02.2017	https://www.etsi.org/deliver/etsi_ts\136300_136399\136355\13.03.00_60\ts_136355v130300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.355-13.3.0 V1.0.0	13.3.0	Published	30.08.2021	https://members.tsdsi.in/s/R5PeksJS5pAqnq2
TTA	TTAT.3G-36.355V13.3.0	13.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.355V13.3.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.355.V14.7.0	14.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36355-e70.pdf
ATIS	ATIS.3GPP.36.355V1470	14.7.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.355V1470	14.7.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.355V1470.doc
ETSI	ETSI TS 136 355 V14.7.0 (2018-10)	14.7.0	Published	17.10.2018	https://www.etsi.org/deliver/etsi_ts\136300_136399\136355\14.07.00_60\ts_136355v140700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.355-14.7.0 V1.1.0	14.7.0	Published	30.08.2021	https://members.tsdsi.in/s/CNRYFBST6GaPBQK
TTA	TTAT.3G-36.355V14.7.0	14.7.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.355V14.7.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.355.V15.6.0	15.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36355-f60.pdf
ATIS	ATIS.3GPP.36.355.V15.6.0	15.6.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.355.V15.6.0	15.6.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.355.V15.6.0.docx
ETSI	ETSI TS 136 355 V15.6.0 (2020-01)	15.6.0	Published	17.01.2020	https://www.etsi.org/deliver/etsi_ts\136300_136399\136355\15.06.00_60\ts_136355v150600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.355-15.6.0 V1.0.0	15.6.0	Published	06.10.2020	https://members.tsdsi.in/s/iXxQ9cPrej5NDKE
TTA	TTAT.3G-36.355V15.6.0	15.6.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.355V15.6.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.355.V16.0.0	16.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36355-g00.pdf
ATIS	ATIS.3GPP.36.355.V16.0.0	16.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.355.V16.0.0	16.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.355.V16.0.0.docx
ETSI	ETSI TS 136 355 V16.0.0 (2020-07)	16.0.0	Published	31.07.2020	https://www.etsi.org/deliver/etsi_ts\136300_136399\136355\16.00.00_60\ts_136355v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.355-16.0.0 V1.0.0	16.0.0	Published	06.10.2020	https://members.tsdsi.in/s/SRkjGQmebkQCC5p
TTA	TTAT.3G-36.355V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.355V16.0.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.355.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36355-h00.pdf
ATIS	ATIS.3GPP.36.355.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.355.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.355.V17.0.0.docx
ETSI	ETSI TS 136 355 V17.0.0 (2022-05)	17.0.0	Published	06.05.2022	https://www.etsi.org/deliver/etsi_ts\136300_136399\136355\17.00.00_60\ts_136355v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.355-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/JcBQgyH34Z4ZKMb
TTA	TTAT.3G-36.355V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.355V17.0.0&searchCate=TTAS

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ARIB	ARIB STD-T120-36.355.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36355-i00.pdf
ATIS	ATIS.3GPP.36.355.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.355.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.355.V18.0.0.docx
ETSI	ETSI TS 136 355 V18.0.0 (2024-05)	18.0.0	Published	15.05.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136355\18.00.00_60\ts_136355v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.355-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/LRdpGpAScWzmJTJ
TTA	TTAT.3G-36.355V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.355V18.0.0&searchCate=TTAS

2.1.3.12   TS 36.360

Evolved Universal Terrestrial Radio Access (E-UTRA); LTE-WLAN Aggregation Adaptation Protocol (LWAAP) specification

This document specifies the E-UTRA LTE-WLAN Aggregation Adaptation Protocol (LWAAP).

SDO	Document No.	Version	Status	Issued date	Location
Release 13					
ARIB	ARIB STD-T120-36.360.V13.1.0	13.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36360-d10.pdf
ATIS	ATIS.3GPP.36.360V1310	13.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.360V1310	13.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.360V1310.doc
ETSI	ETSI TS 136 360 V13.1.0 (2017-04)	13.1.0	Published	11.04.2017	https://www.etsi.org/deliver/etsi_ts\136300_136399\136360\13.01.00_60\ts_136360v130100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.360-13.1.0 V1.0.0	13.1.0	Published	30.08.2021	https://members.tsdsi.in/s/ygNSGk46xjRgez2
TTA	TTAT.3G-36.360V13.1.0	13.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.360V13.1.0&searchCate=TTAS
TTC	TS-3GA-36.360(Rel13)v13.1.0	13.1.0	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.360(Rel13)v13.1.0.pdf
Release 14					
ARIB	ARIB STD-T120-36.360.V14.0.0	14.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36360-e00.pdf
ATIS	ATIS.3GPP.36.360V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.360V1400	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.360V1400.doc
ETSI	ETSI TS 136 360 V14.0.0 (2017-04)	14.0.0	Published	11.04.2017	https://www.etsi.org/deliver/etsi_ts\136300_136399\136360\14.00.00_60\ts_136360v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.360-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/8igTZriqLwB6G2i
TTA	TTAT.3G-36.360V14.0.0	14.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.360V14.0.0&searchCate=TTAS
TTC	TS-3GA-36.360(Rel14)v14.0.0	14.0.0	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.360(Rel14)v14.0.0.pdf
Release 15					
ARIB	ARIB STD-T120-36.360.V15.0.0	15.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36360-f00.pdf
ATIS	ATIS.3GPP.36.360V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.360V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.360V1500.doc
ETSI	ETSI TS 136 360 V15.0.0 (2018-07)	15.0.0	Published	16.07.2018	https://www.etsi.org/deliver/etsi_ts\136300_136399\136360\15.00.00_60\ts_136360v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.360-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/pgYHccQnicFEXgA
TTA	TTAT.3G-36.360V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.360V15.0.0&searchCate=TTAS
TTC	TS-3GA-36.360(Rel15)v15.0.0	15.0.0	Published	28.09.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.360(Rel15)v15.0.0.pdf

Release 16

ARIB	ARIB STD-T120-36.360.V16.0.0	16.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36360-g00.pdf
ATIS	ATIS.3GPP.36.360V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.360V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.360V1600.doc
ETSI	ETSI TS 136 360 V16.0.0 (2020-07)	16.0.0	Published	31.07.2020	https://www.etsi.org/deliver/etsi_ts\136300_136399\136360\16.00.00_60\ts_136360v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.360-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/dPJLsYQqYWsbAX6
TTA	TTAT.3G-36.360V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.360V16.0.0&searchCate=TTAS
TTC	TS-3GA-36.360(Rel16)v16.0.0	16.0.0	Published	02.10.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36_360_Rel16v16_0_0.pdf

Release 17

ARIB	ARIB STD-T120-36.360.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36360-h00.pdf
ATIS	ATIS.3GPP.36.360.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.360.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.360.V17.0.0.doc
ETSI	ETSI TS 136 360 V17.0.0 (2022-05)	17.0.0	Published	06.05.2022	https://www.etsi.org/deliver/etsi_ts\136300_136399\136360\17.00.00_60\ts_136360v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.360-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/wBzzDcHHPpybFGB
TTA	TTAT.3G-36.360V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.360V17.0.0&searchCate=TTAS
TTC	TS-3GA-36.360(Rel17)v17.0.0	17.0.0	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.360v17.0.0.pdf

Release 18

ARIB	ARIB STD-T120-36.360.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36360-i00.pdf
ATIS	ATIS.3GPP.36.360.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.360.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.360.V18.0.0.doc
ETSI	ETSI TS 136 360 V18.0.0 (2024-05)	18.0.0	Published	15.05.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136360\18.00.00_60\ts_136360v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.360-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/4bYAJqf8ZjSCtKA
TTA	TTAT.3G-36.360V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.360V18.0.0&searchCate=TTAS
TTC	TS-3GA-36.360(Rel18)v18.0.0	18.0.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.360v18.0.0.pdf

2.1.3.13 TS 36.361

Evolved Universal Terrestrial Radio Access (E-UTRA); LTE/WLAN Radio Level Integration Using IPsec Tunnel (LWIP) encapsulation; Protocol specification

This document specifies the LWIP Encapsulation Protocol.

SDO	Document No.	Version	Status	Issued date	Location
Release 13					
ARIB	ARIB STD-T120-36.361.V13.2.0	13.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36361-d20.pdf
ATIS	ATIS.3GPP.36.361V1320	13.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.361V1320	13.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.361V1320.doc
ETSI	ETSI TS 136 361 V13.2.0 (2016-10)	13.2.0	Published	06.10.2016	https://www.etsi.org/deliver/etsi_ts\136300_136399\136361\13.02.00_60\ts_136361v130200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.361-13.2.0 V1.0.0	13.2.0	Published	30.08.2021	https://members.tsdsi.in/s/gm9caCwbJ4t8KpN

TTA	TTAT.3G-36.361V13.2.0 36.361V13.2.0&searchCate=TTAS	13.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.361(Rel13)v13.2.0	13.2.0	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.361(Rel13)v13.2.0.pdf
Release 14					
ARIB	ARIB STD-T120-36.361.V14.1.0	14.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36361-e10.pdf
ATIS	ATIS.3GPP.36.361V1410	14.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.361V1410 7_ATIS/CCSA.3GPP.36.361V1410.doc	14.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 361 V14.1.0 (2017-08)	14.1.0	Published	24.08.2017	https://www.etsi.org/deliver/etsi_ts\136300_136399\136361\14.01.00_60\ts_136361v140100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.361-14.1.0 V1.0.0	14.1.0	Published	30.08.2021	https://members.tsdsi.in/s/KFLmKQYt7aMP5p3
TTA	TTAT.3G-36.361V14.1.0 36.361V14.1.0&searchCate=TTAS	14.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.361(Rel14)v14.1.0	14.1.0	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.361(Rel14)v14.1.0.pdf
Release 15					
ARIB	ARIB STD-T120-36.361.V15.0.0	15.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36361-f00.pdf
ATIS	ATIS.3GPP.36.361V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.361V1500 7_ATIS/CCSA.3GPP.36.361V1500.doc	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 361 V15.0.0 (2018-07)	15.0.0	Published	16.07.2018	https://www.etsi.org/deliver/etsi_ts\136300_136399\136361\15.00.00_60\ts_136361v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.361-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/G2eBjbgiyAo79cD
TTA	TTAT.3G-36.361V15.0.0 36.361V15.0.0&searchCate=TTAS	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.361(Rel15)v15.0.0	15.0.0	Published	28.09.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.361(Rel15)v15.0.0.pdf
Release 16					
ARIB	ARIB STD-T120-36.361.V16.0.0	16.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36361-g00.pdf
ATIS	ATIS.3GPP.36.361V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.361V1600 7_ATIS/CCSA.3GPP.36.361V1600.doc	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 361 V16.0.0 (2020-07)	16.0.0	Published	31.07.2020	https://www.etsi.org/deliver/etsi_ts\136300_136399\136361\16.00.00_60\ts_136361v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.361-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/sn5eF8jL2WY7NFx
TTA	TTAT.3G-36.361V16.0.0 36.361V16.0.0&searchCate=TTAS	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.361(Rel16)v16.0.0	16.0.0	Published	02.10.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36_361_Rel16v16_0_0.pdf
Release 17					
ARIB	ARIB STD-T120-36.361.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36361-h00.pdf
ATIS	ATIS.3GPP.36.361.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.361.V17.0.0 7_ATIS/CCSA.3GPP.36.361.V17.0.0.doc	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 361 V17.0.0 (2022-05)	17.0.0	Published	06.05.2022	https://www.etsi.org/deliver/etsi_ts\136300_136399\136361\17.00.00_60\ts_136361v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.361-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/GCRoMbyt88ebB7A
TTA	TTAT.3G-36.361V17.0.0 36.361V17.0.0&searchCate=TTAS	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.361(Rel17)v17.0.0	17.0.0	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.361v17.0.0.pdf
Release 18					
ARIB	ARIB STD-T120-36.361.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36361-i00.pdf
ATIS	ATIS.3GPP.36.361.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18

CCSA	CCSA.3GPP.36.361.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.361.V18.0.0.doc
ETSI	ETSI TS 136 361 V18.0.0 (2024-05)	18.0.0	Published	15.05.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136361\18.00.00_60\ts_136361v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.361-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/X5SsFam3RsjpsDm
TTA	TTAT.3G-36.361V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.361V18.0.0&searchCate=TTAS
TTC	TS-3GA-36.361(Rel18)v18.0.0	18.0.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.361v18.0.0.pdf

2.1.3.14   TS 37.320

Radio measurement collection for Minimization of Drive Tests (MDT); Overall description; Stage 2

This document provides an overview and overall description of the minimization of drive tests functionality. The document describes functions and procedures to support collection of UE-specific measurements for MDT using Control Plane architecture, for both UTRAN and E-UTRAN. Details of the signalling procedures for single-RAT operation are specified in the appropriate radio interface protocol specification. Network operation and overall control of MDT is described in O&M specifications.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-37.320.V10.4.0	10.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/37/A37320-a40.pdf
ATIS	ATIS.3GPP.37.320V1040	10.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.37.320V1040	10.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.320V1040.doc
ETSI	ETSI TS 137 320 V10.4.0 (2012-01)	10.4.0	Published	19.01.2012	https://www.etsi.org/deliver/etsi_ts\137300_137399\137320\10.04.00_60\ts_137320v100400p.pdf
TSDSI	TSDSI STD T1.3GPP 37.320-10.4.0 V1.0.0	10.4.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/EJYkY24AN8xmLfP
TTA	TTAT.3G-37.320V10.4.0	10.4.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.320V10.4.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-37.320.V11.4.0	11.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/37/A37320-b40.pdf
ATIS	ATIS.3GPP.37.320V1140	11.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.37.320V1140	11.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.320V1140.doc
ETSI	ETSI TS 137 320 V11.4.0 (2014-09)	11.4.0	Published	29.09.2014	https://www.etsi.org/deliver/etsi_ts\137300_137399\137320\11.04.00_60\ts_137320v110400p.pdf
TSDSI	TSDSI STD T1.3GPP 37.320-11.4.0 V1.0.0	11.4.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/dgZbpXAE4Ftnj2b
TTA	TTAT.3G-37.320V11.4.0	11.4.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.320V11.4.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-37.320.V12.2.0	12.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/37/A37320-c20.pdf
ATIS	ATIS.3GPP.37.320V1220	12.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.37.320V1220	12.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.320V1220.doc
ETSI	ETSI TS 137 320 V12.2.0 (2014-09)	12.2.0	Published	29.09.2014	https://www.etsi.org/deliver/etsi_ts\137300_137399\137320\12.02.00_60\ts_137320v120200p.pdf
TSDSI	TSDSI STD T1.3GPP 37.320-12.2.0 V1.0.0	12.2.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/QJPwXX9rYZyPMot
TTA	TTAT.3G-37.320V12.2.0	12.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.320V12.2.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-37.320.V13.1.0	13.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/37/A37320-d10.pdf
ATIS	ATIS.3GPP.37.320V1310	13.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.37.320V1310	13.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.320V1310.doc
ETSI	ETSI TS 137 320 V13.1.0 (2016-04)	13.1.0	Published	26.04.2016	https://www.etsi.org/deliver/etsi_ts\137300_137399\137320\13.01.00_60\ts_137320v130100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.320-13.1.0 V1.0.0	13.1.0	Published	30.08.2021	https://members.tsdsi.in/s/ciKMpyqAFDSqGyf
TTA	TTAT.3G-37.320V13.1.0	13.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.320V13.1.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-37.320.V14.0.0	14.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/37/A37320-e00.pdf
ATIS	ATIS.3GPP.37.320V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.37.320V1400	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.320V1400.doc
ETSI	ETSI TS 137 320 V14.0.0 (2017-04)	14.0.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\137300_137399\137320\14.00.00_60\ts_137320v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.320-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/NySJt7JXF7G7ri8
TTA	TTAT.3G-37.320V14.0.0	14.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.320V14.0.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-37.320.V15.0.0	15.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/37/A37320-f00.pdf
ATIS	ATIS.3GPP.37.320V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.37.320V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.320V1500.doc
ETSI	ETSI TS 137 320 V15.0.0 (2018-07)	15.0.0	Published	16.07.2018	https://www.etsi.org/deliver/etsi_ts\137300_137399\137320\15.00.00_60\ts_137320v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.320-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/A6mcywWH3jB7Cxy
TTA	TTAT.3G-37.320V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.320V15.0.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-37.320.V16.8.0	16.8.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/37/A37320-g80.pdf
ATIS	ATIS.3GPP.37.320.V16.8.0	16.8.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.320.V16.8.0	16.8.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.320.V16.8.0.docx
ETSI	ETSI TS 137 320 V16.8.0 (2022-05)	16.8.0	Published	06.05.2022	https://www.etsi.org/deliver/etsi_ts\137300_137399\137320\16.08.00_60\ts_137320v160800p.pdf
TSDSI	TSDSI STD T1.3GPP 37.320-16.8.0 V1.1.0	16.8.0	Published	29.07.2022	https://members.tsdsi.in/s/oMANk67MSpaX2iM
TTA	TTAT.3G-37.320V16.8.0	16.8.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.320V16.8.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-37.320.V17.5.0	17.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/37/A37320-h50.pdf
ATIS	ATIS.3GPP.37.320.V17.5.0	17.5.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.320.V17.5.0	17.5.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.320.V17.5.0.docx
ETSI	ETSI TS 137 320 V17.5.0 (2023-10)	17.5.0	Published	09.10.2023	https://www.etsi.org/deliver/etsi_ts\137300_137399\137320\17.05.00_60\ts_137320v170500p.pdf
TSDSI	TSDSI STD T1.3GPP 37.320-17.5.0 V1.5.0	17.5.0	Published	23.02.2024	https://members.tsdsi.in/s/LGt2C4iqeEtjdGY
TTA	TTAT.3G-37.320V17.5.0	17.5.0	Published	13.02.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.320V17.5.0&searchCate=TTAS

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ARIB	ARIB STD-T120-37.320.V18.3.0	18.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/37/A37320-i30.pdf
ATIS	ATIS.3GPP.37.320.V18.3.0	18.3.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.320.V18.3.0	18.3.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.320.V18.3.0.docx
ETSI	ETSI TS 137 320 V18.3.0 (2024-10)	18.3.0	Published	14.10.2024	https://www.etsi.org/deliver/etsi_ts\137300_137399\137320\18.03.00_60\ts_137320v180300p.pdf
TSDSI	TSDSI STD T1.3GPP 37.320-18.3.0 V1.1.0	18.3.0	Published	02.03.2025	https://members.tsdsi.in/s/ZFismCcJpMKNa7J
TTA	TTAT.3G-37.320V18.3.0	18.3.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.320V18.3.0&searchCate=TTAS

2.1.3.15   TS 37.324

Evolved Universal Terrestrial Radio Access (E-UTRA) and NR; Service Data Adaptation Protocol (SDAP) specification

This document specifies the Service Data Adaptation Protocol (SDAP) for a UE with connection to the 5G-CN.

SDO	Document No.	Version	Status	Issued date	Location
Release 15					
ARIB	ARIB STD-T120-37.324.V15.1.0	15.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/37/A37324-f10.pdf
ATIS	ATIS.3GPP.37.324.V15.1.0	15.1.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.37.324.V15.1.0	15.1.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.324.V15.1.0.doc
ETSI	ETSI TS 137 324 V15.1.0 (2018-09)	15.1.0	Published	28.09.2018	https://www.etsi.org/deliver/etsi_ts\137300_137399\137324\15.01.00_60\ts_137324v150100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.324-15.1.0 V1.0.0	15.1.0	Published	06.10.2020	https://members.tsdsi.in/s/fGEka3JK6dEPk9z
TTA	TTAT.3G-37.324V15.1.0	15.1.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.324V15.1.0&searchCate=TTAS
Release 16					
ARIB	ARIB STD-T120-37.324.V16.3.0	16.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/37/A37324-g30.pdf
ATIS	ATIS.3GPP.37.324.V16.3.0	16.3.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.324.V16.3.0	16.3.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.324.V16.3.0.docx
ETSI	ETSI TS 137 324 V16.3.0 (2021-09)	16.3.0	Published	09.08.2021	https://www.etsi.org/deliver/etsi_ts\137300_137399\137324\16.03.00_60\ts_137324v160300p.pdf
TSDSI	TSDSI STD T1.3GPP 37.324-16.3.0 V1.1.0	16.3.0	Published	29.07.2022	https://members.tsdsi.in/s/kLf2K8YeoiJa52y
TTA	TTAT.3G-37.324V16.3.0	16.3.0	Published	30.09.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.324V16.3.0&searchCate=TTAS
Release 17					
ARIB	ARIB STD-T120-37.324.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/37/A37324-h00.pdf
ATIS	ATIS.3GPP.37.324.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.324.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.324.V17.0.0.docx
ETSI	ETSI TS 137 324 V17.0.0 (2022-05)	17.0.0	Published	06.05.2022	https://www.etsi.org/deliver/etsi_ts\137300_137399\137324\17.00.00_60\ts_137324v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.324-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/WtSrXb6GMXfwr72
TTA	TTAT.3G-37.324V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.324V17.0.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-37.324.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/37/A37324-i00.pdf
ATIS	ATIS.3GPP.37.324.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.324.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.324.V18.0.0.docx
ETSI	ETSI TS 137 324 V18.0.0 (2024-05)	18.0.0	Published	15.05.2024	https://www.etsi.org/deliver/etsi_ts\137300_137399\137324\18.00.00_60\ts_137324v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.324-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/gQgRAZG9G2zbgzY
TTA	TTAT.3G-37.324V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.324V18.0.0&searchCate=TTAS

2.1.3.16   TS 37.355

LTE Positioning Protocol (LPP)

This document contains the definition of the LTE Positioning Protocol (LPP) for the radio access technologies E-UTRA/LTE and NR.

SDO	Document No.	Version	Status	Issued date	Location
Release 15					
ARIB	ARIB STD-T120-37.355.V15.3.0	15.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/37/A37355-f30.pdf
ATIS	ATIS.3GPP.37.355.V15.3.0	15.3.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.37.355.V15.3.0	15.3.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.355.V15.3.0.docx
ETSI	ETSI TS 137 355 V15.3.0 (2022-05)	15.3.0	Published	06.05.2022	https://www.etsi.org/deliver/etsi_ts\137300_137399\137355\15.03.00_60\ts_137355v150300p.pdf
TSDSI	TSDSI STD T1.3GPP 37.355-15.3.0 V1.1.0	15.3.0	Published	01.11.2022	https://members.tsdsi.in/s/ik3fsLZmA52jGGB
TTA	TTAT.3G-37.355V15.3.0	15.3.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.355V15.3.0&searchCate=TTAS
Release 16					
ARIB	ARIB STD-T120-37.355.V16.13.0	16.13.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/37/A37355-gd0.pdf
ATIS	ATIS.3GPP.37.355.V16.13.0	16.13.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.355.V16.13.0	16.13.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.355.V16.13.0.docx
ETSI	ETSI TS 137 355 V16.13.0 (2024-05)	16.13.0	Published	07.05.2024	https://www.etsi.org/deliver/etsi_ts\137300_137399\137355\16.13.00_60\ts_137355v161300p.pdf
TSDSI	TSDSI STD T1.3GPP 37.355-16.13.0 V1.6.0	16.13.0	Published	22.07.2024	https://members.tsdsi.in/s/RFbz96BZ2g4pa39
TTA	TTAT.3G-37.355V16.13.0	16.13.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.355V16.13.0&searchCate=TTAS
Release 17					
ARIB	ARIB STD-T120-37.355.V17.8.0	17.8.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/37/A37355-h80.pdf
ATIS	ATIS.3GPP.37.355.V17.8.0	17.8.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.355.V17.8.0	17.8.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.355.V17.8.0.docx
ETSI	ETSI TS 137 355 V17.8.0 (2024-05)	17.8.0	Published	07.05.2024	https://www.etsi.org/deliver/etsi_ts\137300_137399\137355\17.08.00_60\ts_137355v170800p.pdf
TSDSI	TSDSI STD T1.3GPP 37.355-17.8.0 V1.8.0	17.8.0	Published	22.07.2024	https://members.tsdsi.in/s/fME9dYD3dYCoe5S
TTA	TTAT.3G-37.355V17.8.0	17.8.0	Published	01.08.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.355V17.8.0&searchCate=TTAS

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SDO	Document No.	Version	Status	Issued date	Location
ARIB	ARIB STD-T120-37.355.V18.3.0	18.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/37/A37355-i30.pdf
ATIS	ATIS.3GPP.37.355.V18.3.0	18.3.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.355.V18.3.0	18.3.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.355.V18.3.0.docx
ETSI	ETSI TS 137 355 V18.3.0 (2024-10)	18.3.0	Published	14.10.2024	https://www.etsi.org/deliver/etsi_ts\137300_137399\137355\18.03.00_60\ts_137355v180300p.pdf
TSDSI	TSDSI STD T1.3GPP 37.355-18.3.0 V1.1.0	18.3.0	Published	02.03.2025	https://members.tsdsi.in/s/pRFAb4xwH26sdDH
TTA	TTAT.3G-37.355V18.3.0	18.3.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.355V18.3.0&searchCate=TTAS

2.1.4 Architecture

2.1.4.1 TS 36.401

Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Architecture description

This document describes the overall architecture of the E-UTRAN, including internal interfaces and assumptions on the radio, S1 and X2 interfaces.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ATIS	ATIS.3GPP.36.401V1040	10.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.401V1040	10.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.401V1040.doc
ETSI	ETSI TS 136 401 V10.4.0 (2012-07)	10.4.0	Published	17.07.2012	https://www.etsi.org/deliver/etsi_ts\136400_136499\136401\10.04.00_60\ts_136401v100400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.401-10.4.0 V1.0.0	10.4.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/bSPybX58AYkrG6R
TTA	TTAT.3G-36.401V10.4.0	10.4.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.401V10.4.0&searchCate=TTAS
TTC	TS-3GA-36.401(Rel10)v10.4.0	10.4.0	Published	19.09.2012	https://www.ttc.or.jp/st/docs/3gpps2012/TS/TS-3GA-36.401(Rel10)v10.4.0.pdf
Release 11					
ATIS	ATIS.3GPP.36.401V1120	11.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.401V1120	11.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.401V1120.doc
ETSI	ETSI TS 136 401 V11.2.0 (2013-09)	11.2.0	Published	26.09.2013	https://www.etsi.org/deliver/etsi_ts\136400_136499\136401\11.02.00_60\ts_136401v110200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.401-11.2.0 V1.0.0	11.2.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/LSjSgSPoYoq3qR9
TTA	TTAT.3G-36.401V11.2.0	11.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.401V11.2.0&searchCate=TTAS
TTC	TS-3GA-36.401(Rel11)v11.2.0	11.2.0	Published	22.11.2013	https://www.ttc.or.jp/st/docs/3gpps2013/TS/TS-3GA-36.401(Rel11)v11.2.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.401V1230	12.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.401V1230	12.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.401V1230.doc
ETSI	ETSI TS 136 401 V12.3.0 (2016-01)	12.3.0	Published	15.01.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136401\12.03.00_60\ts_136401v120300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.401-12.3.0 V1.0.0	12.3.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/bcf846e7KWqnKRy
TTA	TTAT.3G-36.401V12.3.0	12.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.401V12.3.0&searchCate=TTAS
TTC	TS-3GA-36.401(Rel12)v12.3.0	12.3.0	Published	25.03.2016	https://www.ttc.or.jp/st/docs/3gpps2016/TS/TS-3GA-36.401(Rel12)v12.3.0.pdf

Release 13

ATIS	ATIS.3GPP.36.401V1320	13.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.401V1320 7_ATIS/CCSA.3GPP.36.401V1320.doc	13.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 401 V13.2.0 (2016-08)	13.2.0	Published	25.08.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136401\13.02.00_60\ts_136401v130200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.401-13.2.0 V1.0.0	13.2.0	Published	30.08.2021	https://members.tsdsi.in/s/GbLDzbZQaZW2ZsQ
TTA	TTAT.3G-36.401V13.2.0 36.401V13.2.0&searchCate=TTAS	13.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.401(Rel13)v13.2.0	13.2.0	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.401(Rel13)v13.2.0.pdf

Release 14

ATIS	ATIS.3GPP.36.401V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.401V1400 7_ATIS/CCSA.3GPP.36.401V1400.doc	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 401 V14.0.0 (2017-04)	14.0.0	Published	11.04.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136401\14.00.00_60\ts_136401v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.401-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/zsZKfaWMNXC3apT
TTA	TTAT.3G-36.401V14.0.0 36.401V14.0.0&searchCate=TTAS	14.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.401(Rel14)v14.0.0	14.0.0	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.401(Rel14)v14.0.0.pdf

Release 15

ATIS	ATIS.3GPP.36.401V1510	15.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.401V1510 7_ATIS/CCSA.3GPP.36.401V1510.doc	15.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 401 V15.1.0 (2019-04)	15.1.0	Published	17.04.2019	https://www.etsi.org/deliver/etsi_ts\136400_136499\136401\15.01.00_60\ts_136401v150100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.401-15.1.0 V1.0.0	15.1.0	Published	30.08.2021	https://members.tsdsi.in/s/nHBd9ksFmYCjFLG
TTA	TTAT.3G-36.401V15.1.0 36.401V15.1.0&searchCate=TTAS	15.1.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.401(Rel15)v15.1.0	15.1.0	Published	29.03.2019	https://www.ttc.or.jp/st/docs/3gpps2019/TS/TS-3GA-36.401(Rel15)v15.1.0.pdf

Release 16

ATIS	ATIS.3GPP.36.401V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.401V1600 7_ATIS/CCSA.3GPP.36.401V1600.doc	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 401 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136401\16.00.00_60\ts_136401v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.401-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/wkNnEbDwGWZqgT6
TTA	TTAT.3G-36.401V16.0.0 36.401V16.0.0&searchCate=TTAS	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.401(Rel16)v16.0.0	16.0.0	Published	02.10.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36.401_Rel16v16_0_0.pdf

Release 17

ATIS	ATIS.3GPP.36.401.V17.1.0	17.1.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.401.V17.1.0 7_ATIS/CCSA.3GPP.36.401.V17.1.0.docx	17.1.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 401 V17.1.0 (2022-07)	17.1.0	Published	18.07.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136401\17.01.00_60\ts_136401v170100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.401-17.1.0 V1.1.0	17.1.0	Published	01.11.2022	https://members.tsdsi.in/s/wxfLFZZ6PS4xKKb
TTA	TTAT.3G-36.401V17.1.0 36.401V17.1.0&searchCate=TTAS	17.1.0	Published	21.10.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.401(Rel17)v17.1.0	17.1.0	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.401v17.1.0.pdf

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SDO	Document No.	Version	Status	Issued date	Location
ATIS	ATIS.3GPP.36.401.V18.1.0	18.1.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.401.V18.1.0	18.1.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.401.V18.1.0.docx
ETSI	ETSI TS 136 401 V18.1.0 (2024-08)	18.1.0	Published	02.08.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136401\18.01.00_60\ts_136401v180100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.401-18.1.0 V1.0.0	18.1.0	Published	19.11.2024	https://members.tsdsi.in/s/EJWWjFjKPBa97mx
TTA	TTAT.3G-36.401V18.1.0	18.1.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.401V18.1.0&searchCate=TTAS
TTC	TS-3GA-36.401(Rel18)v18.1.0	18.1.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.401v18.1.0.pdf

2.1.4.2 TS 36.410

Evolved Universal Terrestrial Radio Access Network (E-UTRAN); S1 layer 1 general aspects and principles

This document is an introduction to the 3GPP TS 36.41x series of technical specifications that define the S1 interface for the interconnection of the eNodeB component of the Evolved Universal Terrestrial Radio Access Network (E UTRAN) to the Core Network of the EPS system.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ATIS	ATIS.3GPP.36.410V1030	10.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.410V1030	10.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.410V1030.doc
ETSI	ETSI TS 136 410 V10.3.0 (2012-07)	10.3.0	Published	17.07.2012	https://www.etsi.org/deliver/etsi_ts\136400_136499\136410\10.03.00_60\ts_136410v100300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.410-10.3.0 V1.0.0	10.3.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/WJwMYxcxgStgfKE
TTA	TTAT.3G-36.410V10.3.0	10.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.410V10.3.0&searchCate=TTAS
TTC	TS-3GA-36.410(Rel10)v10.3.0	10.3.0	Published	19.09.2012	https://www.ttc.or.jp/st/docs/3gpps2012/TS/TS-3GA-36.410(Rel10)v10.3.0.pdf
Release 11					
ATIS	ATIS.3GPP.36.410V1110	11.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.410V1110	11.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.410V1110.doc
ETSI	ETSI TS 136 410 V11.1.0 (2013-09)	11.1.0	Published	26.09.2013	https://www.etsi.org/deliver/etsi_ts\136400_136499\136410\11.01.00_60\ts_136410v110100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.410-11.1.0 V1.0.0	11.1.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/Ybs9poq8QoAXywR
TTA	TTAT.3G-36.410V11.1.0	11.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.410V11.1.0&searchCate=TTAS
TTC	TS-3GA-36.410(Rel11)v11.1.0	11.1.0	Published	22.11.2013	https://www.ttc.or.jp/st/docs/3gpps2013/TS/TS-3GA-36.410(Rel11)v11.1.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.410V1210	12.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.410V1210	12.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.410V1210.doc
ETSI	ETSI TS 136 410 V12.1.0 (2015-02)	12.1.0	Published	04.02.2015	https://www.etsi.org/deliver/etsi_ts\136400_136499\136410\12.01.00_60\ts_136410v120100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.410-12.1.0 V1.0.0	12.1.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/7fSPst24RzFq9Ge
TTA	TTAT.3G-36.410V12.1.0	12.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.410V12.1.0&searchCate=TTAS
TTC	TS-3GA-36.410(Rel12)v12.1.0	12.1.0	Published	05.03.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.410(Rel12)v12.1.0.pdf

Release 13

ATIS	ATIS.3GPP.36.410V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.410V1300	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.410V1300.doc
ETSI	ETSI TS 136 410 V13.0.0 (2016-01)	13.0.0	Published	20.01.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136410\13.00.00_60\ts_136410v130000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.410-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/HQAbdoJApyjYto6
TTA	TTAT.3G-36.410V13.0.0	13.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.410V13.0.0&searchCate=TTAS
TTC	TS-3GA-36.410(Rel13)v13.0.0	13.0.0	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.410(Rel13)v13.0.0.pdf

Release 14

ATIS	ATIS.3GPP.36.410V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.410V1400	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.410V1400.doc
ETSI	ETSI TS 136 410 V14.0.0 (2017-04)	14.0.0	Published	11.04.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136410\14.00.00_60\ts_136410v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.410-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/dXadrDnWRniRMcf
TTA	TTAT.3G-36.410V14.0.0	14.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.410V14.0.0&searchCate=TTAS
TTC	TS-3GA-36.410(Rel14)v14.0.0	14.0.0	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.410(Rel14)v14.0.0.pdf

Release 15

ATIS	ATIS.3GPP.36.410V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.410V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.410V1500.doc
ETSI	ETSI TS 136 410 V15.0.0 (2018-07)	15.0.0	Published	04.07.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136410\15.00.00_60\ts_136410v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.410-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/bAyxXr7JwEotEeJ
TTA	TTAT.3G-36.410V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.410V15.0.0&searchCate=TTAS
TTC	TS-3GA-36.410(Rel15)v15.0.0	15.0.0	Published	28.09.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.410(Rel15)v15.0.0.pdf

Release 16

ATIS	ATIS.3GPP.36.410V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.410V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.410V1600.doc
ETSI	ETSI TS 136 410 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136410\16.00.00_60\ts_136410v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.410-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/drBHjRsDLd95ENW
TTA	TTAT.3G-36.410V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.410V16.0.0&searchCate=TTAS
TTC	TS-3GA-36.410(Rel16)v16.0.0	16.0.0	Published	02.10.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36_410_Rel16v16_0_0.pdf

Release 17

ATIS	ATIS.3GPP.36.410.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.410.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.410.V17.0.0.doc
ETSI	ETSI TS 136 410 V17.0.0 (2022-05)	17.0.0	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136410\17.00.00_60\ts_136410v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.410-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/k5rFdBBQWB47gfw
TTA	TTAT.3G-36.410V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.410V17.0.0&searchCate=TTAS
TTC	TS-3GA-36.410(Rel17)v17.0.0	17.0.0	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.410v17.0.0.pdf

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ATIS	ATIS.3GPP.36.410.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.410.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.410.V18.0.0.docx
ETSI	ETSI TS 136 410 V18.0.0 (2024-05)	18.0.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136410\18.00.00_60\ts_136410v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.410-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/eBinF4pTp6yXRZW
TTA	TTAT.3G-36.410V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.410V18.0.0&searchCate=TTAS
TTC	TS-3GA-36.410(Rel18)v18.0.0	18.0.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.410v18.0.0.pdf

2.1.4.3   TS 36.411

Evolved Universal Terrestrial Radio Access Network (E-UTRAN); S1 layer 1

This document specifies the standards allowed to implement layer 1 on the S1 interface. The specification of transmission delay requirements and O&M requirements are not in the scope of this document. In the following, "layer 1" and "physical layer" are assumed to be synonymous.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ATIS	ATIS.3GPP.36.411V1010	10.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.411V1010	10.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.411V1010.doc
ETSI	ETSI TS 136 411 V10.1.0 (2011-06)	10.1.0	Published	28.06.2011	https://www.etsi.org/deliver/etsi_ts\136400_136499\136411\10.01.00_60\ts_136411v100100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.411-10.1.0 V1.0.0	10.1.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/ybKpANkb3wrNFgg
TTA	TTAT.3G-36.411V10.1.0	10.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.411V10.1.0&searchCate=TTAS
TTC	TS-3GA-36.411(Rel10)v10.1.0	10.1.0	Published	31.08.2011	https://www.ttc.or.jp/st/docs/3gpps2011/TS/TS-3GA-36.411(Rel10)v10.1.0.pdf
Release 11					
ATIS	ATIS.3GPP.36.411V1100	11.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.411V1100	11.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.411V1100.doc
ETSI	ETSI TS 136 411 V11.0.0 (2012-10)	11.0.0	Published	17.10.2012	https://www.etsi.org/deliver/etsi_ts\136400_136499\136411\11.00.00_60\ts_136411v110000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.411-11.0.0 V1.0.0	11.0.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/4iMwMXj2aRqDD5d
TTA	TTAT.3G-36.411V11.0.0	11.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.411V11.0.0&searchCate=TTAS
TTC	TS-3GA-36.411(Rel11)v11.0.0	11.0.0	Published	25.06.2013	https://www.ttc.or.jp/st/docs/3gpps2013/TS/TS-3GA-36.411(Rel11)v11.0.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.411V1200	12.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.411V1200	12.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.411V1200.doc
ETSI	ETSI TS 136 411 V12.0.0 (2014-09)	12.0.0	Published	25.09.2014	https://www.etsi.org/deliver/etsi_ts\136400_136499\136411\12.00.00_60\ts_136411v120000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.411-12.0.0 V1.0.0	12.0.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/SnGj4z2JzeFk3Hf
TTA	TTAT.3G-36.411V12.0.0	12.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.411V12.0.0&searchCate=TTAS
TTC	TS-3GA-36.411(Rel12)v12.0.0	12.0.0	Published	05.03.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.411(Rel12)v12.0.0.pdf

Release 13

ATIS	ATIS.3GPP.36.411V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.411V1300	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.411V1300.doc
ETSI	ETSI TS 136 411 V13.0.0 (2016-01)	13.0.0	Published	20.01.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136411\13.00.00_60\ts_136411v130000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.411-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/JH9oFc3ANkg6pMN
TTA	TTAT.3G-36.411V13.0.0	13.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.411V13.0.0&searchCate=TTAS
TTC	TS-3GA-36.411(Rel13)v13.0.0	13.0.0	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.411(Rel13)v13.0.0.pdf

Release 14

ATIS	ATIS.3GPP.36.411V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.411V1400	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.411V1400.doc
ETSI	ETSI TS 136 411 V14.0.0 (2017-04)	14.0.0	Published	11.04.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136411\14.00.00_60\ts_136411v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.411-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/ssWaKHxH4sCFHAa
TTA	TTAT.3G-36.411V14.0.0	14.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.411V14.0.0&searchCate=TTAS
TTC	TS-3GA-36.411(Rel14)v14.0.0	14.0.0	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.411(Rel14)v14.0.0.pdf

Release 15

ATIS	ATIS.3GPP.36.411V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.411V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.411V1500.doc
ETSI	ETSI TS 136 411 V15.0.0 (2018-07)	15.0.0	Published	04.07.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136411\15.00.00_60\ts_136411v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.411-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/cHcgcjsjks8dKWo
TTA	TTAT.3G-36.411V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.411V15.0.0&searchCate=TTAS
TTC	TS-3GA-36.411(Rel15)v15.0.0	15.0.0	Published	28.09.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.411(Rel15)v15.0.0.pdf

Release 16

ATIS	ATIS.3GPP.36.411V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.411V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.411V1600.doc
ETSI	ETSI TS 136 411 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136411\16.00.00_60\ts_136411v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.411-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/zJWG7jn9e5T5nGd
TTA	TTAT.3G-36.411V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.411V16.0.0&searchCate=TTAS
TTC	TS-3GA-36.411(Rel16)v16.0.0	16.0.0	Published	02.10.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36_411_Rel16v16_0_0.pdf

Release 17

ATIS	ATIS.3GPP.36.411.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.411.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.411.V17.0.0.doc
ETSI	ETSI TS 136 411 V17.0.0 (2022-05)	17.0.0	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136411\17.00.00_60\ts_136411v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.411-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/Y2nP7kcCS8qHpiA
TTA	TTAT.3G-36.411V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.411V17.0.0&searchCate=TTAS
TTC	TS-3GA-36.411(Rel17)v17.0.0	17.0.0	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.411v17.0.0.pdf

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ATIS	ATIS.3GPP.36.411.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.411.V18.0.0 7_ATIS/CCSA.3GPP.36.411.V18.0.0.docx	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 411 V18.0.0 (2024-05)	18.0.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136411\18.00.00_60\ts_136411v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.411-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/gWBDfyJitwMkZLK
TTA	TTAT.3G-36.411V18.0.0 36.411V18.0.0&searchCate=TTAS	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.411(Rel18)v18.0.0	18.0.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.411v18.0.0.pdf

2.1.4.4 TS 36.412

Evolved Universal Terrestrial Radio Access Network (E-UTRAN); S1 signalling transport

This document specifies the standards for signalling transport to be used across S1 interface. S1 interface is a logical interface between the eNodeB and the E-UTRAN core network. This document describes how the S1-AP signalling messages are transported over S1.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ATIS	ATIS.3GPP.36.412V1010	10.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.412V1010 7_ATIS/CCSA.3GPP.36.412V1010.doc	10.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 412 V10.1.0 (2011-06)	10.1.0	Published	28.06.2011	https://www.etsi.org/deliver/etsi_ts\136400_136499\136412\10.01.00_60\ts_136412v100100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.412-10.1.0 V1.0.0	10.1.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/6sRPwnWrTmz5iDb
TTA	TTAT.3G-36.412V10.1.0 36.412V10.1.0&searchCate=TTAS	10.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.412(Rel10)v10.1.0	10.1.0	Published	31.08.2011	https://www.ttc.or.jp/st/docs/3gpps2011/TS/TS-3GA-36.412(Rel10)v10.1.0.pdf
Release 11					
ATIS	ATIS.3GPP.36.412V1100	11.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.412V1100 7_ATIS/CCSA.3GPP.36.412V1100.doc	11.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 412 V11.0.0 (2012-10)	11.0.0	Published	17.10.2012	https://www.etsi.org/deliver/etsi_ts\136400_136499\136412\11.00.00_60\ts_136412v110000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.412-11.0.0 V1.0.0	11.0.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/5LbcFzWwA8yWswE
TTA	TTAT.3G-36.412V11.0.0 36.412V11.0.0&searchCate=TTAS	11.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.412(Rel11)v11.0.0	11.0.0	Published	25.06.2013	https://www.ttc.or.jp/st/docs/3gpps2013/TS/TS-3GA-36.412(Rel11)v11.0.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.412V1200	12.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.412V1200 7_ATIS/CCSA.3GPP.36.412V1200.doc	12.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 412 V12.0.0 (2014-09)	12.0.0	Published	25.09.2014	https://www.etsi.org/deliver/etsi_ts\136400_136499\136412\12.00.00_60\ts_136412v120000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.412-12.0.0 V1.0.0	12.0.0	Published	30.08.2021	https://members.tsdsi.in/s/3R5Ldk2PfPEXNaD
TTA	TTAT.3G-36.412V12.0.0 36.412V12.0.0&searchCate=TTAS	12.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.412(Rel12)v12.0.0	12.0.0	Published	05.03.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.412(Rel12)v12.0.0.pdf

Release 13

ATIS	ATIS.3GPP.36.412V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.412V1300	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.412V1300.doc
ETSI	ETSI TS 136 412 V13.0.0 (2016-01)	13.0.0	Published	20.01.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136412\13.00.00_60\ts_136412v130000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.412-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/PtGwGtMDe6mB4q7
TTA	TTAT.3G-36.412V13.0.0	13.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.412V13.0.0&searchCate=TTAS
TTC	TS-3GA-36.412(Rel13)v13.0.0	13.0.0	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.412(Rel13)v13.0.0.pdf

Release 14

ATIS	ATIS.3GPP.36.412V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.412V1400	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.412V1400.doc
ETSI	ETSI TS 136 412 V14.0.0 (2017-04)	14.0.0	Published	11.04.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136412\14.00.00_60\ts_136412v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.412-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/ZTJC7QZDxTYpZS3
TTA	TTAT.3G-36.412V14.0.0	14.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.412V14.0.0&searchCate=TTAS
TTC	TS-3GA-36.412(Rel14)v14.0.0	14.0.0	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.412(Rel14)v14.0.0.pdf

Release 15

ATIS	ATIS.3GPP.36.412V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.412V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.412V1500.doc
ETSI	ETSI TS 136 412 V15.0.0 (2018-07)	15.0.0	Published	04.07.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136412\15.00.00_60\ts_136412v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.412-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/34dWPGwsKxE6ksi
TTA	TTAT.3G-36.412V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.412V15.0.0&searchCate=TTAS
TTC	TS-3GA-36.412(Rel15)v15.0.0	15.0.0	Published	28.09.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.412(Rel15)v15.0.0.pdf

Release 16

ATIS	ATIS.3GPP.36.412V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.412V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.412V1600.doc
ETSI	ETSI TS 136 412 V16.0.0 (2020-09)	16.0.0	Published	21.09.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136412\16.00.00_60\ts_136412v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.412-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/fZX8fFEizm3SiHq
TTA	TTAT.3G-36.412V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.412V16.0.0&searchCate=TTAS
TTC	TS-3GA-36.412(Rel16)v16.0.0	16.0.0	Published	02.10.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36_412_Rel16v16_0_0.pdf

Release 17

ATIS	ATIS.3GPP.36.412.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.412.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.412.V17.0.0.doc
ETSI	ETSI TS 136 412 V17.0.0 (2022-05)	17.0.0	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136412\17.00.00_60\ts_136412v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.412-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/7qr2QKzmGQNw8Ba
TTA	TTAT.3G-36.412V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.412V17.0.0&searchCate=TTAS
TTC	TS-3GA-36.412(Rel17)v17.0.0	17.0.0	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.412v17.0.0.pdf

Release 18

ATIS	ATIS.3GPP.36.412.V18.1.0	18.1.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.412.V18.1.0	18.1.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.412.V18.1.0.docx
ETSI	ETSI TS 136 412 V18.1.0 (2024-08)	18.1.0	Published	02.08.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136412\18.01.00_60\ts_136412v180100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.412-18.1.0 V1.0.0	18.1.0	Published	19.11.2024	https://members.tsdsi.in/s/CKn85KqeYMoeTEZ
TTA	TTAT.3G-36.412V18.1.0	18.1.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.412V18.1.0&searchCate=TTAS
TTC	TS-3GA-36.412(Rel18)v18.1.0	18.1.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.412v18.1.0.pdf

2.1.4.5   TS 36.413

Evolved Universal Terrestrial Radio Access Network (E-UTRAN); S1 Application Protocol (S1AP)

This document specifies the E-UTRAN radio network layer signalling protocol for the S1 interface. The S1 Application Protocol (S1AP) supports the functions of S1 interface by signalling procedures defined in this document.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ATIS	ATIS.3GPP.36.413V1090	10.9.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.413V1090	10.9.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.413V1090.doc
ETSI	ETSI TS 136 413 V10.9.0 (2014-09)	10.9.0	Published	26.09.2014	https://www.etsi.org/deliver/etsi_ts\136400_136499\136413\10.09.00_60\ts_136413v100900p.pdf
TSDSI	TSDSI STD T1.3GPP 36.413-10.9.0 V1.0.0	10.9.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/PjEcsmdtWLEstEd
TTA	TTAT.3G-36.413V10.9.0	10.9.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.413V10.9.0&searchCate=TTAS
TTC	TS-3GA-36.413(Rel10)v10.9.0	10.9.0	Published	18.12.2014	https://www.ttc.or.jp/st/docs/3gpps2014/TS/TS-3GA-36.413(Rel10)v10.9.0.pdf
Release 11					
ATIS	ATIS.3GPP.36.413V1180	11.8.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.413V1180	11.8.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.413V1180.doc
ETSI	ETSI TS 136 413 V11.8.0 (2014-09)	11.8.0	Published	26.09.2014	https://www.etsi.org/deliver/etsi_ts\136400_136499\136413\11.08.00_60\ts_136413v110800p.pdf
TSDSI	TSDSI STD T1.3GPP 36.413-11.8.0 V1.0.0	11.8.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/pAojRSXxaFpXLfp
TTA	TTAT.3G-36.413V11.8.0	11.8.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.413V11.8.0&searchCate=TTAS
TTC	TS-3GA-36.413(Rel11)v11.8.0	11.8.0	Published	18.12.2014	https://www.ttc.or.jp/st/docs/3gpps2014/TS/TS-3GA-36.413(Rel11)v11.8.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.413V1270	12.7.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.413V1270	12.7.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.413V1270.doc
ETSI	ETSI TS 136 413 V12.7.0 (2016-05)	12.7.0	Published	20.05.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136413\12.07.00_60\ts_136413v120700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.413-12.7.0 V1.0.0	12.7.0	Published	30.08.2021	https://members.tsdsi.in/s/5DCTZKMoGPDXsYr
TTA	TTAT.3G-36.413V12.7.0	12.7.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.413V12.7.0&searchCate=TTAS
TTC	TS-3GA-36.413(Rel12)v12.7.0	12.7.0	Published	30.06.2016	https://www.ttc.or.jp/st/docs/3gpps2016/TS/TS-3GA-36.413(Rel12)v12.7.0.pdf

Release 13

ATIS	ATIS.3GPP.36.413V1380	13.8.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.413V1380	13.8.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.413V1380.doc				
ETSI	ETSI TS 136 413 V13.8.0 (2018-09)	13.8.0	Published	28.09.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136413\13.08.00_60\ts_136413v130800p.pdf
TSDSI	TSDSI STD T1.3GPP 36.413-13.8.0 V1.1.0	13.8.0	Published	30.08.2021	https://members.tsdsi.in/s/MQgytK57EH8AkaZ
TTA	TTAT.3G-36.413V13.8.0	13.8.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.413V13.8.0&searchCate=TTAS				
TTC	TS-3GA-36.413(Rel13)v13.8.0	13.8.0	Published	21.12.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.413(Rel13)v13.8.0.pdf

Release 14

ATIS	ATIS.3GPP.36.413V1490	14.9.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.413V1490	14.9.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.413V1490.doc				
ETSI	ETSI TS 136 413 V14.9.0 (2019-07)	14.9.0	Published	23.07.2019	https://www.etsi.org/deliver/etsi_ts\136400_136499\136413\14.09.00_60\ts_136413v140900p.pdf
TSDSI	TSDSI STD T1.3GPP 36.413-14.9.0 V1.1.0	14.9.0	Published	30.08.2021	https://members.tsdsi.in/s/8Qo96qesXdX2gW6
TTA	TTAT.3G-36.413V14.9.0	14.9.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.413V14.9.0&searchCate=TTAS				
TTC	TS-3GA-36.413(Rel14)v14.9.0	14.9.0	Published	11.10.2019	https://www.ttc.or.jp/st/docs/3gpps2019/TS/TS-3GA-36.413(Rel14)v14.9.0.pdf

Release 15

ATIS	ATIS.3GPP.36.413.V15.11.0	15.11.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.413.V15.11.0	15.11.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.413.V15.11.0.doc				
ETSI	ETSI TS 136 413 V15.11.0 (2022-05)	15.11.0	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136413\15.11.00_60\ts_136413v151100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.413-15.11.0 V1.1.0	15.11.0	Published	01.11.2022	https://members.tsdsi.in/s/7X4P2N8kFwKstio
TTA	TTAT.3G-36.413V15.11.0	15.11.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.413V15.11.0&searchCate=TTAS				
TTC	TS-3GA-36.413(Rel15)v15.11.0	15.11.0	Published	08.07.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.413v15.11.0.pdf

Release 16

ATIS	ATIS.3GPP.36.413.V16.14.0	16.14.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.413.V16.14.0	16.14.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.413.V16.14.0.docx				
ETSI	ETSI TS 136 413 V16.14.0 (2024-04)	16.14.0	Published	22.04.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136413\16.14.00_60\ts_136413v161400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.413-16.14.0 V1.5.0	16.14.0	Published	22.07.2024	https://members.tsdsi.in/s/cyxQeg2pGoX877N
TTA	TTAT.3G-36.413V16.14.0	16.14.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.413V16.14.0&searchCate=TTAS				
TTC	TS-3GA-36.413(Rel16)v16.14.0	16.14.0	Published	05.07.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.413v16.14.0.pdf

Release 17

ATIS	ATIS.3GPP.36.413.V17.6.0	17.6.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.413.V17.6.0	17.6.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.413.V17.6.0.docx				
ETSI	ETSI TS 136 413 V17.6.0 (2024-04)	17.6.0	Published	22.04.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136413\17.06.00_60\ts_136413v170600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.413-17.6.0 V1.6.0	17.6.0	Published	22.07.2024	https://members.tsdsi.in/s/oDoG4EnorbcJoNx
TTA	TTAT.3G-36.413V17.6.0	17.6.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.413V17.6.0&searchCate=TTAS				
TTC	TS-3GA-36.413(Rel17)v17.6.0	17.6.0	Published	05.07.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.413v17.6.0.pdf

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ATIS	ATIS.3GPP.36.413.V18.2.0	18.2.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.413.V18.2.0	18.2.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.413.V18.2.0.docx
ETSI	ETSI TS 136 413 V18.2.0 (2024-08)	18.2.0	Published	02.08.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136413\18.02.00_60\ts_136413v180200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.413-18.2.0 V1.0.0	18.2.0	Published	19.11.2024	https://members.tsdsi.in/s/wNfAnyYdYGjXidc
TTA	TTAT.3G-36.413V18.2.0	18.2.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.413V18.2.0&searchCate=TTAS
TTC	TS-3GA-36.413(Rel18)v18.2.0	18.2.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.413v18.2.0.pdf

2.1.4.6 TS 36.414

Evolved Universal Terrestrial Radio Access Network (E-UTRAN); S1 data transport

This document specifies the standards for user data transport protocols and related signalling protocols to establish user plane transport bearers over the S1 interface.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ATIS	ATIS.3GPP.36.414V1010	10.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.414V1010	10.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.414V1010.doc
ETSI	ETSI TS 136 414 V10.1.0 (2011-06)	10.1.0	Published	28.06.2011	https://www.etsi.org/deliver/etsi_ts\136400_136499\136414\10.01.00_60\ts_136414v100100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.414-10.1.0 V1.0.0	10.1.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/iA9TC3ZrQY5924e
TTA	TTAT.3G-36.414V10.1.0	10.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.414V10.1.0&searchCate=TTAS
TTC	TS-3GA-36.414(Rel10)v10.1.0	10.1.0	Published	31.08.2011	https://www.ttc.or.jp/st/docs/3gpps2011/TS/TS-3GA-36.414(Rel10)v10.1.0.pdf
Release 11					
ATIS	ATIS.3GPP.36.414V1100	11.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.414V1100	11.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.414V1100.doc
ETSI	ETSI TS 136 414 V11.0.0 (2012-10)	11.0.0	Published	17.10.2012	https://www.etsi.org/deliver/etsi_ts\136400_136499\136414\11.00.00_60\ts_136414v110000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.414-11.0.0 V1.0.0	11.0.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/wEbW9MDFsrWNCKj
TTA	TTAT.3G-36.414V11.0.0	11.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.414V11.0.0&searchCate=TTAS
TTC	TS-3GA-36.414(Rel11)v11.0.0	11.0.0	Published	25.06.2013	https://www.ttc.or.jp/st/docs/3gpps2013/TS/TS-3GA-36.414(Rel11)v11.0.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.414V1210	12.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.414V1210	12.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.414V1210.doc
ETSI	ETSI TS 136 414 V12.1.0 (2015-02)	12.1.0	Published	04.02.2015	https://www.etsi.org/deliver/etsi_ts\136400_136499\136414\12.01.00_60\ts_136414v120100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.414-12.1.0 V1.0.0	12.1.0	Published	30.08.2021	https://members.tsdsi.in/s/FF4scKPRBYiKPaA
TTA	TTAT.3G-36.414V12.1.0	12.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.414V12.1.0&searchCate=TTAS
TTC	TS-3GA-36.414(Rel12)v12.1.0	12.1.0	Published	05.03.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.414(Rel12)v12.1.0.pdf

Release 13

ATIS	ATIS.3GPP.36.414V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.414V1300	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.414V1300.doc
ETSI	ETSI TS 136 414 V13.0.0 (2016-01)	13.0.0	Published	20.01.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136414\13.00.00_60\ts_136414v130000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.414-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/mJEMLzLAEFnioMs
TTA	TTAT.3G-36.414V13.0.0	13.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.414V13.0.0&searchCate=TTAS
TTC	TS-3GA-36.414(Rel13)v13.0.0	13.0.0	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.414(Rel13)v13.0.0.pdf

Release 14

ATIS	ATIS.3GPP.36.414V1410	14.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.414V1410	14.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.414V1410.doc
ETSI	ETSI TS 136 414 V14.1.0 (2017-08)	14.1.0	Published	24.08.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136414\14.01.00_60\ts_136414v140100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.414-14.1.0 V1.0.0	14.1.0	Published	30.08.2021	https://members.tsdsi.in/s/6aT5aTkysn8jr9k
TTA	TTAT.3G-36.414V14.1.0	14.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.414V14.1.0&searchCate=TTAS
TTC	TS-3GA-36.414(Rel14)v14.1.0	14.1.0	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.414(Rel14)v14.1.0.pdf

Release 15

ATIS	ATIS.3GPP.36.414V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.414V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.414V1500.doc
ETSI	ETSI TS 136 414 V15.0.0 (2018-07)	15.0.0	Published	04.07.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136414\15.00.00_60\ts_136414v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.414-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/CYPiswRDxMFDRsK
TTA	TTAT.3G-36.414V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.414V15.0.0&searchCate=TTAS
TTC	TS-3GA-36.414(Rel15)v15.0.0	15.0.0	Published	28.09.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.414(Rel15)v15.0.0.pdf

Release 16

ATIS	ATIS.3GPP.36.414V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.414V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.414V1600.doc
ETSI	ETSI TS 136 414 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136414\16.00.00_60\ts_136414v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.414-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/YRpiZKGTpN9pEZ8
TTA	TTAT.3G-36.414V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.414V16.0.0&searchCate=TTAS
TTC	TS-3GA-36.414(Rel16)v16.0.0	16.0.0	Published	02.10.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36_414_Rel16v16_0_0.pdf

Release 17

ATIS	ATIS.3GPP.36.414.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.414.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.414.V17.0.0.doc
ETSI	ETSI TS 136 414 V17.0.0 (2022-05)	17.0.0	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136414\17.00.00_60\ts_136414v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.414-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/PGQnfxGM4BCDemL
TTA	TTAT.3G-36.414V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.414V17.0.0&searchCate=TTAS
TTC	TS-3GA-36.414(Rel17)v17.0.0	17.0.0	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.414v17.0.0.pdf

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ATIS	ATIS.3GPP.36.414.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.414.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.414.V18.0.0.docx
ETSI	ETSI TS 136 414 V18.0.0 (2024-05)	18.0.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136414\18.00.00_60\ts_136414v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.414-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/afycdjX3p2F7jGx
TTA	TTAT.3G-36.414V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.414V18.0.0&searchCate=TTAS
TTC	TS-3GA-36.414(Rel18)v18.0.0	18.0.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.414v18.0.0.pdf

2.1.4.7   TS 36.420

Evolved Universal Terrestrial Radio Access Network (E-UTRAN); X2 general aspects and principles

This document is an introduction to the TSG RAN TS 36.42x series of UMTS technical specifications that define the X2 interface. It is an interface for the interconnection of two E-UTRAN NodeB (eNodeB) components within the Evolved Universal Terrestrial Radio Access Network (E-UTRAN) architecture.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ATIS	ATIS.3GPP.36.420V1020	10.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.420V1020	10.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.420V1020.doc
ETSI	ETSI TS 136 420 V10.2.0 (2011-10)	10.2.0	Published	18.10.2011	https://www.etsi.org/deliver/etsi_ts\136400_136499\136420\10.02.00_60\ts_136420v100200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.420-10.2.0 V1.0.0	10.2.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/YKKycsCTDJXnEzN
TTA	TTAT.3G-36.420V10.2.0	10.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.420V10.2.0&searchCate=TTAS
TTC	TS-3GA-36.420(Rel10)v10.2.0	10.2.0	Published	21.12.2011	https://www.ttc.or.jp/st/docs/3gpps2011/TS/TS-3GA-36.420(Rel10)v10.2.0.pdf
Release 11					
ATIS	ATIS.3GPP.36.420V1100	11.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.420V1100	11.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.420V1100.doc
ETSI	ETSI TS 136 420 V11.0.0 (2012-10)	11.0.0	Published	17.10.2012	https://www.etsi.org/deliver/etsi_ts\136400_136499\136420\11.00.00_60\ts_136420v110000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.420-11.0.0 V1.0.0	11.0.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/FnfLnWWxCAo3Ci2
TTA	TTAT.3G-36.420V11.0.0	11.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.420V11.0.0&searchCate=TTAS
TTC	TS-3GA-36.420(Rel11)v11.0.0	11.0.0	Published	25.06.2013	https://www.ttc.or.jp/st/docs/3gpps2013/TS/TS-3GA-36.420(Rel11)v11.0.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.420V1210	12.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.420V1210	12.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.420V1210.doc
ETSI	ETSI TS 136 420 V12.1.0 (2015-02)	12.1.0	Published	04.02.2015	https://www.etsi.org/deliver/etsi_ts\136400_136499\136420\12.01.00_60\ts_136420v120100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.420-12.1.0 V1.0.0	12.1.0	Published	30.08.2021	https://members.tsdsi.in/s/paB6AEXkGYmTwwk
TTA	TTAT.3G-36.420V12.1.0	12.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.420V12.1.0&searchCate=TTAS
TTC	TS-3GA-36.420(Rel12)v12.1.0	12.1.0	Published	05.03.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.420(Rel12)v12.1.0.pdf

Release 13

ATIS	ATIS.3GPP.36.420V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.420V1300	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.420V1300.doc
ETSI	ETSI TS 136 420 V13.0.0 (2016-01)	13.0.0	Published	20.01.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136420\13.00.00_60\ts_136420v130000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.420-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/wmmTCQt3xRDzeqD
TTA	TTAT.3G-36.420V13.0.0	13.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.420V13.0.0&searchCate=TTAS
TTC	TS-3GA-36.420(Rel13)v13.0.0	13.0.0	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.420(Rel13)v13.0.0.pdf

Release 14

ATIS	ATIS.3GPP.36.420V1401	14.0.1	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.420V1401	14.0.1	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.420V1401.doc
ETSI	ETSI TS 136 420 V14.0.1 (2017-04)	14.0.1	Published	11.04.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136420\14.00.01_60\ts_136420v140001p.pdf
TSDSI	TSDSI STD T1.3GPP 36.420-14.0.1 V1.0.0	14.0.1	Published	30.08.2021	https://members.tsdsi.in/s/myi99Msbxe4i2Ei
TTA	TTAT.3G-36.420V14.0.1	14.0.1	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.420V14.0.1&searchCate=TTAS
TTC	TS-3GA-36.420(Rel14)v14.0.1	14.0.1	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.420(Rel14)v14.0.1.pdf

Release 15

ATIS	ATIS.3GPP.36.420V1520	15.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.420V1520	15.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.420V1520.doc
ETSI	ETSI TS 136 420 V15.2.0 (2020-01)	15.2.0	Published	17.01.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136420\15.02.00_60\ts_136420v150200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.420-15.2.0 V1.0.0	15.2.0	Published	30.08.2021	https://members.tsdsi.in/s/zLxHn56E7FJwYc8
TTA	TTAT.3G-36.420V15.2.0	15.2.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.420V15.2.0&searchCate=TTAS
TTC	TS-3GA-36.420(Rel15)v15.2.0	15.2.0	Published	16.04.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36_420_Rel15v15_2_0.pdf

Release 16

ATIS	ATIS.3GPP.36.420V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.420V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.420V1600.doc
ETSI	ETSI TS 136 420 V16.0.0 (2020-07)	16.0.0	Published	23.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136420\16.00.00_60\ts_136420v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.420-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/f86J3n48qi3ggzN
TTA	TTAT.3G-36.420V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.420V16.0.0&searchCate=TTAS
TTC	TS-3GA-36.420(Rel16)v16.0.0	16.0.0	Published	02.10.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36_420_Rel16v16_0_0.pdf

Release 17

ATIS	ATIS.3GPP.36.420.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.420.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.420.V17.0.0.doc
ETSI	ETSI TS 136 420 V17.0.0 (2022-05)	17.0.0	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136420\17.00.00_60\ts_136420v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.420-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/tXApqE79pfA2HRE
TTA	TTAT.3G-36.420V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.420V17.0.0&searchCate=TTAS
TTC	TS-3GA-36.420(Rel17)v17.0.0	17.0.0	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.420v17.0.0.pdf

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ATIS	ATIS.3GPP.36.420.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.420.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.420.V18.0.0.docx
ETSI	ETSI TS 136 420 V18.0.0 (2024-05)	18.0.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136420\18.00.00_60\ts_136420v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.420-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/KBEYcKMEmts2T7Y
TTA	TTAT.3G-36.420V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.420V18.0.0&searchCate=TTAS
TTC	TS-3GA-36.420(Rel18)v18.0.0	18.0.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.420v18.0.0.pdf

2.1.4.8   TS 36.421

Evolved Universal Terrestrial Radio Access Network (E-UTRAN); X2 layer 1

This document specifies the standards allowed to implement Layer 1 on the X2 interface. The specification of transmission delay requirements and O & M requirements are not in the scope of this document. In the following "Layer 1" and "Physical Layer" are assumed to be synonymous.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ATIS	ATIS.3GPP.36.421V1001	10.0.1	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.421V1001	10.0.1	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.421V1001.doc
ETSI	ETSI TS 136 421 V10.0.1 (2011-05)	10.0.1	Published	12.05.2011	https://www.etsi.org/deliver/etsi_ts\136400_136499\136421\10.00.01_60\ts_136421v100001p.pdf
TSDSI	TSDSI STD T1.3GPP 36.421-10.0.1 V1.0.0	10.0.1	Published	30.08.2021	https://members.tsdsi.in/index.php/s/cgFcPX77SAAnC27
TTA	TTAT.3G-36.421V10.0.1	10.0.1	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.421V10.0.1&searchCate=TTAS
TTC	TS-3GA-36.421(Rel10)v10.0.1	10.0.1	Published	22.06.2011	https://www.ttc.or.jp/st/docs/3gpps2011/TS/TS-3GA-36.421(Rel10)v10.0.1.pdf
Release 11					
ATIS	ATIS.3GPP.36.421V1110	11.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.421V1110	11.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.421V1110.doc
ETSI	ETSI TS 136 421 V11.1.0 (2013-01)	11.1.0	Published	15.01.2013	https://www.etsi.org/deliver/etsi_ts\136400_136499\136421\11.01.00_60\ts_136421v110100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.421-11.1.0 V1.0.0	11.1.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/DykdDfS6GawkTxo
TTA	TTAT.3G-36.421V11.1.0	11.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.421V11.1.0&searchCate=TTAS
TTC	TS-3GA-36.421(Rel11)v11.1.0	11.1.0	Published	25.06.2013	https://www.ttc.or.jp/st/docs/3gpps2013/TS/TS-3GA-36.421(Rel11)v11.1.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.421V1200	12.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.421V1200	12.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.421V1200.doc
ETSI	ETSI TS 136 421 V12.0.0 (2014-09)	12.0.0	Published	25.09.2014	https://www.etsi.org/deliver/etsi_ts\136400_136499\136421\12.00.00_60\ts_136421v120000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.421-12.0.0 V1.0.0	12.0.0	Published	30.08.2021	https://members.tsdsi.in/s/G4fgGxfNGEbeFtn
TTA	TTAT.3G-36.421V12.0.0	12.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.421V12.0.0&searchCate=TTAS
TTC	TS-3GA-36.421(Rel12)v12.0.0	12.0.0	Published	05.03.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.421(Rel12)v12.0.0.pdf

Release 13

ATIS	ATIS.3GPP.36.421V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.421V1300	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.421V1300.doc				
ETSI	ETSI TS 136 421 V13.0.0 (2016-01)	13.0.0	Published	20.01.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136421\13.00.00_60\ts_136421v130000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.421-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/Hz9CfzwpQJ4RBzS
TTA	TTAT.3G-36.421V13.0.0	13.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.421V13.0.0&searchCate=TTAS				
TTC	TS-3GA-36.421(Rel13)v13.0.0	13.0.0	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.421(Rel13)v13.0.0.pdf

Release 14

ATIS	ATIS.3GPP.36.421V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.421V1400	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.421V1400.doc				
ETSI	ETSI TS 136 421 V14.0.0 (2017-04)	14.0.0	Published	11.04.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136421\14.00.00_60\ts_136421v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.421-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/tABBDjmfdm7NddF
TTA	TTAT.3G-36.421V14.0.0	14.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.421V14.0.0&searchCate=TTAS				
TTC	TS-3GA-36.421(Rel14)v14.0.0	14.0.0	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.421(Rel14)v14.0.0.pdf

Release 15

ATIS	ATIS.3GPP.36.421V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.421V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.421V1500.doc				
ETSI	ETSI TS 136 421 V15.0.0 (2018-07)	15.0.0	Published	04.07.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136421\15.00.00_60\ts_136421v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.421-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/Jde5LGPqzSwykpw
TTA	TTAT.3G-36.421V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.421V15.0.0&searchCate=TTAS				
TTC	TS-3GA-36.421(Rel15)v15.0.0	15.0.0	Published	28.09.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.421(Rel15)v15.0.0.pdf

Release 16

ATIS	ATIS.3GPP.36.421V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.421V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.421V1600.doc				
ETSI	ETSI TS 136 421 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136421\16.00.00_60\ts_136421v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.421-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/K9xBMbjrZK72Qkd
TTA	TTAT.3G-36.421V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.421V16.0.0&searchCate=TTAS				
TTC	TS-3GA-36.421(Rel16)v16.0.0	16.0.0	Published	02.10.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36_421_Rel16v16_0_0.pdf

Release 17

ATIS	ATIS.3GPP.36.421.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.421.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.421.V17.0.0.doc				
ETSI	ETSI TS 136 421 V17.0.0 (2022-05)	17.0.0	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136421\17.00.00_60\ts_136421v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.421-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/LC2cq7ixHnrkokm
TTA	TTAT.3G-36.421V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.421V17.0.0&searchCate=TTAS				
TTC	TS-3GA-36.421(Rel17)v17.0.0	17.0.0	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.421v17.0.0.pdf

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ATIS	ATIS.3GPP.36.421.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.421.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.421.V18.0.0.docx
ETSI	ETSI TS 136 421 V18.0.0 (2024-05)	18.0.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136421\18.00.00_60\ts_136421v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.421-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/64HGRfiKRnffB4Z
TTA	TTAT.3G-36.421V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.421V18.0.0&searchCate=TTAS
TTC	TS-3GA-36.421(Rel18)v18.0.0	18.0.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.421v18.0.0.pdf

2.1.4.9   TS 36.422

Evolved Universal Terrestrial Radio Access Network (E-UTRAN); X2 signalling transport

This document specifies the standards for Signalling Transport to be used across X2 interface. X2 interface is a logical interface between eNodeBs. This document describes how the X2-AP signalling messages are transported over X2.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ATIS	ATIS.3GPP.36.422V1010	10.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.422V1010	10.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.422V1010.doc
ETSI	ETSI TS 136 422 V10.1.0 (2011-06)	10.1.0	Published	28.06.2011	https://www.etsi.org/deliver/etsi_ts\136400_136499\136422\10.01.00_60\ts_136422v100100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.422-10.1.0 V1.0.0	10.1.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/LnX7D8SzXCpKCts
TTA	TTAT.3G-36.422V10.1.0	10.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.422V10.1.0&searchCate=TTAS
TTC	TS-3GA-36.422(Rel10)v10.1.0	10.1.0	Published	31.08.2011	https://www.ttc.or.jp/st/docs/3gpps2011/TS/TS-3GA-36.422(Rel10)v10.1.0.pdf
Release 11					
ATIS	ATIS.3GPP.36.422V1100	11.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.422V1100	11.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.422V1100.doc
ETSI	ETSI TS 136 422 V11.0.0 (2012-10)	11.0.0	Published	17.10.2012	https://www.etsi.org/deliver/etsi_ts\136400_136499\136422\11.00.00_60\ts_136422v110000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.422-11.0.0 V1.0.0	11.0.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/a3zBSbCeZGDTyH5
TTA	TTAT.3G-36.422V11.0.0	11.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.422V11.0.0&searchCate=TTAS
TTC	TS-3GA-36.422(Rel11)v11.0.0	11.0.0	Published	25.06.2013	https://www.ttc.or.jp/st/docs/3gpps2013/TS/TS-3GA-36.422(Rel11)v11.0.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.422V1200	12.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.422V1200	12.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.422V1200.doc
ETSI	ETSI TS 136 422 V12.0.0 (2014-09)	12.0.0	Published	25.09.2014	https://www.etsi.org/deliver/etsi_ts\136400_136499\136422\12.00.00_60\ts_136422v120000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.422-12.0.0 V1.0.0	12.0.0	Published	30.08.2021	https://members.tsdsi.in/s/5nZKDJXqWBxbm9r
TTA	TTAT.3G-36.422V12.0.0	12.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.422V12.0.0&searchCate=TTAS
TTC	TS-3GA-36.422(Rel12)v12.0.0	12.0.0	Published	05.03.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.422(Rel12)v12.0.0.pdf

Release 13

ATIS	ATIS.3GPP.36.422V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.422V1300	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.422V1300.doc
ETSI	ETSI TS 136 422 V13.0.0 (2016-01)	13.0.0	Published	20.01.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136422\13.00.00_60\ts_136422v130000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.422-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/5zR8DNFRqsig6Tj
TTA	TTAT.3G-36.422V13.0.0	13.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.422V13.0.0&searchCate=TTAS
TTC	TS-3GA-36.422(Rel13)v13.0.0	13.0.0	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.422(Rel13)v13.0.0.pdf

Release 14

ATIS	ATIS.3GPP.36.422V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.422V1400	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.422V1400.doc
ETSI	ETSI TS 136 422 V14.0.0 (2017-04)	14.0.0	Published	11.04.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136422\14.00.00_60\ts_136422v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.422-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/qPTHbjRodjGDrsf
TTA	TTAT.3G-36.422V14.0.0	14.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.422V14.0.0&searchCate=TTAS
TTC	TS-3GA-36.422(Rel14)v14.0.0	14.0.0	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.422(Rel14)v14.0.0.pdf

Release 15

ATIS	ATIS.3GPP.36.422V1510	15.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.422V1510	15.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.422V1510.doc
ETSI	ETSI TS 136 422 V15.1.0 (2019-04)	15.1.0	Published	17.04.2019	https://www.etsi.org/deliver/etsi_ts\136400_136499\136422\15.01.00_60\ts_136422v150100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.422-15.1.0 V1.0.0	15.1.0	Published	30.08.2021	https://members.tsdsi.in/s/TmfTBJ5fFffW8wE
TTA	TTAT.3G-36.422V15.1.0	15.1.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.422V15.1.0&searchCate=TTAS
TTC	TS-3GA-36.422(Rel15)v15.1.0	15.1.0	Published	29.03.2019	https://www.ttc.or.jp/st/docs/3gpps2019/TS/TS-3GA-36.422(Rel15)v15.1.0.pdf

Release 16

ATIS	ATIS.3GPP.36.422.V16.2.0	16.2.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.422.V16.2.0	16.2.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.422.V16.2.0.docx
ETSI	ETSI TS 136 422 V16.2.0 (2023-07)	16.2.0	Published	18.07.2023	https://www.etsi.org/deliver/etsi_ts\136400_136499\136422\16.02.00_60\ts_136422v160200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.422-16.2.0 V1.2.0	16.2.0	Published	02.11.2023	https://members.tsdsi.in/s/mifWjswLzNY3Eg4
TTA	TTAT.3G-36.422V16.2.0	16.2.0	Published	27.10.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.422V16.2.0&searchCate=TTAS
TTC	TS-3GA-36.422(Rel16)v16.2.0	16.2.0	Published	05.10.2023	https://www.ttc.or.jp/st/docs/3gpp/2023/TS/TS-3GA-36.422v16.2.0.pdf

Release 17

ATIS	ATIS.3GPP.36.422.V17.1.0	17.1.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.422.V17.1.0	17.1.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.422.V17.1.0.docx
ETSI	ETSI TS 136 422 V17.1.0 (2023-07)	17.1.0	Published	18.07.2023	https://www.etsi.org/deliver/etsi_ts\136400_136499\136422\17.01.00_60\ts_136422v170100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.422-17.1.0 V1.1.0	17.1.0	Published	02.11.2023	https://members.tsdsi.in/s/gBdC7yAcaTfTJqB
TTA	TTAT.3G-36.422V17.1.0	17.1.0	Published	27.10.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.422V17.1.0&searchCate=TTAS
TTC	TS-3GA-36.422(Rel17)v17.1.0	17.1.0	Published	05.10.2023	https://www.ttc.or.jp/st/docs/3gpp/2023/TS/TS-3GA-36.422v17.1.0.pdf

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SDO	Document No.	Version	Status	Issued date	Location
ATIS	ATIS.3GPP.36.422.V18.1.0	18.1.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.422.V18.1.0	18.1.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.422.V18.1.0.docx
ETSI	ETSI TS 136 422 V18.1.0 (2024-08)	18.1.0	Published	02.08.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136422\18.01.00_60\ts_136422v180100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.422-18.1.0 V1.0.0	18.1.0	Published	19.11.2024	https://members.tsdsi.in/s/s7z34BwXxctCT2z
TTA	TTAT.3G-36.422V18.1.0	18.1.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.422V18.1.0&searchCate=TTAS
TTC	TS-3GA-36.422(Rel18)v18.1.0	18.1.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.422v18.1.0.pdf

2.1.4.10   TS 36.423

Evolved Universal Terrestrial Radio Access Network (E-UTRAN); X2 Application Protocol (X2AP)

This document specifies the radio network layer signalling procedures of the control plane between eNodeBs in E-UTRAN. X2AP supports the functions of X2 interface by signalling procedures defined in this document.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ATIS	ATIS.3GPP.36.423V1070	10.7.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.423V1070	10.7.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.423V1070.doc
ETSI	ETSI TS 136 423 V10.7.0 (2013-09)	10.7.0	Published	26.09.2013	https://www.etsi.org/deliver/etsi_ts\136400_136499\136423\10.07.00_60\ts_136423v100700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.423-10.7.0 V1.0.0	10.7.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/R5ZF2GMGkxBq37q
TTA	TTAT.3G-36.423V10.7.0	10.7.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.423V10.7.0&searchCate=TTAS
TTC	TS-3GA-36.423(Rel10)v10.7.0	10.7.0	Published	22.11.2013	https://www.ttc.or.jp/st/docs/3gpps2013/TS/TS-3GA-36.423(Rel10)v10.7.0.pdf
Release 11					
ATIS	ATIS.3GPP.36.423V1190	11.9.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.423V1190	11.9.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.423V1190.doc
ETSI	ETSI TS 136 423 V11.9.0 (2015-04)	11.9.0	Published	14.04.2015	https://www.etsi.org/deliver/etsi_ts\136400_136499\136423\11.09.00_60\ts_136423v110900p.pdf
TSDSI	TSDSI STD T1.3GPP 36.423-11.9.0 V1.0.0	11.9.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/pJtxpAbyeetQDyA
TTA	TTAT.3G-36.423V11.9.0	11.9.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.423V11.9.0&searchCate=TTAS
TTC	TS-3GA-36.423(Rel11)v11.9.0	11.9.0	Published	30.06.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.423(Rel11)v11.9.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.423V1290	12.9.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.423V1290	12.9.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.423V1290.doc
ETSI	ETSI TS 136 423 V12.9.0 (2016-08)	12.9.0	Published	25.08.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136423\12.09.00_60\ts_136423v120900p.pdf
TSDSI	TSDSI STD T1.3GPP 36.423-12.9.0 V1.0.0	12.9.0	Published	30.08.2021	https://members.tsdsi.in/s/STFjkgnkRsjiwbT
TTA	TTAT.3G-36.423V12.9.0	12.9.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.423V12.9.0&searchCate=TTAS
TTC	TS-3GA-36.423(Rel12)v12.9.0	12.9.0	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.423(Rel12)v12.9.0.pdf

Release 13

ATIS	ATIS.3GPP.36.423V1380	13.8.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.423V1380	13.8.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.423V1380.doc
ETSI	ETSI TS 136 423 V13.8.0 (2019-10)	13.8.0	Published	16.10.2019	https://www.etsi.org/deliver/etsi_ts\136400_136499\136423\13.08.00_60\ts_136423v130800p.pdf
TSDSI	TSDSI STD T1.3GPP 36.423-13.8.0 V1.1.0	13.8.0	Published	30.08.2021	https://members.tsdsi.in/s/wg5CgdS2Zc7cRFc
TTA	TTAT.3G-36.423V13.8.0	13.8.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.423V13.8.0&searchCate=TTAS
TTC	TS-3GA-36.423(Rel13)v13.8.0	13.8.0	Published	20.12.2019	https://www.ttc.or.jp/st/docs/3gpps2019/TS/TS-3GA-36.423(Rel13)v13.8.0.pdf

Release 14

ATIS	ATIS.3GPP.36.423V1480	14.8.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.423V1480	14.8.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.423V1480.doc
ETSI	ETSI TS 136 423 V14.8.0 (2019-10)	14.8.0	Published	16.10.2019	https://www.etsi.org/deliver/etsi_ts\136400_136499\136423\14.08.00_60\ts_136423v140800p.pdf
TSDSI	TSDSI STD T1.3GPP 36.423-14.8.0 V1.1.0	14.8.0	Published	30.08.2021	https://members.tsdsi.in/s/3Aip76oLbKt8G7J
TTA	TTAT.3G-36.423V14.8.0	14.8.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.423V14.8.0&searchCate=TTAS
TTC	TS-3GA-36.423(Rel14)v14.8.0	14.8.0	Published	20.12.2019	https://www.ttc.or.jp/st/docs/3gpps2019/TS/TS-3GA-36.423(Rel14)v14.8.0.pdf

Release 15

ATIS	ATIS.3GPP.36.423.V15.14.0	15.14.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.423.V15.14.0	15.14.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.423.V15.14.0.docx
ETSI	ETSI TS 136 423 V15.14.0 (2023-10)	15.14.0	Published	02.10.2023	https://www.etsi.org/deliver/etsi_ts\136400_136499\136423\15.14.00_60\ts_136423v151400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.423-15.14.0 V1.2.0	15.14.0	Published	23.02.2024	https://members.tsdsi.in/s/eZA7Yo2PsxAktM3
TTA	TTAT.3G-36.423V15.14.0	15.14.0	Published	13.02.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.423V15.14.0&searchCate=TTAS
TTC	TS-3GA-36.423(Rel15)v15.14.0	15.14.0	Published	12.01.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.423v15.14.0.pdf

Release 16

ATIS	ATIS.3GPP.36.423.V16.13.0	16.13.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.423.V16.13.0	16.13.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.423.V16.13.0.docx
ETSI	ETSI TS 136 423 V16.13.0 (2024-04)	16.13.0	Published	22.04.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136423\16.13.00_60\ts_136423v161300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.423-16.13.0 V1.4.0	16.13.0	Published	22.07.2024	https://members.tsdsi.in/s/Cm9fxwQf385KCKF
TTA	TTAT.3G-36.423V16.13.0	16.13.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.423V16.13.0&searchCate=TTAS
TTC	TS-3GA-36.423(Rel16)v16.13.0	16.13.0	Published	05.07.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.423v16.13.0.pdf

Release 17

ATIS	ATIS.3GPP.36.423.V17.7.0	17.7.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.423.V17.7.0	17.7.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.423.V17.7.0.docx
ETSI	ETSI TS 136 423 V17.7.0 (2024-04)	17.7.0	Published	22.04.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136423\17.07.00_60\ts_136423v170700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.423-17.7.0 V1.7.0	17.7.0	Published	22.07.2024	https://members.tsdsi.in/s/Zexm3B9JM3YYnwD
TTA	TTAT.3G-36.423V17.7.0	17.7.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.423V17.7.0&searchCate=TTAS
TTC	TS-3GA-36.423(Rel17)v17.7.0	17.7.0	Published	05.07.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.423v17.7.0.pdf

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SDO	Document No.	Version	Status	Issued date	Location
ATIS	ATIS.3GPP.36.423.V18.2.0	18.2.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.423.V18.2.0	18.2.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.423.V18.2.0.docx
ETSI	ETSI TS 136 423 V18.2.0 (2024-08)	18.2.0	Published	02.08.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136423\18.02.00_60\ts_136423v180200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.423-18.2.0 V1.0.0	18.2.0	Published	19.11.2024	https://members.tsdsi.in/s/q2JtR44a8rozdsw
TTA	TTAT.3G-36.423V18.2.0	18.2.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.423V18.2.0&searchCate=TTAS
TTC	TS-3GA-36.423(Rel18)v18.2.0	18.2.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.423v18.2.0.pdf

2.1.4.11   TS 36.424

Evolved Universal Terrestrial Radio Access Network (E-UTRAN); X2 data transport

This document specifies the standards for user data transport protocols and related signalling protocols to establish user plane transport bearers over the X2 interface.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ATIS	ATIS.3GPP.36.424V1010	10.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.424V1010	10.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.424V1010.doc
ETSI	ETSI TS 136 424 V10.1.0 (2011-06)	10.1.0	Published	28.06.2011	https://www.etsi.org/deliver/etsi_ts\136400_136499\136424\10.01.00_60\ts_136424v100100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.424-10.1.0 V1.0.0	10.1.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/BfbLmQEBbkbokPd
TTA	TTAT.3G-36.424V10.1.0	10.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.424V10.1.0&searchCate=TTAS
TTC	TS-3GA-36.424(Rel10)v10.1.0	10.1.0	Published	31.08.2011	https://www.ttc.or.jp/st/docs/3gpps2011/TS/TS-3GA-36.424(Rel10)v10.1.0.pdf
Release 11					
ATIS	ATIS.3GPP.36.424V1100	11.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.424V1100	11.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.424V1100.doc
ETSI	ETSI TS 136 424 V11.0.0 (2012-10)	11.0.0	Published	17.10.2012	https://www.etsi.org/deliver/etsi_ts\136400_136499\136424\11.00.00_60\ts_136424v110000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.424-11.0.0 V1.0.0	11.0.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/2c6455tNQdRQzfb
TTA	TTAT.3G-36.424V11.0.0	11.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.424V11.0.0&searchCate=TTAS
TTC	TS-3GA-36.424(Rel11)v11.0.0	11.0.0	Published	25.06.2013	https://www.ttc.or.jp/st/docs/3gpps2013/TS/TS-3GA-36.424(Rel11)v11.0.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.424V1220	12.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.424V1220	12.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.424V1220.doc
ETSI	ETSI TS 136 424 V12.2.0 (2015-04)	12.2.0	Published	15.04.2015	https://www.etsi.org/deliver/etsi_ts\136400_136499\136424\12.02.00_60\ts_136424v120200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.424-12.2.0 V1.0.0	12.2.0	Published	30.08.2021	https://members.tsdsi.in/s/ZZMrDCLpmiRNq2H
TTA	TTAT.3G-36.424V12.2.0	12.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.424V12.2.0&searchCate=TTAS
TTC	TS-3GA-36.424(Rel12)v12.2.0	12.2.0	Published	30.06.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.424(Rel12)v12.2.0.pdf

Release 13

ATIS	ATIS.3GPP.36.424V1310	13.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.424V1310	13.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.424V1310.doc				
ETSI	ETSI TS 136 424 V13.1.0 (2016-05)	13.1.0	Published	20.05.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136424\13.01.00_60\ts_136424v130100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.424-13.1.0 V1.0.0	13.1.0	Published	30.08.2021	https://members.tsdsi.in/s/sEEtW8LCKLnxkfo
TTA	TTAT.3G-36.424V13.1.0	13.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.424V13.1.0&searchCate=TTAS				
TTC	TS-3GA-36.424(Rel13)v13.1.0	13.1.0	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.424(Rel13)v13.1.0.pdf

Release 14

ATIS	ATIS.3GPP.36.424V1410	14.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.424V1410	14.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.424V1410.doc				
ETSI	ETSI TS 136 424 V14.1.0 (2017-08)	14.1.0	Published	24.08.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136424\14.01.00_60\ts_136424v140100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.424-14.1.0 V1.0.0	14.1.0	Published	30.08.2021	https://members.tsdsi.in/s/5wcCrids7azCW6A
TTA	TTAT.3G-36.424V14.1.0	14.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.424V14.1.0&searchCate=TTAS				
TTC	TS-3GA-36.424(Rel14)v14.1.0	14.1.0	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.424(Rel14)v14.1.0.pdf

Release 15

ATIS	ATIS.3GPP.36.424V1510	15.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.424V1510	15.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.424V1510.doc				
ETSI	ETSI TS 136 424 V15.1.0 (2020-01)	15.1.0	Published	17.01.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136424\15.01.00_60\ts_136424v150100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.424-15.1.0 V1.0.0	15.1.0	Published	30.08.2021	https://members.tsdsi.in/s/adZtaRbafkK2KX3
TTA	TTAT.3G-36.424V15.1.0	15.1.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.424V15.1.0&searchCate=TTAS				
TTC	TS-3GA-36.424(Rel15)v15.1.0	15.1.0	Published	16.04.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36_424_Rel15v15_1_0.pdf

Release 16

ATIS	ATIS.3GPP.36.424V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.424V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.424V1600.doc				
ETSI	ETSI TS 136 424 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136424\16.00.00_60\ts_136424v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.424-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/J4MKFXzCqBP4cKk
TTA	TTAT.3G-36.424V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.424V16.0.0&searchCate=TTAS				
TTC	TS-3GA-36.424(Rel16)v16.0.0	16.0.0	Published	02.10.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36_424_Rel16v16_0_0.pdf

Release 17

ATIS	ATIS.3GPP.36.424.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.424.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.424.V17.0.0.doc				
ETSI	ETSI TS 136 424 V17.0.0 (2022-05)	17.0.0	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136424\17.00.00_60\ts_136424v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.424-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/XH8JZWPcpSH8fsL
TTA	TTAT.3G-36.424V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.424V17.0.0&searchCate=TTAS				
TTC	TS-3GA-36.424(Rel17)v17.0.0	17.0.0	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.424v17.0.0.pdf

Release 18

ATIS	ATIS.3GPP.36.424.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.424.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.424.V18.0.0.docx
ETSI	ETSI TS 136 424 V18.0.0 (2024-05)	18.0.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136424\18.00.00_60\ts_136424v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.424-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/aAGsQyPmBnkKor3
TTA	TTAT.3G-36.424V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.424V18.0.0&searchCate=TTAS
TTC	TS-3GA-36.424(Rel18)v18.0.0	18.0.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.424v18.0.0.pdf

2.1.4.12   TS 36.425

Evolved Universal Terrestrial Radio Access Network (E-UTRAN); X2 interface user plane protocol

This document specifies the X2 user plane protocol being used over the X2 interface.

SDO	Document No.	Version	Status	Issued date	Location
Release 12					
ATIS	ATIS.3GPP.36.425V1210	12.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.425V1210	12.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.425V1210.doc
ETSI	ETSI TS 136 425 V12.1.0 (2015-04)	12.1.0	Published	15.04.2015	https://www.etsi.org/deliver/etsi_ts\136400_136499\136425\12.01.00_60\ts_136425v120100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.425-12.1.0 V1.0.0	12.1.0	Published	30.08.2021	https://members.tsdsi.in/s/SbwtAfXF9rNymMa
TTA	TTAT.3G-36.425V12.1.0	12.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.425V12.1.0&searchCate=TTAS
TTC	TS-3GA-36.425(Rel12)v12.1.0	12.1.0	Published	30.06.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.425(Rel12)v12.1.0.pdf
Release 13					
ATIS	ATIS.3GPP.36.425V1311	13.1.1	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.425V1311	13.1.1	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.425V1311.doc
ETSI	ETSI TS 136 425 V13.1.1 (2016-10)	13.1.1	Published	06.10.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136425\13.01.01_60\ts_136425v130101p.pdf
TSDSI	TSDSI STD T1.3GPP 36.425-13.1.1 V1.0.0	13.1.1	Published	30.08.2021	https://members.tsdsi.in/s/ZegqBze3SrMPYtB
TTA	TTAT.3G-36.425V13.1.1	13.1.1	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.425V13.1.1&searchCate=TTAS
TTC	TS-3GA-36.425(Rel13)v13.1.1	13.1.1	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.425(Rel13)v13.1.1.pdf
Release 14					
ATIS	ATIS.3GPP.36.425V1420	14.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.425V1420	14.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.425V1420.doc
ETSI	ETSI TS 136 425 V14.2.0 (2018-07)	14.2.0	Published	04.07.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136425\14.02.00_60\ts_136425v140200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.425-14.2.0 V1.1.0	14.2.0	Published	30.08.2021	https://members.tsdsi.in/s/ptqDLyAx8bSYkKX
TTA	TTAT.3G-36.425V14.2.0	14.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.425V14.2.0&searchCate=TTAS
TTC	TS-3GA-36.425(Rel14)v14.2.0	14.2.0	Published	28.09.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.425(Rel14)v14.2.0.pdf

Release 15

ATIS	ATIS.3GPP.36.425V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.425V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.425V1500.doc
ETSI	ETSI TS 136 425 V15.0.0 (2018-07)	15.0.0	Published	04.07.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136425\15.00.00_60\ts_136425v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.425-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/CjgDkXwnxN7iGWD
TTA	TTAT.3G-36.425V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.425V15.0.0&searchCate=TTAS
TTC	TS-3GA-36.425(Rel15)v15.0.0	15.0.0	Published	28.09.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.425(Rel15)v15.0.0.pdf

Release 16

ATIS	ATIS.3GPP.36.425V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.425V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.425V1600.doc
ETSI	ETSI TS 136 425 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136425\16.00.00_60\ts_136425v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.425-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/WzNrFnT5bTQJBsT
TTA	TTAT.3G-36.425V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.425V16.0.0&searchCate=TTAS
TTC	TS-3GA-36.425(Rel16)v16.0.0	16.0.0	Published	02.10.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36_425_Rel16v16_0_0.pdf

Release 17

ATIS	ATIS.3GPP.36.425.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.425.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.425.V17.0.0.doc
ETSI	ETSI TS 136 425 V17.0.0 (2022-05)	17.0.0	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136425\17.00.00_60\ts_136425v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.425-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/H5424CY7Pot4QRH
TTA	TTAT.3G-36.425V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.425V17.0.0&searchCate=TTAS
TTC	TS-3GA-36.425(Rel17)v17.0.0	17.0.0	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.425v17.0.0.pdf

Release 18

ATIS	ATIS.3GPP.36.425.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.425.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.425.V18.0.0.docx
ETSI	ETSI TS 136 425 V18.0.0 (2024-05)	18.0.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136425\18.00.00_60\ts_136425v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.425-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/aj4fQjDg4YnWfxP
TTA	TTAT.3G-36.425V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.425V18.0.0&searchCate=TTAS
TTC	TS-3GA-36.425(Rel18)v18.0.0	18.0.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.425v18.0.0.pdf

2.1.4.13   TS 36.440

Evolved Universal Terrestrial Radio Access Network (E-UTRAN); General aspects and principles for interfaces supporting Multimedia Broadcast Multicast Service (MBMS) within E-UTRAN

This document describes the overall architecture of the interface for the provision of MBMS in the E-UTRAN. This includes also a description of the general aspects, assumptions and principles guiding the architecture and interface. The MBMS functions to be provided within that architecture are summarized. It provides an introduction to the TSG RAN TS 36.44x series of UMTS technical specifications that define the different interfaces introduced for MBMS provision in E-UTRAN.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ATIS	ATIS.3GPP.36.440V1030	10.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.440V1030	10.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.440V1030.doc
ETSI	ETSI TS 136 440 V10.3.0 (2012-07)	10.3.0	Published	18.07.2012	https://www.etsi.org/deliver/etsi_ts\136400_136499\136440\10.03.00_60\ts_136440v100300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.440-10.3.0 V1.0.0	10.3.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/axWM62szCr85qGn
TTA	TTAT.3G-36.440V10.3.0	10.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.440V10.3.0&searchCate=TTAS
TTC	TS-3GA-36.440(Rel10)v10.3.0	10.3.0	Published	19.09.2012	https://www.ttc.or.jp/st/docs/3gpps2012/TS/TS-3GA-36.440(Rel10)v10.3.0.pdf
Release 11					
ATIS	ATIS.3GPP.36.440V1120	11.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.440V1120	11.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.440V1120.doc
ETSI	ETSI TS 136 440 V11.2.0 (2013-04)	11.2.0	Published	22.04.2013	https://www.etsi.org/deliver/etsi_ts\136400_136499\136440\11.02.00_60\ts_136440v110200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.440-11.2.0 V1.0.0	11.2.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/5ryzaiqMoWoJxmF
TTA	TTAT.3G-36.440V11.2.0	11.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.440V11.2.0&searchCate=TTAS
TTC	TS-3GA-36.440(Rel11)v11.2.0	11.2.0	Published	25.06.2013	https://www.ttc.or.jp/st/docs/3gpps2013/TS/TS-3GA-36.440(Rel11)v11.2.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.440V1200	12.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.440V1200	12.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.440V1200.doc
ETSI	ETSI TS 136 440 V12.0.0 (2014-09)	12.0.0	Published	25.09.2014	https://www.etsi.org/deliver/etsi_ts\136400_136499\136440\12.00.00_60\ts_136440v120000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.440-12.0.0 V1.0.0	12.0.0	Published	30.08.2021	https://members.tsdsi.in/s/yZkDj7cQaiY67NH
TTA	TTAT.3G-36.440V12.0.0	12.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.440V12.0.0&searchCate=TTAS
TTC	TS-3GA-36.440(Rel12)v12.0.0	12.0.0	Published	05.03.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.440(Rel12)v12.0.0.pdf
Release 13					
ATIS	ATIS.3GPP.36.440V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.440V1300	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.440V1300.doc
ETSI	ETSI TS 136 440 V13.0.0 (2016-01)	13.0.0	Published	20.01.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136440\13.00.00_60\ts_136440v130000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.440-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/aCnFmfSw7cMBXdk

TTA	TTAT.3G-36.440V13.0.0	13.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.440V13.0.0&searchCate=TTAS
TTC	TS-3GA-36.440(Rel13)v13.0.0	13.0.0	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.440(Rel13)v13.0.0.pdf

Release 14

ATIS	ATIS.3GPP.36.440V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.440V1400	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.440V1400.doc
ETSI	ETSI TS 136 440 V14.0.0 (2017-04)	14.0.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136440\14.00.00_60\ts_136440v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.440-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/JZKewiJSKkBk2yj
TTA	TTAT.3G-36.440V14.0.0	14.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.440V14.0.0&searchCate=TTAS
TTC	TS-3GA-36.440(Rel14)v14.0.0	14.0.0	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.440(Rel14)v14.0.0.pdf

Release 15

ATIS	ATIS.3GPP.36.440V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.440V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.440V1500.doc
ETSI	ETSI TS 136 440 V15.0.0 (2018-09)	15.0.0	Published	28.09.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136440\15.00.00_60\ts_136440v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.440-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/zznrMt6HkE8oiAK
TTA	TTAT.3G-36.440V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.440V15.0.0&searchCate=TTAS
TTC	TS-3GA-36.440(Rel15)v15.0.0	15.0.0	Published	21.12.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.440(Rel15)v15.0.0.pdf

Release 16

ATIS	ATIS.3GPP.36.440V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.440V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.440V1600.doc
ETSI	ETSI TS 136 440 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136440\16.00.00_60\ts_136440v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.440-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/SsAzfTG8XEmcYwg
TTA	TTAT.3G-36.440V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.440V16.0.0&searchCate=TTAS
TTC	TS-3GA-36.440(Rel16)v16.0.0	16.0.0	Published	02.10.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36_440_Rel16v16_0_0.pdf

Release 17

ATIS	ATIS.3GPP.36.440.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.440.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.440.V17.0.0.doc
ETSI	ETSI TS 136 440 V17.0.0 (2022-05)	17.0.0	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136440\17.00.00_60\ts_136440v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.440-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/xnQSCwm265FCZTg
TTA	TTAT.3G-36.440V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.440V17.0.0&searchCate=TTAS
TTC	TS-3GA-36.440(Rel17)v17.0.0	17.0.0	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.440v17.0.0.pdf

Release 18

ATIS	ATIS.3GPP.36.440.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.440.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.440.V18.0.0.docx
ETSI	ETSI TS 136 440 V18.0.0 (2024-05)	18.0.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136440\18.00.00_60\ts_136440v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.440-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/zLBYFs23ErYCkYi

TTA	TTAT.3G-36.440V18.0.0 [36.440V18.0.0&searchCate=TTAS](https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.440V18.0.0&searchCate=TTAS)	18.0.0	Published 12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.440(Rel18)v18.0.0	18.0.0	Published 04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.440v18.0.0.pdf

2.1.4.14 TS 36.441

Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Layer 1 for interfaces supporting Multimedia Broadcast Multicast Service (MBMS) within E-UTRAN

This document specifies the standards allowed to implement layer 1 on the interfaces supporting Multimedia Broadcast Multicast Service (MBMS) within E-UTRAN. In the following, "layer 1" and "physical layer" are assumed to be synonymous.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ATIS	ATIS.3GPP.36.441V1010	10.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.441V1010 7_ATIS/CCSA.3GPP.36.441V1010.doc	10.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 441 V10.1.0 (2011-06)	10.1.0	Published	28.06.2011	https://www.etsi.org/deliver/etsi_ts\136400_136499\136441\10.01.00_60\ts_136441v100100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.441-10.1.0 V1.0.0	10.1.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/dgbHDsz4zKsZtNC
TTA	TTAT.3G-36.441V10.1.0 36.441V10.1.0&searchCate=TTAS	10.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.441(Rel10)v10.1.0	10.1.0	Published	31.08.2011	https://www.ttc.or.jp/st/docs/3gpps2011/TS/TS-3GA-36.441(Rel10)v10.1.0.pdf
Release 11					
ATIS	ATIS.3GPP.36.441V1100	11.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.441V1100 7_ATIS/CCSA.3GPP.36.441V1100.doc	11.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 441 V11.0.0 (2012-10)	11.0.0	Published	17.10.2012	https://www.etsi.org/deliver/etsi_ts\136400_136499\136441\11.00.00_60\ts_136441v110000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.441-11.0.0 V1.0.0	11.0.0	Published	30.08.2021	http://members.tsdsi.in/index.php/s/WRgto8GwozsBNxx
TTA	TTAT.3G-36.441V11.0.0 36.441V11.0.0&searchCate=TTAS	11.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.441(Rel11)v11.0.0	11.0.0	Published	25.06.2013	https://www.ttc.or.jp/st/docs/3gpps2013/TS/TS-3GA-36.441(Rel11)v11.0.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.441V1200	12.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.441V1200 7_ATIS/CCSA.3GPP.36.441V1200.doc	12.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 441 V12.0.0 (2014-09)	12.0.0	Published	25.09.2014	https://www.etsi.org/deliver/etsi_ts\136400_136499\136441\12.00.00_60\ts_136441v120000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.441-12.0.0 V1.0.0	12.0.0	Published	30.08.2021	https://members.tsdsi.in/s/kozFagCdE9RsQ3g
TTA	TTAT.3G-36.441V12.0.0 36.441V12.0.0&searchCate=TTAS	12.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.441(Rel12)v12.0.0	12.0.0	Published	05.03.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.441(Rel12)v12.0.0.pdf
Release 13					
ATIS	ATIS.3GPP.36.441V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.441V1300 7_ATIS/CCSA.3GPP.36.441V1300.doc	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 441 V13.0.0 (2016-01)	13.0.0	Published	20.01.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136441\13.00.00_60\ts_136441v130000p.pdf

TSDSI	TSDSI STD T1.3GPP 36.441-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/ipNpxnTaPT4jzy5	
TTA	TTAT.3G-36.441V13.0.0	13.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-	
	36.441V13.0.0&searchCate=TTAS					
TTC	TS-3GA-36.441(Rel13)v13.0.0	13.0.0	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.441(Rel13)v13.0.0.pdf	

Release 14

ATIS	ATIS.3GPP.36.441V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14	
CCSA	CCSA.3GPP.36.441V1400	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-	
	7_ATIS/CCSA.3GPP.36.441V1400.doc					
ETSI	ETSI TS 136 441 V14.0.0 (2017-04)	14.0.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136441\14.00.00_60\ts_136441v140000p.pdf	
TSDSI	TSDSI STD T1.3GPP 36.441-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/xH9LfFBtW7Bzt3i	
TTA	TTAT.3G-36.441V14.0.0	14.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-	
	36.441V14.0.0&searchCate=TTAS					
TTC	TS-3GA-36.441(Rel14)v14.0.0	14.0.0	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.441(Rel14)v14.0.0.pdf	

Release 15

ATIS	ATIS.3GPP.36.441V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15	
CCSA	CCSA.3GPP.36.441V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-	
	7_ATIS/CCSA.3GPP.36.441V1500.doc					
ETSI	ETSI TS 136 441 V15.0.0 (2018-09)	15.0.0	Published	28.09.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136441\15.00.00_60\ts_136441v150000p.pdf	
TSDSI	TSDSI STD T1.3GPP 36.441-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/swjNW6LHHi2prfL	
TTA	TTAT.3G-36.441V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-	
	36.441V15.0.0&searchCate=TTAS					
TTC	TS-3GA-36.441(Rel15)v15.0.0	15.0.0	Published	21.12.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.441(Rel15)v15.0.0.pdf	

Release 16

ATIS	ATIS.3GPP.36.441V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16	
CCSA	CCSA.3GPP.36.441V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-	
	7_ATIS/CCSA.3GPP.36.441V1600.doc					
ETSI	ETSI TS 136 441 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136441\16.00.00_60\ts_136441v160000p.pdf	
TSDSI	TSDSI STD T1.3GPP 36.441-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/r2APqJABKfr4MHT	
TTA	TTAT.3G-36.441V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-	
	36.441V16.0.0&searchCate=TTAS					
TTC	TS-3GA-36.441(Rel16)v16.0.0	16.0.0	Published	02.10.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36_441_Rel16v16_0_0.pdf	

Release 17

ATIS	ATIS.3GPP.36.441.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17	
CCSA	CCSA.3GPP.36.441.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-	
	7_ATIS/CCSA.3GPP.36.441.V17.0.0.doc					
ETSI	ETSI TS 136 441 V17.0.0 (2022-05)	17.0.0	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136441\17.00.00_60\ts_136441v170000p.pdf	
TSDSI	TSDSI STD T1.3GPP 36.441-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/xLjcoL7YaByjEZN	
TTA	TTAT.3G-36.441V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-	
	36.441V17.0.0&searchCate=TTAS					
TTC	TS-3GA-36.441(Rel17)v17.0.0	17.0.0	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.441v17.0.0.pdf	

Release 18

ATIS	ATIS.3GPP.36.441.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18	
CCSA	CCSA.3GPP.36.441.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-	
	7_ATIS/CCSA.3GPP.36.441.V18.0.0.docx					
ETSI	ETSI TS 136 441 V18.0.0 (2024-05)	18.0.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136441\18.00.00_60\ts_136441v180000p.pdf	

TSDSI	TSDSI STD T1.3GPP 36.441-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/rTW3NB3tsSPEQr5
TTA	TTAT.3G-36.441V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.441V18.0.0&searchCate=TTAS
TTC	TS-3GA-36.441(Rel18)v18.0.0	18.0.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.441v18.0.0.pdf

2.1.4.15   TS 36.442

Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Signalling Transport for interfaces supporting Multimedia Broadcast Multicast Service (MBMS) within E-UTRAN

This document specifies the standards for signalling transport to be used across M2 and M3 interfaces. M2 interface is a logical interface between the eNodeB and the MCE. M3 interface is a logical interface between the MCE and the MME. This document describes how the M2-AP signalling messages are transported over M2, and how the M3-AP signalling messages are transported over M3.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ATIS	ATIS.3GPP.36.442V1020	10.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.442V1020	10.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.442V1020.doc
ETSI	ETSI TS 136 442 V10.2.0 (2011-10)	10.2.0	Published	18.10.2011	https://www.etsi.org/deliver/etsi_ts\136400_136499\136442\10.02.00_60\ts_136442v100200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.442-10.2.0 V1.0.0	10.2.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/yZAb85MEcmEeZWG
TTA	TTAT.3G-36.442V10.2.0	10.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.442V10.2.0&searchCate=TTAS
TTC	TS-3GA-36.442(Rel10)v10.2.0	10.2.0	Published	21.12.2011	https://www.ttc.or.jp/st/docs/3gpps2011/TS/TS-3GA-36.442(Rel10)v10.2.0.pdf
Release 11					
ATIS	ATIS.3GPP.36.442V1100	11.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.442V1100	11.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.442V1100.doc
ETSI	ETSI TS 136 442 V11.0.0 (2012-10)	11.0.0	Published	17.10.2012	https://www.etsi.org/deliver/etsi_ts\136400_136499\136442\11.00.00_60\ts_136442v110000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.442-11.0.0 V1.0.0	11.0.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/aqZQqbKdPLsecFD
TTA	TTAT.3G-36.442V11.0.0	11.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.442V11.0.0&searchCate=TTAS
TTC	TS-3GA-36.442(Rel11)v11.0.0	11.0.0	Published	25.06.2013	https://www.ttc.or.jp/st/docs/3gpps2013/TS/TS-3GA-36.442(Rel11)v11.0.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.442V1200	12.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.442V1200	12.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.442V1200.doc
ETSI	ETSI TS 136 442 V12.0.0 (2014-09)	12.0.0	Published	25.09.2014	https://www.etsi.org/deliver/etsi_ts\136400_136499\136442\12.00.00_60\ts_136442v120000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.442-12.0.0 V1.0.0	12.0.0	Published	30.08.2021	https://members.tsdsi.in/s/CLYWa42jLkorLw9
TTA	TTAT.3G-36.442V12.0.0	12.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.442V12.0.0&searchCate=TTAS
TTC	TS-3GA-36.442(Rel12)v12.0.0	12.0.0	Published	05.03.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.442(Rel12)v12.0.0.pdf

Release 13

ATIS	ATIS.3GPP.36.442V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.442V1300	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.442V1300.doc
ETSI	ETSI TS 136 442 V13.0.0 (2016-01)	13.0.0	Published	20.01.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136442\13.00.00_60\ts_136442v130000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.442-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/e2EBd7mT6ECWX5P
TTA	TTAT.3G-36.442V13.0.0	13.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.442V13.0.0&searchCate=TTAS
TTC	TS-3GA-36.442(Rel13)v13.0.0	13.0.0	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.442(Rel13)v13.0.0.pdf

Release 14

ATIS	ATIS.3GPP.36.442V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.442V1400	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.442V1400.doc
ETSI	ETSI TS 136 442 V14.0.0 (2017-04)	14.0.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136442\14.00.00_60\ts_136442v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.442-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/zZ6yfqDb5SFWAFm
TTA	TTAT.3G-36.442V14.0.0	14.0.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.442V14.0.0&searchCate=TTAS
TTC	TS-3GA-36.442(Rel14)v14.0.0	14.0.0	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.442(Rel14)v14.0.0.pdf

Release 15

ATIS	ATIS.3GPP.36.442V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.442V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.442V1500.doc
ETSI	ETSI TS 136 442 V15.0.0 (2018-09)	15.0.0	Published	28.09.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136442\15.00.00_60\ts_136442v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.442-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/ew99NCM56DCRiPf
TTA	TTAT.3G-36.442V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.442V15.0.0&searchCate=TTAS
TTC	TS-3GA-36.442(Rel15)v15.0.0	15.0.0	Published	21.12.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.442(Rel15)v15.0.0.pdf

Release 16

ATIS	ATIS.3GPP.36.442V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.442V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.442V1600.doc
ETSI	ETSI TS 136 442 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136442\16.00.00_60\ts_136442v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.442-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/zfLmXybjLkRc7Sx
TTA	TTAT.3G-36.442V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.442V16.0.0&searchCate=TTAS
TTC	TS-3GA-36.442(Rel16)v16.0.0	16.0.0	Published	02.10.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36_442_Rel16v16_0_0.pdf

Release 17

ATIS	ATIS.3GPP.36.442.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.442.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.442.V17.0.0.doc
ETSI	ETSI TS 136 442 V17.0.0 (2022-05)	17.0.0	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136442\17.00.00_60\ts_136442v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.442-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/myPkLsxjY642ki5
TTA	TTAT.3G-36.442V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.442V17.0.0&searchCate=TTAS
TTC	TS-3GA-36.442(Rel17)v17.0.0	17.0.0	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.442v17.0.0.pdf

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ATIS	ATIS.3GPP.36.442.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.442.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.442.V18.0.0.docx
ETSI	ETSI TS 136 442 V18.0.0 (2024-05)	18.0.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136442\18.00.00_60\ts_136442v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.442-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/4XiQkpr3FAjmNjS
TTA	TTAT.3G-36.442V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.442V18.0.0&searchCate=TTAS
TTC	TS-3GA-36.442(Rel18)v18.0.0	18.0.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.442v18.0.0.pdf

2.1.4.16   TS 36.443

Evolved Universal Terrestrial Radio Access Network (E-UTRAN); M2 Application Protocol (M2AP)

This document specifies the E-UTRAN radio network layer signalling protocol for the M2 interface. The M2 Application Protocol (M2AP) supports the functions of M2 interface by signalling procedures defined in this document.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ATIS	ATIS.3GPP.36.443V1050	10.5.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.443V1050	10.5.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.443V1050.doc
ETSI	ETSI TS 136 443 V10.5.0 (2012-03)	10.5.0	Published	19.03.2012	https://www.etsi.org/deliver/etsi_ts\136400_136499\136443\10.05.00_60\ts_136443v100500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.443-10.5.0 V1.0.0	10.5.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/yepBdjR2yJeMqFQ
TTA	TTAT.3G-36.443V10.5.0	10.5.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.443V10.5.0&searchCate=TTAS
TTC	TS-3GA-36.443(Rel10)v10.5.0	10.5.0	Published	27.06.2012	https://www.ttc.or.jp/st/docs/3gpps2012/TS/TS-3GA-36.443(Rel10)v10.5.0.pdf
Release 11					
ATIS	ATIS.3GPP.36.443V1140	11.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.443V1140	11.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.443V1140.doc
ETSI	ETSI TS 136 443 V11.4.0 (2015-04)	11.4.0	Published	15.04.2015	https://www.etsi.org/deliver/etsi_ts\136400_136499\136443\11.04.00_60\ts_136443v110400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.443-11.4.0 V1.0.0	11.4.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/qYec6sz46ztFm9j
TTA	TTAT.3G-36.443V11.4.0	11.4.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.443V11.4.0&searchCate=TTAS
TTC	TS-3GA-36.443(Rel11)v11.4.0	11.4.0	Published	30.06.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.443(Rel11)v11.4.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.443V1220	12.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.443V1220	12.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.443V1220.doc
ETSI	ETSI TS 136 443 V12.2.0 (2015-04)	12.2.0	Published	15.04.2015	https://www.etsi.org/deliver/etsi_ts\136400_136499\136443\12.02.00_60\ts_136443v120200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.443-12.2.0 V1.0.0	12.2.0	Published	30.08.2021	https://members.tsdsi.in/s/TrzH4tncYD3fKAq
TTA	TTAT.3G-36.443V12.2.0	12.2.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.443V12.2.0&searchCate=TTAS
TTC	TS-3GA-36.443(Rel12)v12.2.0	12.2.0	Published	30.06.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.443(Rel12)v12.2.0.pdf

Release 13

ATIS	ATIS.3GPP.36.443V1330	13.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.443V1330	13.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.443V1330.doc				
ETSI	ETSI TS 136 443 V13.3.0 (2016-05)	13.3.0	Published	20.05.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136443\13.03.00_60\ts_136443v130300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.443-13.3.0 V1.0.0	13.3.0	Published	30.08.2021	https://members.tsdsi.in/s/QEKRasxrrqz5PK4
TTA	TTAT.3G-36.443V13.3.0	13.3.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.443V13.3.0&searchCate=TTAS				
TTC	TS-3GA-36.443(Rel13)v13.3.0	13.3.0	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.443(Rel13)v13.3.0.pdf

Release 14

ATIS	ATIS.3GPP.36.443V1410	14.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.443V1410	14.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.443V1410.doc				
ETSI	ETSI TS 136 443 V14.1.0 (2018-09)	14.1.0	Published	28.09.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136443\14.01.00_60\ts_136443v140100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.443-14.1.0 V1.1.0	14.1.0	Published	30.08.2021	https://members.tsdsi.in/s/n6nbTG9r8ipFLa6
TTA	TTAT.3G-36.443V14.1.0	14.1.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.443V14.1.0&searchCate=TTAS				
TTC	TS-3GA-36.443(Rel14)v14.1.0	14.1.0	Published	21.12.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.443(Rel14)v14.1.0.pdf

Release 15

ATIS	ATIS.3GPP.36.443V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.443V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.443V1500.doc				
ETSI	ETSI TS 136 443 V15.0.0 (2018-09)	15.0.0	Published	28.09.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136443\15.00.00_60\ts_136443v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.443-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/7xsM2RJCdd2E92y
TTA	TTAT.3G-36.443V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.443V15.0.0&searchCate=TTAS				
TTC	TS-3GA-36.443(Rel15)v15.0.0	15.0.0	Published	21.12.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.443(Rel15)v15.0.0.pdf

Release 16

ATIS	ATIS.3GPP.36.443.V16.1.0	16.1.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.443.V16.1.0	16.1.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.443.V16.1.0.doc				
ETSI	ETSI TS 136 443 V16.1.0 (2021-01)	16.1.0	Published	26.01.2021	https://www.etsi.org/deliver/etsi_ts\136400_136499\136443\16.01.00_60\ts_136443v160100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.443-16.1.0 V1.1.0	16.1.0	Published	29.07.2022	https://members.tsdsi.in/s/TpXLPXmNeRHEAqo
TTA	TTAT.3G-36.443V16.1.0	16.1.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.443V16.1.0&searchCate=TTAS				
TTC	TS-3GA-36.443(Rel16)v16.1.0	16.1.0	Published	09.04.2021	https://www.ttc.or.jp/st/docs/3gpp/2021/TS/TS-3GA-36.443v16.1.0.pdf

Release 17

ATIS	ATIS.3GPP.36.443.V17.0.1	17.0.1	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.443.V17.0.1	17.0.1	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.443.V17.0.1.doc				
ETSI	ETSI TS 136 443 V17.0.1 (2022-05)	17.0.1	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136443\17.00.01_60\ts_136443v170001p.pdf
TSDSI	TSDSI STD T1.3GPP 36.443-17.0.1 V1.1.0	17.0.1	Published	01.11.2022	https://members.tsdsi.in/s/H8zGCzKrXKi9ot3
TTA	TTAT.3G-36.443V17.0.1	17.0.1	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.443V17.0.1&searchCate=TTAS				
TTC	TS-3GA-36.443(Rel17)v17.0.1	17.0.1	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.443v17.0.1.pdf

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ATIS	ATIS.3GPP.36.443.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.443.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.443.V18.0.0.docx
ETSI	ETSI TS 136 443 V18.0.0 (2024-05)	18.0.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136443\18.00.00_60\ts_136443v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.443-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/tH4RkpCxQLdY85S
TTA	TTAT.3G-36.443V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.443V18.0.0&searchCate=TTAS
TTC	TS-3GA-36.443(Rel18)v18.0.0	18.0.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.443v18.0.0.pdf

2.1.4.17 TS 36.444

Evolved Universal Terrestrial Radio Access Network (E-UTRAN); M3 Application Protocol (M3AP)

This document specifies the E-UTRAN radio network layer signalling protocol for the M3 interface. The M3 Application Protocol (M3AP) supports the functions of M3 interface by signalling procedures defined in this document.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ATIS	ATIS.3GPP.36.444V1040	10.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.444V1040	10.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.444V1040.doc
ETSI	ETSI TS 136 444 V10.4.0 (2013-01)	10.4.0	Published	15.01.2013	https://www.etsi.org/deliver/etsi_ts\136400_136499\136444\10.04.00_60\ts_136444v100400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.444-10.4.0 V1.0.0	10.4.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/oqmkGZqfzTcdAfC
TTA	TTAT.3G-36.444V10.4.0	10.4.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.444V10.4.0&searchCate=TTAS
TTC	TS-3GA-36.444(Rel10)v10.4.0	10.4.0	Published	25.06.2013	https://www.ttc.or.jp/st/docs/3gpps2013/TS/TS-3GA-36.444(Rel10)v10.4.0.pdf
Release 11					
ATIS	ATIS.3GPP.36.444V1160	11.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.444V1160	11.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.444V1160.doc
ETSI	ETSI TS 136 444 V11.6.0 (2013-07)	11.6.0	Published	11.07.2013	https://www.etsi.org/deliver/etsi_ts\136400_136499\136444\11.06.00_60\ts_136444v110600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.444-11.6.0 V1.0.0	11.6.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/TL9PBG6yqBzFMob
TTA	TTAT.3G-36.444V11.6.0	11.6.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.444V11.6.0&searchCate=TTAS
TTC	TS-3GA-36.444(Rel11)v11.6.0	11.6.0	Published	30.08.2013	https://www.ttc.or.jp/st/docs/3gpps2013/TS/TS-3GA-36.444(Rel11)v11.6.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.444V1220	12.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.444V1220	12.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.444V1220.doc
ETSI	ETSI TS 136 444 V12.2.0 (2015-04)	12.2.0	Published	15.04.2015	https://www.etsi.org/deliver/etsi_ts\136400_136499\136444\12.02.00_60\ts_136444v120200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.444-12.2.0 V1.0.0	12.2.0	Published	30.08.2021	https://members.tsdsi.in/s/dLgoykNBHZogZmG
TTA	TTAT.3G-36.444V12.2.0	12.2.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.444V12.2.0&searchCate=TTAS
TTC	TS-3GA-36.444(Rel12)v12.2.0	12.2.0	Published	30.06.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.444(Rel12)v12.2.0.pdf

Release 13

ATIS	ATIS.3GPP.36.444V1320	13.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.444V1320	13.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.444V1320.doc				
ETSI	ETSI TS 136 444 V13.2.0 (2016-05)	13.2.0	Published	20.05.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136444\13.02.00_60\ts_136444v130200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.444-13.2.0 V1.0.0	13.2.0	Published	30.08.2021	https://members.tsdsi.in/s/MPBrrWwtFGJNCs3
TTA	TTAT.3G-36.444V13.2.0	13.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.444V13.2.0&searchCate=TTAS				
TTC	TS-3GA-36.444(Rel13)v13.2.0	13.2.0	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.444(Rel13)v13.2.0.pdf

Release 14

ATIS	ATIS.3GPP.36.444V1410	14.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.444V1410	14.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.444V1410.doc				
ETSI	ETSI TS 136 444 V14.1.0 (2017-08)	14.1.0	Published	24.08.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136444\14.01.00_60\ts_136444v140100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.444-14.1.0 V1.0.0	14.1.0	Published	30.08.2021	https://members.tsdsi.in/s/FfNtSSyxFzwaRnQ
TTA	TTAT.3G-36.444V14.1.0	14.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.444V14.1.0&searchCate=TTAS				
TTC	TS-3GA-36.444(Rel14)v14.1.0	14.1.0	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.444(Rel14)v14.1.0.pdf

Release 15

ATIS	ATIS.3GPP.36.444V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.444V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.444V1500.doc				
ETSI	ETSI TS 136 444 V15.0.0 (2018-09)	15.0.0	Published	28.09.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136444\15.00.00_60\ts_136444v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.444-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/7qgKdPonXf7oeMc
TTA	TTAT.3G-36.444V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.444V15.0.0&searchCate=TTAS				
TTC	TS-3GA-36.444(Rel15)v15.0.0	15.0.0	Published	21.12.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.444(Rel15)v15.0.0.pdf

Release 16

ATIS	ATIS.3GPP.36.444V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.444V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.444V1600.doc				
ETSI	ETSI TS 136 444 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136444\16.00.00_60\ts_136444v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.444-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/pz3yPrJCynDX8J7
TTA	TTAT.3G-36.444V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.444V16.0.0&searchCate=TTAS				
TTC	TS-3GA-36.444(Rel16)v16.0.0	16.0.0	Published	02.10.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36_444_Rel16v16_0_0.pdf

Release 17

ATIS	ATIS.3GPP.36.444.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.444.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.444.V17.0.0.doc				
ETSI	ETSI TS 136 444 V17.0.0 (2022-05)	17.0.0	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136444\17.00.00_60\ts_136444v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.444-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/3qSNwmdgreWxwia
TTA	TTAT.3G-36.444V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.444V17.0.0&searchCate=TTAS				
TTC	TS-3GA-36.444(Rel17)v17.0.0	17.0.0	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.444v17.0.0.pdf

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ATIS	ATIS.3GPP.36.444.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.444.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.444.V18.0.0.docx
ETSI	ETSI TS 136 444 V18.0.0 (2024-05)	18.0.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136444\18.00.00_60\ts_136444v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.444-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/sdWKKdjZAm9xgJp
TTA	TTAT.3G-36.444V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.444V18.0.0&searchCate=TTAS
TTC	TS-3GA-36.444(Rel18)v18.0.0	18.0.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.444v18.0.0.pdf

2.1.4.18   TS 36.445

Evolved Universal Terrestrial Radio Access Network (E-UTRAN); M1 data transport

This document specifies the standards for user data transport protocols over the E-UTRAN M1 interface.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ATIS	ATIS.3GPP.36.445V1010	10.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.445V1010	10.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.445V1010.doc
ETSI	ETSI TS 136 445 V10.1.0 (2011-06)	10.1.0	Published	28.06.2011	https://www.etsi.org/deliver/etsi_ts\136400_136499\136445\10.01.00_60\ts_136445v100100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.445-10.1.0 V1.0.0	10.1.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/rrDraP96z7mtk3N
TTA	TTAT.3G-36.445V10.1.0	10.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.445V10.1.0&searchCate=TTAS
TTC	TS-3GA-36.445(Rel10)v10.1.0	10.1.0	Published	31.08.2011	https://www.ttc.or.jp/st/docs/3gpps2011/TS/TS-3GA-36.445(Rel10)v10.1.0.pdf
Release 11					
ATIS	ATIS.3GPP.36.445V1100	11.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.445V1100	11.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.445V1100.doc
ETSI	ETSI TS 136 445 V11.0.0 (2012-10)	11.0.0	Published	17.10.2012	https://www.etsi.org/deliver/etsi_ts\136400_136499\136445\11.00.00_60\ts_136445v110000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.445-11.0.0 V1.0.0	11.0.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/e8KHGbKLBbexpNi
TTA	TTAT.3G-36.445V11.0.0	11.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.445V11.0.0&searchCate=TTAS
TTC	TS-3GA-36.445(Rel11)v11.0.0	11.0.0	Published	25.06.2013	https://www.ttc.or.jp/st/docs/3gpps2013/TS/TS-3GA-36.445(Rel11)v11.0.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.445V1200	12.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.445V1200	12.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.445V1200.doc
ETSI	ETSI TS 136 445 V12.0.0 (2014-09)	12.0.0	Published	26.09.2014	https://www.etsi.org/deliver/etsi_ts\136400_136499\136445\12.00.00_60\ts_136445v120000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.445-12.0.0 V1.0.0	12.0.0	Published	30.08.2021	https://members.tsdsi.in/s/5RWtyjJ85K3WTxT
TTA	TTAT.3G-36.445V12.0.0	12.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.445V12.0.0&searchCate=TTAS
TTC	TS-3GA-36.445(Rel12)v12.0.0	12.0.0	Published	05.03.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.445(Rel12)v12.0.0.pdf

Release 13

ATIS	ATIS.3GPP.36.445V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.445V1300	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.445V1300.doc				
ETSI	ETSI TS 136 445 V13.0.0 (2016-01)	13.0.0	Published	20.01.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136445\13.00.00_60\ts_136445v130000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.445-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/6G8y3fQYLfg48rn
TTA	TTAT.3G-36.445V13.0.0	13.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.445V13.0.0&searchCate=TTAS				
TTC	TS-3GA-36.445(Rel13)v13.0.0	13.0.0	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.445(Rel13)v13.0.0.pdf

Release 14

ATIS	ATIS.3GPP.36.445V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.445V1400	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.445V1400.doc				
ETSI	ETSI TS 136 445 V14.0.0 (2017-04)	14.0.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136445\14.00.00_60\ts_136445v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.445-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/LWtykCdYfGd5ZzL
TTA	TTAT.3G-36.445V14.0.0	14.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.445V14.0.0&searchCate=TTAS				
TTC	TS-3GA-36.445(Rel14)v14.0.0	14.0.0	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.445(Rel14)v14.0.0.pdf

Release 15

ATIS	ATIS.3GPP.36.445V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.445V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.445V1500.doc				
ETSI	ETSI TS 136 445 V15.0.0 (2018-09)	15.0.0	Published	28.09.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136445\15.00.00_60\ts_136445v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.445-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/QCGFwEjZMCQ5FM2
TTA	TTAT.3G-36.445V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.445V15.0.0&searchCate=TTAS				
TTC	TS-3GA-36.445(Rel15)v15.0.0	15.0.0	Published	21.12.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.445(Rel15)v15.0.0.pdf

Release 16

ATIS	ATIS.3GPP.36.445V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.445V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.445V1600.doc				
ETSI	ETSI TS 136 445 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136445\16.00.00_60\ts_136445v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.445-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/xJ82i4DQEfrbkNR
TTA	TTAT.3G-36.445V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.445V16.0.0&searchCate=TTAS				
TTC	TS-3GA-36.445(Rel16)v16.0.0	16.0.0	Published	02.10.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36_445_Rel16v16_0_0.pdf

Release 17

ATIS	ATIS.3GPP.36.445.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.445.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.445.V17.0.0.doc				
ETSI	ETSI TS 136 445 V17.0.0 (2022-05)	17.0.0	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136445\17.00.00_60\ts_136445v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.445-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/HYBAnpgwy8Sn4cC
TTA	TTAT.3G-36.445V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.445V17.0.0&searchCate=TTAS				
TTC	TS-3GA-36.445(Rel17)v17.0.0	17.0.0	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.445v17.0.0.pdf

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ATIS	ATIS.3GPP.36.445.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.445.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.445.V18.0.0.docx
ETSI	ETSI TS 136 445 V18.0.0 (2024-05)	18.0.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136445\18.00.00_60\ts_136445v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.445-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/eganNzT6F4Qc2Rf
TTA	TTAT.3G-36.445V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.445V18.0.0&searchCate=TTAS
TTC	TS-3GA-36.445(Rel18)v18.0.0	18.0.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.445v18.0.0.pdf

2.1.4.19   TS 36.455

Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol A (LPPa)

This document specifies the control plane radio network layer signalling procedures between eNodeB and E-SMLC. LPPa supports the concerned functions by signalling procedures defined in this document.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ATIS	ATIS.3GPP.36.455V1040	10.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.455V1040	10.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.455V1040.doc
ETSI	ETSI TS 136 455 V10.4.0 (2012-10)	10.4.0	Published	17.10.2012	https://www.etsi.org/deliver/etsi_ts\136400_136499\136455\10.04.00_60\ts_136455v100400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.455-10.4.0 V1.0.0	10.4.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/BAaR7inYLYexKjk
TTA	TTAT.3G-36.455V10.4.0	10.4.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.455V10.4.0&searchCate=TTAS
TTC	TS-3GA-36.455(Rel10)v10.4.0	10.4.0	Published	19.12.2012	https://www.ttc.or.jp/st/docs/3gpps2012/TS/TS-3GA-36.455(Rel10)v10.4.0.pdf
Release 11					
ATIS	ATIS.3GPP.36.455V1130	11.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.455V1130	11.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.455V1130.doc
ETSI	ETSI TS 136 455 V11.3.0 (2013-07)	11.3.0	Published	11.07.2013	https://www.etsi.org/deliver/etsi_ts\136400_136499\136455\11.03.00_60\ts_136455v110300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.455-11.3.0 V1.0.0	11.3.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/Rb5XZeaknMyF6Yz
TTA	TTAT.3G-36.455V11.3.0	11.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.455V11.3.0&searchCate=TTAS
TTC	TS-3GA-36.455(Rel11)v11.3.0	11.3.0	Published	30.08.2013	https://www.ttc.or.jp/st/docs/3gpps2013/TS/TS-3GA-36.455(Rel11)v11.3.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.455V1220	12.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.455V1220	12.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.455V1220.doc
ETSI	ETSI TS 136 455 V12.2.0 (2015-04)	12.2.0	Published	15.04.2015	https://www.etsi.org/deliver/etsi_ts\136400_136499\136455\12.02.00_60\ts_136455v120200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.455-12.2.0 V1.0.0	12.2.0	Published	30.08.2021	https://members.tsdsi.in/s/aHFfwxW8j9RHizX
TTA	TTAT.3G-36.455V12.2.0	12.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.455V12.2.0&searchCate=TTAS
TTC	TS-3GA-36.455(Rel12)v12.2.0	12.2.0	Published	30.06.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.455(Rel12)v12.2.0.pdf

Release 13

ATIS	ATIS.3GPP.36.455V1310	13.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.455V1310	13.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.455V1310.doc
ETSI	ETSI TS 136 455 V13.1.0 (2016-05)	13.1.0	Published	25.05.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136455\13.01.00_60\ts_136455v130100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.455-13.1.0 V1.0.0	13.1.0	Published	30.08.2021	https://members.tsdsi.in/s/WdnWJiHrReMQtpJ
TTA	TTAT.3G-36.455V13.1.0	13.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.455V13.1.0&searchCate=TTAS
TTC	TS-3GA-36.455(Rel13)v13.1.0	13.1.0	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.455(Rel13)v13.1.0.pdf

Release 14

ATIS	ATIS.3GPP.36.455V1450	14.5.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.455V1450	14.5.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.455V1450.doc
ETSI	ETSI TS 136 455 V14.5.0 (2018-09)	14.5.0	Published	28.09.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136455\14.05.00_60\ts_136455v140500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.455-14.5.0 V1.1.0	14.5.0	Published	30.08.2021	https://members.tsdsi.in/s/nD6NYMMWR7tqKfW
TTA	TTAT.3G-36.455V14.5.0	14.5.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.455V14.5.0&searchCate=TTAS
TTC	TS-3GA-36.455(Rel14)v14.5.0	14.5.0	Published	21.12.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.455(Rel14)v14.5.0.pdf

Release 15

ATIS	ATIS.3GPP.36.455V1521	15.2.1	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.455V1521	15.2.1	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.455V1521.doc
ETSI	ETSI TS 136 455 V15.2.1 (2019-04)	15.2.1	Published	17.04.2019	https://www.etsi.org/deliver/etsi_ts\136400_136499\136455\15.02.01_60\ts_136455v150201p.pdf
TSDSI	TSDSI STD T1.3GPP 36.455-15.2.1 V1.0.0	15.2.1	Published	30.08.2021	https://members.tsdsi.in/s/brnMPrp8ErzTQdF
TTA	TTAT.3G-36.455V15.2.1	15.2.1	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.455V15.2.1&searchCate=TTAS
TTC	TS-3GA-36.455(Rel15)v15.2.1	15.2.1	Published	29.03.2019	https://www.ttc.or.jp/st/docs/3gpps2019/TS/TS-3GA-36.455(Rel15)v15.2.1.pdf

Release 16

ATIS	ATIS.3GPP.36.455.V16.1.0	16.1.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.455.V16.1.0	16.1.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.455.V16.1.0.doc
ETSI	ETSI TS 136 455 V16.1.0 (2020-11)	16.1.0	Published	13.11.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136455\16.01.00_60\ts_136455v160100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.455-16.1.0 V1.1.0	16.1.0	Published	29.07.2022	https://members.tsdsi.in/s/6W9yGi3qGjBPimW
TTA	TTAT.3G-36.455V16.1.0	16.1.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.455V16.1.0&searchCate=TTAS
TTC	TS-3GA-36.455(Rel16)v16.1.0	16.1.0	Published	22.12.2020	https://www.ttc.or.jp/st/docs/3gpp/2020/TS/TS-3GA-36.455v16.1.0.pdf

Release 17

ATIS	ATIS.3GPP.36.455.V17.1.0	17.1.0	Published	22.05.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.455.V17.1.0	17.1.0	Published	22.05.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.455.V17.1.0.doc
ETSI	ETSI TS 136 455 V17.1.0 (2023-04)	17.1.0	Published	26.04.2023	https://www.etsi.org/deliver/etsi_ts\136400_136499\136455\17.01.00_60\ts_136455v170100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.113-17.1.0 V1.1.0	17.1.0	Published	14.08.2023	https://members.tsdsi.in/s/LDCoKRpjq9PiRn3
TTA	TTAT.3G-36.455V17.1.0	17.1.0	Published	01.08.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.455V17.1.0&searchCate=TTAS
TTC	TS-3GA-36.455(Rel17)v17.1.0	17.1.0	Published	07.07.2023	https://www.ttc.or.jp/st/docs/3gpp/2023/TS/TS-3GA-36.455v17.1.0.pdf

Release 18

ATIS	ATIS.3GPP.36.455.V18.1.0	18.1.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.455.V18.1.0	18.1.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.455.V18.1.0.docx
ETSI	ETSI TS 136 455 V18.1.0 (2024-08)	18.1.0	Published	02.08.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136455\18.01.00_60\ts_136455v180100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.455-18.1.0 V1.0.0	18.1.0	Published	19.11.2024	https://members.tsdsi.in/s/zN5qranaqR7fxxP
TTA	TTAT.3G-36.455V18.1.0	18.1.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.455V18.1.0&searchCate=TTAS
TTC	TS-3GA-36.455(Rel18)v18.1.0	18.1.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.455v18.1.0.pdf

2.1.4.20   TS 36.456

SLm interface general aspects and principles

This document is an introduction to the 3GPP TS 36.45x series of technical specifications that define the SLm interface for the interconnection of the Evolved Serving Mobile Location Centre (E-SMLC) to the Location Measurement Unit (LMU) components of the Evolved Universal Terrestrial Radio Access Network (E-UTRAN).

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Release 11					
ATIS	ATIS.3GPP.36.456V1100	11.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.456V1100	11.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.456V1100.doc
ETSI	ETSI TS 136 456 V11.0.0 (2013-02)	11.0.0	Published	12.02.2013	https://www.etsi.org/deliver/etsi_ts\136400_136499\136456\11.00.00_60\ts_136456v110000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.456-11.0.0 V1.0.0	11.0.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/zNQCZL4F9AL7zat
TTA	TTAT.3G-36.456V11.0.0	11.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.456V11.0.0&searchCate=TTAS
TTC	TS-3GA-36.456(Rel11)v11.0.0	11.0.0	Published	25.06.2013	https://www.ttc.or.jp/st/docs/3gpps2013/TS/TS-3GA-36.456(Rel11)v11.0.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.456V1200	12.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.456V1200	12.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.456V1200.doc
ETSI	ETSI TS 136 456 V12.0.0 (2014-09)	12.0.0	Published	26.09.2014	https://www.etsi.org/deliver/etsi_ts\136400_136499\136456\12.00.00_60\ts_136456v120000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.456-12.0.0 V1.0.0	12.0.0	Published	30.08.2021	https://members.tsdsi.in/s/SMSsMajH2ynzeXW
TTA	TTAT.3G-36.456V12.0.0	12.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.456V12.0.0&searchCate=TTAS
TTC	TS-3GA-36.456(Rel12)v12.0.0	12.0.0	Published	05.03.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.456(Rel12)v12.0.0.pdf
Release 13					
ATIS	ATIS.3GPP.36.456V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.456V1300	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.456V1300.doc
ETSI	ETSI TS 136 456 V13.0.0 (2016-01)	13.0.0	Published	20.01.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136456\13.00.00_60\ts_136456v130000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.456-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/WdnWJiHrReMQtpJ
TTA	TTAT.3G-36.456V13.0.0	13.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.456V13.0.0&searchCate=TTAS
TTC	TS-3GA-36.456(Rel13)v13.0.0	13.0.0	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.456(Rel13)v13.0.0.pdf

Release 14

ATIS	ATIS.3GPP.36.456V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.456V1400	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.456V1400.doc
ETSI	ETSI TS 136 456 V14.0.0 (2017-04)	14.0.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136456\14.00.00_60\ts_136456v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.456-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/tj99n3zMYPAP8rY
TTA	TTAT.3G-36.456V14.0.0	14.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.456V14.0.0&searchCate=TTAS
TTC	TS-3GA-36.456(Rel14)v14.0.0	14.0.0	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.456(Rel14)v14.0.0.pdf

Release 15

ATIS	ATIS.3GPP.36.456V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.456V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.456V1500.doc
ETSI	ETSI TS 136 456 V15.0.0 (2018-07)	15.0.0	Published	04.07.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136456\15.00.00_60\ts_136456v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.456-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/dtPky3CcrctQqtb
TTA	TTAT.3G-36.456V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.456V15.0.0&searchCate=TTAS
TTC	TS-3GA-36.456(Rel15)v15.0.0	15.0.0	Published	28.09.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.456(Rel15)v15.0.0.pdf

Release 16

ATIS	ATIS.3GPP.36.456V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.456V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.456V1600.doc
ETSI	ETSI TS 136 456 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136456\16.00.00_60\ts_136456v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.456-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/LnFnPpLAdR5t2ng
TTA	TTAT.3G-36.456V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.456V16.0.0&searchCate=TTAS
TTC	TS-3GA-36.456(Rel16)v16.0.0	16.0.0	Published	02.10.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36_456_Rel16v16_0_0.pdf

Release 17

ATIS	ATIS.3GPP.36.456.V17.0.1	17.0.1	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.456.V17.0.1	17.0.1	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.456.V17.0.1.doc
ETSI	ETSI TS 136 456 V17.0.1 (2022-05)	17.0.1	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136456\17.00.01_60\ts_136456v170001p.pdf
TSDSI	TSDSI STD T1.3GPP 36.456-17.0.1 V1.1.0	17.0.1	Published	01.11.2022	https://members.tsdsi.in/s/5L86SgZRweYp4Ht
TTA	TTAT.3G-36.456V17.0.1	17.0.1	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.456V17.0.1&searchCate=TTAS
TTC	TS-3GA-36.456(Rel17)v17.0.1	17.0.1	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.456v17.0.1.pdf

Release 18

ATIS	ATIS.3GPP.36.456.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.456.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.456.V18.0.0.docx
ETSI	ETSI TS 136 456 V18.0.0 (2024-05)	18.0.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136456\18.00.00_60\ts_136456v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.456-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/WXDK2HA96KkFgNF
TTA	TTAT.3G-36.456V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.456V18.0.0&searchCate=TTAS
TTC	TS-3GA-36.456(Rel18)v18.0.0	18.0.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.456v18.0.0.pdf

2.1.4.21 TS 36.457

SLm interface layer 1

This document specifies the standards allowed to implement layer 1 on the SLm interface.

SDO	Document No.	Version	Status	Issued date	Location
Release 11					
ATIS	ATIS.3GPP.36.457V1100	11.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.457V1100	11.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.457V1100.doc
ETSI	ETSI TS 136 457 V11.0.0 (2013-02)	11.0.0	Published	12.02.2013	https://www.etsi.org/deliver/etsi_ts\136400_136499\136457\11.00.00_60\ts_136457v110000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.457-11.0.0 V1.0.0	11.0.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/TNxQiekd5Zg3FGc
TTA	TTAT.3G-36.457V11.0.0	11.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.457V11.0.0&searchCate=TTAS
TTC	TS-3GA-36.457(Rel11)v11.0.0	11.0.0	Published	25.06.2013	https://www.ttc.or.jp/st/docs/3gpps2013/TS/TS-3GA-36.457(Rel11)v11.0.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.457V1200	12.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.457V1200	12.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.457V1200.doc
ETSI	ETSI TS 136 457 V12.0.0 (2014-09)	12.0.0	Published	26.09.2014	https://www.etsi.org/deliver/etsi_ts\136400_136499\136457\12.00.00_60\ts_136457v120000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.457-12.0.0 V1.0.0	12.0.0	Published	30.08.2021	https://members.tsdsi.in/s/LPdSGAab63ykJcR
TTA	TTAT.3G-36.457V12.0.0	12.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.457V12.0.0&searchCate=TTAS
TTC	TS-3GA-36.457(Rel12)v12.0.0	12.0.0	Published	05.03.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.457(Rel12)v12.0.0.pdf
Release 13					
ATIS	ATIS.3GPP.36.457V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.457V1300	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.457V1300.doc
ETSI	ETSI TS 136 457 V13.0.0 (2016-01)	13.0.0	Published	20.01.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136457\13.00.00_60\ts_136457v130000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.457-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/A9Bj4QLdJPtMWHb
TTA	TTAT.3G-36.457V13.0.0	13.0.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.457V13.0.0&searchCate=TTAS
TTC	TS-3GA-36.457(Rel13)v13.0.0	13.0.0	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.457(Rel13)v13.0.0.pdf
Release 14					
ATIS	ATIS.3GPP.36.457V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.457V1400	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.457V1400.doc
ETSI	ETSI TS 136 457 V14.0.0 (2017-04)	14.0.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136457\14.00.00_60\ts_136457v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.457-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/3owYKFoSrQD77pA
TTA	TTAT.3G-36.457V14.0.0	14.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.457V14.0.0&searchCate=TTAS
TTC	TS-3GA-36.457(Rel14)v14.0.0	14.0.0	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.457(Rel14)v14.0.0.pdf

Release 15

ATIS	ATIS.3GPP.36.457V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.457V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.457V1500.doc
ETSI	ETSI TS 136 457 V15.0.0 (2018-07)	15.0.0	Published	04.07.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136457\15.00.00_60\ts_136457v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.457-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/3weQ4SMADjtnywa
TTA	TTAT.3G-36.457V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.457V15.0.0&searchCate=TTAS
TTC	TS-3GA-36.457(Rel15)v15.0.0	15.0.0	Published	28.09.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.457(Rel15)v15.0.0.pdf

Release 16

ATIS	ATIS.3GPP.36.457V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.457V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.457V1600.doc
ETSI	ETSI TS 136 457 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136457\16.00.00_60\ts_136457v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.457-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/QtfJtqnpCDxHnyg
TTA	TTAT.3G-36.457V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.457V16.0.0&searchCate=TTAS
TTC	TS-3GA-36.457(Rel16)v16.0.0	16.0.0	Published	02.10.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36_457_Rel16v16_0_0.pdf

Release 17

ATIS	ATIS.3GPP.36.457.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.457.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.457.V17.0.0.doc
ETSI	ETSI TS 136 457 V17.0.0 (2022-05)	17.0.0	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136457\17.00.00_60\ts_136457v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.457-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/g3PCDB22HiagQc4
TTA	TTAT.3G-36.457V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.457V17.0.0&searchCate=TTAS
TTC	TS-3GA-36.457(Rel17)v17.0.0	17.0.0	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.457v17.0.0.pdf

Release 18

ATIS	ATIS.3GPP.36.457.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.457.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.457.V18.0.0.docx
ETSI	ETSI TS 136 457 V18.0.0 (2024-05)	18.0.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136457\18.00.00_60\ts_136457v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.457-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/cK5CBPKoNsXd46R
TTA	TTAT.3G-36.457V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.457V18.0.0&searchCate=TTAS
TTC	TS-3GA-36.457(Rel18)v18.0.0	18.0.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.457v18.0.0.pdf

2.1.4.22   TS 36.458

SLm interface signalling transport

This document specifies the standards for signalling transport to be used across the SLm interface. The SLm interface is a logical interface between the LMU and the E-SMLC in the E-UTRAN core network. This document describes how the SLmAP signalling messages are transported over SLm.

SDO	Document No.	Version	Status	Issued date	Location
Release 11					
ATIS	ATIS.3GPP.36.458V1100	11.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.458V1100 7_ATIS/CCSA.3GPP.36.458V1100.doc	11.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 458 V11.0.0 (2013-02)	11.0.0	Published	12.02.2013	https://www.etsi.org/deliver/etsi_ts\136400_136499\136458\11.00.00_60\ts_136458v110000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.458-11.0.0 V1.0.0	11.0.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/DcyZ3Ysodkcysor
TTA	TTAT.3G-36.458V11.0.0 36.458V11.0.0&searchCate=TTAS	11.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.458(Rel11)v11.0.0	11.0.0	Published	25.06.2013	https://www.ttc.or.jp/st/docs/3gpps2013/TS/TS-3GA-36.458(Rel11)v11.0.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.458V1200	12.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.458V1200 7_ATIS/CCSA.3GPP.36.458V1200.doc	12.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 458 V12.0.0 (2014-09)	12.0.0	Published	26.09.2014	https://www.etsi.org/deliver/etsi_ts\136400_136499\136458\12.00.00_60\ts_136458v120000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.458-12.0.0 V1.0.0	12.0.0	Published	30.08.2021	https://members.tsdsi.in/s/zR3tQLgWd7imbWw
TTA	TTAT.3G-36.458V12.0.0 36.458V12.0.0&searchCate=TTAS	12.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.458(Rel12)v12.0.0	12.0.0	Published	05.03.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.458(Rel12)v12.0.0.pdf
Release 13					
ATIS	ATIS.3GPP.36.458V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.458V1300 7_ATIS/CCSA.3GPP.36.458V1300.doc	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 458 V13.0.0 (2016-01)	13.0.0	Published	21.01.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136458\13.00.00_60\ts_136458v130000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.458-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/SQmToHeY4bNoXBF
TTA	TTAT.3G-36.458V13.0.0 36.458V13.0.0&searchCate=TTAS	13.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.458(Rel13)v13.0.0	13.0.0	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.458(Rel13)v13.0.0.pdf
Release 14					
ATIS	ATIS.3GPP.36.458V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.458V1400 7_ATIS/CCSA.3GPP.36.458V1400.doc	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 458 V14.0.0 (2017-04)	14.0.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136458\14.00.00_60\ts_136458v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.458-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/wyZemAoqL69cdSK
TTA	TTAT.3G-36.458V14.0.0 36.458V14.0.0&searchCate=TTAS	14.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
TTC	TS-3GA-36.458(Rel14)v14.0.0	14.0.0	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.458(Rel14)v14.0.0.pdf

Release 15

ATIS	ATIS.3GPP.36.458V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.458V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.458V1500.doc
ETSI	ETSI TS 136 458 V15.0.0 (2018-07)	15.0.0	Published	04.07.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136458\15.00.00_60\ts_136458v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.458-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/N92JQ3sjW5rtnHc
TTA	TTAT.3G-36.458V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.458V15.0.0&searchCate=TTAS
TTC	TS-3GA-36.458(Rel15)v15.0.0	15.0.0	Published	28.09.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.458(Rel15)v15.0.0.pdf

Release 16

ATIS	ATIS.3GPP.36.458V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.458V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.458V1600.doc
ETSI	ETSI TS 136 458 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136458\16.00.00_60\ts_136458v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.458-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/4b2sWnGBemA5PQw
TTA	TTAT.3G-36.458V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.458V16.0.0&searchCate=TTAS
TTC	TS-3GA-36.458(Rel16)v16.0.0	16.0.0	Published	02.10.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36_458_Rel16v16_0_0.pdf

Release 17

ATIS	ATIS.3GPP.36.458.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.458.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.458.V17.0.0.doc
ETSI	ETSI TS 136 458 V17.0.0 (2022-05)	17.0.0	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136458\17.00.00_60\ts_136458v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.458-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/dwnZqRWKB5wxPdP
TTA	TTAT.3G-36.458V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.458V17.0.0&searchCate=TTAS
TTC	TS-3GA-36.458(Rel17)v17.0.0	17.0.0	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.458v17.0.0.pdf

Release 18

ATIS	ATIS.3GPP.36.458.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.458.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.458.V18.0.0.docx
ETSI	ETSI TS 136 458 V18.0.0 (2024-05)	18.0.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136458\18.00.00_60\ts_136458v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.458-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/5tpZcQGyRtiNNKo
TTA	TTAT.3G-36.458V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.458V18.0.0&searchCate=TTAS
TTC	TS-3GA-36.458(Rel18)v18.0.0	18.0.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.458v18.0.0.pdf

2.1.4.23 TS 36.459

SLm interface Application Protocol (SLmAP)

This document specifies the E-UTRAN radio network layer signalling protocol for the SLm interface. The SLm Application Protocol (SLmAP) supports the functions of the SLm interface by signalling procedures defined in this document.

SDO	Document No.	Version	Status	Issued date	Location
Release 11					
ATIS	ATIS.3GPP.36.459V1130	11.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.459V1130	11.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.459V1130.doc
ETSI	ETSI TS 136 459 V11.3.0 (2013-09)	11.3.0	Published	26.09.2013	https://www.etsi.org/deliver/etsi_ts\136400_136499\136459\11.03.00_60\ts_136459v110300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.459-11.3.0 V1.0.0	11.3.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/JLFmDbtDJFGeXJL
TTA	TTAT.3G-36.459V11.3.0	11.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.459V11.3.0&searchCate=TTAS
TTC	TS-3GA-36.459(Rel11)v11.3.0	11.3.0	Published	22.11.2013	https://www.ttc.or.jp/st/docs/3gpps2013/TS/TS-3GA-36.459(Rel11)v11.3.0.pdf
Release 12					
ATIS	ATIS.3GPP.36.459V1210	12.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.459V1210	12.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.459V1210.doc
ETSI	ETSI TS 136 459 V12.1.0 (2015-04)	12.1.0	Published	27.04.2015	https://www.etsi.org/deliver/etsi_ts\136400_136499\136459\12.01.00_60\ts_136459v120100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.459-12.1.0 V1.0.0	12.1.0	Published	30.08.2021	https://members.tsdsi.in/s/TwkgoyRHXnBrAYy
TTA	TTAT.3G-36.459V12.1.0	12.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.459V12.1.0&searchCate=TTAS
TTC	TS-3GA-36.459(Rel12)v12.1.0	12.1.0	Published	30.06.2015	https://www.ttc.or.jp/st/docs/3gpps2015/TS/TS-3GA-36.459(Rel12)v12.1.0.pdf
Release 13					
ATIS	ATIS.3GPP.36.459V1310	13.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.459V1310	13.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.459V1310.doc
ETSI	ETSI TS 136 459 V13.1.0 (2016-05)	13.1.0	Published	20.05.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136459\13.01.00_60\ts_136459v130100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.459-13.1.0 V1.0.0	13.1.0	Published	30.08.2021	https://members.tsdsi.in/s/W93Hwbc2AJi2rCg
TTA	TTAT.3G-36.459V13.1.0	13.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.459V13.1.0&searchCate=TTAS
TTC	TS-3GA-36.459(Rel13)v13.1.0	13.1.0	Published	31.03.2017	https://www.ttc.or.jp/st/docs/3gpps2017/TS/TS-3GA-36.459(Rel13)v13.1.0.pdf
Release 14					
ATIS	ATIS.3GPP.36.459V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.459V1400	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.459V1400.doc
ETSI	ETSI TS 136 459 V14.0.0 (2017-04)	14.0.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136459\14.00.00_60\ts_136459v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.459-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/aZDPc522j2cBs9e
TTA	TTAT.3G-36.459V14.0.0	14.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.459V14.0.0&searchCate=TTAS
TTC	TS-3GA-36.459(Rel14)v14.0.0	14.0.0	Published	13.04.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.459(Rel14)v14.0.0.pdf

Release 15

ATIS	ATIS.3GPP.36.459V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.459V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.459V1500.doc
ETSI	ETSI TS 136 459 V15.0.0 (2018-07)	15.0.0	Published	04.07.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136459\15.00.00_60\ts_136459v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.459-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/7WxFPpJnBgJbp2Q
TTA	TTAT.3G-36.459V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.459V15.0.0&searchCate=TTAS
TTC	TS-3GA-36.459(Rel15)v15.0.0	15.0.0	Published	28.09.2018	https://www.ttc.or.jp/st/docs/3gpps2018/TS/TS-3GA-36.459(Rel15)v15.0.0.pdf

Release 16

ATIS	ATIS.3GPP.36.459V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.459V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.459V1600.doc
ETSI	ETSI TS 136 459 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136459\16.00.00_60\ts_136459v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.459-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/xKByy8YNotd7cxM
TTA	TTAT.3G-36.459V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.459V16.0.0&searchCate=TTAS
TTC	TS-3GA-36.459(Rel16)v16.0.0	16.0.0	Published	02.10.2020	https://www.ttc.or.jp/st/docs/3gpps2020/TS/TS-3GA-36_459_Rel16v16_0_0.pdf

Release 17

ATIS	ATIS.3GPP.36.459.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.459.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.459.V17.0.0.doc
ETSI	ETSI TS 136 459 V17.0.0 (2022-05)	17.0.0	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136459\17.00.00_60\ts_136459v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.459-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/GpodyEiBxFyEXPT
TTA	TTAT.3G-36.459V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.459V17.0.0&searchCate=TTAS
TTC	TS-3GA-36.459(Rel17)v17.0.0	17.0.0	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-36.459v17.0.0.pdf

Release 18

ATIS	ATIS.3GPP.36.459.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.459.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.459.V18.0.0.docx
ETSI	ETSI TS 136 459 V18.0.0 (2024-05)	18.0.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136459\18.00.00_60\ts_136459v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.459-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/H99k6BTF3KTr6Dx
TTA	TTAT.3G-36.459V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.459V18.0.0&searchCate=TTAS
TTC	TS-3GA-36.459(Rel18)v18.0.0	18.0.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-36.459v18.0.0.pdf

2.1.4.24 TS 36.461

Evolved Universal Terrestrial Radio Access Network (E-UTRAN) and Wireless LAN (WLAN); Xw layer 1

This document specifies the standards allowed to implement Layer 1 on the Xw interface. The specification of transmission delay requirements and O&M requirements are not in the scope of this document.

SDO	Document No.	Version	Status	Issued date	Location
Release 13					
ARIB	ARIB STD-T120-36.461.V13.0.0	13.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36461-d00.pdf
ATIS	ATIS.3GPP.36.461V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.461V1300	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.461V1300.doc
ETSI	ETSI TS 136 461 V13.0.0 (2016-04)	13.0.0	Published	22.04.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136461\13.00.00_60\ts_136461v130000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.461-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/TEX8MEdz4LiQ8Tm
TTA	TTAT.3G-36.461V13.0.0	13.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.461V13.0.0&searchCate=TTAS
Release 14					
ARIB	ARIB STD-T120-36.461.V14.0.0	14.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36461-e00.pdf
ATIS	ATIS.3GPP.36.461V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.461V1400	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.461V1400.doc
ETSI	ETSI TS 136 461 V14.0.0 (2017-04)	14.0.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136461\14.00.00_60\ts_136461v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.461-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/52rccc3yFBmXosy
TTA	TTAT.3G-36.461V14.0.0	14.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.461V14.0.0&searchCate=TTAS
Release 15					
ARIB	ARIB STD-T120-36.461.V15.0.0	15.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36461-f00.pdf
ATIS	ATIS.3GPP.36.461V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.461V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.461V1500.doc
ETSI	ETSI TS 136 461 V15.0.0 (2018-07)	15.0.0	Published	04.07.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136461\15.00.00_60\ts_136461v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.461-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/mE6TbXBnPiSHWxt
TTA	TTAT.3G-36.461V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.461V15.0.0&searchCate=TTAS
Release 16					
ARIB	ARIB STD-T120-36.461.V16.0.0	16.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36461-g00.pdf
ATIS	ATIS.3GPP.36.461V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.461V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.461V1600.doc
ETSI	ETSI TS 136 461 V16.0.0 (2020-07)	16.0.0	Published	23.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136461\16.00.00_60\ts_136461v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.461-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/Hbjc239Ds2cpASp
TTA	TTAT.3G-36.461V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.461V16.0.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.461.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36461-h00.pdf
ATIS	ATIS.3GPP.36.461.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.461.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.461.V17.0.0.doc
ETSI	ETSI TS 136 461 V17.0.0 (2022-05)	17.0.0	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136461\17.00.00_60\ts_136461v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.461-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/7daRZtR3WgZ6KcF
TTA	TTAT.3G-36.461V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.461V17.0.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.461.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36461-i00.pdf
ATIS	ATIS.3GPP.36.461.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.461.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.461.V18.0.0.docx
ETSI	ETSI TS 136 461 V18.0.0 (2024-05)	18.0.0	Published	03.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136461\18.00.00_60\ts_136461v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.461-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/WQ3WDrC5pkkfyTp
TTA	TTAT.3G-36.461V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.461V18.0.0&searchCate=TTAS

2.1.4.25 TS 36.462

Evolved Universal Terrestrial Radio Access Network (E-UTRAN) and Wireless LAN (WLAN); Xw signalling transport

This document specifies the standards for Signalling Transport to be used across the Xw interface. The Xw interface is a logical interface between the eNB and the WLAN Termination (WT). This document describes how the Xw-AP signalling messages are transported over Xw.

SDO	Document No.	Version	Status	Issued date	Location
Release 13					
ARIB	ARIB STD-T120-36.462.V13.0.0	13.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36462-d00.pdf
ATIS	ATIS.3GPP.36.462V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.462V1300	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.462V1300.doc
ETSI	ETSI TS 136 462 V13.0.0 (2016-04)	13.0.0	Published	22.04.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136462\13.00.00_60\ts_136462v130000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.462-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/MXayKkofy95Szb4
TTA	TTAT.3G-36.462V13.0.0	13.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.462V13.0.0&searchCate=TTAS
Release 14					
ARIB	ARIB STD-T120-36.462.V14.0.0	14.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36462-e00.pdf
ATIS	ATIS.3GPP.36.462V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.462V1400	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.462V1400.doc
ETSI	ETSI TS 136 462 V14.0.0 (2017-04)	14.0.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136462\14.00.00_60\ts_136462v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.462-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/5NGX5Y3EWfnG8gy
TTA	TTAT.3G-36.462V14.0.0	14.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.462V14.0.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.462.V15.0.0	15.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36462-f00.pdf
ATIS	ATIS.3GPP.36.462V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.462V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.462V1500.doc
ETSI	ETSI TS 136 462 V15.0.0 (2018-07)	15.0.0	Published	04.07.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136462\15.00.00_60\ts_136462v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.462-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/9gQMfg6aS8XdzqX
TTA	TTAT.3G-36.462V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.462V15.0.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.462.V16.0.0	16.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36462-g00.pdf
ATIS	ATIS.3GPP.36.462V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.462V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.462V1600.doc
ETSI	ETSI TS 136 462 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136462\16.00.00_60\ts_136462v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.462-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/HeKm7bos8Eo6YPT
TTA	TTAT.3G-36.462V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.462V16.0.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.462.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36462-h00.pdf
ATIS	ATIS.3GPP.36.462.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.462.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.462.V17.0.0.doc
ETSI	ETSI TS 136 462 V17.0.0 (2022-05)	17.0.0	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136462\17.00.00_60\ts_136462v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.462-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/ZpodFSq42y3nf7H
TTA	TTAT.3G-36.462V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.462V17.0.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.462.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36462-i00.pdf
ATIS	ATIS.3GPP.36.462.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.462.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.462.V18.0.0.docx
ETSI	ETSI TS 136 462 V18.0.0 (2024-05)	18.0.0	Published	03.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136462\18.00.00_60\ts_136462v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.462-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/j26CKHL3b47RJYE
TTA	TTAT.3G-36.462V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.462V18.0.0&searchCate=TTAS

2.1.4.26 TS 36.463

Evolved Universal Terrestrial Radio Access Network (E-UTRAN) and Wireless LAN (WLAN); Xw application protocol (XwAP)

This document specifies the signalling procedures of the control plane between an eNB and WLAN Termination (WT). The Xw Application Protocol (XwAP) supports the functions of Xw interface by signalling procedures defined in this document.

SDO	Document No.	Version	Status	Issued date	Location
Release 13					
ARIB	ARIB STD-T120-36.463.V13.1.0	13.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36463-d10.pdf
ATIS	ATIS.3GPP.36.463V1310	13.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.463V1310	13.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.463V1310.doc
ETSI	ETSI TS 136 463 V13.1.0 (2016-08)	13.1.0	Published	25.08.2016	https://www.etsi.org/deliver/etsi_ts\136400_136499\136463\13.01.00_60\ts_136463v130100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.463-13.1.0 V1.0.0	13.1.0	Published	30.08.2021	https://members.tsdsi.in/s/RCqLKK8qHGFBTkq
TTA	TTAT.3G-36.463V13.1.0	13.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.463V13.1.0&searchCate=TTAS
Release 14					
ARIB	ARIB STD-T120-36.463.V14.2.0	14.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36463-e20.pdf
ATIS	ATIS.3GPP.36.463V1420	14.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.463V1420	14.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.463V1420.doc
ETSI	ETSI TS 136 463 V14.2.0 (2017-08)	14.2.0	Published	24.08.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136463\14.02.00_60\ts_136463v140200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.463-14.2.0 V1.0.0	14.2.0	Published	30.08.2021	https://members.tsdsi.in/s/W7CyQjB3nba4bXp
TTA	TTAT.3G-36.463V14.2.0	14.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.463V14.2.0&searchCate=TTAS
Release 15					
ARIB	ARIB STD-T120-36.463.V15.0.0	15.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36463-f00.pdf
ATIS	ATIS.3GPP.36.463V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.463V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.463V1500.doc
ETSI	ETSI TS 136 463 V15.0.0 (2018-07)	15.0.0	Published	04.07.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136463\15.00.00_60\ts_136463v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.463-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/adX7cLRP3PSQpDy
TTA	TTAT.3G-36.463V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.463V15.0.0&searchCate=TTAS
Release 16					
ARIB	ARIB STD-T120-36.463.V16.0.0	16.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36463-g00.pdf
ATIS	ATIS.3GPP.36.463V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.463V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.463V1600.doc
ETSI	ETSI TS 136 463 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136463\16.00.00_60\ts_136463v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.463-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/w9rYNCkWFzfDSbF
TTA	TTAT.3G-36.463V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.463V16.0.0&searchCate=TTAS

Release 17

SDO	Document No.	Version	Status	Issued date	Location
ARIB	ARIB STD-T120-36.463.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36463-h00.pdf
ATIS	ATIS.3GPP.36.463.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.463.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.463.V17.0.0.doc
ETSI	ETSI TS 136 463 V17.0.0 (2022-05)	17.0.0	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136463\17.00.00_60\ts_136463v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.463-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/Ex54tBtS7dpTiGR
TTA	TTAT.3G-36.463V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.463V17.0.0&searchCate=TTAS

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ARIB	ARIB STD-T120-36.463.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36463-i00.pdf
ATIS	ATIS.3GPP.36.463.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.463.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.463.V18.0.0.docx
ETSI	ETSI TS 136 463 V18.0.0 (2024-05)	18.0.0	Published	03.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136463\18.00.00_60\ts_136463v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.463-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/TzWDfeJGwyKY3dc
TTA	TTAT.3G-36.463V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.463V18.0.0&searchCate=TTAS

2.1.4.27 TS 36.464

Evolved Universal Terrestrial Radio Access Network (E-UTRAN) and Wireless LAN (WLAN); Xw data transport

This document specifies the standards for user data transport protocols and related signalling protocols to establish user plane transport bearers over the Xw interface for LTE/WLAN Aggregation (LWA).

SDO	Document No.	Version	Status	Issued date	Location
Release 13					
ARIB	ARIB STD-T120-36.464.V13.3.0	13.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36464-d30.pdf
ATIS	ATIS.3GPP.36.464V1330	13.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.464V1330	13.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.464V1330.doc
ETSI	ETSI TS 136 464 V13.3.0 (2017-10)	13.3.0	Published	18.10.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136464\13.03.00_60\ts_136464v130300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.464-13.3.0 V1.0.0	13.3.0	Published	30.08.2021	https://members.tsdsi.in/s/LwTj9eZ2baCriCn
TTA	TTAT.3G-36.464V13.3.0	13.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.464V13.3.0&searchCate=TTAS
Release 14					
ARIB	ARIB STD-T120-36.464.V14.2.0	14.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36464-e20.pdf
ATIS	ATIS.3GPP.36.464V1420	14.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.464V1420	14.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.464V1420.doc
ETSI	ETSI TS 136 464 V14.2.0 (2017-10)	14.2.0	Published	18.10.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136464\14.02.00_60\ts_136464v140200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.464-14.2.0 V1.0.0	14.2.0	Published	30.08.2021	https://members.tsdsi.in/s/fjmE69nktNrdTZ3
TTA	TTAT.3G-36.464V14.2.0	14.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.464V14.2.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.464.V15.0.0	15.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36464-f00.pdf
ATIS	ATIS.3GPP.36.464V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.464V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.464V1500.doc				
ETSI	ETSI TS 136 464 V15.0.0 (2018-07)	15.0.0	Published	04.07.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136464\15.00.00_60\ts_136464v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.464-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/sjJF8qHN6ZGtCJe
TTA	TTAT.3G-36.464V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.464V15.0.0&searchCate=TTAS				

Release 16

ARIB	ARIB STD-T120-36.464.V16.0.0	16.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36464-g00.pdf
ATIS	ATIS.3GPP.36.464V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.464V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.464V1600.doc				
ETSI	ETSI TS 136 464 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136464\16.00.00_60\ts_136464v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.464-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/gGCwZKrtAMdb483
TTA	TTAT.3G-36.464V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.464V16.0.0&searchCate=TTAS				

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ARIB	ARIB STD-T120-36.464.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36464-h00.pdf
ATIS	ATIS.3GPP.36.464.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.464.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.464.V17.0.0.doc				
ETSI	ETSI TS 136 464 V17.0.0 (2022-05)	17.0.0	Published	02.05.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136464\17.00.00_60\ts_136464v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.464-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/sct7N6QppQopZJe
TTA	TTAT.3G-36.464V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.464V17.0.0&searchCate=TTAS				

Release 18

ARIB	ARIB STD-T120-36.464.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36464-i00.pdf
ATIS	ATIS.3GPP.36.464.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.464.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.464.V18.0.0.docx				
ETSI	ETSI TS 136 464 V18.0.0 (2024-05)	18.0.0	Published	03.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136464\18.00.00_60\ts_136464v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.464-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/Rg3ZzTGCCfYWsC2
TTA	TTAT.3G-36.464V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.464V18.0.0&searchCate=TTAS				

2.1.4.28 TS 36.465

Evolved Universal Terrestrial Radio Access Network (E-UTRAN) and Wireless LAN (WLAN); Xw interface user plane protocol

This document specifies the Xw user plane protocol being used over the Xw interface for LTE/WLAN Aggregation (LWA).

SDO	Document No.	Version	Status	Issued date	Location
Release 13					
ARIB	ARIB STD-T120-36.465.V13.2.0	13.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36465-d20.pdf
ATIS	ATIS.3GPP.36.465V1320	13.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.465V1320	13.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.465V1320.doc
ETSI	ETSI TS 136 465 V13.2.0 (2017-10)	13.2.0	Published	19.10.2017	https://www.etsi.org/deliver/etsi_ts\136400_136499\136465\13.02.00_60\ts_136465v130200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.465-13.2.0 V1.0.0	13.2.0	Published	30.08.2021	https://members.tsdsi.in/s/RCqLKK8qHGFBTkq
TTA	TTAT.3G-36.465V13.2.0	13.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.465V13.2.0&searchCate=TTAS
Release 14					
ARIB	ARIB STD-T120-36.465.V14.3.0	14.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36465-e30.pdf
ATIS	ATIS.3GPP.36.465V1430	14.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.465V1430	14.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.465V1430.doc
ETSI	ETSI TS 136 465 V14.3.0 (2018-07)	14.3.0	Published	04.07.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136465\14.03.00_60\ts_136465v140300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.465-14.3.0 V1.1.0	14.3.0	Published	30.08.2021	https://members.tsdsi.in/s/pSop48EnBgiZd87
TTA	TTAT.3G-36.465V14.3.0	14.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.465V14.3.0&searchCate=TTAS
Release 15					
ARIB	ARIB STD-T120-36.465.V15.0.0	15.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36465-f00.pdf
ATIS	ATIS.3GPP.36.465V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.465V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.465V1500.doc
ETSI	ETSI TS 136 465 V15.0.0 (2018-07)	15.0.0	Published	04.07.2018	https://www.etsi.org/deliver/etsi_ts\136400_136499\136465\15.00.00_60\ts_136465v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.465-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/Jek6az6eSydca4P
TTA	TTAT.3G-36.465V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.465V15.0.0&searchCate=TTAS
Release 16					
ARIB	ARIB STD-T120-36.465.V16.0.0	16.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36465-g00.pdf
ATIS	ATIS.3GPP.36.465V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.465V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.465V1600.doc
ETSI	ETSI TS 136 465 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136400_136499\136465\16.00.00_60\ts_136465v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.465-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/ajidNGrTTLX2P2a
TTA	TTAT.3G-36.465V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.465V16.0.0&searchCate=TTAS

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SDO	Document No.	Version	Status	Issued date	Location
ARIB	ARIB STD-T120-36.465.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36465-h00.pdf
ATIS	ATIS.3GPP.36.465.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.465.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.465.V17.0.0.doc
ETSI	ETSI TS 136 465 V17.0.0 (2022-04)	17.0.0	Published	29.04.2022	https://www.etsi.org/deliver/etsi_ts\136400_136499\136465\17.00.00_60\ts_136465v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.465-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/iyAGDgcD7Jb4fmX
TTA	TTAT.3G-36.465V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.465V17.0.0&searchCate=TTAS

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ARIB	ARIB STD-T120-36.465.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36465-i00.pdf
ATIS	ATIS.3GPP.36.465.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.465.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.465.V18.0.0.docx
ETSI	ETSI TS 136 465 V18.0.0 (2024-05)	18.0.0	Published	03.05.2024	https://www.etsi.org/deliver/etsi_ts\136400_136499\136465\18.00.00_60\ts_136465v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.465-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/kq2kdifriXQ8roq
TTA	TTAT.3G-36.465V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.465V18.0.0&searchCate=TTAS

2.1.4.29 TS 37.460

Iuant interface: General aspects and principles

This document is an introduction to the 3GPP TS 37.46x series of Technical Specifications that define the Iuant Interface. The Iuant interface is applicable for UTRAN, E-UTRAN and NG-RAN. In this specification UTRAN, E-UTRAN and NG-RAN are denoted as "RAN", whereas the corresponding network entities Node B, eNB, en-gNB and NG-RAN node are denoted as "RAN Node". The logical Iuant interface is an interface internal to the RAN Node and defined to reside between the implementation specific O&M function and the RET antennas and between the implementation specific O&M function and the TMA control unit function.

Release 10

SDO	Document No.	Version	Status	Issued date	Location
ARIB	ARIB STD-T120-37.460.V10.1.0	10.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/37/A37460-a10.pdf
ATIS	ATIS.3GPP.37.460V1010	10.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.37.460V1010	10.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.460V1010.doc
ETSI	ETSI TS 137 460 V10.1.0 (2019-05)	10.1.0	Published	15.05.2019	https://www.etsi.org/deliver/etsi_ts\137400_137499\137460\10.01.00_60\ts_137460v100100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.460-10.1.0 V1.0.0	10.1.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/NZyK32FQTDTmRoQ
TTA	TTAT.3G-37.460V10.1.0	10.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.460V10.1.0&searchCate=TTAS

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SDO	Document No.	Version	Status	Issued date	Location
ARIB	ARIB STD-T120-37.460.V11.1.0	11.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/37/A37460-b10.pdf
ATIS	ATIS.3GPP.37.460V1110	11.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.37.460V1110	11.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.460V1110.doc
ETSI	ETSI TS 137 460 V11.1.0 (2019-05)	11.1.0	Published	15.05.2019	https://www.etsi.org/deliver/etsi_ts\137400_137499\137460\11.01.00_60\ts_137460v110100p.pdf

TSDSI	TSDSI STD T1.3GPP 37.460-11.1.0 V1.0.0	11.1.0	Published	30.08.2021	https://members.tsdsi.in/s/AXzkpT9GS34eBqA
TTA	TTAT.3G-37.460V11.1.0 37.460V11.1.0&searchCate=TTAS	11.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 12

ARIB	ARIB STD-T120-37.460.V12.1.0	12.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/37/A37460-c10.pdf
ATIS	ATIS.3GPP.37.460V1210	12.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.37.460V1210 7_ATIS/CCSA.3GPP.37.460V1210.doc	12.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 460 V12.1.0 (2019-05)	12.1.0	Published	15.05.2019	https://www.etsi.org/deliver/etsi_ts\137400_137499\137460\12.01.00_60\ts_137460v120100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.460-12.1.0 V1.0.0	12.1.0	Published	30.08.2021	https://members.tsdsi.in/s/MZSpzKdNAbwBkQS
TTA	TTAT.3G-37.460V12.1.0 37.460V12.1.0&searchCate=TTAS	12.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 13

ARIB	ARIB STD-T120-37.460.V13.1.0	13.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/37/A37460-d10.pdf
ATIS	ATIS.3GPP.37.460V1310	13.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.37.460V1310 7_ATIS/CCSA.3GPP.37.460V1310.doc	13.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 460 V13.1.0 (2019-05)	13.1.0	Published	15.05.2019	https://www.etsi.org/deliver/etsi_ts\137400_137499\137460\13.01.00_60\ts_137460v130100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.460-13.1.0 V1.0.0	13.1.0	Published	30.08.2021	https://members.tsdsi.in/s/faxnQygndMf8QSC
TTA	TTAT.3G-37.460V13.1.0 37.460V13.1.0&searchCate=TTAS	13.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 14

ARIB	ARIB STD-T120-37.460.V14.1.0	14.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/37/A37460-e10.pdf
ATIS	ATIS.3GPP.37.460V1410	14.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.37.460V1410 7_ATIS/CCSA.3GPP.37.460V1410.doc	14.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 460 V14.1.0 (2019-05)	14.1.0	Published	15.05.2019	https://www.etsi.org/deliver/etsi_ts\137400_137499\137460\14.01.00_60\ts_137460v140100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.460-14.1.0 V1.0.0	14.1.0	Published	30.08.2021	https://members.tsdsi.in/s/bYsswqAx4ype3bk
TTA	TTAT.3G-37.460V14.1.0 37.460V14.1.0&searchCate=TTAS	14.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 15

ARIB	ARIB STD-T120-37.460.V15.2.0	15.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/37/A37460-f20.pdf
ATIS	ATIS.3GPP.37.460V1520	15.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.37.460V1520 7_ATIS/CCSA.3GPP.37.460V1520.doc	15.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 460 V15.2.0 (2020-01)	15.2.0	Published	17.01.2020	https://www.etsi.org/deliver/etsi_ts\137400_137499\137460\15.02.00_60\ts_137460v150200p.pdf
TSDSI	TSDSI STD T1.3GPP 37.460-15.2.0 V1.0.0	15.2.0	Published	30.08.2021	https://members.tsdsi.in/s/rp8JB3P2mmmSjaW
TTA	TTAT.3G-37.460V15.2.0 37.460V15.2.0&searchCate=TTAS	15.2.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

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ARIB	ARIB STD-T120-37.460.V16.0.0	16.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/37/A37460-g00.pdf
ATIS	ATIS.3GPP.37.460V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.460V1600 7_ATIS/CCSA.3GPP.37.460V1600.doc	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 460 V16.0.0 (2020-09)	16.0.0	Published	15.09.2020	https://www.etsi.org/deliver/etsi_ts\137400_137499\137460\16.00.00_60\ts_137460v160000p.pdf

TSDSI	TSDSI STD T1.3GPP 37.460-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/Q2adpN3o944eo87
TTA	TTAT.3G-37.460V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.460V16.0.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-37.460.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/37/A37460-h00.pdf
ATIS	ATIS.3GPP.37.460.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.460.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.460.V17.0.0.doc
ETSI	ETSI TS 137 460 V17.0.0 (2022-04)	17.0.0	Published	29.04.2022	https://www.etsi.org/deliver/etsi_ts\137400_137499\137460\17.00.00_60\ts_137460v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.460-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/x4YnRkAA4gSfc3W
TTA	TTAT.3G-37.460V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.460V17.0.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-37.460.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/37/A37460-i00.pdf
ATIS	ATIS.3GPP.37.460.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.460.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.460.V18.0.0.docx
ETSI	ETSI TS 137 460 V18.0.0 (2024-05)	18.0.0	Published	23.05.2024	https://www.etsi.org/deliver/etsi_ts\137400_137499\137460\18.00.00_60\ts_137460v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.460-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/xfEDfBBeKbyWi4H
TTA	TTAT.3G-37.460V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.460V18.0.0&searchCate=TTAS

2.1.4.30 TS 37.461

Iuant interface: Layer 1

This document specifies the standards allowed to implement layer 1 on the Iuant interface for UTRA, E-UTRA and NR. The specification of transmission delay requirements and O&M requirements are not in the scope of this document.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-37.461.V10.3.0	10.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/37/A37461-a30.pdf
ATIS	ATIS.3GPP.37.461V1030	10.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.37.461V1030	10.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.461V1030.doc
ETSI	ETSI TS 137 461 V10.3.0 (2019-05)	10.3.0	Published	15.05.2019	https://www.etsi.org/deliver/etsi_ts\137400_137499\137461\10.03.00_60\ts_137461v100300p.pdf
TSDSI	TSDSI STD T1.3GPP 37.461-10.3.0 V1.0.0	10.3.0	Published	30.08.2021	https://members.tsdsi.in/s/fADizxyGpeStJ3i
TTA	TTAT.3G-37.461V10.3.0	10.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.461V10.3.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-37.461.V11.3.0	11.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/37/A37461-b30.pdf
ATIS	ATIS.3GPP.37.461V1130	11.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.37.461V1130	11.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.461V1130.doc
ETSI	ETSI TS 137 461 V11.3.0 (2019-05)	11.3.0	Published	15.05.2019	https://www.etsi.org/deliver/etsi_ts\137400_137499\137461\11.03.00_60\ts_137461v110300p.pdf

TSDSI	TSDSI STD T1.3GPP 37.461-11.3.0 V1.0.0	11.3.0	Published	30.08.2021	https://members.tsdsi.in/s/yJQffLGHPDFH8Pn
TTA	TTAT.3G-37.461V11.3.0	11.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.461V11.3.0&searchCate=TTAS

Release 12

ARIB	ARIB STD-T120-37.461.V12.2.0	12.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/37/A37461-c20.pdf
ATIS	ATIS.3GPP.37.461V1220	12.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.37.461V1220	12.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.461V1220.doc
ETSI	ETSI TS 137 461 V12.2.0 (2019-05)	12.2.0	Published	15.05.2019	https://www.etsi.org/deliver/etsi_ts\137400_137499\137461\12.02.00_60\ts_137461v120200p.pdf
TSDSI	TSDSI STD T1.3GPP 37.461-12.2.0 V1.0.0	12.2.0	Published	30.08.2021	https://members.tsdsi.in/s/MP2QtBNSmTGrTFZ
TTA	TTAT.3G-37.461V12.2.0	12.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.461V12.2.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-37.461.V13.2.0	13.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/37/A37461-d20.pdf
ATIS	ATIS.3GPP.37.461V1320	13.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.37.461V1320	13.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.461V1320.doc
ETSI	ETSI TS 137 461 V13.2.0 (2019-05)	13.2.0	Published	15.05.2019	https://www.etsi.org/deliver/etsi_ts\137400_137499\137461\13.02.00_60\ts_137461v130200p.pdf
TSDSI	TSDSI STD T1.3GPP 37.461-13.2.0 V1.0.0	13.2.0	Published	30.08.2021	https://members.tsdsi.in/s/Wni4YMiL9sDEstH
TTA	TTAT.3G-37.461V13.2.0	13.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.461V13.2.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-37.461.V14.2.0	14.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/37/A37461-e20.pdf
ATIS	ATIS.3GPP.37.461V1420	14.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.37.461V1420	14.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.461V1420.doc
ETSI	ETSI TS 137 461 V14.2.0 (2019-05)	14.2.0	Published	15.05.2019	https://www.etsi.org/deliver/etsi_ts\137400_137499\137461\14.02.00_60\ts_137461v140200p.pdf
TSDSI	TSDSI STD T1.3GPP 37.461-14.2.0 V1.0.0	14.2.0	Published	30.08.2021	https://members.tsdsi.in/s/K7mNtRPydxgQ8Co
TTA	TTAT.3G-37.461V14.2.0	14.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.461V14.2.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-37.461.V15.5.0	15.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/37/A37461-f50.pdf
ATIS	ATIS.3GPP.37.461.V15.5.0	15.5.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.37.461.V15.5.0	15.5.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.461.V15.5.0.docx
ETSI	ETSI TS 137 461 V15.5.0 (2022-07)	15.5.0	Published	20.07.2022	https://www.etsi.org/deliver/etsi_ts\137400_137499\137461\15.05.00_60\ts_137461v150500p.pdf
TSDSI	TSDSI STD T1.3GPP 37.461-15.5.0 V1.1.0	15.5.0	Published	01.11.2022	https://members.tsdsi.in/s/fPQrFZtwzAxWxww
TTA	TTAT.3G-37.461V15.5.0	15.5.0	Published	21.10.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.461V15.5.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-37.461.V16.1.0	16.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/37/A37461-g10.pdf
ATIS	ATIS.3GPP.37.461.V16.1.0	16.1.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.461.V16.1.0	16.1.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.461.V16.1.0.docx
ETSI	ETSI TS 137 461 V16.1.0 (2022-07)	16.1.0	Published	20.07.2022	https://www.etsi.org/deliver/etsi_ts\137400_137499\137461\16.01.00_60\ts_137461v160100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.461-16.1.0 V1.1.0	16.1.0	Published	29.07.2022	https://members.tsdsi.in/s/5ZdEG9MME32dF9x

TTA	TTAT.3G-37.461V16.1.0 37.461V16.1.0&searchCate=TTAS	16.1.0	Published	21.10.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 17

ARIB	ARIB STD-T120-37.461.V17.1.0	17.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/37/A37461-h10.pdf
ATIS	ATIS.3GPP.37.461.V17.1.0	17.1.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.461.V17.1.0 7_ATIS/CCSA.3GPP.37.461.V17.1.0.docx	17.1.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 461 V17.1.0 (2022-07)	17.1.0	Published	20.07.2022	https://www.etsi.org/deliver/etsi_ts\137400_137499\137461\17.01.00_60\ts_137461v170100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.461-17.1.0 V1.1.0	17.1.0	Published	11.01.2022	https://members.tsdsi.in/s/36rizmz5P3tKG6b
TTA	TTAT.3G-37.461V17.1.0 37.461V17.1.0&searchCate=TTAS	17.1.0	Published	21.10.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 18

ARIB	ARIB STD-T120-37.461.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/37/A37461-i00.pdf
ATIS	ATIS.3GPP.37.461.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.461.V18.0.0 7_ATIS/CCSA.3GPP.37.461.V18.0.0.docx	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 461 V18.0.0 (2024-05)	18.0.0	Published	23.05.2024	https://www.etsi.org/deliver/etsi_ts\137400_137499\137461\18.00.00_60\ts_137461v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.461-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/T5sfZLDZxs8nGDq
TTA	TTAT.3G-37.461V18.0.0 37.461V18.0.0&searchCate=TTAS	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

2.1.4.31 TS 37.462

Iuant interface: Signalling transport

This document specifies the signalling transport related to RETAP and TMAAP signalling to be used across the Iuant interface for UTRAN, E-UTRAN and NG-RAN. In this specification UTRAN, E-UTRAN and NG-RAN are denoted as "RAN", whereas the corresponding network entities Node B, eNB, en-gNB and NG-RAN node are denoted as "RAN Node". The logical Iuant interface is an interface internal to the RAN Node and defined to reside between the implementation specific O&M function and the RET antennas and between the implementation specific O&M function and the TMA control unit function.

SDO	Document No.	Version	Status	Issued date	Location

Release 10

ARIB	ARIB STD-T120-37.462.V10.2.0	10.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/37/A37462-a20.pdf
ATIS	ATIS.3GPP.37.462V1020	10.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.37.462V1020 7_ATIS/CCSA.3GPP.37.462V1020.doc	10.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 462 V10.2.0 (2019-05)	10.2.0	Published	15.05.2019	https://www.etsi.org/deliver/etsi_ts\137400_137499\137462\10.02.00_60\ts_137462v100200p.pdf
TSDSI	TSDSI STD T1.3GPP 37.462-10.2.0 V1.0.0	10.2.0	Published	30.08.2021	https://members.tsdsi.in/s/Yp3S5BFgD3J4T7Q
TTA	TTAT.3G-37.462V10.2.0 37.462V10.2.0&searchCate=TTAS	10.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 11

ARIB	ARIB STD-T120-37.462.V11.1.0	11.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/37/A37462-b10.pdf
ATIS	ATIS.3GPP.37.462V1110	11.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.37.462V1110 7_ATIS/CCSA.3GPP.37.462V1110.doc	11.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-

ETSI	ETSI TS 137 462 V11.1.0 (2019-05)	11.1.0	Published	15.05.2019	https://www.etsi.org/deliver/etsi_ts\137400_137499\137462\11.01.00_60\ts_137462v110100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.462-11.1.0 V1.0.0	11.1.0	Published	30.08.2021	https://members.tsdsi.in/s/awHFCeTwPpsgGKQ
TTA	TTAT.3G-37.462V11.1.0 37.462V11.1.0&searchCate=TTAS	11.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 12

ARIB	ARIB STD-T120-37.462.V12.1.0	12.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS-ARIB-STD-T120/Rel12/37/A37462-c10.pdf
ATIS	ATIS.3GPP.37.462V1210	12.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.37.462V1210 7_ATIS/CCSA.3GPP.37.462V1210.doc	12.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 462 V12.1.0 (2019-05)	12.1.0	Published	15.05.2019	https://www.etsi.org/deliver/etsi_ts\137400_137499\137462\12.01.00_60\ts_137462v120100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.462-12.1.0 V1.0.0	12.1.0	Published	30.08.2021	https://members.tsdsi.in/s/EmdNryo6E7zo89Q
TTA	TTAT.3G-37.462V12.1.0 37.462V12.1.0&searchCate=TTAS	12.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 13

ARIB	ARIB STD-T120-37.462.V13.1.0	13.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS-ARIB-STD-T120/Rel13/37/A37462-d10.pdf
ATIS	ATIS.3GPP.37.462V1310	13.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.37.462V1310 7_ATIS/CCSA.3GPP.37.462V1310.doc	13.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 462 V13.1.0 (2019-05)	13.1.0	Published	15.05.2019	https://www.etsi.org/deliver/etsi_ts\137400_137499\137462\13.01.00_60\ts_137462v130100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.462-13.1.0 V1.0.0	13.1.0	Published	30.08.2021	https://members.tsdsi.in/s/LJxkX6AgtPjST24
TTA	TTAT.3G-37.462V13.1.0 37.462V13.1.0&searchCate=TTAS	13.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

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ARIB	ARIB STD-T120-37.462.V14.1.0	14.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS-ARIB-STD-T120/Rel14/37/A37462-e10.pdf
ATIS	ATIS.3GPP.37.462V1410	14.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.37.462V1410 7_ATIS/CCSA.3GPP.37.462V1410.doc	14.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 462 V14.1.0 (2019-05)	14.1.0	Published	15.05.2019	https://www.etsi.org/deliver/etsi_ts\137400_137499\137462\14.01.00_60\ts_137462v140100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.462-14.1.0 V1.0.0	14.1.0	Published	30.08.2021	https://members.tsdsi.in/s/mcMd423BoyJJexn
TTA	TTAT.3G-37.462V14.1.0 37.462V14.1.0&searchCate=TTAS	14.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 15

ARIB	ARIB STD-T120-37.462.V15.2.0	15.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS-ARIB-STD-T120/Rel15/37/A37462-f20.pdf
ATIS	ATIS.3GPP.37.462V1520	15.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.37.462V1520 7_ATIS/CCSA.3GPP.37.462V1520.doc	15.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 462 V15.2.0 (2020-01)	15.2.0	Published	17.01.2020	https://www.etsi.org/deliver/etsi_ts\137400_137499\137462\15.02.00_60\ts_137462v150200p.pdf
TSDSI	TSDSI STD T1.3GPP 37.462-15.2.0 V1.0.0	15.2.0	Published	30.08.2021	https://members.tsdsi.in/s/2GaBqs2bd2Yf3xo
TTA	TTAT.3G-37.462V15.2.0 37.462V15.2.0&searchCate=TTAS	15.2.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 16

ARIB	ARIB STD-T120-37.462.V16.0.0	16.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS-ARIB-STD-T120/Rel16/37/A37462-g00.pdf
ATIS	ATIS.3GPP.37.462V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.462V1600 7_ATIS/CCSA.3GPP.37.462V1600.doc	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 462 V16.0.0 (2020-09)	16.0.0	Published	17.09.2020	https://www.etsi.org/deliver/etsi_ts\137400_137499\137462\16.00.00_60\ts_137462v160000p.pdf

TSDSI	TSDSI STD T1.3GPP 37.462-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/HeKm7bos8Eo6YPT
TTA	TTAT.3G-37.462V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.462V16.0.0&searchCate=TTAS
Release 17					
ARIB	ARIB STD-T120-37.462.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/37/A37462-h00.pdf
ATIS	ATIS.3GPP.37.462.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.462.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.462.V17.0.0.doc
ETSI	ETSI TS 137 462 V17.0.0 (2022-04)	17.0.0	Published	29.04.2022	https://www.etsi.org/deliver/etsi_ts\137400_137499\137462\17.00.00_60\ts_137462v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.462-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/CTJZ93Cp93psYeL
TTA	TTAT.3G-37.462V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.462V17.0.0&searchCate=TTAS
Release 18					
ARIB	ARIB STD-T120-37.462.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/37/A37462-i00.pdf
ATIS	ATIS.3GPP.37.462.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.462.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.462.V18.0.0.docx
ETSI	ETSI TS 137 462 V18.0.0 (2024-05)	18.0.0	Published	23.05.2024	https://www.etsi.org/deliver/etsi_ts\137400_137499\137462\18.00.00_60\ts_137462v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.462-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/LNtXJoncpJyx6k9
TTA	TTAT.3G-37.462V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.462V18.0.0&searchCate=TTAS

2.1.4.32   TS 37.466

Iuant interface: Application part

This document is an introduction to the 3GPP TS 37.46x series of Technical Specifications that define the Iuant Interface. The Iuant interface is applicable for UTRAN, E-UTRAN and NG-RAN. In this specification UTRAN, E-UTRAN and NG-RAN are denoted as "RAN", whereas the corresponding network entities Node B, eNB, en-gNB and NG-RAN node are denoted as "RAN Node". The logical Iuant interface is an interface internal to the RAN Node and defined to reside between the implementation specific O&M function and the RET antennas together with the TMAs control unit function of the RAN Node.

This document is applicable for UTRAN, E-UTRAN and NG-RAN and specifies the Remote Electrical Tilting Application Part (RETAP) and the Tower Mounted Amplifier Application Part (TMAAP). In this specification UTRAN, E-UTRAN and NG-RAN are denoted as "RAN", whereas the corresponding network entities Node B, eNB, en-gNB and NG-RAN node are denoted as "RAN Node". RETAP supports the functions of the Iuant interface between the implementation specific O&M transport function and the RET Antenna Control unit function, TMAAP supports the functions of the Iuant interface between the implementation specific O&M transport function and the TMA control function.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-37.466.V10.4.0	10.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/37/A37466-a40.pdf
ATIS	ATIS.3GPP.37.466V1040	10.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.37.466V1040	10.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.466V1040.doc
ETSI	ETSI TS 137 466 V10.4.0 (2019-05)	10.4.0	Published	15.05.2019	https://www.etsi.org/deliver/etsi_ts\137400_137499\137466\10.04.00_60\ts_137466v100400p.pdf

| TSDSI | TSDSI STD T1.3GPP 37.466-10.4.0 V1.0.0 | 10.4.0 | Published | 30.08.2021 | https://members.tsdsi.in/s/oTsTNaJ7Ly8JDFR |
| TTA | TTAT.3G-37.466V10.4.0 37.466V10.4.0&searchCate=TTAS | 10.4.0 | Published | 02.08.2021 | https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G- |

Release 11

ARIB	ARIB STD-T120-37.466.V11.4.0	11.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/37/A37466-b40.pdf
ATIS	ATIS.3GPP.37.466V1140	11.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.37.466V1140 7_ATIS/CCSA.3GPP.37.466V1140.doc	11.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 466 V11.4.0 (2019-05)	11.4.0	Published	15.05.2019	https://www.etsi.org/deliver/etsi_ts\137400_137499\137466\11.04.00_60\ts_137466v110400p.pdf
TSDSI	TSDSI STD T1.3GPP 37.466-11.4.0 V1.0.0	11.4.0	Published	30.08.2021	https://members.tsdsi.in/s/Fzx4MnkRRZ5yGJZ
TTA	TTAT.3G-37.466V11.4.0 37.466V11.4.0&searchCate=TTAS	11.4.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 12

ARIB	ARIB STD-T120-37.466.V12.3.0	12.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/37/A37466-c30.pdf
ATIS	ATIS.3GPP.37.466V1230	12.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.37.466V1230 7_ATIS/CCSA.3GPP.37.466V1230.doc	12.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 466 V12.3.0 (2019-05)	12.3.0	Published	15.05.2019	https://www.etsi.org/deliver/etsi_ts\137400_137499\137466\12.03.00_60\ts_137466v120300p.pdf
TSDSI	TSDSI STD T1.3GPP 37.466-12.3.0 V1.0.0	12.3.0	Published	30.08.2021	https://members.tsdsi.in/s/T6tRQWbwK8KnaP4
TTA	TTAT.3G-37.466V12.3.0 37.466V12.3.0&searchCate=TTAS	12.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 13

ARIB	ARIB STD-T120-37.466.V13.3.0	13.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/37/A37466-d30.pdf
ATIS	ATIS.3GPP.37.466V1330	13.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.37.466V1330 7_ATIS/CCSA.3GPP.37.466V1330.doc	13.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 466 V13.3.0 (2019-05)	13.3.0	Published	15.05.2019	https://www.etsi.org/deliver/etsi_ts\137400_137499\137466\13.03.00_60\ts_137466v130300p.pdf
TSDSI	TSDSI STD T1.3GPP 37.466-13.3.0 V1.0.0	13.3.0	Published	30.08.2021	https://members.tsdsi.in/s/74zRNtii4raKJFs
TTA	TTAT.3G-37.466V13.3.0 37.466V13.3.0&searchCate=TTAS	13.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 14

ARIB	ARIB STD-T120-37.466.V14.3.0	14.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/37/A37466-e30.pdf
ATIS	ATIS.3GPP.37.466V1430	14.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.37.466V1430 7_ATIS/CCSA.3GPP.37.466V1430.doc	14.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 466 V14.3.0 (2019-05)	14.3.0	Published	15.05.2019	https://www.etsi.org/deliver/etsi_ts\137400_137499\137466\14.03.00_60\ts_137466v140300p.pdf
TSDSI	TSDSI STD T1.3GPP 37.466-14.3.0 V1.0.0	14.3.0	Published	30.08.2021	https://members.tsdsi.in/s/TPCwBtzPx7gJ4Yy
TTA	TTAT.3G-37.466V14.3.0 37.466V14.3.0&searchCate=TTAS	14.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 15

ARIB	ARIB STD-T120-37.466.V15.5.0	15.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/37/A37466-f50.pdf
ATIS	ATIS.3GPP.37.466V1550	15.5.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.37.466V1550 7_ATIS/CCSA.3GPP.37.466V1550.doc	15.5.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 466 V15.5.0 (2020-01)	15.5.0	Published	17.01.2020	https://www.etsi.org/deliver/etsi_ts\137400_137499\137466\15.05.00_60\ts_137466v150500p.pdf
TSDSI	TSDSI STD T1.3GPP 37.466-15.5.0 V1.0.0	15.5.0	Published	30.08.2021	https://members.tsdsi.in/s/4i7wDFgLLzsJqbd

TTA	TTAT.3G-37.466V15.5.0	15.5.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	37.466V15.5.0&searchCate=TTAS				

Release 16

ARIB	ARIB STD-T120-37.466.V16.0.0	16.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/37/A37466-g00.pdf
ATIS	ATIS.3GPP.37.466V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.466V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.37.466V1600.doc				
ETSI	ETSI TS 137 466 V16.0.0 (2020-09)	16.0.0	Published	18.09.2020	https://www.etsi.org/deliver/etsi_ts\137400_137499\137466\16.00.00_60\ts_137466v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.466-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/ijc9kzsw7P4pnPB
TTA	TTAT.3G-37.466V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	37.466V16.0.0&searchCate=TTAS				

Release 17

ARIB	ARIB STD-T120-37.466.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/37/A37466-h00.pdf
ATIS	ATIS.3GPP.37.466.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.466.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.37.466.V17.0.0.doc				
ETSI	ETSI TS 137 466 V17.0.0 (2022-04)	17.0.0	Published	29.04.2022	https://www.etsi.org/deliver/etsi_ts\137400_137499\137466\17.00.00_60\ts_137466v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.466-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/ipj8DtGRydCygji
TTA	TTAT.3G-37.466V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	37.466V17.0.0&searchCate=TTAS				

Release 18

ARIB	ARIB STD-T120-37.466.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/37/A37466-i00.pdf
ATIS	ATIS.3GPP.37.466.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.466.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.37.466.V18.0.0.docx				
ETSI	ETSI TS 137 466 V18.0.0 (2024-05)	18.0.0	Published	27.05.2024	https://www.etsi.org/deliver/etsi_ts\137400_137499\137466\18.00.00_60\ts_137466v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.466-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/ZfBP348cdNoy4gM
TTA	TTAT.3G-37.466V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	37.466V18.0.0&searchCate=TTAS				

2.1.4.33   TS 37.470

W1 interface; General aspects and principles

This document is an introduction to the 3GPP TS 37.4xx series of technical specifications that define the W1 interface. The W1 interface provides means for interconnecting a ng-eNB-CU and a ng-eNB-DU of a ng-eNB within a NG-RAN.

SDO	Document No.	Version	Status	Issued date	Location

Release 16

ARIB	ARIB STD-T120-37.470.V16.2.0	16.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/37/A37470-g20.pdf
ATIS	ATIS.3GPP.37.470.V16.2.0	16.2.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.470.V16.2.0	16.2.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.37.470.V16.2.0.doc				
ETSI	ETSI TS 137 470 V16.2.0 (2020-09)	16.2.0	Published	15.09.2020	https://www.etsi.org/deliver/etsi_ts\137400_137499\137470\16.02.00_60\ts_137470v160200p.pdf
TSDSI	TSDSI STD T1.3GPP 37.470-16.2.0 V1.0.0	16.2.0	Published	06.10.2020	https://members.tsdsi.in/s/7dCgZAcbmci6yZy

TTA	TTAT.3G-37.470V16.2.0	16.2.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.470V16.2.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-37.470.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/37/A37470-h00.pdf
ATIS	ATIS.3GPP.37.470.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.470.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.470.V17.0.0.doc
ETSI	ETSI TS 137 470 V17.0.0 (2022-04)	17.0.0	Published	29.04.2022	https://www.etsi.org/deliver/etsi_ts\137400_137499\137470\17.00.00_60\ts_137470v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.470-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/N4LCpSWj4FKXo2L
TTA	TTAT.3G-37.470V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.470V17.0.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-37.470.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/37/A37470-i00.pdf
ATIS	ATIS.3GPP.37.470.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.470.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.470.V18.0.0.docx
ETSI	ETSI TS 137 470 V18.0.0 (2024-05)	18.0.0	Published	03.05.2024	https://www.etsi.org/deliver/etsi_ts\137400_137499\137470\18.00.00_60\ts_137470v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.470-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/dtf6FW3Y9q9YSwR
TTA	TTAT.3G-37.470V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.470V18.0.0&searchCate=TTAS

2.1.4.34   TS 37.471

W1 interface; Layer 1

This document specifies the standards allowed to implement Layer 1 on the W1 interface. The W1 interface provides means for interconnecting a ng-eNB-CU and a ng-eNB-DU of a ng-eNB within a NG-RAN.

The specification of transmission delay requirements and O&M requirements are not in the scope of this document.

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ARIB	ARIB STD-T120-37.471.V16.1.0	16.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/37/A37471-g10.pdf
ATIS	ATIS.3GPP.37.471.V16.1.0	16.1.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.471.V16.1.0	16.1.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.471.V16.1.0.doc
ETSI	ETSI TS 137 471 V16.1.0 (2020-09)	16.1.0	Published	21.09.2020	https://www.etsi.org/deliver/etsi_ts\137400_137499\137471\16.01.00_60\ts_137471v160100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.471-16.1.0 V1.0.0	16.1.0	Published	06.10.2020	https://members.tsdsi.in/s/RYE9DCETYMec5mP
TTA	TTAT.3G-37.471V16.1.0	16.1.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.471V16.1.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-37.471.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/37/A37471-h00.pdf
ATIS	ATIS.3GPP.37.471.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.471.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.471.V17.0.0.doc
ETSI	ETSI TS 137 471 V17.0.0 (2022-04)	17.0.0	Published	29.04.2022	https://www.etsi.org/deliver/etsi_ts\137400_137499\137471\17.00.00_60\ts_137471v170000p.pdf

	TSDSI TSDSI STD T1.3GPP 37.471-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/KwRkqA2mm4nk8LZ
TTA	TTAT.3G-37.471V17.0.0 37.471V17.0.0&searchCate=TTAS	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 18

ARIB	ARIB STD-T120-37.471.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/37/A37471-i00.pdf
ATIS	ATIS.3GPP.37.471.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.471.V18.0.0 7_ATIS/CCSA.3GPP.37.471.V18.0.0.docx	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 471 V18.0.0 (2024-05)	18.0.0	Published	03.05.2024	https://www.etsi.org/deliver/etsi_ts\137400_137499\137471\18.00.00_60\ts_137471v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.471-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/P5Nc4NGmMFipa8L
TTA	TTAT.3G-37.471V18.0.0 37.471V18.0.0&searchCate=TTAS	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

2.1.4.35 TS 37.472

W1 interface; Signalling transport

This document specifies the standards for Signalling Transport to be used across the W1 interface. The W1 interface provides means for interconnecting a ng-eNB-CU and a ng-eNB-DU of a ng-eNB within a NG-RAN. This document describes how the W1AP signalling messages are transported over W1.

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Release 16					
ARIB	ARIB STD-T120-37.472.V16.2.0	16.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/37/A37472-g20.pdf
ATIS	ATIS.3GPP.37.472.V16.2.0	16.2.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.472.V16.2.0 7_ATIS/CCSA.3GPP.37.472.V16.2.0.doc	16.2.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 472 V16.2.0 (2020-11)	16.2.0	Published	13.11.2020	https://www.etsi.org/deliver/etsi_ts\137400_137499\137472\16.02.00_60\ts_137472v160200p.pdf
TSDSI	TSDSI STD T1.3GPP 37.472-16.2.0 V1.1.0	16.2.0	Published	29.07.2022	https://members.tsdsi.in/s/qSnFxLftJS23n7r
TTA	TTAT.3G-37.472V16.2.0 37.472V16.2.0&searchCate=TTAS	16.2.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
Release 17					
ARIB	ARIB STD-T120-37.472.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/37/A37472-h00.pdf
ATIS	ATIS.3GPP.37.472.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.472.V17.0.0 7_ATIS/CCSA.3GPP.37.472.V17.0.0.doc	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 472 V17.0.0 (2022-04)	17.0.0	Published	29.04.2022	https://www.etsi.org/deliver/etsi_ts\137400_137499\137472\17.00.00_60\ts_137472v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.472-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/jk7M3xzajRoMDjj
TTA	TTAT.3G-37.472V17.0.0 37.472V17.0.0&searchCate=TTAS	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
Release 18					
ARIB	ARIB STD-T120-37.472.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/37/A37472-i00.pdf
ATIS	ATIS.3GPP.37.472.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.472.V18.0.0 7_ATIS/CCSA.3GPP.37.472.V18.0.0.docx	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 472 V18.0.0 (2024-05)	18.0.0	Published	03.05.2024	https://www.etsi.org/deliver/etsi_ts\137400_137499\137472\18.00.00_60\ts_137472v180000p.pdf

TSDSI	TSDSI STD T1.3GPP 37.472-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/naNdRJSJj4czwHY
TTA	TTAT.3G-37.472V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.472V18.0.0&searchCate=TTAS

2.1.4.36   TS 37.473

W1 interface; Application Protocol (W1AP)

This document specifies the 5G radio network layer signalling protocol for the W1 interface. The W1 interface provides means for interconnecting a ng-eNB-CU and a ng-eNB-DU of a ng-eNB within an NG-RAN. The W1 Application Protocol (W1AP) supports the functions of W1 interface by signalling procedures defined in this document. W1AP is developed in accordance with the general principles stated in TS 38.401 and TS 37.470.

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Release 16					
ARIB	ARIB STD-T120-37.473.V16.9.0	16.9.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/37/A37473-g90.pdf
ATIS	ATIS.3GPP.37.473.V16.9.0	16.9.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.473.V16.9.0	16.9.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.473.V16.9.0.docx
ETSI	ETSI TS 137 473 V16.9.0 (2022-07)	16.9.0	Published	20.07.2022	https://www.etsi.org/deliver/etsi_ts\137400_137499\137473\16.09.00_60\ts_137473v160900p.pdf
TSDSI	TSDSI STD T1.3GPP 37.473-16.9.0 V1.1.0	16.9.0	Published	29.07.2022	https://members.tsdsi.in/s/BD2334weX2ADb7J
TTA	TTAT.3G-37.473V16.9.0	16.9.0	Published	21.10.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.473V16.9.0&searchCate=TTAS
Release 17					
ARIB	ARIB STD-T120-37.473.V17.2.0	17.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/37/A37473-h20.pdf
ATIS	ATIS.3GPP.37.473.V17.2.0	17.2.0	Published	22.05.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.473.V17.2.0	17.2.0	Published	22.05.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.473.V17.2.0.docx
ETSI	ETSI TS 137 473 V17.2.0 (2023-04)	17.2.0	Published	27.04.2023	https://www.etsi.org/deliver/etsi_ts\137400_137499\137473\17.02.00_60\ts_137473v170200p.pdf
TSDSI	TSDSI STD T1.3GPP 38.215-17.3.0 V1.2.0	17.2.0	Published	14.08.2023	https://members.tsdsi.in/s/eozzGWrB2ExBjBq
TTA	TTAT.3G-37.473V17.2.0	17.2.0	Published	01.08.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.473V17.2.0&searchCate=TTAS
Release 18					
ARIB	ARIB STD-T120-37.473.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/37/A37473-i00.pdf
ATIS	ATIS.3GPP.37.473.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.473.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.473.V18.0.0.docx
ETSI	ETSI TS 137 473 V18.0.0 (2024-05)	18.0.0	Published	03.05.2024	https://www.etsi.org/deliver/etsi_ts\137400_137499\137473\18.00.00_60\ts_137473v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.473-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/7Efsr5Et2Dfw6aZ
TTA	TTAT.3G-37.473V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.473V18.0.0&searchCate=TTAS

2.1.4.37 TS 37.480

E1 general aspects and principles

This document is an introduction to the 3GPP TS 37.48x series of technical specifications that define the E1 interface. The E1 interface provides means for interconnecting a gNB-CU-CP and a gNB-CU-UP of a gNB-CU within an NG-RAN, or for interconnecting a gNB-CU-CP and a gNB-CU-UP of an en-gNB within an E-UTRAN, or for interconnecting an eNB-CP and an eNB-UP of an eNB within an E-UTRAN, or for interconnecting an ng-eNB-CU-CP and an ng-eNB-CU-UP of an ng-eNB-CU within an NG-RAN.

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ATIS	ATIS.3GPP.37.480.V17.2.0	17.2.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.480.V17.2.0	17.2.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.480.V17.2.0.docx
ETSI	ETSI TS 137 480 V17.2.0 (2024-02)	17.2.0	Published	02.02.2024	https://www.etsi.org/deliver/etsi_ts\137400_137499\137480\17.02.00_60\ts_137480v170200p.pdf
TSDSI	TSDSI STD T1.3GPP 37.480-17.2.0 V1.2.0	17.2.0	Published	29.05.2024	https://members.tsdsi.in/s/nXaK3CsALpPE8Bj
TTA	TTAT.3G-37.480V17.2.0	17.2.0	Published	08.05.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.480V17.2.0&searchCate=TTAS
TTC	TS-3GA-37.480(Rel17)v17.2.0	17.2.0	Published	05.04.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-37.480v17.2.0.pdf
Release 18					
ATIS	ATIS.3GPP.37.480.V18.1.0	18.1.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.480.V18.1.0	18.1.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.480.V18.1.0.docx
ETSI	ETSI TS 137 480 V18.1.0 (2024-05)	18.1.0	Published	27.05.2024	https://www.etsi.org/deliver/etsi_ts\137400_137499\137480\18.01.00_60\ts_137480v180100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.480-18.1.0 V1.0.0	18.1.0	Published	19.11.2024	https://members.tsdsi.in/s/2cWM3Rx53mxqBDT
TTA	TTAT.3G-37.480V18.1.0	18.1.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.480V18.1.0&searchCate=TTAS
TTC	TS-3GA-37.480(Rel18)v18.1.0	18.1.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-37.480v18.1.0.pdf

2.1.4.38 TS 37.481

E1 layer 1

This document specifies the standards allowed to implement layer 1 on the E1 interface.

The specification of transmission delay requirements and O&M requirements are not in the scope of this document.

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ATIS	ATIS.3GPP.37.481.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.481.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.481.V17.0.0.doc
ETSI	ETSI TS 137 481 V17.0.0 (2022-04)	17.0.0	Published	07.04.2022	https://www.etsi.org/deliver/etsi_ts\137400_137499\137481\17.00.00_60\ts_137481v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.481-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/tjfsGS5G3AZi7ZP
TTA	TTAT.3G-37.481V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.481V17.0.0&searchCate=TTAS

TTC	TS-3GA-37.481(Rel17)v17.0.0	17.0.0	Published	07.10.2022	https://www.ttc.or.jp/st/docs/3gpp/2022/TS/TS-3GA-37.481v17.0.0.pdf
Release 18					
ATIS	ATIS.3GPP.37.481.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.481.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.481.V18.0.0.docx
ETSI	ETSI TS 137 481 V18.0.0 (2024-05)	18.0.0	Published	03.05.2024	https://www.etsi.org/deliver/etsi_ts\137400_137499\137481\18.00.00_60\ts_137481v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.481-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/6NtNPFDEJn2dnZs
TTA	TTAT.3G-37.481V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.481V18.0.0&searchCate=TTAS
TTC	TS-3GA-37.481(Rel18)v18.0.0	18.0.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-37.481v18.0.0.pdf

2.1.4.39 TS 37.482

E1 signalling transport

This document specifies the standards for Signalling Transport to be used across the E1 interface. The E1 interface provides means for the interconnection of gNB-CU-CP and gNB-CU-UP within the NG-RAN architecture (TS 38.401), or for the interconnection of ng-eNB-CU-CP and ng-eNB-CU-UP within the NG-RAN architecture (TS 38.401), or for the interconnection of eNB-CP and eNB-UP within the E-UTRAN architecture (TS 36.401).

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ATIS	ATIS.3GPP.37.482.V17.4.0	17.4.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.482.V17.4.0	17.4.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.482.V17.4.0.docx
ETSI	ETSI TS 137 482 V17.4.0 (2024-04)	17.4.0	Published	22.04.2024	https://www.etsi.org/deliver/etsi_ts\137400_137499\137482\17.04.00_60\ts_137482v170400p.pdf
TSDSI	TSDSI STD T1.3GPP 37.482-17.4.0 V1.4.0	17.4.0	Published	22.07.2024	https://members.tsdsi.in/s/3Ge8BrRxogLyDLP
TTA	TTAT.3G-37.482V17.4.0	17.4.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.482V17.4.0&searchCate=TTAS
TTC	TS-3GA-37.482(Rel17)v17.4.0	17.4.0	Published	05.07.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-37.482v17.4.0.pdf
Release 18					
ATIS	ATIS.3GPP.37.482.V18.1.0	18.1.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.482.V18.1.0	18.1.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.482.V18.1.0.docx
ETSI	ETSI TS 137 482 V18.1.0 (2024-08)	18.1.0	Published	05.08.2024	https://www.etsi.org/deliver/etsi_ts\137400_137499\137482\18.01.00_60\ts_137482v180100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.482-18.1.0 V1.0.0	18.1.0	Published	19.11.2024	https://members.tsdsi.in/s/zSE2siWb22oLoL9
TTA	TTAT.3G-37.482V18.1.0	18.1.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.482V18.1.0&searchCate=TTAS
TTC	TS-3GA-37.482(Rel18)v18.1.0	18.1.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-37.482v18.1.0.pdf

2.1.4.40 TS 37.483

E1 Application Protocol (E1AP)

This document specifies the 5G radio network layer signalling protocol for the E1 interface. The E1 interface provides means for interconnecting a gNB-CU-CP and a gNB-CU-UP of a gNB within an NG-RAN, or for interconnecting a gNB-CU-CP and a gNB-CU-UP of an en-gNB within an E-UTRAN, or for interconnecting an eNB-CP and an eNB-UP of an eNB within an E-UTRAN, or for interconnecting an ng-eNB-CU-CP and an ng-eNB-CU-UP of an ng-eNB within an NG-RAN. The E1 Application Protocol (E1AP) supports the functions of E1 interface by signalling procedures defined in this document. E1AP is developed in accordance to the general principles stated in TS 38.401 and TS 37.480.

SDO	Document No.	Version	Status	Issued date	Location
Release 17					
ATIS	ATIS.3GPP.37.483.V17.8.0	17.8.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.483.V17.8.0	17.8.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.483.V17.8.0.docx
ETSI	ETSI TS 137 483 V17.8.0 (2024-04)	17.8.0	Published	22.04.2024	https://www.etsi.org/deliver/etsi_ts\137400_137499\137483\17.08.00_60\ts_137483v170800p.pdf
TSDSI	TSDSI STD T1.3GPP 37.483-17.8.0 V1.8.0	17.8.0	Published	22.07.2024	https://members.tsdsi.in/s/fzWmctZfSSJxRkt
TTA	TTAT.3G-37.483V17.8.0	17.8.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.483V17.8.0&searchCate=TTAS
TTC	TS-3GA-37.483(Rel17)v17.8.0	17.8.0	Published	05.07.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-37.483v17.8.0.pdf
Release 18					
ATIS	ATIS.3GPP.37.483.V18.2.0	18.2.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.483.V18.2.0	18.2.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.483.V18.2.0.docx
ETSI	ETSI TS 137 483 V18.2.0 (2024-08)	18.2.0	Published	05.08.2024	https://www.etsi.org/deliver/etsi_ts\137400_137499\137483\18.02.00_60\ts_137483v180200p.pdf
TSDSI	TSDSI STD T1.3GPP 37.483-18.2.0 V1.0.0	18.2.0	Published	19.11.2024	https://members.tsdsi.in/s/JoZN8dpatryLQXL
TTA	TTAT.3G-37.483V18.2.0	18.2.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.483V18.2.0&searchCate=TTAS
TTC	TS-3GA-37.483(Rel18)v18.2.0	18.2.0	Published	04.10.2024	https://www.ttc.or.jp/st/docs/3gpp/2024/TS/TS-3GA-37.483v18.2.0.pdf

2.1.4.41 TS 25.446

MBMS synchronisation protocol (SYNC)

This document specifies the MBMS Synchronisation Protocol. For the release of this specification, it is used on Iu towards UTRAN and M1 towards E-UTRAN.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-25.446.V10.2.0	10.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/25/A25446-a20.pdf
ATIS	ATIS.3GPP.25.446V1020	10.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.25.446V10.2.0	10.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.25.446V1020.doc
ETSI	ETSI TS 125 446 V10.2.0 (2012-01)	10.2.0	Published	05.01.2012	https://www.etsi.org/deliver/etsi_ts\125400_125499\125446\10.02.00_60\ts_125446v100200p.pdf
TSDSI	TSDSI STD T1.3GPP 25.446-10.2.0 V1.0.0	10.2.0	Published	30.08.2021	https://members.tsdsi.in/s/TN8bakJzyx6cH7T
TTA	TTAT.3G-25.446V10.2.0	10.2.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-25.446V10.2.0&searchCate=TTAS

Release 11

ARIB	ARIB STD-T120-25.446.V11.0.0	11.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/25/A25446-b00.pdf
ATIS	ATIS.3GPP.25.446V1100	11.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.25.446V11.0.0	11.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.25.446V1100.doc
ETSI	ETSI TS 125 446 V11.0.0 (2012-10)	11.0.0	Published	10.10.2012	https://www.etsi.org/deliver/etsi_ts\125400_125499\125446\11.00.00_60\ts_125446v110000p.pdf
TSDSI	TSDSI STD T1.3GPP 25.446-11.0.0 V1.0.0	11.0.0	Published	30.08.2021	https://members.tsdsi.in/s/Yi2iWWTDQG5YoXc
TTA	TTAT.3G-25.446V11.0.0	11.0.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-25.446V11.0.0&searchCate=TTAS

Release 12

ARIB	ARIB STD-T120-25.446.V12.2.0	12.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/25/A25446-c20.pdf
ATIS	ATIS.3GPP.25.446V1220	12.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.25.446V12.2.0	12.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.25.446V1220.doc
ETSI	ETSI TS 125 446 V12.2.0 (2016-05)	12.2.0	Published	11.05.2016	https://www.etsi.org/deliver/etsi_ts\125400_125499\125446\12.02.00_60\ts_125446v120200p.pdf
TSDSI	TSDSI STD T1.3GPP 25.446-12.2.0 V1.0.0	12.2.0	Published	30.08.2021	https://members.tsdsi.in/s/oxtcoCjaDJXLpc6
TTA	TTAT.3G-25.446V12.2.0	12.2.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-25.446V12.2.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-25.446.V13.1.0	13.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/25/A25446-d10.pdf
ATIS	ATIS.3GPP.25.446V1310	13.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.25.446V13.1.0	13.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.25.446V1310.doc
ETSI	ETSI TS 125 446 V13.1.0 (2016-05)	13.1.0	Published	11.05.2016	https://www.etsi.org/deliver/etsi_ts\125400_125499\125446\13.01.00_60\ts_125446v130100p.pdf
TSDSI	TSDSI STD T1.3GPP 25.446-13.1.0 V1.0.0	13.1.0	Published	30.08.2021	https://members.tsdsi.in/s/bRZnoRofeWkm6TW
TTA	TTAT.3G-25.446V13.1.0	13.1.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-25.446V13.1.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-25.446.V14.0.0	14.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/25/A25446-e00.pdf
ATIS	ATIS.3GPP.25.446V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.25.446V14.0.0	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.25.446V1400.doc
ETSI	ETSI TS 125 446 V14.0.0 (2017-04)	14.0.0	Published	05.04.2017	https://www.etsi.org/deliver/etsi_ts\125400_125499\125446\14.00.00_60\ts_125446v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 25.446-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/GypGzPfWpZsCa9c
TTA	TTAT.3G-25.446V14.0.0	14.0.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-25.446V14.0.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-25.446.V15.0.0	15.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/25/A25446-f00.pdf
ATIS	ATIS.3GPP.25.446V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.25.446V15.0.0	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.25.446V1500.doc
ETSI	ETSI TS 125 446 V15.0.0 (2018-07)	15.0.0	Published	12.07.2018	https://www.etsi.org/deliver/etsi_ts\125400_125499\125446\15.00.00_60\ts_125446v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 25.446-15.0.0 V1.0.0	15.0.0	Published	01.11.2022	https://members.tsdsi.in/s/oWc5j4FJpdHpFnc
TTA	TTAT.3G-25.446V15.0.0	15.0.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-25.446V15.0.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-25.446.V16.0.0	16.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/25/A25446-g00.pdf
ATIS	ATIS.3GPP.25.446V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.25.446V16.0.0	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.25.446V1600.doc
ETSI	ETSI TS 125 446 V16.0.0 (2020-08)	16.0.0	Published	19.08.2020	https://www.etsi.org/deliver/etsi_ts\125400_125499\125446\16.00.00_60\ts_125446v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 25.446-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/a5YoXbg7Xkfz49p
TTA	TTAT.3G-25.446V16.0.0	16.0.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-25.446V16.0.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-25.446.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/25/A25446-h00.pdf
ATIS	ATIS.3GPP.25.446.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.25.446.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.25.446.V17.0.0.doc
ETSI	ETSI TS 125 446 V17.0.0 (2022-04)	17.0.0	Published	29.04.2022	https://www.etsi.org/deliver/etsi_ts\125400_125499\125446\17.00.00_60\ts_125446v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 25.446-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/Zy667DTBMinN7t9
TTA	TTAT.3G-25.446V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-25.446V17.0.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-25.446.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/25/A25446-i00.pdf
ATIS	ATIS.3GPP.25.446.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.25.446.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.25.446.V18.0.0.docx
ETSI	ETSI TS 125 446 V18.0.0 (2024-04)	18.0.0	Published	26.04.2024	https://www.etsi.org/deliver/etsi_ts\125400_125499\125446\18.00.00_60\ts_125446v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 25.446-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/Fqq5gRpjrF79zKY
TTA	TTAT.3G-25.446V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-25.446V18.0.0&searchCate=TTAS

2.1.5   Radio-frequency aspects

2.1.5.1   TS 36.101

Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception

This document establishes the minimum RF characteristics and minimum performance requirements for E-UTRA User Equipment (UE).

SDO	Document No.	Version	Status	Issued date	Location

Release 10

ARIB	ARIB STD-T120-36.101.V10.33.0	10.33.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36101-ax0.pdf
ATIS	ATIS.3GPP.36.101.V10.33.0	10.33.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.101.V10.33.0	10.33.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.101.V10.33.0.zip
ETSI	ETSI TS 136 101 V10.33.0 (2022-10)	10.33.0	Published	28.10.2022	https://www.etsi.org/deliver/etsi_ts\136100_136199\136101\10.33.00_60\ts_136101v103300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.101 10.33.0 V1.2.0	10.33.0	Published	02.05.2023	https://members.tsdsi.in/s/npNY2WpozBQ8GBj
TTA	TTAT.3G-36.101V10.33.0	10.33.0	Published	11.01.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.101V10.33.0&searchCate=TTAS

Release 11

ARIB	ARIB STD-T120-36.101.V11.30.0	11.30.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36101-bu0.pdf
ATIS	ATIS.3GPP.36.101.V11.30.0	11.30.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.101.V11.30.0	11.30.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.101.V11.30.0.zip
ETSI	ETSI TS 136 101 V11.30.0 (2022-10)	11.30.0	Published	27.10.2022	https://www.etsi.org/deliver/etsi_ts\136100_136199\136101\11.30.00_60\ts_136101v113000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.101 11.30.0 V1.2.0	11.30.0	Published	02.05.2023	https://members.tsdsi.in/s/zmxdp6rtWcrEiA2
TTA	TTAT.3G-36.101V11.30.0	11.30.0	Published	11.01.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.101V11.30.0&searchCate=TTAS

Release 12

ARIB	ARIB STD-T120-36.101.V12.31.0	12.31.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36101-cv0.pdf
ATIS	ATIS.3GPP.36.101.V12.31.0	12.31.0	Published	22.05.2023	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.101.V12.31.0	12.31.0	Published	22.05.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.101.V12.31.0.zip
ETSI	ETSI TS 136 101 V12.31.0 (2023-05)	12.31.0	Published	09.05.2023	https://www.etsi.org/deliver/etsi_ts\136100_136199\136101\12.31.00_60\ts_136101v123100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.101 12.31.0 V.1.2.0	12.31.0	Published	21.08.2025	https://members.tsdsi.in/s/qRoPymRiabgAA6m
TTA	TTAT.3G-36.101V12.31.0	12.31.0	Published	01.08.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.101V12.31.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.101.V13.25.0	13.25.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36101-dp0.pdf
ATIS	ATIS.3GPP.36.101.V13.25.0	13.25.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.101.V13.25.0	13.25.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.101.V13.25.0.zip
ETSI	ETSI TS 136 101 V13.25.0 (2023-07)	13.25.0	Published	07.07.2023	https://www.etsi.org/deliver/etsi_ts\136100_136199\136101\13.25.00_60\ts_136101v132500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.101-13.25.0 V1.2.0	13.25.0	Published	02.11.2023	https://members.tsdsi.in/s/PHGxdpwZYc76TJd
TTA	TTAT.3G-36.101V13.25.0	13.25.0	Published	27.10.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.101V13.25.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.101.V14.26.0	14.26.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36101-eq0.pdf
ATIS	ATIS.3GPP.36.101.V14.26.0	14.26.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.101.V14.26.0	14.26.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.101.V14.26.0.zip
ETSI	ETSI TS 136 101 V14.26.0 (2023-10)	14.26.0	Published	05.10.2023	https://www.etsi.org/deliver/etsi_ts\136100_136199\136101\14.26.00_60\ts_136101v142600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.101-14.26.0 V1.3.0	14.26.0	Published	23.02.2024	https://members.tsdsi.in/s/xic3iSGMnSkw7Fi
TTA	TTAT.3G-36.101V14.26.0	14.26.0	Published	13.02.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.101V14.26.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.101.V15.23.0	15.23.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36101-fn0.pdf
ATIS	ATIS.3GPP.36.101.V15.23.0	15.23.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.101.V15.23.0	15.23.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.101.V15.23.0.zip
ETSI	ETSI TS 136 101 V15.23.0 (2023-10)	15.23.0	Published	06.10.2023	https://www.etsi.org/deliver/etsi_ts\136100_136199\136101\15.23.00_60\ts_136101v152300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.101-15.23.0 V1.5.0	15.23.0	Published	23.02.2024	https://members.tsdsi.in/s/MdGgKsekYK22sew
TTA	TTAT.3G-36.101V15.23.0	15.23.0	Published	13.02.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.101V15.23.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.101.V16.21.0	16.21.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36101-gl0.pdf
ATIS	ATIS.3GPP.36.101.V16.21.0	16.21.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.101.V16.21.0	16.21.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.101.V16.21.0.zip
ETSI	ETSI TS 136 101 V16.21.0 (2024-10)	16.21.0	Published	16.10.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136101\16.21.00_60\ts_136101v162100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.101-16.21.0 V1.8.0	16.21.0	Published	02.03.2025	https://members.tsdsi.in/s/6mJYr3mHHcziXnY
TTA	TTAT.3G-36.101V16.21.0	16.21.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.101V16.21.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.101.V17.14.0	17.14.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36101-he0.pdf
ATIS	ATIS.3GPP.36.101.V17.14.0	17.14.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.101.V17.14.0	17.14.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.101.V17.14.0.zip
ETSI	ETSI TS 136 101 V17.14.0 (2024-10)	17.14.0	Published	16.10.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136101\17.14.00_60\ts_136101v171400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.101-17.14.0 V1.9.0	17.14.0	Published	02.03.2025	https://members.tsdsi.in/s/JWa6JjDXwpbD2nJ
TTA	TTAT.3G-36.101V17.14.0	17.14.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.101V17.14.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.101.V18.7.0	18.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36101-i70.pdf
ATIS	ATIS.3GPP.36.101.V18.7.0	18.7.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.101.V18.7.0	18.7.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.101.V18.7.0.zip
ETSI	ETSI TS 136 101 V18.7.0 (2024-10)	18.7.0	Published	18.10.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136101\18.07.00_60\ts_136101v180700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.101-18.7.0 V1.1.0	18.7.0	Published	02.03.2025	https://members.tsdsi.in/s/EKe9XwPoNEqCXw5
TTA	TTAT.3G-36.101V18.7.0	18.7.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.101V18.7.0&searchCate=TTAS

2.1.5.2   TS 36.104

Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception

This document establishes the minimum RF characteristics and minimum performance requirements of E-UTRA Base Station (BS).

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.104.V10.14.0	10.14.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36104-ae0.pdf
ATIS	ATIS.3GPP.36.104.V10.14.0	10.14.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.104.V10.14.0	10.14.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.104.V10.14.0.doc
ETSI	ETSI TS 136 104 V10.14.0 (2021-04)	10.14.0	Published	29.04.2021	https://www.etsi.org/deliver/etsi_ts\136100_136199\136104\10.14.00_60\ts_136104v101400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.104 10.14.0 V1.1.0	10.14.0	Published	02.05.2023	https://members.tsdsi.in/s/BAzqzBPBYDAp22a
TTA	TTAT.3G-36.104V10.14.0	10.14.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.104V10.14.0&searchCate=TTAS

Release 11

ARIB	ARIB STD-T120-36.104.V11.18.0	11.18.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36104-bi0.pdf
ATIS	ATIS.3GPP.36.104.V11.18.0	11.18.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.104.V11.18.0	11.18.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.104.V11.18.0.doc
ETSI	ETSI TS 136 104 V11.18.0 (2021-04)	11.18.0	Published	29.04.2021	https://www.etsi.org/deliver/etsi_ts\136100_136199\136104\11.18.00_60\ts_136104v111800p.pdf
TSDSI	TSDSI STD T1.3GPP 36.104 11.18.0 V1.2.0	11.18.0	Published	02.05.2023	https://members.tsdsi.in/s/gqxwjGwHDFQA2AM
TTA	TTAT.3G-36.104V11.18.0	11.18.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.104V11.18.0&searchCate=TTAS

Release 12

ARIB	ARIB STD-T120-36.104.V12.14.0	12.14.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36104-ce0.pdf
ATIS	ATIS.3GPP.36.104.V12.14.0	12.14.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.104.V12.14.0	12.14.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.104.V12.14.0.doc
ETSI	ETSI TS 136 104 V12.14.0 (2021-04)	12.14.0	Published	30.04.2021	https://www.etsi.org/deliver/etsi_ts\136100_136199\136104\12.14.00_60\ts_136104v121400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.104 12.14.0 V1.1.0	12.14.0	Published	02.05.2023	https://members.tsdsi.in/s/P69xqi6Fs5t3XZd
TTA	TTAT.3G-36.104V12.14.0	12.14.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.104V12.14.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.104.V13.14.0	13.14.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36104-de0.pdf
ATIS	ATIS.3GPP.36.104.V13.14.0	13.14.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.104.V13.14.0	13.14.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.104.V13.14.0.docx
ETSI	ETSI TS 136 104 V13.14.0 (2021-04)	13.14.0	Published	29.04.2021	https://www.etsi.org/deliver/etsi_ts\136100_136199\136104\13.14.00_60\ts_136104v131400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.104-13.14.0 V1.1.0	13.14.0	Published	17.01.2023	https://members.tsdsi.in/s/6GdtW9ZRgbmoJnP
TTA	TTAT.3G-36.104V13.14.0	13.14.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.104V13.14.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.104.V14.11.0	14.11.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36104-eb0.pdf
ATIS	ATIS.3GPP.36.104.V14.11.0	14.11.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.104.V14.11.0	14.11.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.104.V14.11.0.docx
ETSI	ETSI TS 136 104 V14.11.0 (2022-03)	14.11.0	Published	16.03.2022	https://www.etsi.org/deliver/etsi_ts\136100_136199\136104\14.11.00_60\ts_136104v141100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.104-14.11.0 V1.1.0	14.11.0	Published	17.01.2023	https://members.tsdsi.in/s/M7spw2iwtT8zS2Q
TTA	TTAT.3G-36.104V14.11.0	14.11.0	Published	14.03.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.104V14.11.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.104.V15.15.0	15.15.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36104-ff0.pdf
ATIS	ATIS.3GPP.36.104.V15.15.0	15.15.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.104.V15.15.0	15.15.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.104.V15.15.0.docx
ETSI	ETSI TS 136 104 V15.15.0 (2022-04)	15.15.0	Published	25.04.2022	https://www.etsi.org/deliver/etsi_ts\136100_136199\136104\15.15.00_60\ts_136104v151500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.104-15.15.0 V1.1.0	15.15.0	Published	01.11.2022	https://members.tsdsi.in/s/qrQzCSrLFKdc27X
TTA	TTAT.3G-36.104V15.15.0	15.15.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.104V15.15.0&searchCate=TTAS

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ARIB	ARIB STD-T120-36.104.V16.16.0	16.16.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36104-gg0.pdf
ATIS	ATIS.3GPP.36.104.V16.16.0	16.16.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.104.V16.16.0	16.16.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.104.V16.16.0.docx
ETSI	ETSI TS 136 104 V16.16.0 (2024-05)	16.16.0	Published	15.05.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136104\16.16.00_60\ts_136104v161600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.104-16.16.0 V1.4.0	16.16.0	Published	22.07.2024	https://members.tsdsi.in/s/n7b3z934CSF4BoH
TTA	TTAT.3G-36.104V16.16.0	16.16.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.104V16.16.0&searchCate=TTAS

Release 17

SDO	Document No.	Version	Status	Issued date	Location
ARIB	ARIB STD-T120-36.104.V17.12.0	17.12.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36104-hc0.pdf
ATIS	ATIS.3GPP.36.104.V17.12.0	17.12.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.104.V17.12.0	17.12.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.104.V17.12.0.docx
ETSI	ETSI TS 136 104 V17.12.0 (2024-05)	17.12.0	Published	15.05.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136104\17.12.00_60\ts_136104v171200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.104-17.12.0 V1.7.0	17.12.0	Published	22.07.2024	https://members.tsdsi.in/s/dbjLGCoQgLBXNPF
TTA	TTAT.3G-36.104V17.12.0	17.12.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.104V17.12.0&searchCate=TTAS

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ARIB	ARIB STD-T120-36.104.V18.5.0	18.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36104-i50.pdf
ATIS	ATIS.3GPP.36.104.V18.5.0	18.5.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.104.V18.5.0	18.5.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.104.V18.5.0.docx
ETSI	ETSI TS 136 104 V18.5.0 (2024-05)	18.5.0	Published	15.05.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136104\18.05.00_60\ts_136104v180500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.104-18.5.0 V1.0.0	18.5.0	Published	19.11.2024	https://members.tsdsi.in/s/YzisoTiJjZSSZc4
TTA	TTAT.3G-36.104V18.5.0	18.5.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.104V18.5.0&searchCate=TTAS

2.1.5.3   TS 36.106

Evolved Universal Terrestrial Radio Access (E-UTRA); FDD repeater radio transmission and reception

This document establishes the minimum RF characteristics of E-UTRA FDD Repeater.

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Release 10					
ATIS	ATIS.3GPP.36.106V1070	10.7.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.106V1070	10.7.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.106V1070.doc
ETSI	ETSI TS 136 106 V10.7.0 (2013-04)	10.7.0	Published	25.04.2013	https://www.etsi.org/deliver/etsi_ts\136100_136199\136106\10.07.00_60\ts_136106v100700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.106-10.7.0 V1.0.0	10.7.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/cgfXs8RPwYmP3fW
TTA	TTAT.3G-36.106V10.7.0	10.7.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.106V10.7.0&searchCate=TTAS

Release 11

ATIS	ATIS.3GPP.36.106V1120	11.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.106V1120 7_ATIS/CCSA.3GPP.36.106V1120.doc	11.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 106 V11.2.0 (2013-04)	11.2.0	Published	25.04.2013	https://www.etsi.org/deliver/etsi_ts\136100_136199\136106\11.02.00_60\ts_136106v110200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.106-11.2.0 V1.0.0	11.2.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/CXZjWWmZzxPN7nm
TTA	TTAT.3G-36.106V11.2.0 36.106V11.2.0&searchCate=TTAS	11.2.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

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ATIS	ATIS.3GPP.36.106V1210	12.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.106V1210 7_ATIS/CCSA.3GPP.36.106V1210.doc	12.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 106 V12.1.0 (2015-02)	12.1.0	Published	03.02.2015	https://www.etsi.org/deliver/etsi_ts\136100_136199\136106\12.01.00_60\ts_136106v120100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.106-12.1.0 V1.0.0	12.1.0	Published	30.08.2021	https://members.tsdsi.in/s/P69xqi6Fs5t3XZd
TTA	TTAT.3G-36.106V12.1.0 36.106V12.1.0&searchCate=TTAS	12.1.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 13

ATIS	ATIS.3GPP.36.106V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.106V1300 7_ATIS/CCSA.3GPP.36.106V1300.doc	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 106 V13.0.0 (2016-01)	13.0.0	Published	27.01.2016	https://www.etsi.org/deliver/etsi_ts\136100_136199\136106\13.00.00_60\ts_136106v130000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.106-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/yXprpdffwncf76j
TTA	TTAT.3G-36.106V13.0.0 36.106V13.0.0&searchCate=TTAS	13.0.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 14

ATIS	ATIS.3GPP.36.106V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.106V1400 7_ATIS/CCSA.3GPP.36.106V1400.doc	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 106 V14.0.0 (2017-04)	14.0.0	Published	13.04.2017	https://www.etsi.org/deliver/etsi_ts\136100_136199\136106\14.00.00_60\ts_136106v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.106-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/4PcaN8N6CZnBsmz
TTA	TTAT.3G-36.106V14.0.0 36.106V14.0.0&searchCate=TTAS	14.0.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 15

ATIS	ATIS.3GPP.36.106V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.106V1500 7_ATIS/CCSA.3GPP.36.106V1500.doc	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 106 V15.0.0 (2018-09)	15.0.0	Published	17.09.2018	https://www.etsi.org/deliver/etsi_ts\136100_136199\136106\15.00.00_60\ts_136106v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.106-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/ZXDJ7oK7YcBwgcg
TTA	TTAT.3G-36.106V15.0.0 36.106V15.0.0&searchCate=TTAS	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 16

ATIS	ATIS.3GPP.36.106V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.106V1600 7_ATIS/CCSA.3GPP.36.106V1600.doc	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 106 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136100_136199\136106\16.00.00_60\ts_136106v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.106-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/mDagEJCAxcqNpxB

TTA	TTAT.3G-36.106V16.0.0 36.106V16.0.0&searchCate=TTAS	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 17

ATIS	ATIS.3GPP.36.106.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.106.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.106.V17.0.0.docx				
ETSI	ETSI TS 136 106 V17.0.0 (2022-04)	17.0.0	Published	27.04.2022	https://www.etsi.org/deliver/etsi_ts\136100_136199\136106\17.00.00_60\ts_136106v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.106-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/4eq7BsaTw9HLSSm
TTA	TTAT.3G-36.106V17.0.0 36.106V17.0.0&searchCate=TTAS	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 18

ATIS	ATIS.3GPP.36.106.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.106.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.106.V18.0.0.docx				
ETSI	ETSI TS 136 106 V18.0.0 (2024-05)	18.0.0	Published	07.05.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136106\18.00.00_60\ts_136106v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.106-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/fnGZ5rPgzG5rRNX
TTA	TTAT.3G-36.106V18.0.0 36.106V18.0.0&searchCate=TTAS	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

2.1.5.4   TS 36.111

Location Measurement Unit (LMU) performance specification; Network based positioning systems in Evolved Universal Terrestrial Radio Access Network (E-UTRAN)

This document establishes the Location Measurement Unit (LMU) minimum UTDOA positioning requirement for the FDD and TDD mode of E-UTRAN.

SDO	Document No.	Version	Status	Issued date	Location
Release 11					
ARIB	ARIB STD-T120-36.111.V11.4.0	11.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36111-b40.pdf
ATIS	ATIS.3GPP.36.111V1140	11.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.111V1140	11.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.111V1140.doc				
ETSI	ETSI TS 136 111 V11.4.0 (2014-10)	11.4.0	Published	24.10.2014	https://www.etsi.org/deliver/etsi_ts\136100_136199\136111\11.04.00_60\ts_136111v110400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.111-11.4.0 V1.0.0	11.4.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/9gxYzJ4S8RePFMg
TTA	TTAT.3G-36.111V11.4.0 36.111V11.4.0&searchCate=TTAS	11.4.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
Release 12					
ARIB	ARIB STD-T120-36.111.V12.0.0	12.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36111-c00.pdf
ATIS	ATIS.3GPP.36.111V1200	12.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.111V1200	12.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.111V1200.doc				
ETSI	ETSI TS 136 111 V12.0.0 (2014-10)	12.0.0	Published	24.10.2014	https://www.etsi.org/deliver/etsi_ts\136100_136199\136111\12.00.00_60\ts_136111v120000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.111-12.0.0 V1.0.0	12.0.0	Published	30.08.2021	https://members.tsdsi.in/s/n5rbKKQ7LAd4Qzg
TTA	TTAT.3G-36.111V12.0.0 36.111V12.0.0&searchCate=TTAS	12.0.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 13

ARIB	ARIB STD-T120-36.111.V13.0.0	13.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36111-d00.pdf
ATIS	ATIS.3GPP.36.111V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.111V1300	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.111V1300.doc				
ETSI	ETSI TS 136 111 V13.0.0 (2016-01)	13.0.0	Published	27.01.2016	https://www.etsi.org/deliver/etsi_ts\136100_136199\136111\13.00.00_60\ts_136111v130000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.111-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/xARx3RGj2MY6eCD
TTA	TTAT.3G-36.111V13.0.0	13.0.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.111V13.0.0&searchCate=TTAS				

Release 14

ARIB	ARIB STD-T120-36.111.V14.0.0	14.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36111-e00.pdf
ATIS	ATIS.3GPP.36.111V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.111V1400	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.111V1400.doc				
ETSI	ETSI TS 136 111 V14.0.0 (2017-04)	14.0.0	Published	13.04.2017	https://www.etsi.org/deliver/etsi_ts\136100_136199\136111\14.00.00_60\ts_136111v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.111-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/o6eWEat7cKKYGRY
TTA	TTAT.3G-36.111V14.0.0	14.0.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.111V14.0.0&searchCate=TTAS				

Release 15

ARIB	ARIB STD-T120-36.111.V15.0.0	15.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36111-f00.pdf
ATIS	ATIS.3GPP.36.111V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.111V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.111V1500.doc				
ETSI	ETSI TS 136 111 V15.0.0 (2018-11)	15.0.0	Published	12.11.2018	https://www.etsi.org/deliver/etsi_ts\136100_136199\136111\15.00.00_60\ts_136111v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.111-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/f5n334yHHXoZPn4
TTA	TTAT.3G-36.111V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.111V15.0.0&searchCate=TTAS				

Release 16

ARIB	ARIB STD-T120-36.111.V16.0.0	16.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36111-g00.pdf
ATIS	ATIS.3GPP.36.111V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.111V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.111V1600.doc				
ETSI	ETSI TS 136 111 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136100_136199\136111\16.00.00_60\ts_136111v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.111-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/pLb4LCEbqzSXNoa
TTA	TTAT.3G-36.111V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.111V16.0.0&searchCate=TTAS				

Release 17

ARIB	ARIB STD-T120-36.111.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36111-h00.pdf
ATIS	ATIS.3GPP.36.111.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.111.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
	7_ATIS/CCSA.3GPP.36.111.V17.0.0.docx				
ETSI	ETSI TS 136 111 V17.0.0 (2022-04)	17.0.0	Published	27.04.2022	https://www.etsi.org/deliver/etsi_ts\136100_136199\136111\17.00.00_60\ts_136111v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.111-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/HM299HsPCepfWMm
TTA	TTAT.3G-36.111V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
	36.111V17.0.0&searchCate=TTAS				

Release 18

ARIB	ARIB STD-T120-36.111.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36111-i00.pdf
ATIS	ATIS.3GPP.36.111.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.111.V18.0.0 7_ATIS/CCSA.3GPP.36.111.V18.0.0.docx	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 111 V18.0.0 (2024-05)	18.0.0	Published	07.05.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136111\18.00.00_60\ts_136111v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.111-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/pJDYsjXNnXxk4DH
TTA	TTAT.3G-36.111V18.0.0 36.111V18.0.0&searchCate=TTAS	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

2.1.5.5   TS 36.112

Location Measurement Unit (LMU) conformance specification; Network based positioning systems in Evolved Universal Terrestrial Radio Access Network (E-UTRAN)

This document establishes the conformance requirements for E-UTRAN Location Measurement Units (LMU) operating in the FDD or TDD mode.

SDO	Document No.	Version	Status	Issued date	Location
Release 11					
ARIB	ARIB STD-T120-36.112.V11.1.0	11.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36112-b10.pdf
ATIS	ATIS.3GPP.36.112V1110	11.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.112V1110 7_ATIS/CCSA.3GPP.36.112V1110.doc	11.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 112 V11.1.0 (2015-02)	11.1.0	Published	03.02.2015	https://www.etsi.org/deliver/etsi_ts\136100_136199\136112\11.01.00_60\ts_136112v110100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.112-11.1.0 V1.0.0	11.1.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/o8mm3fcpZjTc6ns
TTA	TTAT.3G-36.112V11.1.0 36.112V11.1.0&searchCate=TTAS	11.1.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
Release 12					
ARIB	ARIB STD-T120-36.112.V12.2.0	12.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36112-c20.pdf
ATIS	ATIS.3GPP.36.112V1220	12.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.112V1220 7_ATIS/CCSA.3GPP.36.112V1220.doc	12.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 112 V12.2.0 (2015-04)	12.2.0	Published	17.04.2015	https://www.etsi.org/deliver/etsi_ts\136100_136199\136112\12.02.00_60\ts_136112v120200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.112-12.2.0 V1.0.0	12.2.0	Published	30.08.2021	https://members.tsdsi.in/s/pTSxmNG8Mi7zpED
TTA	TTAT.3G-36.112V12.2.0 36.112V12.2.0&searchCate=TTAS	12.2.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
Release 13					
ARIB	ARIB STD-T120-36.112.V13.0.1	13.0.1	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36112-d01.pdf
ATIS	ATIS.3GPP.36.112V1301	13.0.1	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.112V1301 7_ATIS/CCSA.3GPP.36.112V1301.doc	13.0.1	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 112 V13.0.1 (2016-01)	13.0.1	Published	27.01.2016	https://www.etsi.org/deliver/etsi_ts\136100_136199\136112\13.00.01_60\ts_136112v130001p.pdf
TSDSI	TSDSI STD T1.3GPP 36.112-13.0.1 V1.0.0	13.0.1	Published	30.08.2021	https://members.tsdsi.in/s/QB3eL27mabXioGJ
TTA	TTAT.3G-36.112V13.0.1 36.112V13.0.1&searchCate=TTAS	13.0.1	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 14

ARIB	ARIB STD-T120-36.112.V14.0.0	14.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36112-e00.pdf
ATIS	ATIS.3GPP.36.112V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.112V1400	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.112V1400.doc
ETSI	ETSI TS 136 112 V14.0.0 (2017-04)	14.0.0	Published	13.04.2017	https://www.etsi.org/deliver/etsi_ts\136100_136199\136112\14.00.00_60\ts_136112v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.112-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/cSKHZjoxw69xEM2
TTA	TTAT.3G-36.112V14.0.0	14.0.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.112V14.0.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.112.V15.0.0	15.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36112-f00.pdf
ATIS	ATIS.3GPP.36.112V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.112V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.112V1500.doc
ETSI	ETSI TS 136 112 V15.0.0 (2018-07)	15.0.0	Published	16.07.2018	https://www.etsi.org/deliver/etsi_ts\136100_136199\136112\15.00.00_60\ts_136112v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.112-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/52RDPL6bZLXSN8C
TTA	TTAT.3G-36.112V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.112V15.0.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.112.V16.0.0	16.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36112-g00.pdf
ATIS	ATIS.3GPP.36.112V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.112V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.112V1600.doc
ETSI	ETSI TS 136 112 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136100_136199\136112\16.00.00_60\ts_136112v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.112-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/MxmARsJ3QxYz6bG
TTA	TTAT.3G-36.112V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.112V16.0.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.112.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36112-h00.pdf
ATIS	ATIS.3GPP.36.112.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.112.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.112.V17.0.0.docx
ETSI	ETSI TS 136 112 V17.0.0 (2022-04)	17.0.0	Published	27.04.2022	https://www.etsi.org/deliver/etsi_ts\136100_136199\136112\17.00.00_60\ts_136112v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.112-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/6q4KJnQ7BnJkTQq
TTA	TTAT.3G-36.112V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.112V17.0.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.112.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36112-i00.pdf
ATIS	ATIS.3GPP.36.112.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.112.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.112.V18.0.0.docx
ETSI	ETSI TS 136 112 V18.0.0 (2024-05)	18.0.0	Published	07.05.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136112\18.00.00_60\ts_136112v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.112-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/m9gwHZAZfRXqAHA
TTA	TTAT.3G-36.112V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.112V18.0.0&searchCate=TTAS

2.1.5.6 TS 36.113

Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) and repeater ElectroMagnetic Compatibility (EMC)

This document covers the assessment of E-UTRA base stations, repeaters and associated ancillary equipment in respect of Electromagnetic Compatibility (EMC). This document specifies the applicable test conditions, performance assessment and performance criteria for E-UTRA base stations, repeaters and associated ancillary equipment in one of the following categories: (i) base stations of E-UTRA meeting the requirements of TS 36.104, with conformance demonstrated by compliance to TS 36.141; (ii) repeaters of FDD E-UTRA meeting the requirements of TS 36.106, with conformance demonstrated by compliance to TS 36.143. The environment classification used in this document refers to the environment classification used in IEC 61000-6-1 and IEC 61000-6-3. The EMC requirements have been selected to ensure an adequate level of compatibility for apparatus at residential, commercial and light industrial environments. The levels, however, do not cover extreme cases which may occur in any location but with low probability of occurrence.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.113.V10.5.0	10.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36113-a50.pdf
ATIS	ATIS.3GPP.36.113V1050	10.5.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.113V1050	10.5.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.113V1050.doc
ETSI	ETSI TS 136 113 V10.5.0 (2012-07)	10.5.0	Published	23.07.2012	https://www.etsi.org/deliver/etsi_ts\136100_136199\136113\10.05.00_60\ts_136113v100500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.113-10.5.0 V1.0.0	10.5.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/MiCd65aC5bHZXdJ
TTA	TTAT.3G-36.113V10.5.0	10.5.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.113V10.5.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.113.V11.3.0	11.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36113-b30.pdf
ATIS	ATIS.3GPP.36.113V1130	11.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.113V1130	11.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.113V1130.doc
ETSI	ETSI TS 136 113 V11.3.0 (2015-02)	11.3.0	Published	03.02.2015	https://www.etsi.org/deliver/etsi_ts\136100_136199\136113\11.03.00_60\ts_136113v110300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.113-11.3.0 V1.0.0	11.3.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/9DtWMdYHL2b9PWP
TTA	TTAT.3G-36.113V11.3.0	11.3.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.113V11.3.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-36.113.V12.3.0	12.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36113-c30.pdf
ATIS	ATIS.3GPP.36.113V1230	12.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.113V1230	12.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.113V1230.doc
ETSI	ETSI TS 136 113 V12.3.0 (2015-02)	12.3.0	Published	03.02.2015	https://www.etsi.org/deliver/etsi_ts\136100_136199\136113\12.03.00_60\ts_136113v120300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.113-12.3.0 V1.0.0	12.3.0	Published	30.08.2021	https://members.tsdsi.in/s/5CqBziz6P3fjMwg
TTA	TTAT.3G-36.113V12.3.0	12.3.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.113V12.3.0&searchCate=TTAS
Release 13					
ARIB	ARIB STD-T120-36.113.V13.3.0	13.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36113-d30.pdf
ATIS	ATIS.3GPP.36.113V1330	13.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13

CCSA	CCSA.3GPP.36.113V1330	13.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.113V1330.doc
ETSI	ETSI TS 136 113 V13.3.0 (2017-01)	13.3.0	Published	26.01.2017	https://www.etsi.org/deliver/etsi_ts\136100_136199\136113\13.03.00_60\ts_136113v130300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.113-13.3.0 V1.0.0	13.3.0	Published	30.08.2021	https://members.tsdsi.in/s/XwffSGkKmjMPbZF
TTA	TTAT.3G-36.113V13.3.0	13.3.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.113V13.3.0&searchCate=TTAS

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ARIB	ARIB STD-T120-36.113.V14.2.0	14.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36113-e20.pdf
ATIS	ATIS.3GPP.36.113V1420	14.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.113V1420	14.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.113V1420.doc
ETSI	ETSI TS 136 113 V14.2.0 (2017-04)	14.2.0	Published	13.04.2017	https://www.etsi.org/deliver/etsi_ts\136100_136199\136113\14.02.00_60\ts_136113v140200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.113-14.2.0 V1.0.0	14.2.0	Published	30.08.2021	https://members.tsdsi.in/s/qnDjXFXgY5yjwTr
TTA	TTAT.3G-36.113V14.2.0	14.2.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.113V14.2.0&searchCate=TTAS

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ARIB	ARIB STD-T120-36.113.V15.7.0	15.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36113-f70.pdf
ATIS	ATIS.3GPP.36.113.V15.7.0	15.7.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.113.V15.7.0	15.7.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.113.V15.7.0.docx
ETSI	ETSI TS 136 113 V15.7.0 (2024-05)	15.7.0	Published	07.05.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136113\15.07.00_60\ts_136113v150700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.113-15.7.0 V1.3.0	15.7.0	Published	22.07.2024	https://members.tsdsi.in/s/cLQjLiJnLR55DgL
TTA	TTAT.3G-36.113V15.7.0	15.7.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.113V15.7.0&searchCate=TTAS

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ARIB	ARIB STD-T120-36.113.V16.5.0	16.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36113-g50.pdf
ATIS	ATIS.3GPP.36.113.V16.5.0	16.5.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.113.V16.5.0	16.5.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.113.V16.5.0.docx
ETSI	ETSI TS 136 113 V16.5.0 (2024-05)	16.5.0	Published	07.05.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136113\16.05.00_60\ts_136113v160500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.113-16.5.0 V1.3.0	16.5.0	Published	22.07.2024	https://members.tsdsi.in/s/SGbcSdsMoGgM42m
TTA	TTAT.3G-36.113V16.5.0	16.5.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.113V16.5.0&searchCate=TTAS

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ARIB	ARIB STD-T120-36.113.V17.3.0	17.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36113-h30.pdf
ATIS	ATIS.3GPP.36.113.V17.3.0	17.3.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.113.V17.3.0	17.3.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.113.V17.3.0.docx
ETSI	ETSI TS 136 113 V17.3.0 (2024-05)	17.3.0	Published	14.05.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136113\17.03.00_60\ts_136113v170300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.113-17.3.0 V1.3.0	17.3.0	Published	14.08.2023	https://members.tsdsi.in/s/ZYz3GEqS8HMMrrW
TTA	TTAT.3G-36.113V17.3.0	17.3.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.113V17.3.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.113.V18.1.0	18.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36113-i10.pdf
ATIS	ATIS.3GPP.36.113.V18.1.0	18.1.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.113.V18.1.0	18.1.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-

7_ATIS/CCSA.3GPP.36.113.V18.1.0.docx

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ETSI	ETSI TS 136 113 V18.1.0 (2024-05)	18.1.0	Published	14.05.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136113\18.01.00_60\ts_136113v180100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.113-18.1.0 V1.0.0	18.1.0	Published	19.11.2024	https://members.tsdsi.in/s/4PaNx6k2HpKnbJW
TTA	TTAT.3G-36.113V18.1.0	18.1.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.113V18.1.0&searchCate=TTAS

2.1.5.7   TS 36.116

Evolved Universal Terrestrial Radio Access (E-UTRA); Relay radio transmission and reception

This document establishes the minimum RF characteristics and minimum performance requirements of E-UTRA Relay.

SDO	Document No.	Version	Status	Issued date	Location
Release 11					
ATIS	ATIS.3GPP.36.116V1170	11.7.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.116V1170 7_ATIS/CCSA.3GPP.36.116V1170.doc	11.7.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.116V1170.doc
ETSI	ETSI TS 136 116 V11.7.0 (2016-01)	11.7.0	Published	27.01.2016	https://www.etsi.org/deliver/etsi_ts\136100_136199\136116\11.07.00_60\ts_136116v110700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.116-11.7.0 V1.0.0	11.7.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/q34m5EfQbg5XfMC
TTA	TTAT.3G-36.116V11.7.0	11.7.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.116V11.7.0&searchCate=TTAS
Release 12					
ATIS	ATIS.3GPP.36.116V1240	12.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.116V1240 7_ATIS/CCSA.3GPP.36.116V1240.doc	12.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.116V1240.doc
ETSI	ETSI TS 136 116 V12.4.0 (2016-01)	12.4.0	Published	27.01.2016	https://www.etsi.org/deliver/etsi_ts\136100_136199\136116\12.04.00_60\ts_136116v120400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.116-12.4.0 V1.0.0	12.4.0	Published	30.08.2021	https://members.tsdsi.in/s/ocKCAetjk2rm8b4
TTA	TTAT.3G-36.116V12.4.0	12.4.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.116V12.4.0&searchCate=TTAS
Release 13					
ATIS	ATIS.3GPP.36.116V1301	13.0.1	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.116V1301 7_ATIS/CCSA.3GPP.36.116V1301.doc	13.0.1	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.116V1301.doc
ETSI	ETSI TS 136 116 V13.0.1 (2016-01)	13.0.1	Published	27.01.2016	https://www.etsi.org/deliver/etsi_ts\136100_136199\136116\13.00.01_60\ts_136116v130001p.pdf
TSDSI	TSDSI STD T1.3GPP 36.116-13.0.1 V1.0.0	13.0.1	Published	30.08.2021	https://members.tsdsi.in/s/EFFJ6tQQJMfWJp9
TTA	TTAT.3G-36.116V13.0.1	13.0.1	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.116V13.0.1&searchCate=TTAS
Release 14					
ATIS	ATIS.3GPP.36.116V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.116V1400 7_ATIS/CCSA.3GPP.36.116V1400.doc	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.116V1400.doc
ETSI	ETSI TS 136 116 V14.0.0 (2017-04)	14.0.0	Published	13.04.2017	https://www.etsi.org/deliver/etsi_ts\136100_136199\136116\14.00.00_60\ts_136116v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.116-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/jrKHg4BSTtFBbsk
TTA	TTAT.3G-36.116V14.0.0	14.0.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.116V14.0.0&searchCate=TTAS

Release 15

SDO	Document No.	Version	Status	Issued date	Location
ATIS	ATIS.3GPP.36.116V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.116V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.116V1500.doc
ETSI	ETSI TS 136 116 V15.0.0 (2018-11)	15.0.0	Published	12.11.2018	https://www.etsi.org/deliver/etsi_ts\136100_136199\136116\15.00.00_60\ts_136116v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.116-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/We9bJJzWkjdSZig
TTA	TTAT.3G-36.116V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.116V15.0.0&searchCate=TTAS

Release 16

SDO	Document No.	Version	Status	Issued date	Location
ATIS	ATIS.3GPP.36.116V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.116V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.116V1600.doc
ETSI	ETSI TS 136 116 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136100_136199\136116\16.00.00_60\ts_136116v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.116-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/rNYaJLPWa9xBCNi
TTA	TTAT.3G-36.116V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.116V16.0.0&searchCate=TTAS

Release 17

SDO	Document No.	Version	Status	Issued date	Location
ATIS	ATIS.3GPP.36.116.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.116.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.116.V17.0.0.docx
ETSI	ETSI TS 136 116 V17.0.0 (2022-04)	17.0.0	Published	27.04.2022	https://www.etsi.org/deliver/etsi_ts\136100_136199\136116\17.00.00_60\ts_136116v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.116-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/aFig9xSiigXEpGP
TTA	TTAT.3G-36.116V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.116V17.0.0&searchCate=TTAS

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ATIS	ATIS.3GPP.36.116.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.116.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.116.V18.0.0.docx
ETSI	ETSI TS 136 116 V18.0.0 (2024-05)	18.0.0	Published	07.05.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136116\18.00.00_60\ts_136116v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.116-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/SnmRqFk4XtDpt3a
TTA	TTAT.3G-36.116V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.116V18.0.0&searchCate=TTAS

2.1.5.8   TS 36.117

Evolved Universal Terrestrial Radio Access (E-UTRA); Relay conformance testing

This document specifies the Radio Frequency (RF) test methods and conformance requirements for E-UTRA Relay. These have been derived from, and are consistent with the E-UTRA Relay specifications defined in TS 36.116.

Release 11

SDO	Document No.	Version	Status	Issued date	Location
ATIS	ATIS.3GPP.36.117V1140	11.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.117V1140	11.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.117V1140.doc
ETSI	ETSI TS 136 117 V11.4.0 (2016-01)	11.4.0	Published	27.01.2016	https://www.etsi.org/deliver/etsi_ts\136100_136199\136117\11.04.00_60\ts_136117v110400p.pdf

TSDSI	TSDSI STD T1.3GPP 36.117-11.4.0 V1.0.0	11.4.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/XpNC7gKxC44jpoW
TTA	TTAT.3G-36.117V11.4.0	11.4.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.117V11.4.0&searchCate=TTAS

Release 12

ATIS	ATIS.3GPP.36.117V1230	12.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.117V1230	12.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.117V1230.doc
ETSI	ETSI TS 136 117 V12.3.0 (2016-01)	12.3.0	Published	27.01.2016	https://www.etsi.org/deliver/etsi_ts\136100_136199\136117\12.03.00_60\ts_136117v120300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.117-12.3.0 V1.0.0	12.3.0	Published	30.08.2021	https://members.tsdsi.in/s/32sE2KHs9gMFAy7
TTA	TTAT.3G-36.117V12.3.0	12.3.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.117V12.3.0&searchCate=TTAS

Release 13

ATIS	ATIS.3GPP.36.117V1301	13.0.1	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.117V1301	13.0.1	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.117V1301.doc
ETSI	ETSI TS 136 117 V13.0.1 (2016-01)	13.0.1	Published	27.01.2016	https://www.etsi.org/deliver/etsi_ts\136100_136199\136117\13.00.01_60\ts_136117v130001p.pdf
TSDSI	TSDSI STD T1.3GPP 36.117-13.0.1 V1.0.0	13.0.1	Published	30.08.2021	https://members.tsdsi.in/s/MgCT8zzx9KHqtGX
TTA	TTAT.3G-36.117V13.0.1	13.0.1	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.117V13.0.1&searchCate=TTAS

Release 14

ATIS	ATIS.3GPP.36.117V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.117V1400	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.117V1400.doc
ETSI	ETSI TS 136 117 V14.0.0 (2017-04)	14.0.0	Published	13.04.2017	https://www.etsi.org/deliver/etsi_ts\136100_136199\136117\14.00.00_60\ts_136117v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.117-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/JSLwcfr9x4RDy7D
TTA	TTAT.3G-36.117V14.0.0	14.0.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.117V14.0.0&searchCate=TTAS

Release 15

ATIS	ATIS.3GPP.36.117V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.117V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.117V1500.doc
ETSI	ETSI TS 136 117 V15.0.0 (2018-11)	15.0.0	Published	12.11.2018	https://www.etsi.org/deliver/etsi_ts\136100_136199\136117\15.00.00_60\ts_136117v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.117-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/jcnwPQ8Qpp94N4Y
TTA	TTAT.3G-36.117V15.0.0	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.117V15.0.0&searchCate=TTAS

Release 16

ATIS	ATIS.3GPP.36.117V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.117V1600	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.117V1600.doc
ETSI	ETSI TS 136 117 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136100_136199\136117\16.00.00_60\ts_136117v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.117-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/gpWwBK2pzmFjk3d
TTA	TTAT.3G-36.117V16.0.0	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.117V16.0.0&searchCate=TTAS

Release 17

ATIS	ATIS.3GPP.36.117.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.117.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.117.V17.0.0.docx
ETSI	ETSI TS 136 117 V17.0.0 (2022-04)	17.0.0	Published	27.04.2022	https://www.etsi.org/deliver/etsi_ts\136100_136199\136117\17.00.00_60\ts_136117v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.117-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/qEDkopd95iteq6N
TTA	TTAT.3G-36.117V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.117V17.0.0&searchCate=TTAS

Release 18

ATIS	ATIS.3GPP.36.117.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.117.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.117.V18.0.0.docx
ETSI	ETSI TS 136 117 V18.0.0 (2024-05)	18.0.0	Published	07.05.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136117\18.00.00_60\ts_136117v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.117-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/DepnRPSqH2DwZC9
TTA	TTAT.3G-36.117V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.117V18.0.0&searchCate=TTAS

2.1.5.9   TS 36.124

Evolved Universal Terrestrial Radio Access (E-UTRA); Electromagnetic compatibility (EMC) requirements for mobile terminals and ancillary equipment

This document establishes the essential EMC requirements for "3rd generation" digital cellular mobile terminal equipment and ancillary accessories in combination with a 3GPP E-UTRA user equipment (UE). This document specifies the applicable EMC tests, the methods of measurement, the frequency range, the limits and the minimum performance criteria for all types of E-UTRA UEs and their accessories. Requirements for the radiated emission from the enclosure port of integral antenna equipment and ancillaries have been included. The immunity requirements have been selected to ensure an adequate level of compatibility for apparatus in residential, commercial, light industrial and vehicular environments. The levels, however, do not cover extreme cases, which may occur in any location but with low probability of occurrence. Compliance of radio equipment to the requirements of this document does not signify compliance to any requirement related to the use of the equipment (i.e., licensing requirements). Compliance to the requirements of this document does not signify compliance to any safety requirement. However, any temporary or permanent unsafe condition caused by EMC is considered as non-compliance.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.124.V10.4.0	10.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36124-a40.pdf
ATIS	ATIS.3GPP.36.124.V10.4.0	10.4.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.124.V10.4.0	10.4.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.124.V10.4.0.docx
ETSI	ETSI TS 136 124 V10.4.0 (2022-08)	10.4.0	Published	17.08.2022	https://www.etsi.org/deliver/etsi_ts\136100_136199\136124\10.04.00_60\ts_136124v100400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.124-10.3.0 V1.0.0	10.4.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/o2PLZDMnTNs7wd9
TTA	TTAT.3G-36.124V10.4.0	10.4.0	Published	21.10.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.124V10.4.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.124.V11.3.0	11.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36124-b30.pdf
ATIS	ATIS.3GPP.36.124.V11.3.0	11.3.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-11

CCSA	CCSA.3GPP.36.124.V11.3.0	11.3.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.124.V11.3.0.docx
ETSI	ETSI TS 136 124 V11.3.0 (2022-08)	11.3.0	Published	17.08.2022	https://www.etsi.org/deliver/etsi_ts\136100_136199\136124\11.03.00_60\ts_136124v110300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.124 11.3.0 V1.1.0	11.3.0	Published	02.05.2023	https://members.tsdsi.in/index.php/s/yGjcQ67ssCxmCyf
TTA	TTAT.3G-36.124V11.3.0	11.3.0	Published	21.10.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.124V11.3.0&searchCate=TTAS

Release 12

ARIB	ARIB STD-T120-36.124.V12.2.0	12.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36124-c20.pdf
ATIS	ATIS.3GPP.36.124.V12.2.0	12.2.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.124.V12.2.0	12.2.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.124.V12.2.0.docx
ETSI	ETSI TS 136 124 V12.2.0 (2022-08)	12.2.0	Published	17.08.2022	https://www.etsi.org/deliver/etsi_ts\136100_136199\136124\12.02.00_60\ts_136124v120200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.124 12.2.0 V1.1.0	12.2.0	Published	02.05.2023	https://members.tsdsi.in/s/9KBniGRpqMkzdXN
TTA	TTAT.3G-36.124V12.2.0	12.2.0	Published	21.10.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.124V12.2.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.124.V13.2.0	13.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36124-d20.pdf
ATIS	ATIS.3GPP.36.124.V13.2.0	13.2.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.124.V13.2.0	13.2.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.124.V13.2.0.docx
ETSI	ETSI TS 136 124 V13.2.0 (2022-07)	13.2.0	Published	21.07.2022	https://www.etsi.org/deliver/etsi_ts\136100_136199\136124\13.02.00_60\ts_136124v130200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.124-13.2.0 V1.1.0	13.2.0	Published	19.11.2024	https://members.tsdsi.in/s/Nas8CPapcLF9xyK
TTA	TTAT.3G-36.124V13.2.0	13.2.0	Published	21.10.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.124V13.2.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.124.V14.2.0	14.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36124-e20.pdf
ATIS	ATIS.3GPP.36.124.V14.2.0	14.2.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.124.V14.2.0	14.2.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.124.V14.2.0.docx
ETSI	ETSI TS 136 124 V14.2.0 (2022-07)	14.2.0	Published	21.07.2022	https://www.etsi.org/deliver/etsi_ts\136100_136199\136124\14.02.00_60\ts_136124v140200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.124-14.2.0 V1.1.0	14.2.0	Published	17.01.2023	https://members.tsdsi.in/s/XwmCjR49jTsBzWx
TTA	TTAT.3G-36.124V14.2.0	14.2.0	Published	21.10.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.124V14.2.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.124.V15.4.0	15.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36124-f40.pdf
ATIS	ATIS.3GPP.36.124.V15.4.0	15.4.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.124.V15.4.0	15.4.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.124.V15.4.0.docx
ETSI	ETSI TS 136 124 V15.4.0 (2022-07)	15.4.0	Published	21.07.2022	https://www.etsi.org/deliver/etsi_ts\136100_136199\136124\15.04.00_60\ts_136124v150400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.124-15.4.0 V1.1.0	15.4.0	Published	01.11.2022	https://members.tsdsi.in/s/pnGEjjaPg6BtA8a
TTA	TTAT.3G-36.124V15.4.0	15.4.0	Published	21.10.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.124V15.4.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.124.V16.3.0	16.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36124-g30.pdf
ATIS	ATIS.3GPP.36.124.V16.3.0	16.3.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16

CCSA	CCSA.3GPP.36.124.V16.3.0	16.3.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.124.V16.3.0.docx
ETSI	ETSI TS 136 124 V16.3.0 (2022-07)	16.3.0	Published	21.07.2022	https://www.etsi.org/deliver/etsi_ts\136100_136199\136124\16.03.00_60\ts_136124v160300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.124-16.3.0 V1.1.0	16.3.0	Published	29.07.2022	https://members.tsdsi.in/s/2CSFNqL3iYi6w4d
TTA	TTAT.3G-36.124V16.3.0	16.3.0	Published	21.10.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.124V16.3.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.124.V17.1.0	17.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36124-h10.pdf
ATIS	ATIS.3GPP.36.124.V17.1.0	17.1.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.124.V17.1.0	17.1.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.124.V17.1.0.docx
ETSI	ETSI TS 136 124 V17.1.0 (2022-07)	17.1.0	Published	21.07.2022	https://www.etsi.org/deliver/etsi_ts\136100_136199\136124\17.01.00_60\ts_136124v170100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.124-17.1.0 V1.1.0	17.1.0	Published	01.11.2022	https://members.tsdsi.in/s/pXqtY6GZxNEFDcS
TTA	TTAT.3G-36.124V17.1.0	17.1.0	Published	21.10.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.124V17.1.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.124.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36124-i00.pdf
ATIS	ATIS.3GPP.36.124.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.124.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.124.V18.0.0.docx
ETSI	ETSI TS 136 124 V18.0.0 (2024-05)	18.0.0	Published	23.05.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136124\18.00.00_60\ts_136124v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.124-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/TGnwkQKSq6aSBER
TTA	TTAT.3G-36.124V18.0.0	18.0.0	Published	08.05.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.124V18.0.0&searchCate=TTAS

2.1.5.10   TS 36.133

Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management

This document specifies requirements for support of Radio Resource Management for the FDD and TDD modes of E-UTRA. These requirements include requirements on measurements in UTRAN and the UE as well as requirements on node dynamical behaviour and interaction, in terms of delay and response characteristics.

SDO	Document No.	Version	Status	Issued date	Location

Release 10

ARIB	ARIB STD-T120-36.133.V10.22.0	10.22.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36133-am0.pdf
ATIS	ATIS.3GPP.36.133V10220	10.22.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.133V10220	10.22.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.133V10220.zip
ETSI	ETSI TS 136 133 V10.22.0 (2016-12)	10.22.0	Published	19.12.2016	https://www.etsi.org/deliver/etsi_ts\136100_136199\136133\10.22.00_60\ts_136133v102200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.133-10.22.0 V1.0.0	10.22.0	Published	30.08.2021	https://members.tsdsi.in/s/W9abyhIXuKxTlGM
TTA	TTAT.3G-36.133V10.22.0	10.22.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.133V10.22.0&searchCate=TTAS

Release 11

| ARIB | ARIB STD-T120-36.133.V11.18.0 | 11.18.0 | Published | 25.03.2025 | https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36133-bi0.pdf |
| ATIS | ATIS.3GPP.36.133V11180 | 11.18.0 | Published | 28.06.2021 | https://www.atis.org/3gpp-transpositions#Rel-11 |

CCSA	CCSA.3GPP.36.133V11180	11.18.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.133V11180.zip
ETSI	ETSI TS 136 133 V11.18.0 (2016-12)	11.18.0	Published	19.12.2016	https://www.etsi.org/deliver/etsi_ts\136100_136199\136133\11.18.00_60\ts_136133v111800p.pdf
TSDSI	TSDSI STD T1.3GPP 36.133-11.18.0 V1.0.0	11.18.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/TQEKFow5HKNpeDx
TTA	TTAT.3G-36.133V11.18.0	11.18.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.133V11.18.0&searchCate=TTAS

Release 12

ARIB	ARIB STD-T120-36.133.V12.20.0	12.20.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36133-ck0.pdf
ATIS	ATIS.3GPP.36.133V12200	12.20.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.133V12200	12.20.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.133V12200.zip
ETSI	ETSI TS 136 133 V12.20.0 (2019-07)	12.20.0	Published	19.07.2019	https://www.etsi.org/deliver/etsi_ts\136100_136199\136133\12.20.00_60\ts_136133v122000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.133-12.20.0 V1.1.0	12.20.0	Published	30.08.2021	https://members.tsdsi.in/s/EAACxSGweMwB796
TTA	TTAT.3G-36.133V12.20.0	12.20.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.133V12.20.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.133.V13.24.0	13.24.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36133-do0.pdf
ATIS	ATIS.3GPP.36.133.V13.24.0	13.24.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.133.V13.24.0	13.24.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.133.V13.24.0.zip
ETSI	ETSI TS 136 133 V13.24.0 (2024-10)	13.24.0	Published	10.10.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136133\13.24.00_60\ts_136133v132400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.133-13.24.0 V1.2.0	13.24.0	Published	02.03.2025	https://members.tsdsi.in/s/jxMiWJSFrM5YZtk
TTA	TTAT.3G-36.133V13.24.0	13.24.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.133V13.24.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.133.V14.24.0	14.24.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36133-eo0.pdf
ATIS	ATIS.3GPP.36.133.V14.24.0	14.24.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.133.V14.24.0	14.24.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.133.V14.24.0.zip
ETSI	ETSI TS 136 133 V14.24.0 (2024-10)	14.24.0	Published	11.10.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136133\14.24.00_60\ts_136133v142400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.133-14.24.0 V1.2.0	14.24.0	Published	02.03.2025	https://members.tsdsi.in/s/wnTqBYofMSxBqYQ
TTA	TTAT.3G-36.133V14.24.0	14.24.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.133V14.24.0&searchCate=TTAS

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ARIB	ARIB STD-T120-36.133.V15.22.0	15.22.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36133-fm0.pdf
ATIS	ATIS.3GPP.36.133.V15.22.0	15.22.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.133.V15.22.0	15.22.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.133.V15.22.0.zip
ETSI	ETSI TS 136 133 V15.22.0 (2024-10)	15.22.0	Published	11.10.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136133\15.22.00_60\ts_136133v152200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.133-15.22.0 V1.7.0	15.22.0	Published	02.03.2025	https://members.tsdsi.in/s/NrwfZSZnjnKTnRf
TTA	TTAT.3G-36.133V15.22.0	15.22.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.133V15.22.0&searchCate=TTAS

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ARIB	ARIB STD-T120-36.133.V16.21.0	16.21.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36133-gl0.pdf
ATIS	ATIS.3GPP.36.133.V16.21.0	16.21.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-16

CCSA	CCSA.3GPP.36.133.V16.21.0	16.21.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.133.V16.21.0.zip
ETSI	ETSI TS 136 133 V16.21.0 (2024-10)	16.21.0	Published	16.10.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136133\16.21.00_60\ts_136133v162100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.133-16.21.0 V1.8.0	16.21.0	Published	02.03.2025	https://members.tsdsi.in/s/ctwFB2ettyyd2xi
TTA	TTAT.3G-36.133V16.21.0	16.21.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.133V16.21.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.133.V17.14.0	17.14.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36133-he0.pdf
ATIS	ATIS.3GPP.36.133.V17.14.0	17.14.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.133.V17.14.0	17.14.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.133.V17.14.0.zip
ETSI	ETSI TS 136 133 V17.14.0 (2024-10)	17.14.0	Published	15.10.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136133\17.14.00_60\ts_136133v171400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.133-17.14.0 V1.9.0	17.14.0	Published	02.03.2025	https://members.tsdsi.in/s/dcy2cNbK4XkLqsw
TTA	TTAT.3G-36.133V17.14.0	17.14.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.133V17.14.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.133.V18.7.0	18.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36133-i70.pdf
ATIS	ATIS.3GPP.36.133.V18.7.0	18.7.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.133.V18.7.0	18.7.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.133.V18.7.0.zip
ETSI	ETSI TS 136 133 V18.7.0 (2024-10)	18.7.0	Published	14.10.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136133\18.07.00_60\ts_136133v180700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.133-18.7.0 V1.1.0	18.7.0	Published	02.03.2025	https://members.tsdsi.in/s/yfzRcTegoeRwP5n
TTA	TTAT.3G-36.133V18.7.0	18.7.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.133V18.7.0&searchCate=TTAS

2.1.5.11 TS 36.141

Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing

This document specifies the Radio Frequency (RF) test methods and conformance requirements for E-UTRA Base Stations (BS) operating either in the FDD mode (used in paired bands) or the TDD mode (used in unpaired bands). These have been derived from and are consistent with the E-UTRA Base Station (BS) specifications defined in TS 36 104.

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Release 10					
ARIB	ARIB STD-T120-36.141.V10.15.0	10.15.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36141-af0.pdf
ATIS	ATIS.3GPP.36.141.V10.15.0	10.15.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.141.V10.15.0	10.15.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.141.V10.15.0.doc
ETSI	ETSI TS 136 141 V10.15.0 (2021-04)	10.15.0	Published	30.04.2021	https://www.etsi.org/deliver/etsi_ts\136100_136199\136141\10.15.00_60\ts_136141v101500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.141 10.15.0 V1.1.0	10.15.0	Published	02.05.2023	https://members.tsdsi.in/s/i3B2E3o2S5oZARf
TTA	TTAT.3G-36.141V10.15.0	10.15.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.141V10.15.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.141.V11.18.0	11.18.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36141-bi0.pdf
ATIS	ATIS.3GPP.36.141.V11.18.0	11.18.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-11

CCSA	CCSA.3GPP.36.141.V11.18.0	11.18.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.141.V11.18.0.doc
ETSI	ETSI TS 136 141 V11.18.0 (2021-04)	11.18.0	Published	30.04.2021	https://www.etsi.org/deliver/etsi_ts\136100_136199\136141\11.18.00_60\ts_136141v111800p.pdf
TSDSI	TSDSI STD T1.3GPP 36.141 11.18.0 V1.1.0	11.18.0	Published	02.05.2023	https://members.tsdsi.in/s/GsLE9D4DW7CFD3F
TTA	TTAT.3G-36.141V11.18.0	11.18.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.141V11.18.0&searchCate=TTAS

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ARIB	ARIB STD-T120-36.141.V12.15.0	12.15.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36141-cf0.pdf
ATIS	ATIS.3GPP.36.141.V12.15.0	12.15.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.141.V12.15.0	12.15.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.141.V12.15.0.doc
ETSI	ETSI TS 136 141 V12.15.0 (2021-04)	12.15.0	Published	29.04.2021	https://www.etsi.org/deliver/etsi_ts\136100_136199\136141\12.15.00_60\ts_136141v121500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.141 12.15.0 V1.1.0	12.15.0	Published	02.05.2023	https://members.tsdsi.in/s/EqgakrJ7XJS5795
TTA	TTAT.3G-36.141V12.15.0	12.15.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.141V12.15.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.141.V13.16.0	13.16.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36141-dg0.pdf
ATIS	ATIS.3GPP.36.141.V13.16.0	13.16.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.141.V13.16.0	13.16.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.141.V13.16.0.docx
ETSI	ETSI TS 136 141 V13.16.0 (2021-04)	13.16.0	Published	30.04.2021	https://www.etsi.org/deliver/etsi_ts\136100_136199\136141\13.16.00_60\ts_136141v131600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.141-13.16.0 V1.1.0	13.16.0	Published	17.01.2023	https://members.tsdsi.in/s/PctSZHpnKCSjzXC
TTA	TTAT.3G-36.141V13.16.0	13.16.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.141V13.16.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.141.V14.14.0	14.14.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36141-ee0.pdf
ATIS	ATIS.3GPP.36.141.V14.14.0	14.14.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.141.V14.14.0	14.14.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.141.V14.14.0.docx
ETSI	ETSI TS 136 141 V14.14.0 (2022-03)	14.14.0	Published	16.03.2022	https://www.etsi.org/deliver/etsi_ts\136100_136199\136141\14.14.00_60\ts_136141v141400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.141-14.14.0 V1.1.0	14.14.0	Published	17.01.2023	https://members.tsdsi.in/s/6GminQ7di5Zxicj
TTA	TTAT.3G-36.141V14.14.0	14.14.0	Published	14.03.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.141V14.14.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.141.V15.20.0	15.20.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36141-fk0.pdf
ATIS	ATIS.3GPP.36.141.V15.20.0	15.20.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.141.V15.20.0	15.20.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.141.V15.20.0.docx
ETSI	ETSI TS 136 141 V15.20.0 (2024-05)	15.20.0	Published	07.05.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136141\15.20.00_60\ts_136141v152000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.141-15.20.0 V1.6.0	15.20.0	Published	22.07.2024	https://members.tsdsi.in/s/mG8D6MjZ5CY5ZjT
TTA	TTAT.3G-36.141V15.20.0	15.20.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.141V15.20.0&searchCate=TTAS

Release 16

| ARIB | ARIB STD-T120-36.141.V16.19.0 | 16.19.0 | Published | 25.03.2025 | https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36141-gj0.pdf |
| ATIS | ATIS.3GPP.36.141.V16.19.0 | 16.19.0 | Published | 27.08.2024 | https://www.atis.org/3gpp-transpositions#Rel-16 |

CCSA	CCSA.3GPP.36.141.V16.19.0	16.19.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.141.V16.19.0.docx
ETSI	ETSI TS 136 141 V16.19.0 (2024-05)	16.19.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136141\16.19.00_60\ts_136141v161900p.pdf
TSDSI	TSDSI STD T1.3GPP 36.141-16.19.0 V1.6.0	16.19.0	Published	22.07.2024	https://members.tsdsi.in/s/mG8D6MjZ5CY5ZjT
TTA	TTAT.3G-36.141V16.19.0	16.19.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.141V16.19.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.141.V17.12.0	17.12.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36141-hc0.pdf
ATIS	ATIS.3GPP.36.141.V17.12.0	17.12.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.141.V17.12.0	17.12.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.141.V17.12.0.docx
ETSI	ETSI TS 136 141 V17.12.0 (2024-05)	17.12.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136141\17.12.00_60\ts_136141v171200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.141-17.12.0 V1.6.0	17.12.0	Published	22.07.2024	https://members.tsdsi.in/s/HRL9JsKzkctBtRd
TTA	TTAT.3G-36.141V17.12.0	17.12.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.141V17.12.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.141.V18.4.0	18.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36141-i40.pdf
ATIS	ATIS.3GPP.36.141.V18.4.0	18.4.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.141.V18.4.0	18.4.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.141.V18.4.0.docx
ETSI	ETSI TS 136 141 V18.4.0 (2024-05)	18.4.0	Published	02.05.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136141\18.04.00_60\ts_136141v180400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.141-18.4.0 V1.0.0	18.4.0	Published	19.11.2024	https://members.tsdsi.in/s/sYiterTPApD8DTy
TTA	TTAT.3G-36.141V18.4.0	18.4.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.141V18.4.0&searchCate=TTAS

2.1.5.12 TS 36.143

Evolved Universal Terrestrial Radio Access (E-UTRA); FDD repeater conformance testing

This document specifies the Radio Frequency (RF) test methods and conformance requirements for E-UTRA FDD Repeater. These have been derived from, and are consistent with the E-UTRA FDD repeater specifications defined in TS 36.106.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ATIS	ATIS.3GPP.36.143V1070	10.7.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.143V1070	10.7.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.143V1070.doc
ETSI	ETSI TS 136 143 V10.7.0 (2013-04)	10.7.0	Published	25.04.2013	https://www.etsi.org/deliver/etsi_ts\136100_136199\136143\10.07.00_60\ts_136143v100700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.143-10.7.0 V1.0.0	10.7.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/AkdL8sb2MYoitm9
TTA	TTAT.3G-36.143V10.7.0	10.7.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.143V10.7.0&searchCate=TTAS
Release 11					
ATIS	ATIS.3GPP.36.143V1120	11.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.143V1120	11.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.143V1120.doc
ETSI	ETSI TS 136 143 V11.2.0 (2013-04)	11.2.0	Published	25.04.2013	https://www.etsi.org/deliver/etsi_ts\136100_136199\136143\11.02.00_60\ts_136143v110200p.pdf

TSDSI	TSDSI STD T1.3GPP 36.143-11.2.0 V1.0.0	11.2.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/ER3kWmqtSWeZewD
TTA	TTAT.3G-36.143V11.2.0 36.143V11.2.0&searchCate=TTAS	11.2.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 12

ATIS	ATIS.3GPP.36.143V1210	12.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.143V1210 7_ATIS/CCSA.3GPP.36.143V1210.doc	12.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 143 V12.1.0 (2015-02)	12.1.0	Published	03.02.2015	https://www.etsi.org/deliver/etsi_ts\136100_136199\136143\12.01.00_60\ts_136143v120100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.143-12.1.0 V1.0.0	12.1.0	Published	30.08.2021	https://members.tsdsi.in/s/f4fxgNZoC3z2Bej
TTA	TTAT.3G-36.143V12.1.0 36.143V12.1.0&searchCate=TTAS	12.1.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 13

ATIS	ATIS.3GPP.36.143V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.143V1300 7_ATIS/CCSA.3GPP.36.143V1300.doc	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 143 V13.0.0 (2016-01)	13.0.0	Published	27.01.2016	https://www.etsi.org/deliver/etsi_ts\136100_136199\136143\13.00.00_60\ts_136143v130000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.143-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/f4qt7tL4zRX5iZD
TTA	TTAT.3G-36.143V13.0.0 36.143V13.0.0&searchCate=TTAS	13.0.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 14

ATIS	ATIS.3GPP.36.143V1400	14.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.143V1400 7_ATIS/CCSA.3GPP.36.143V1400.doc	14.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 143 V14.0.0 (2017-04)	14.0.0	Published	13.04.2017	https://www.etsi.org/deliver/etsi_ts\136100_136199\136143\14.00.00_60\ts_136143v140000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.143-14.0.0 V1.0.0	14.0.0	Published	30.08.2021	https://members.tsdsi.in/s/S5Jr9MmJd5S9prr
TTA	TTAT.3G-36.143V14.0.0 36.143V14.0.0&searchCate=TTAS	14.0.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 15

ATIS	ATIS.3GPP.36.143V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.143V1500 7_ATIS/CCSA.3GPP.36.143V1500.doc	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 143 V15.0.0 (2018-09)	15.0.0	Published	17.09.2018	https://www.etsi.org/deliver/etsi_ts\136100_136199\136143\15.00.00_60\ts_136143v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.143-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/cn2JgMWEgJ2Mnx9
TTA	TTAT.3G-36.143V15.0.0 36.143V15.0.0&searchCate=TTAS	15.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 16

ATIS	ATIS.3GPP.36.143V1600	16.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.143V1600 7_ATIS/CCSA.3GPP.36.143V1600.doc	16.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 143 V16.0.0 (2020-07)	16.0.0	Published	21.07.2020	https://www.etsi.org/deliver/etsi_ts\136100_136199\136143\16.00.00_60\ts_136143v160000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.143-16.0.0 V1.0.0	16.0.0	Published	30.08.2021	https://members.tsdsi.in/s/PGz8FaGEBZEEigQ
TTA	TTAT.3G-36.143V16.0.0 36.143V16.0.0&searchCate=TTAS	16.0.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

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ATIS	ATIS.3GPP.36.143.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.143.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.143.V17.0.0.docx
ETSI	ETSI TS 136 143 V17.0.0 (2022-04)	17.0.0	Published	28.04.2022	https://www.etsi.org/deliver/etsi_ts\136100_136199\136143\17.00.00_60\ts_136143v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.143-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/Qo83d7DgRjyGEj7
TTA	TTAT.3G-36.143V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.143V17.0.0&searchCate=TTAS

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ATIS	ATIS.3GPP.36.143.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.143.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.143.V18.0.0.docx
ETSI	ETSI TS 136 143 V18.0.0 (2024-05)	18.0.0	Published	07.05.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136143\18.00.00_60\ts_136143v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.143-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/C5pgPo48LaiXQAi
TTA	TTAT.3G-36.143V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.143V18.0.0&searchCate=TTAS

2.1.5.13   TS 36.171

Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for Support of Assisted Global Navigation Satellite System (A-GNSS)

This document establishes the minimum performance requirements for A-GNSS (including A-GPS) for FDD or TDD mode of E-UTRA for the User Equipment (UE).

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.171.V10.2.0	10.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36171-a20.pdf
ATIS	ATIS.3GPP.36.171V1020	10.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.171V1020	10.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.171V1020.doc
ETSI	ETSI TS 136 171 V10.2.0 (2013-07)	10.2.0	Published	18.07.2013	https://www.etsi.org/deliver/etsi_ts\136100_136199\136171\10.02.00_60\ts_136171v100200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.171-10.2.0 V1.0.0	10.2.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/FzoMQYcGt8M9nj5
TTA	TTAT.3G-36.171V10.2.0	10.2.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.171V10.2.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.171.V11.1.0	11.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36171-b10.pdf
ATIS	ATIS.3GPP.36.171V1110	11.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.171V1110	11.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.171V1110.doc
ETSI	ETSI TS 136 171 V11.1.0 (2013-07)	11.1.0	Published	18.07.2013	https://www.etsi.org/deliver/etsi_ts\136100_136199\136171\11.01.00_60\ts_136171v110100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.171-11.1.0 V1.0.0	11.1.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/8pR67XtN5fjwYfQ
TTA	TTAT.3G-36.171V11.1.0	11.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.171V11.1.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.171.V12.1.0	12.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36171-c10.pdf
ATIS	ATIS.3GPP.36.171V1210	12.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12

CCSA	CCSA.3GPP.36.171V1210 7_ATIS/CCSA.3GPP.36.171V1210.doc	12.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 171 V12.1.0 (2015-02)	12.1.0	Published	03.02.2015	https://www.etsi.org/deliver/etsi_ts\136100_136199\136171\12.01.00_60\ts_136171v120100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.171-12.1.0 V1.0.0	12.1.0	Published	30.08.2021	https://members.tsdsi.in/s/WFMS2wKjiKkGybn
TTA	TTAT.3G-36.171V12.1.0 36.171V12.1.0&searchCate=TTAS	12.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 11

ARIB	ARIB STD-T120-36.171.V13.1.0	13.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36171-d10.pdf
ATIS	ATIS.3GPP.36.171V1310	13.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.171V1310 7_ATIS/CCSA.3GPP.36.171V1310.docx	13.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 171 V13.1.0 (2018-07)	13.1.0	Published	16.07.2018	https://www.etsi.org/deliver/etsi_ts\136100_136199\136171\13.01.00_60\ts_136171v130100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.171-13.1.0 V1.1.0	13.1.0	Published	30.08.2021	https://members.tsdsi.in/s/Q6aLEgqbKBB9frc
TTA	TTAT.3G-36.171V13.1.0 36.171V13.1.0&searchCate=TTAS	13.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

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ARIB	ARIB STD-T120-36.171.V14.1.0	14.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36171-e10.pdf
ATIS	ATIS.3GPP.36.171V1410	14.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.171V1410 7_ATIS/CCSA.3GPP.36.171V1410.docx	14.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 171 V14.1.0 (2018-07)	14.1.0	Published	16.07.2018	https://www.etsi.org/deliver/etsi_ts\136100_136199\136171\14.01.00_60\ts_136171v140100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.171-14.1.0 V1.1.0	14.1.0	Published	30.08.2021	https://members.tsdsi.in/s/AigNm6gm4wwnecQ
TTA	TTAT.3G-36.171V14.1.0 36.171V14.1.0&searchCate=TTAS	14.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 11

ARIB	ARIB STD-T120-36.171.V15.2.0	15.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36171-f20.pdf
ATIS	ATIS.3GPP.36.171.V15.2.0	15.2.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.171.V15.2.0 7_ATIS/CCSA.3GPP.36.171.V15.2.0.docx	15.2.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 171 V15.2.0 (2021-10)	15.2.0	Published	13.10.2021	https://www.etsi.org/deliver/etsi_ts\136100_136199\136171\15.02.00_60\ts_136171v150200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.171-15.2.0 V1.1.0	15.2.0	Published	01.11.2022	https://members.tsdsi.in/s/EZmFLw5TsAQCso7
TTA	TTAT.3G-36.171V15.2.0 36.171V15.2.0&searchCate=TTAS	15.2.0	Published	27.01.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 11

ARIB	ARIB STD-T120-36.171.V16.6.0	16.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36171-g60.pdf
ATIS	ATIS.3GPP.36.171.V16.6.0	16.6.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.171.V16.6.0 7_ATIS/CCSA.3GPP.36.171.V16.6.0.docx	16.6.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 171 V16.6.0 (2023-07)	16.6.0	Published	18.07.2023	https://www.etsi.org/deliver/etsi_ts\136100_136199\136171\16.06.00_60\ts_136171v160600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.171-16.6.0 V1.2.0	16.6.0	Published	02.11.2023	https://members.tsdsi.in/s/KiHQYk2g9jgYTrw
TTA	TTAT.3G-36.171V16.6.0 36.171V16.6.0&searchCate=TTAS	16.6.0	Published	27.10.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 17

| ARIB | ARIB STD-T120-36.171.V17.3.0 | 17.3.0 | Published | 25.03.2025 | https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36171-h30.pdf |
| ATIS | ATIS.3GPP.36.171.V17.3.0 | 17.3.0 | Published | 27.08.2024 | https://www.atis.org/3gpp-transpositions#Rel-17 |

CCSA	CCSA.3GPP.36.171.V17.3.0	17.3.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.171.V17.3.0.docx
ETSI	ETSI TS 136 171 V17.3.0 (2023-07)	17.3.0	Published	18.07.2023	https://www.etsi.org/deliver/etsi_ts\136100_136199\136171\17.03.00_60\ts_136171v170300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.171-17.3.0 V1.3.0	17.3.0	Published	02.11.2023	https://members.tsdsi.in/s/iZoKenT6iMQarHW
TTA	TTAT.3G-36.171V17.3.0	17.3.0	Published	27.10.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.171V17.3.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.171.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36171-i00.pdf
ATIS	ATIS.3GPP.36.171.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.171.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.171.V18.0.0.docx
ETSI	ETSI TS 136 171 V18.0.0 (2024-05)	18.0.0	Published	07.05.2024	https://www.etsi.org/deliver/etsi_ts\136100_136199\136171\18.00.00_60\ts_136171v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.171-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/Y5mZCCQHttabPy2
TTA	TTAT.3G-36.171V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.171V18.0.0&searchCate=TTAS

2.1.5.14   TS 36.307

Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band

This document specifies requirements on UEs supporting a frequency band that is independent of release. TSG-RAN has agreed that the standardization of new frequency bands may be independent of a release. However, in order to implement a UE that conforms to a particular release but supports a band of operation that is specified in a later release, it is necessary to specify some extra requirements. All frequency bands are fully specified in this release of the specifications. This document does not contain any requirements for UEs supporting frequency bands independent of release.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.307.V10.24.0	10.24.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36307-ao0.pdf
ATIS	ATIS.3GPP.36.307V10240	10.24.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.307V10240	10.24.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.307V10240.docx
ETSI	ETSI TS 136 307 V10.24.0 (2018-07)	10.24.0	Published	16.07.2018	https://www.etsi.org/deliver/etsi_ts\136300_136399\136307\10.24.00_60\ts_136307v102400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.307-10.24.0 V1.1.0	10.24.0	Published	30.08.2021	https://members.tsdsi.in/s/wbCHBRbWkQKS6kJ
TTA	TTAT.3G-36.307V10.24.0	10.24.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.307V10.24.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.307.V11.21.0	11.21.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36307-bl0.pdf
ATIS	ATIS.3GPP.36.307V11210	11.21.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.307V11210	11.21.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.307V11210.docx
ETSI	ETSI TS 136 307 V11.21.0 (2018-07)	11.21.0	Published	16.07.2018	https://www.etsi.org/deliver/etsi_ts\136300_136399\136307\11.21.00_60\ts_136307v112100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.307-11.21.0 V1.1.0	11.21.0	Published	30.08.2021	https://members.tsdsi.in/s/pTBbMizEwHMkxJs
TTA	TTAT.3G-36.307V11.21.0	11.21.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.307V11.21.0&searchCate=TTAS

Release 12

ARIB	ARIB STD-T120-36.307.V12.17.0	12.17.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36307-ch0.pdf
ATIS	ATIS.3GPP.36.307V12170	12.17.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.307V12170	12.17.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.307V12170.docx
ETSI	ETSI TS 136 307 V12.17.0 (2018-07)	12.17.0	Published	16.07.2018	https://www.etsi.org/deliver/etsi_ts\136300_136399\136307\12.17.00_60\ts_136307v121700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.307-12.17.0 V1.1.0	12.17.0	Published	30.08.2021	https://members.tsdsi.in/s/xG8mmyRKAsBRqXt
TTA	TTAT.3G-36.307V12.17.0	12.17.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.307V12.17.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.307.V13.16.0	13.16.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36307-dg0.pdf
ATIS	ATIS.3GPP.36.307.V13.16.0	13.16.0	Published	22.05.2023	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.307.V13.16.0	13.16.0	Published	22.05.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.307.V13.16.0.docx
ETSI	ETSI TS 136 307 V13.16.0 (2023-04)	13.16.0	Published	26.04.2023	https://www.etsi.org/deliver/etsi_ts\136300_136399\136307\13.16.00_60\ts_136307v131600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.307-13.16.0 V1.2.0	13.16.0	Published	14.08.2023	https://members.tsdsi.in/s/R29EFQpwqSQtBJm
TTA	TTAT.3G-36.307V13.16.0	13.16.0	Published	01.08.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.307V13.16.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.307.V14.13.0	14.13.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36307-ed0.pdf
ATIS	ATIS.3GPP.36.307.V14.13.0	14.13.0	Published	22.05.2023	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.307.V14.13.0	14.13.0	Published	22.05.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.307.V14.13.0.docx
ETSI	ETSI TS 136 307 V14.13.0 (2023-04)	14.13.0	Published	26.04.2023	https://www.etsi.org/deliver/etsi_ts\136300_136399\136307\14.13.00_60\ts_136307v141300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.307-14.13.0 V1.2.0	14.13.0	Published	14.08.2023	https://members.tsdsi.in/s/sqSc3Rka84MQjLZ
TTA	TTAT.3G-36.307V14.13.0	14.13.0	Published	01.08.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.307V14.13.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.307.V15.10.0	15.10.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36307-fa0.pdf
ATIS	ATIS.3GPP.36.307.V15.10.0	15.10.0	Published	22.05.2023	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.307.V15.10.0	15.10.0	Published	22.05.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.307.V15.10.0.docx
ETSI	ETSI TS 136 307 V15.10.0 (2023-04)	15.10.0	Published	26.04.2023	https://www.etsi.org/deliver/etsi_ts\136300_136399\136307\15.10.00_60\ts_136307v151000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.307-15.10.0 V1.2.0	15.10.0	Published	14.08.2023	https://members.tsdsi.in/s/RML9cgd6iYe6Di5
TTA	TTAT.3G-36.307V15.10.0	15.10.0	Published	01.08.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.307V15.10.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.307.V16.6.0	16.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36307-g60.pdf
ATIS	ATIS.3GPP.36.307.V16.6.0	16.6.0	Published	22.05.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.307.V16.6.0	16.6.0	Published	22.05.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.307.V16.6.0.docx
ETSI	ETSI TS 136 307 V16.6.0 (2023-04)	16.6.0	Published	26.04.2023	https://www.etsi.org/deliver/etsi_ts\136300_136399\136307\16.06.00_60\ts_136307v160600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.307-16.6.0 V1.2.0	16.6.0	Published	14.08.2023	https://members.tsdsi.in/s/xD97QQTY6FGfigf
TTA	TTAT.3G-36.307V16.6.0	16.6.0	Published	01.08.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.307V16.6.0&searchCate=TTAS

Release 17

SDO	Document No.	Version	Status	Issued date	Location
ARIB	ARIB STD-T120-36.307.V17.7.0	17.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36307-h70.pdf
ATIS	ATIS.3GPP.36.307.V17.7.0	17.7.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.307.V17.7.0	17.7.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.307.V17.7.0.docx
ETSI	ETSI TS 136 307 V17.7.0 (2024-05)	17.7.0	Published	14.05.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136307\17.07.00_60\ts_136307v170700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.307-17.7.0 V1.7.0	17.7.0	Published	22.07.2024	https://members.tsdsi.in/s/HaKkWqwwEX2N9ms
TTA	TTAT.3G-36.307V17.7.0	17.7.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.307V17.7.0&searchCate=TTAS

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ARIB	ARIB STD-T120-36.307.V18.5.0	18.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36307-i50.pdf
ATIS	ATIS.3GPP.36.307.V18.5.0	18.5.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.307.V18.5.0	18.5.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.307.V18.5.0.docx
ETSI	ETSI TS 136 307 V18.5.0 (2024-08)	18.5.0	Published	02.08.2024	https://www.etsi.org/deliver/etsi_ts\136300_136399\136307\18.05.00_60\ts_136307v180500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.307-18.5.0 V1.0.0	18.5.0	Published	19.11.2024	https://members.tsdsi.in/s/BFdDgKPwDFEdGdG
TTA	TTAT.3G-36.307V18.5.0	18.5.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.307V18.5.0&searchCate=TTAS

2.1.5.15   TS 37.104

E-UTRA, UTRA and GSM/EDGE; Multi-Standard Radio (MSR) Base Station (BS) radio transmission and reception

This document establishes the minimum RF characteristics of E-UTRA, UTRA and GSM/EDGE Multi-Standard Radio (MSR) Base Station (BS). Requirements for multi-RAT and single-RAT operation of MSR BS are covered in this document. The requirements in this document for E-UTRA and UTRA single-RAT operation of MSR BS are also applicable to E-UTRA and UTRA multi-carrier capable single-RAT BS. Requirements for GSM BS that are only single-RAT capable are not covered.

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Release 10

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ATIS	ATIS.3GPP.37.104.V10.15.0	10.15.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.37.104.V10.15.0	10.15.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.104.V10.15.0.doc
ETSI	ETSI TS 137 104 V10.15.0 (2021-04)	10.15.0	Published	30.04.2021	https://www.etsi.org/deliver/etsi_ts\137100_137199\137104\10.15.00_60\ts_137104v101500p.pdf
TSDSI	TSDSI STD T1.3GPP 37.104 10.15.0 V1.1.0	10.15.0	Published	02.05.2023	https://members.tsdsi.in/s/dpo3XEzEtNdYBw3
TTA	TTAT.3G-37.104V10.15.0	10.15.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.104V10.15.0&searchCate=TTAS

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ATIS	ATIS.3GPP.37.104.V11.15.0	11.15.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.37.104.V11.15.0	11.15.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.104.V11.15.0.doc
ETSI	ETSI TS 137 104 V11.15.0 (2021-04)	11.15.0	Published	30.04.2021	https://www.etsi.org/deliver/etsi_ts\137100_137199\137104\11.15.00_60\ts_137104v111500p.pdf
TSDSI	TSDSI STD T1.3GPP 37.104 11.15.0 V1.1.0	11.15.0	Published	02.05.2023	https://members.tsdsi.in/s/TEGydW8TTEFm4be
TTA	TTAT.3G-37.104V11.15.0	11.15.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.104V11.15.0&searchCate=TTAS

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ATIS	ATIS.3GPP.37.104.V12.14.0	12.14.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.37.104.V12.14.0	12.14.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.104.V12.14.0.doc
ETSI	ETSI TS 137 104 V12.14.0 (2021-04)	12.14.0	Published	30.04.2021	https://www.etsi.org/deliver/etsi_ts\137100_137199\137104\12.14.00_60\ts_137104v121400p.pdf
TSDSI	TSDSI STD T1.3GPP 37.104 12.14.0 V1.1.0	12.14.0	Published	02.05.2023	https://members.tsdsi.in/s/gN6WYP2ToCk2jjy
TTA	TTAT.3G-37.104V12.14.0	12.14.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.104V12.14.0&searchCate=TTAS

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ATIS	ATIS.3GPP.37.104.V13.9.0	13.9.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.37.104.V13.9.0	13.9.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.104.V13.9.0.doc
ETSI	ETSI TS 137 104 V13.9.0 (2021-04)	13.9.0	Published	30.04.2021	https://www.etsi.org/deliver/etsi_ts\137100_137199\137104\13.09.00_60\ts_137104v130900p.pdf
TSDSI	TSDSI STD T1.3GPP 37.104-13.9.0 V1.1.0	13.9.0	Published	17.01.2023	https://members.tsdsi.in/s/F5GragnFqzfGFNn
TTA	TTAT.3G-37.104V13.9.0	13.9.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.104V13.9.0&searchCate=TTAS

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ATIS	ATIS.3GPP.37.104.V14.8.0	14.8.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.37.104.V14.8.0	14.8.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.104.V14.8.0.docx
ETSI	ETSI TS 137 104 V14.8.0 (2022-03)	14.8.0	Published	16.03.2022	https://www.etsi.org/deliver/etsi_ts\137100_137199\137104\14.08.00_60\ts_137104v140800p.pdf
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TTA	TTAT.3G-37.104V14.8.0	14.8.0	Published	14.03.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.104V14.8.0&searchCate=TTAS

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ATIS	ATIS.3GPP.37.104.V15.19.0	15.19.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.37.104.V15.19.0	15.19.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.104.V15.19.0.docx
ETSI	ETSI TS 137 104 V15.19.0 (2023-10)	15.19.0	Published	13.10.2023	https://www.etsi.org/deliver/etsi_ts\137100_137199\137104\15.19.00_60\ts_137104v151900p.pdf
TSDSI	TSDSI STD T1.3GPP 37.104-15.19.0 V1.3.0	15.19.0	Published	23.02.2024	https://members.tsdsi.in/s/w2XSBKqaPTBJiFo
TTA	TTAT.3G-37.104V15.19.0	15.19.0	Published	13.02.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.104V15.19.0&searchCate=TTAS

Release 16

ATIS	ATIS.3GPP.37.104.V16.20.0	16.20.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.104.V16.20.0	16.20.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.104.V16.20.0.docx
ETSI	ETSI TS 137 104 V16.20.0 (2024-05)	16.20.0	Published	03.05.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137104\16.20.00_60\ts_137104v162000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.104-16.20.0 V1.7.0	16.20.0	Published	22.07.2024	https://members.tsdsi.in/s/9AwkEdX7qiGGF6o
TTA	TTAT.3G-37.104V16.20.0	16.20.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.104V16.20.0&searchCate=TTAS

Release 17

ATIS	ATIS.3GPP.37.104.V17.13.0	17.13.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.104.V17.13.0	17.13.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.104.V17.13.0.docx
ETSI	ETSI TS 137 104 V17.13.0 (2024-08)	17.13.0	Published	12.08.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137104\17.13.00_60\ts_137104v171300p.pdf

TSDSI	TSDSI STD T1.3GPP 37.104-17.13.0 V1.8.0	17.13.0	Published	19.11.2024	https://members.tsdsi.in/s/giMBtFHpZEGqWdo
TTA	TTAT.3G-37.104V17.13.0 37.104V17.13.0&searchCate=TTAS	17.13.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 18

ATIS	ATIS.3GPP.37.104.V18.6.0	18.6.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.104.V18.6.0 7_ATIS/CCSA.3GPP.37.104.V18.6.0.docx	18.6.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 104 V18.6.0 (2024-08)	18.6.0	Published	12.08.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137104\18.06.00_60\ts_137104v180600p.pdf
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2.1.5.16 TS 37.105

Active Antenna System (AAS) Base Station (BS) transmission and reception

This document establishes the RF characteristics, the RF minimum requirements and minimum performance requirements for E-UTRA AAS Base Station (BS), the FDD mode of UTRA AAS Base Station (BS), the 1,28 Mchip/s TDD mode of UTRA AAS Base Station (BS) in single RAT and any MSR AAS Base Station (BS) implementation of these RATs.

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Release 13					
ATIS	ATIS.3GPP.37.105.V13.11.0	13.11.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.37.105.V13.11.0 7_ATIS/CCSA.3GPP.37.105.V13.11.0.docx	13.11.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 105 V13.11.0 (2020-11)	13.11.0	Published	16.11.2020	https://www.etsi.org/deliver/etsi_ts\137100_137199\137105\13.11.00_60\ts_137105v131100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.105-13.11.0 V1.1.0	13.11.0	Published	17.01.2023	https://members.tsdsi.in/s/eqp8iA4jEzoHMjJ
TTA	TTAT.3G-37.105V13.11.0 37.105V13.11.0&searchCate=TTAS	13.11.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
Release 14					
ATIS	ATIS.3GPP.37.105.V14.8.0	14.8.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.37.105.V14.8.0 7_ATIS/CCSA.3GPP.37.105.V14.8.0.docx	14.8.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 105 V14.8.0 (2022-03)	14.8.0	Published	16.03.2022	https://www.etsi.org/deliver/etsi_ts\137100_137199\137105\14.08.00_60\ts_137105v140800p.pdf
TSDSI	TSDSI STD T1.3GPP 37.105-14.8.0 V1.1.0	14.8.0	Published	17.01.2023	https://members.tsdsi.in/s/wi44Aky88KEpeoQ
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Release 15					
ATIS	ATIS.3GPP.37.105.V15.20.0	15.20.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.37.105.V15.20.0 7_ATIS/CCSA.3GPP.37.105.V15.20.0.docx	15.20.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 105 V15.20.0 (2024-08)	15.20.0	Published	12.08.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137105\15.20.00_60\ts_137105v152000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.105-15.20.0 V1.4.0	15.20.0	Published	19.11.2024	https://members.tsdsi.in/s/23pWA5gMMw9rKZs
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ATIS	ATIS.3GPP.37.105.V16.16.0	16.16.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.105.V16.16.0	16.16.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.105.V16.16.0.docx
ETSI	ETSI TS 137 105 V16.16.0 (2024-08)	16.16.0	Published	12.08.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137105\16.16.00_60\ts_137105v161600p.pdf
TSDSI	TSDSI STD T1.3GPP 37.105-16.16.0 V1.5.0	16.16.0	Published	19.11.2024	https://members.tsdsi.in/s/85weYjxewGASTzi
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ATIS	ATIS.3GPP.37.105.V17.10.0	17.10.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.105.V17.10.0	17.10.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.105.V17.10.0.docx
ETSI	ETSI TS 137 105 V17.10.0 (2024-08)	17.10.0	Published	12.08.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137105\17.10.00_60\ts_137105v171000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.105-17.10.0 V1.5.0	17.10.0	Published	19.11.2024	https://members.tsdsi.in/s/BmtNWDnk7Tcqc7c
TTA	TTAT.3G-37.105V17.10.0	17.10.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.105V17.10.0&searchCate=TTAS

Release 18

ATIS	ATIS.3GPP.37.105.V18.5.0	18.5.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.105.V18.5.0	18.5.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.105.V18.5.0.docx
ETSI	ETSI TS 137 105 V18.5.0 (2024-08)	18.5.0	Published	12.08.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137105\18.05.00_60\ts_137105v180500p.pdf
TSDSI	TSDSI STD T1.3GPP 37.105-18.5.0 V1.0.0	18.5.0	Published	19.11.2024	https://members.tsdsi.in/s/gG5ZnSEDebtFx34
TTA	TTAT.3G-37.105V18.5.0	18.5.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.105V18.5.0&searchCate=TTAS

2.1.5.17   TS 37.113

E-UTRA, UTRA and GSM/EDGE; Multi-Standard Radio (MSR) Base Station (BS) Electromagnetic Compatibility (EMC)

This document covers the assessment of E-UTRA, UTRA and GSM/EDGE Multi-Standard Radio (MSR) Base Stations and associated ancillary equipment in respect of Electromagnetic Compatibility (EMC). This document specifies the applicable test conditions, performance assessment and performance criteria for E-UTRA, UTRA and GSM/EDGE Base Stations and associated ancillary equipment in one of the following categories: (i) Multi-Standard Radio (MSR) Base Stations for E-UTRA, UTRA and GSM/EDGE meeting the requirements of TS 37.104, with conformance demonstrated by compliance to TS 37.141; (ii) Base Stations for E-UTRA meeting the requirements of TS 36.104, with conformance demonstrated by compliance to TS 36.141; (iii) Base Stations for UTRA FDD meeting the requirements of TS 25.104, with conformance demonstrated by compliance to TS 25.141; (iv) Base Stations for UTRA TDD meeting the requirements of TS 25.105, with conformance demonstrated by compliance to TS 25.142; (v) Base Stations for GSM/EDGE meeting the requirements of TS 45.005, with conformance demonstrated by compliance to TS 51.021. The environment classification used in this document refers to the environment classification used in IEC 61000-6-1 and IEC 61000-6-3.

The EMC requirements have been selected to ensure an adequate level of compatibility for apparatus at residential, commercial and light industrial environments. The levels, however, do not cover extreme cases which may occur in any location but with low probability of occurrence.

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ATIS	ATIS.3GPP.37.113V1050	10.5.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.37.113V1050 7_ATIS/CCSA.3GPP.37.113V1050.doc	10.5.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 113 V10.5.0 (2016-08)	10.5.0	Published	01.08.2016	https://www.etsi.org/deliver/etsi_ts\137100_137199\137113\10.05.00_60\ts_137113v100500p.pdf
TSDSI	TSDSI STD T1.3GPP 37.113-10.5.0 V1.0.0	10.5.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/MiCd65aC5bHZXdJ
TTA	TTAT.3G-37.113V10.5.0 37.113V10.5.0&searchCate=TTAS	10.5.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
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ATIS	ATIS.3GPP.37.113V1140	11.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.37.113V1140 7_ATIS/CCSA.3GPP.37.113V1140.doc	11.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 113 V11.4.0 (2016-08)	11.4.0	Published	01.08.2016	https://www.etsi.org/deliver/etsi_ts\137100_137199\137113\11.04.00_60\ts_137113v110400p.pdf
TSDSI	TSDSI STD T1.3GPP 37.113-11.4.0 V1.0.0	11.4.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/fbXro2naeMJi6wc
TTA	TTAT.3G-37.113V11.4.0 37.113V11.4.0&searchCate=TTAS	11.4.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
Release 12					
ATIS	ATIS.3GPP.37.113V1240	12.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.37.113V1240 7_ATIS/CCSA.3GPP.37.113V1240.doc	12.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 113 V12.4.0 (2016-08)	12.4.0	Published	02.08.2016	https://www.etsi.org/deliver/etsi_ts\137100_137199\137113\12.04.00_60\ts_137113v120400p.pdf
TSDSI	TSDSI STD T1.3GPP 37.113-12.4.0 V1.0.0	12.4.0	Published	30.08.2021	https://members.tsdsi.in/s/iDxF2ErMJgN2w5B
TTA	TTAT.3G-37.113V12.4.0 37.113V12.4.0&searchCate=TTAS	12.4.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
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ATIS	ATIS.3GPP.37.113V1340	13.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.37.113V1340 7_ATIS/CCSA.3GPP.37.113V1340.doc	13.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 113 V13.4.0 (2017-08)	13.4.0	Published	24.08.2017	https://www.etsi.org/deliver/etsi_ts\137100_137199\137113\13.04.00_60\ts_137113v130400p.pdf
TSDSI	TSDSI STD T1.3GPP 37.113-13.4.0 V1.0.0	13.4.0	Published	30.08.2021	https://members.tsdsi.in/s/JqmmTdnd5DzNbte
TTA	TTAT.3G-37.113V13.4.0 37.113V13.4.0&searchCate=TTAS	13.4.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
Release 14					
ATIS	ATIS.3GPP.37.113V1420	14.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.37.113V1420 7_ATIS/CCSA.3GPP.37.113V1420.doc	14.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 113 V14.2.0 (2017-08)	14.2.0	Published	24.08.2017	https://www.etsi.org/deliver/etsi_ts\137100_137199\137113\14.02.00_60\ts_137113v140200p.pdf
TSDSI	TSDSI STD T1.3GPP 37.113-14.2.0 V1.0.0	14.2.0	Published	30.08.2021	https://members.tsdsi.in/s/eckHJXBn4tkWdFJ
TTA	TTAT.3G-37.113V14.2.0 37.113V14.2.0&searchCate=TTAS	14.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
Release 15					
ATIS	ATIS.3GPP.37.113.V15.14.0	15.14.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.37.113.V15.14.0 7_ATIS/CCSA.3GPP.37.113.V15.14.0.docx	15.14.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 113 V15.14.0 (2024-01)	15.14.0	Published	29.01.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137113\15.14.00_60\ts_137113v151400p.pdf

TSDSI	TSDSI STD T1.3GPP 37.113-15.14.0 V1.4.0	15.14.0	Published	29.05.2024	https://members.tsdsi.in/s/xwtGrG7DwS5wsCc
TTA	TTAT.3G-37.113V15.14.0 37.113V15.14.0&searchCate=TTAS	15.14.0	Published	08.05.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 16

ATIS	ATIS.3GPP.37.113.V16.6.0	16.6.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.113.V16.6.0 7_ATIS/CCSA.3GPP.37.113.V16.6.0.docx	16.6.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 113 V16.6.0 (2024-05)	16.6.0	Published	14.05.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137113\16.06.00_60\ts_137113v160600p.pdf
TSDSI	TSDSI STD T1.3GPP 37.113-16.6.0 V1.5.0	16.6.0	Published	22.07.2024	https://members.tsdsi.in/s/eWg7EmMABcM6r2c
TTA	TTAT.3G-37.113V16.6.0 37.113V16.6.0&searchCate=TTAS	16.6.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 17

ATIS	ATIS.3GPP.37.113.V17.4.0	17.4.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.113.V17.4.0 7_ATIS/CCSA.3GPP.37.113.V17.4.0.docx	17.4.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 113 V17.4.0 (2024-05)	17.4.0	Published	14.05.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137113\17.04.00_60\ts_137113v170400p.pdf
TSDSI	TSDSI STD T1.3GPP 37.113-17.4.0 V1.4.0	17.4.0	Published	22.07.2024	https://members.tsdsi.in/s/yz5srMCmrd7kCAS
TTA	TTAT.3G-37.113V17.4.0 37.113V17.4.0&searchCate=TTAS	17.4.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 18

ATIS	ATIS.3GPP.37.113.V18.1.0	18.1.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.113.V18.1.0 7_ATIS/CCSA.3GPP.37.113.V18.1.0.docx	18.1.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 113 V18.1.0 (2024-05)	18.1.0	Published	14.05.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137113\18.01.00_60\ts_137113v180100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.113-18.1.0 V1.0.0	18.1.0	Published	19.11.2024	https://members.tsdsi.in/s/btWrKpX4BxN5dX4
TTA	TTAT.3G-37.113V18.1.0 37.113V18.1.0&searchCate=TTAS	18.1.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

2.1.5.18 TS 37.114

Active Antenna System (AAS) Base Station (BS) Electromagnetic Compatibility (EMC)

This document covers the assessment of E-UTRA, UTRA and Multi-Standard Radio (MSR) Active Antenna Systems Base Stations in respect of Electromagnetic Compatibility (EMC).

This document specifies the applicable test conditions, performance assessment and performance criteria for E-UTRA and UTRA Base Stations and associated ancillary equipment in one of the following categories:

– Active Antenna System Base Station for E-UTRA, UTRA and MSR meeting the requirements of 3GPP TS 37.105, with conformance demonstrated by compliance to 3GPP TS 37.145.

The scope of this document is AAS BS with TAB connectors for every transceiver unit at the Transceiver Array Boundary. Requirement, procedures and values of an AAS Base Station without TAB connectors are not included in this document and are FFS.

The environment classification used in this document refers to the residential, commercial and light industrial environment classification used in IEC 61000-6-1 and IEC 61000-6-3.

The EMC requirements have been selected to ensure an adequate level of compatibility for apparatus at residential, commercial and light industrial environments. The levels, however, do not cover extreme cases which may occur in any location but with low probability of occurrence.

SDO	Document No.	Version	Status	Issued date	Location
Release 13					
ATIS	ATIS.3GPP.37.114V1330	13.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.37.114V1330 7_ATIS/CCSA.3GPP.37.114.V15.10.0.docx	13.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 114 V13.3.0 (2017-08)	13.3.0	Published	24.08.2017	https://www.etsi.org/deliver/etsi_ts\137100_137199\137114\13.03.00_60\ts_137114v130300p.pdf
TSDSI	TSDSI STD T1.3GPP 37.114-13.3.0 V1.0.0	13.3.0	Published	30.08.2021	https://members.tsdsi.in/s/wctHjbaYmN3P7pL
TTA	TTAT.3G-37.114V13.3.0 37.114V13.3.0&searchCate=TTAS	13.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
Release 14					
ATIS	ATIS.3GPP.37.114V1410	14.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.37.114V1410 7_ATIS/CCSA.3GPP.37.114.V16.1.0.docx	14.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 114 V14.1.0 (2017-08)	14.1.0	Published	24.08.2017	https://www.etsi.org/deliver/etsi_ts\137100_137199\137114\14.01.00_60\ts_137114v140100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.114-14.1.0 V1.0.0	14.1.0	Published	30.08.2021	https://members.tsdsi.in/s/nDWwYLJ9kNciddA
TTA	TTAT.3G-37.114V14.1.0 37.114V14.1.0&searchCate=TTAS	14.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
Release 15					
ATIS	ATIS.3GPP.37.114.V15.10.0	15.10.0	Published	22.05.2023	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.37.114.V15.10.0 7_ATIS/CCSA.3GPP.37.114.V17.1.0.docx	15.10.0	Published	22.05.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 114 V15.10.0 (2023-04)	15.10.0	Published	27.04.2023	https://www.etsi.org/deliver/etsi_ts\137100_137199\137114\15.10.00_60\ts_137114v151000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.114-15.10.0 V1.1.0	15.10.0	Published	14.08.2023	https://members.tsdsi.in/s/9KqfHJznxYtko67
TTA	TTAT.3G-37.114V15.10.0 37.114V15.10.0&searchCate=TTAS	15.10.0	Published	01.08.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
Release 16					
ATIS	ATIS.3GPP.37.114.V16.1.0	16.1.0	Published	22.05.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.114.V16.1.0 7_ATIS/CCSA.3GPP.37.114.V18.1.0.docx	16.1.0	Published	22.05.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 114 V16.1.0 (2023-04)	16.1.0	Published	27.04.2023	https://www.etsi.org/deliver/etsi_ts\137100_137199\137114\16.01.00_60\ts_137114v160100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.114-16.1.0 V1.1.0	16.1.0	Published	14.08.2023	https://members.tsdsi.in/s/AJLWnsgaHbmojEZ
TTA	TTAT.3G-37.114V16.1.0 37.114V16.1.0&searchCate=TTAS	16.1.0	Published	01.08.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-
Release 17					
ATIS	ATIS.3GPP.37.114.V17.1.0	17.1.0	Published	22.05.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.114.V17.1.0 7_ATIS/CCSA.3GPP.37.114V1330.doc	17.1.0	Published	22.05.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 114 V17.1.0 (2023-04)	17.1.0	Published	27.04.2023	https://www.etsi.org/deliver/etsi_ts\137100_137199\137114\17.01.00_60\ts_137114v170100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.114-17.1.0 V1.1.0	17.1.0	Published	14.08.2023	https://members.tsdsi.in/s/j8nDCScGrefii4w
TTA	TTAT.3G-37.114V17.1.0 37.114V17.1.0&searchCate=TTAS	17.1.0	Published	01.08.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 18

ATIS	ATIS.3GPP.37.114.V18.1.0	18.1.0	Published 27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.114.V18.1.0	18.1.0	Published 27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.114V1410.doc
ETSI	ETSI TS 137 114 V18.1.0 (2024-05)	18.1.0	Published 14.05.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137114\18.01.00_60\ts_137114v180100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.114-18.1.0 V1.0.0	18.1.0	Published 19.11.2024	https://members.tsdsi.in/s/oSyPcgkD7RLczBt
TTA	TTAT.3G-37.114V18.1.0	18.1.0	Published 12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.114V18.1.0&searchCate=TTAS

2.1.5.19 TS 37.141

E-UTRA, UTRA and GSM/EDGE; Multi-Standard Radio (MSR) Base Station (BS) conformance testing

This document specifies the Radio Frequency (RF) test methods and conformance requirements for E-UTRA, UTRA and GSM/EDGE Multi-Standard Radio (MSR) Base Station (BS).

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ATIS	ATIS.3GPP.37.141.V10.15.0	10.15.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.37.141.V10.15.0	10.15.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.141.V10.15.0.doc
ETSI	ETSI TS 137 141 V10.15.0 (2021-04)	10.15.0	Published	28.04.2021	https://www.etsi.org/deliver/etsi_ts\137100_137199\137141\10.15.00_60\ts_137141v101500p.pdf
TSDSI	TSDSI STD T1.3GPP 37.141 10.15.0 V1.1.0	10.15.0	Published	02.05.2023	https://members.tsdsi.in/s/scaEFGaWMrR8iNd
TTA	TTAT.3G-37.141V10.15.0	10.15.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.141V10.15.0&searchCate=TTAS
Release 11					
ATIS	ATIS.3GPP.37.141.V11.16.0	11.16.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.37.141.V11.16.0	11.16.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.141.V11.16.0.doc
ETSI	ETSI TS 137 141 V11.16.0 (2021-04)	11.16.0	Published	28.04.2021	https://www.etsi.org/deliver/etsi_ts\137100_137199\137141\11.16.00_60\ts_137141v111600p.pdf
TSDSI	TSDSI STD T1.3GPP 37.141 11.16.0 V1.1.0	11.16.0	Published	02.05.2023	https://members.tsdsi.in/s/CfsKrkE7fdtBsNe
TTA	TTAT.3G-37.141V11.16.0	11.16.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.141V11.16.0&searchCate=TTAS
Release 12					
ATIS	ATIS.3GPP.37.141.V12.14.0	12.14.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.37.141.V12.14.0	12.14.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.141.V12.14.0.doc
ETSI	ETSI TS 137 141 V12.14.0 (2021-04)	12.14.0	Published	28.04.2021	https://www.etsi.org/deliver/etsi_ts\137100_137199\137141\12.14.00_60\ts_137141v121400p.pdf
TSDSI	TSDSI STD T1.3GPP 37.141 12.14.0 V1.1.0	12.14.0	Published	02.05.2023	https://members.tsdsi.in/s/kHBD8bpgw96ZiQ4
TTA	TTAT.3G-37.141V12.14.0	12.14.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.141V12.14.0&searchCate=TTAS
Release 13					
ATIS	ATIS.3GPP.37.141.V13.15.0	13.15.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.37.141.V13.15.0	13.15.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.141.V13.15.0.doc
ETSI	ETSI TS 137 141 V13.15.0 (2021-04)	13.15.0	Published	28.04.2021	https://www.etsi.org/deliver/etsi_ts\137100_137199\137141\13.15.00_60\ts_137141v131500p.pdf

TSDSI	TSDSI STD T1.3GPP 37.141-13.15.0 V1.1.0	13.15.0	Published	17.01.2023	https://members.tsdsi.in/s/x8xnBWM4znwQr3K
TTA	TTAT.3G-37.141V13.15.0 37.141V13.15.0&searchCate=TTAS	13.15.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 14

ATIS	ATIS.3GPP.37.141.V14.14.0	14.14.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.37.141.V14.14.0 7_ATIS/CCSA.3GPP.37.141.V14.14.0.docx	14.14.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 141 V14.14.0 (2022-03)	14.14.0	Published	16.03.2022	https://www.etsi.org/deliver/etsi_ts\137100_137199\137141\14.14.00_60\ts_137141v141400p.pdf
TSDSI	TSDSI STD T1.3GPP 37.141-14.14.0 V1.1.0	14.14.0	Published	17.01.2023	https://members.tsdsi.in/s/aYi3bPB74s5HyFC
TTA	TTAT.3G-37.141V14.14.0 37.141V14.14.0&searchCate=TTAS	14.14.0	Published	14.03.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 15

ATIS	ATIS.3GPP.37.141.V15.22.0	15.22.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.37.141.V15.22.0 7_ATIS/CCSA.3GPP.37.141.V15.22.0.docx	15.22.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 141 V15.22.0 (2024-02)	15.22.0	Published	02.02.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137141\15.22.00_60\ts_137141v152200p.pdf
TSDSI	TSDSI STD T1.3GPP 37.141-15.22.0 V1.5.0	15.22.0	Published	29.05.2024	https://members.tsdsi.in/s/3ZDP3tLrX279MzD
TTA	TTAT.3G-37.141V15.22.0 37.141V15.22.0&searchCate=TTAS	15.22.0	Published	08.05.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 16

ATIS	ATIS.3GPP.37.141.V16.21.0	16.21.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.141.V16.21.0 7_ATIS/CCSA.3GPP.37.141.V16.21.0.docx	16.21.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 141 V16.21.0 (2024-05)	16.21.0	Published	15.05.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137141\16.21.00_60\ts_137141v162100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.141-16.21.0 V1.8.0	16.21.0	Published	22.07.2024	https://members.tsdsi.in/s/xFA7msWLKbL5LaA
TTA	TTAT.3G-37.141V16.21.0 37.141V16.21.0&searchCate=TTAS	16.21.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 17

ATIS	ATIS.3GPP.37.141.V17.14.0	17.14.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.141.V17.14.0 7_ATIS/CCSA.3GPP.37.141.V17.14.0.docx	17.14.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 141 V17.14.0 (2024-08)	17.14.0	Published	12.08.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137141\17.14.00_60\ts_137141v171400p.pdf
TSDSI	TSDSI STD T1.3GPP 37.141-17.14.0 V1.9.0	17.14.0	Published	19.11.2024	https://members.tsdsi.in/s/LSSLABd9yqswJNe
TTA	TTAT.3G-37.141V17.14.0 37.141V17.14.0&searchCate=TTAS	17.14.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 18

ATIS	ATIS.3GPP.37.141.V18.6.0	18.6.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.141.V18.6.0 7_ATIS/CCSA.3GPP.37.141.V18.6.0.docx	18.6.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 141 V18.6.0 (2024-08)	18.6.0	Published	12.08.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137141\18.06.00_60\ts_137141v180600p.pdf
TSDSI	TSDSI STD T1.3GPP 37.141-18.6.0 V1.0.0	18.6.0	Published	19.11.2024	https://members.tsdsi.in/s/YtxR7ipAWqLAxiT
TTA	TTAT.3G-37.141V18.6.0 37.141V18.6.0&searchCate=TTAS	18.6.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

2.1.5.20 TS 37.144

User Equipment (UE) and Mobile Station (MS) GSM, UTRA and E-UTRA over the air performance requirements

This document establishes over the air antenna minimum requirements for user equipment (UE) and mobile station (MS).

Handheld UE requirements are defined for roaming bands for the speech position (beside the head and beside the head and hand) and hand phantom browsing mode position. Laptop mounted equipment requirements are defined for roaming bands for the data transfer position (laptop ground plane phantom). Laptop embedded equipment requirements are defined for roaming bands for the data transfer position (free space).

All bands are potential roaming bands, and the requirements for roaming bands shall therefore be fulfilled for all bands supported by a UE/MS.

Requirements for operating bands are dependent on how the network has been built and are thus operator specific and cannot be specified here. Recommended performance values for operating bands (Annex B) are however included in this specification for information. It should be recognised that the ability to meet the recommended performance values depends on the number of frequency bands supported by the UE/MS.

SDO	Document No.	Version	Status	Issued date	Location
Release 13					
ATIS	ATIS.3GPP.37.144V1300	13.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.37.144V1300	13.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.144V1300.doc
ETSI	ETSI TS 137 144 V13.0.0 (2016-08)	13.0.0	Published	02.08.2016	https://www.etsi.org/deliver/etsi_ts\137100_137199\137144\13.00.00_60\ts_137144v130000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.144-13.0.0 V1.0.0	13.0.0	Published	30.08.2021	https://members.tsdsi.in/s/8YGLtnHk59cHQq6
TTA	TTAT.3G-37.144V13.0.0	13.0.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.144V13.0.0&searchCate=TTAS
Release 14					
ATIS	ATIS.3GPP.37.144.V14.8.0	14.8.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.37.144.V14.8.0	14.8.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.144.V14.8.0.docx
ETSI	ETSI TS 137 144 V14.8.0 (2024-10)	14.8.0	Published	03.10.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137144\14.08.00_60\ts_137144v140800p.pdf
TSDSI	TSDSI STD T1.3GPP 37.144-14.8.0 V1.2.0	14.8.0	Published	02.03.2025	https://members.tsdsi.in/s/dFayt3bEqnETq4Q
TTA	TTAT.3G-37.144V14.8.0	14.8.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.144V14.8.0&searchCate=TTAS
Release 15					
ATIS	ATIS.3GPP.37.144.V15.1.0	15.1.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.37.144.V15.1.0	15.1.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.144.V15.1.0.docx
ETSI	ETSI TS 137 144 V15.1.0 (2024-10)	15.1.0	Published	03.10.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137144\15.01.00_60\ts_137144v150100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.144-15.1.0 V1.1.0	15.1.0	Published	02.03.2025	https://members.tsdsi.in/s/kZPtLyjtJYdk5bS
TTA	TTAT.3G-37.144V15.1.0	15.1.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.144V15.1.0&searchCate=TTAS
Release 16					
ATIS	ATIS.3GPP.37.144.V16.1.0	16.1.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.144.V16.1.0	16.1.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.144.V16.1.0.docx

ETSI	ETSI TS 137 144 V16.1.0 (2024-10)	16.1.0	Published	03.10.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137144\16.01.00_60\ts_137144v160100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.144-16.1.0 V1.1.0	16.1.0	Published	02.03.2025	https://members.tsdsi.in/s/dN5pQRy8qa5MiBN
TTA	TTAT.3G-37.144V16.1.0 37.144V16.1.0&searchCate=TTAS	16.1.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 17

ATIS	ATIS.3GPP.37.144.V17.1.0	17.1.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.144.V17.1.0	17.1.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.144.V17.1.0.docx
ETSI	ETSI TS 137 144 V17.1.0 (2024-10)	17.1.0	Published	03.10.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137144\17.01.00_60\ts_137144v170100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.144-17.1.0 V1.1.0	17.1.0	Published	02.03.2025	https://members.tsdsi.in/s/6W8mAFABAFkMxe4
TTA	TTAT.3G-37.144V17.1.0 37.144V17.1.0&searchCate=TTAS	17.1.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 18

ATIS	ATIS.3GPP.37.144.V18.1.0	18.1.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.144.V18.1.0	18.1.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.144.V18.1.0.docx
ETSI	ETSI TS 137 144 V18.1.0 (2024-10)	18.1.0	Published	03.10.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137144\18.01.00_60\ts_137144v180100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.144-18.1.0 V1.1.0	18.1.0	Published	02.03.2025	https://members.tsdsi.in/s/cz98qGFDxpWLRjH
TTA	TTAT.3G-37.144V18.1.0 37.144V18.1.0&searchCate=TTAS	18.1.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

2.1.5.21 TS 37.145-1

Active Antenna System (AAS) Base Station (BS) conformance testing; Part 1: conducted conformance testing

This document specifies the Radio Frequency (RF) test methods and conformance requirements for Single RAT E-UTRA, UTRA and Multi-Standard Radio (MSR) UTRA and EUTRA Active Antenna System (AAS) Base Station (BS). These have been derived from, and are consistent with the E-UTRA, UTRA AAS BS specification defined in 3GPP TS 25.104. The technical specification is in two parts: part 1 (this document) covers conducted requirements and part 2 covers radiated requirements.

SDO	Document No.	Version	Status	Issued date	Location
Release 13					
ATIS	ATIS.3GPP.37.145-1.V13.12.0	13.12.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.37.145-1.V13.12.0	13.12.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.145-1.V13.12.0.docx
ETSI	ETSI TS 137 145-1 V13.12.0 (2021-04)	13.12.0	Published	28.04.2021	https://www.etsi.org/deliver/etsi_ts\137100_137199\13714501\13.12.00_60\ts_13714501v131200p.pdf
TSDSI	TSDSI STD T1.3GPP 37.145-1-13.12.0 V1.1.0	13.12.0	Published	17.01.2023	https://members.tsdsi.in/s/NjoSdpikcHRg5kT
TTA	TTAT.3G-37.145-1V13.12.0 1V13.12.0&searchCate=TTAS	13.12.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.145-
Release 14					
ATIS	ATIS.3GPP.37.145-1.V14.11.0	14.11.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.37.145-1.V14.11.0	14.11.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.145-1.V14.11.0.docx
ETSI	ETSI TS 137 145-1 V14.11.0 (2022-03)	14.11.0	Published	16.03.2022	https://www.etsi.org/deliver/etsi_ts\137100_137199\13714501\14.11.00_60\ts_13714501v141100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.145-1-14.11.0 V1.1.0	14.11.0	Published	17.01.2023	https://members.tsdsi.in/s/cgRoEKBcDEg3xZr

TTA	TTAT.3G-37.145-1V14.11.0	14.11.0	Published	14.03.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.145-1V14.11.0&searchCate=TTAS

Release 15

ATIS	ATIS.3GPP.37.145-1.V15.15.0	15.15.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.37.145-1.V15.15.0	15.15.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.145-1.V15.15.0.docx
ETSI	ETSI TS 137 145-1 V15.15.0 (2023-10)	15.15.0	Published	13.10.2023	https://www.etsi.org/deliver/etsi_ts\137100_137199\13714501\15.15.00_60\ts_13714501v151500p.pdf
TSDSI	TSDSI STD T1.3GPP 37.145-1-15.15.0 V1.2.0	15.15.0	Published	23.02.2024	https://members.tsdsi.in/s/pEEGGsZi4FJe4WW
TTA	TTAT.3G-37.145-1V15.15.0	15.15.0	Published	13.02.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.145-1V15.15.0&searchCate=TTAS

Release 16

ATIS	ATIS.3GPP.37.145-1.V16.15.0	16.15.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.145-1.V16.15.0	16.15.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.145-1.V16.15.0.docx
ETSI	ETSI TS 137 145-1 V16.15.0 (2024-01)	16.15.0	Published	29.01.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\13714501\16.15.00_60\ts_13714501v161500p.pdf
TSDSI	TSDSI STD T1.3GPP 37.145-1-16.15.0 V1.5.0	16.15.0	Published	29.05.2024	https://members.tsdsi.in/s/sGDxGkK3As3H2P5
TTA	TTAT.3G-37.145-1V16.15.0	16.15.0	Published	08.05.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.145-1V16.15.0&searchCate=TTAS

Release 17

ATIS	ATIS.3GPP.37.145-1.V17.11.0	17.11.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.145-1.V17.11.0	17.11.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.145-1.V17.11.0.docx
ETSI	ETSI TS 137 145-1 V17.11.0 (2024-05)	17.11.0	Published	13.05.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\13714501\17.11.00_60\ts_13714501v171100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.145-1-17.11.0 V1.6.0	17.11.0	Published	22.07.2024	https://members.tsdsi.in/s/nm9nqiGtAfnyLmC
TTA	TTAT.3G-37.145-1V17.11.0	17.11.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.145-1V17.11.0&searchCate=TTAS

Release 18

ATIS	ATIS.3GPP.37.145-1.V18.5.0	18.5.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.145-1.V18.5.0	18.5.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.145-1.V18.5.0.docx
ETSI	ETSI TS 137 145-1 V18.5.0 (2024-05)	18.5.0	Published	14.05.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\13714501\18.05.00_60\ts_13714501v180500p.pdf
TSDSI	TSDSI STD T1.3GPP 37.145-1-18.5.0 V1.0.0	18.5.0	Published	19.11.2024	https://members.tsdsi.in/s/Scf6fQHs4w4eSj8
TTA	TTAT.3G-37.145-1V18.5.0	18.5.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.145-1V18.5.0&searchCate=TTAS

2.1.5.22   TS 37.145-2

Active Antenna System (AAS) Base Station (BS) conformance testing; Part 2: radiated conformance testing

This document specifies the Radio Frequency (RF) test methods and conformance requirements for Single RAT E-UTRA, UTRA and Multi-Standard Radio (MSR) UTRA and EUTRA Active Antenna System (AAS) Base Station (BS). These have been derived from, and are consistent with the E-UTRA, UTRA AAS BS specification defined in 3GPP TS 25.104. The technical specification is in 2 parts, part 1 covers conducted requirements and part 2 (this document) covers radiated requirements.

SDO	Document No.	Version	Status	Issued date	Location
Release 13					
ATIS	ATIS.3GPP.37.145-2.V13.13.1	13.13.1	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.37.145-2.V13.13.1	13.13.1	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.145-2.V13.13.1.docx
ETSI	ETSI TS 137 145-2 V13.13.1 (2021-01)	13.13.1	Published	25.01.2021	https://www.etsi.org/deliver/etsi_ts\137100_137199\13714502\13.13.01_60\ts_13714502v131301p.pdf
TSDSI	TSDSI STD T1.3GPP 37.145-2-13.13.1 V1.1.0	13.13.1	Published	17.01.2023	https://members.tsdsi.in/s/NjoSdpikcHRg5kT
TTA	TTAT.3G-37.145-2V13.13.1	13.13.1	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.145-2V13.13.1&searchCate=TTAS
Release 14					
ATIS	ATIS.3GPP.37.145-2.V14.11.0	14.11.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.37.145-2.V14.11.0	14.11.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.145-2.V14.11.0.docx
ETSI	ETSI TS 137 145-2 V14.11.0 (2021-01)	14.11.0	Published	25.01.2021	https://www.etsi.org/deliver/etsi_ts\137100_137199\13714502\14.11.00_60\ts_13714502v141100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.145-2-14.11.0 V1.1.0	14.11.0	Published	17.01.2023	https://members.tsdsi.in/s/KL7jz5wpHeFQj5o
TTA	TTAT.3G-37.145-2V14.11.0	14.11.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.145-2V14.11.0&searchCate=TTAS
Release 15					
ATIS	ATIS.3GPP.37.145-2.V15.18.0	15.18.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.37.145-2.V15.18.0	15.18.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.145-2.V15.18.0.docx
ETSI	ETSI TS 137 145-2 V15.18.0 (2024-10)	15.18.0	Published	22.10.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\13714502\15.18.00_60\ts_13714502v151800p.pdf
TSDSI	TSDSI STD T1.3GPP 37.145-2-15.18.0 V1.4.0	15.18.0	Published	19.11.2024	https://members.tsdsi.in/s/KJbxYdE79B8MpkA
TTA	TTAT.3G-37.145-2V15.18.0	15.18.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.145-2V15.18.0&searchCate=TTAS
Release 16					
ATIS	ATIS.3GPP.37.145-2.V16.19.0	16.19.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.145-2.V16.19.0	16.19.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.145-2.V16.19.0.docx
ETSI	ETSI TS 137 145-2 V16.19.0 (2024-10)	16.19.0	Published	03.10.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\13714502\16.19.00_60\ts_13714502v161900p.pdf
TSDSI	TSDSI STD T1.3GPP 37.145-2-16.19.0 V1.8.0	16.19.0	Published	02.03.2025	https://members.tsdsi.in/s/zyoHR2QnLxWWQ3z
TTA	TTAT.3G-37.145-2V16.19.0	16.19.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.145-2V16.19.0&searchCate=TTAS
Release 17					
ATIS	ATIS.3GPP.37.145-2.V17.13.0	17.13.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.145-2.V17.13.0	17.13.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.145-2.V17.13.0.docx
ETSI	ETSI TS 137 145-2 V17.13.0 (2024-10)	17.13.0	Published	03.10.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\13714502\17.13.00_60\ts_13714502v171300p.pdf
TSDSI	TSDSI STD T1.3GPP 37.145-2-17.13.0 V1.8.0	17.13.0	Status	02.03.2025	https://members.tsdsi.in/s/4ZNoQR6qidiDxZW
TTA	TTAT.3G-37.145-2V17.13.0	17.13.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.145-2V17.13.0&searchCate=TTAS
Release 18					
ATIS	ATIS.3GPP.37.145-2.V18.7.0	18.7.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.145-2.V18.7.0	18.7.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.145-2.V18.7.0.docx

ETSI	ETSI TS 137 145-2 V18.7.0 (2024-10)	18.7.0	Published 03.10.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\13714502\18.07.00_60\ts_13714502v180700p.pdf
TSDSI	TSDSI STD T1.3GPP 37.145-2-18.7.0 V1.1.0	18.7.0	Published 02.03.2025	https://members.tsdsi.in/s/Fy5tCfm2W4Xr6nJ
TTA	TTAT.3G-37.145-2V18.7.0	18.7.0	Published 31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.145-2V18.7.0&searchCate=TTAS

2.1.5.23 TS 37.171

Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA); User Equipment (UE) performance requirements for RAT-Independent Positioning Enhancements

This document establishes the minimum performance requirements for RAT-Independent Positioning Enhancements (e.g. MBS positioning technology) for FDD or TDD mode of UTRA and E-UTRA for the User Equipment (UE).

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Release 13					
ARIB	ARIB STD-T120-37.171.V13.2.0	13.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/37/A37171-d20.pdf
ATIS	ATIS.3GPP.37.171.V13.2.0	13.2.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.37.171.V13.2.0	13.2.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.171.V13.2.0.doc
ETSI	ETSI TS 137 171 V13.2.0 (2020-11)	13.2.0	Published	19.11.2020	https://www.etsi.org/deliver/etsi_ts\137100_137199\137171\13.02.00_60\ts_137171v130200p.pdf
TSDSI	TSDSI STD T1.3GPP 37.171-13.2.0 V1.1.0	13.2.0	Published	17.01.2023	https://members.tsdsi.in/s/stgEsTJdTyGcrmB
TTA	TTAT.3G-37.171V13.2.0	13.2.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.171V13.2.0&searchCate=TTAS
Release 14					
ARIB	ARIB STD-T120-37.171.V14.7.0	14.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/37/A37171-e70.pdf
ATIS	ATIS.3GPP.37.171.V14.7.0	14.7.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.37.171.V14.7.0	14.7.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.171.V14.7.0.docx
ETSI	ETSI TS 137 171 V14.7.0 (2020-11)	14.7.0	Published	19.11.2020	https://www.etsi.org/deliver/etsi_ts\137100_137199\137171\14.07.00_60\ts_137171v140700p.pdf
TSDSI	TSDSI STD T1.3GPP 37.171-14.7.0 V1.1.0	14.7.0	Published	17.01.2023	https://members.tsdsi.in/s/xn68KNzetJ3t53W
TTA	TTAT.3G-37.171V14.7.0	14.7.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.171V14.7.0&searchCate=TTAS
Release 15					
ARIB	ARIB STD-T120-37.171.V15.4.0	15.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/37/A37171-f40.pdf
ATIS	ATIS.3GPP.37.171.V15.4.0	15.4.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.37.171.V15.4.0	15.4.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.171.V15.4.0.docx
ETSI	ETSI TS 137 171 V15.4.0 (2020-11)	15.4.0	Published	19.11.2020	https://www.etsi.org/deliver/etsi_ts\137100_137199\137171\15.04.00_60\ts_137171v150400p.pdf
TSDSI	TSDSI STD T1.3GPP 37.171-15.4.0 V1.1.0	15.4.0	Published	01.11.2022	https://members.tsdsi.in/s/pkRePyeJ232sN54
TTA	TTAT.3G-37.171V15.4.0	15.4.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.171V15.4.0&searchCate=TTAS
Release 16					
ARIB	ARIB STD-T120-37.171.V16.1.0	16.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/37/A37171-g10.pdf
ATIS	ATIS.3GPP.37.171.V16.1.0	16.1.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16

CCSA	CCSA.3GPP.37.171.V16.1.0	16.1.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.171.V16.1.0.docx
ETSI	ETSI TS 137 171 V16.1.0 (2020-11)	16.1.0	Published	19.11.2020	https://www.etsi.org/deliver/etsi_ts\137100_137199\137171\16.01.00_60\ts_137171v160100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.171-16.1.0 V1.1.0	16.1.0	Published	29.07.2022	https://members.tsdsi.in/s/zcQetx8MTjBwozY
TTA	TTAT.3G-37.171V16.1.0	16.1.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.171V16.1.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-37.171.V17.0.0	17.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/37/A37171-h00.pdf
ATIS	ATIS.3GPP.37.171.V17.0.0	17.0.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.171.V17.0.0	17.0.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.171.V17.0.0.docx
ETSI	ETSI TS 137 171 V17.0.0 (2022-04)	17.0.0	Published	28.04.2022	https://www.etsi.org/deliver/etsi_ts\137100_137199\137171\17.00.00_60\ts_137171v170000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.171-17.0.0 V1.0.0	17.0.0	Published	29.07.2022	https://members.tsdsi.in/s/GeAEJriRA8tpSAD
TTA	TTAT.3G-37.171V17.0.0	17.0.0	Published	05.08.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.171V17.0.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-37.171.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/37/A37171-i00.pdf
ATIS	ATIS.3GPP.37.171.V18.0.0	18.0.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.171.V18.0.0	18.0.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.171.V18.0.0.docx
ETSI	ETSI TS 137 171 V18.0.0 (2024-05)	18.0.0	Published	07.05.2024	https://www.etsi.org/deliver/etsi_ts\137100_137199\137171\18.00.00_60\ts_137171v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.171-18.0.0 V1.0.0	18.0.0	Published	19.11.2024	https://members.tsdsi.in/s/cNHXLpki3MZPf4b
TTA	TTAT.3G-37.171V18.0.0	18.0.0	Published	12.08.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.171V18.0.0&searchCate=TTAS

2.1.6   User Equipment (UE) conformance testing

2.1.6.1   TS 36.508

Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common test environments for User Equipment (UE) conformance testing

This document contains definitions of reference conditions and test signals, default parameters, reference radio bearer configurations used in radio bearer interoperability testing, common radio bearer configurations for other test purposes, common requirements for test equipment and generic set-up procedures for use in conformance tests for the 3rd Generation E-UTRAN User Equipment (UE).

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.508.V10.5.0	10.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36508-a50.pdf
ATIS	ATIS.3GPP.36.508V1050	10.5.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.508V1050	10.5.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.508V1050.doc
ETSI	ETSI TS 136 508 V10.5.0 (2013-07)	10.5.0	Published	02.07.2013	https://www.etsi.org/deliver/etsi_ts\136500_136599\136508\10.05.00_60\ts_136508v100500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.508-10.5.0 V1.0.0	10.5.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/c6wfedrMX2eo2Wj

TTA	TTAT.3G-36.508V10.5.0	10.5.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.508V10.5.0&searchCate=TTAS

Release 11

ARIB	ARIB STD-T120-36.508.V11.4.0	11.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36508-b40.pdf
ATIS	ATIS.3GPP.36.508V1140	11.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.508V1140	11.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.508V1140.doc
ETSI	ETSI TS 136 508 V11.4.0 (2014-04)	11.4.0	Published	02.04.2014	https://www.etsi.org/deliver/etsi_ts\136500_136599\136508\11.04.00_60\ts_136508v110400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.508-11.4.0 V1.0.0	11.4.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/Q7oxXyLt7obwaSr
TTA	TTAT.3G-36.508V11.4.0	11.4.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.508V11.4.0&searchCate=TTAS

Release 12

ARIB	ARIB STD-T120-36.508.V12.11.0	12.11.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36508-cb0.pdf
ATIS	ATIS.3GPP.36.508V12110	12.11.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.508V12110	12.11.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.508V12110.doc
ETSI	ETSI TS 136 508 V12.11.0 (2016-11)	12.11.0	Published	02.11.2016	https://www.etsi.org/deliver/etsi_ts\136500_136599\136508\12.11.00_60\ts_136508v121100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.508-12.11.0 V1.0.0	12.11.0	Published	30.08.2021	https://members.tsdsi.in/s/7CSZLRzCGBjT9Df
TTA	TTAT.3G-36.508V12.11.0	12.11.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.508V12.11.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.508.V13.3.1	13.3.1	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36508-d31.pdf
ATIS	ATIS.3GPP.36.508V1331	13.3.1	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.508V1331	13.3.1	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.508V1331.doc
ETSI	ETSI TS 136 508 V13.3.1 (2017-05)	13.3.1	Published	09.05.2017	https://www.etsi.org/deliver/etsi_ts\136500_136599\136508\13.03.01_60\ts_136508v130301p.pdf
TSDSI	TSDSI STD T1.3GPP 36.508-13.3.1 V1.0.0	13.3.1	Published	30.08.2021	https://members.tsdsi.in/s/69D5DYKekKSyD4p
TTA	TTAT.3G-36.508V13.3.1	13.3.1	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.508V13.3.1&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.508.V14.5.0	14.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36508-e50.pdf
ATIS	ATIS.3GPP.36.508V1450	14.5.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.508V1450	14.5.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.508V1450.doc
ETSI	ETSI TS 136 508 V14.5.0 (2018-04)	14.5.0	Published	10.04.2018	https://www.etsi.org/deliver/etsi_ts\136500_136599\136508\14.05.00_60\ts_136508v140500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.508-14.5.0 V1.1.0	14.5.0	Published	30.08.2021	https://members.tsdsi.in/s/tBFTDSDXm5FptSx
TTA	TTAT.3G-36.508V14.5.0	14.5.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.508V14.5.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.508.V15.6.0	15.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36508-f60.pdf
ATIS	ATIS.3GPP.36.508V1560	15.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.508V1560	15.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.508V1560.doc
ETSI	ETSI TS 136 508 V15.6.0 (2020-04)	15.6.0	Published	01.04.2020	https://www.etsi.org/deliver/etsi_ts\136500_136599\136508\15.06.00_60\ts_136508v150600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.508-15.6.0 V1.0.0	15.6.0	Published	30.08.2021	https://members.tsdsi.in/s/TAXcxTDpFw4wKPA

TTA	TTAT.3G-36.508V15.6.0	15.6.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.508V15.6.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.508.V16.11.0	16.11.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36508-gb0.pdf
ATIS	ATIS.3GPP.36.508.V16.11.0	16.11.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.508.V16.11.0	16.11.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.508.V16.11.0.docx
ETSI	ETSI TS 136 508 V16.11.0 (2022-01)	16.11.0	Published	20.01.2022	https://www.etsi.org/deliver/etsi_ts\136500_136599\136508\16.11.00_60\ts_136508v161100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.508-16.11.0 V1.1.0	16.11.0	Published	29.07.2022	https://members.tsdsi.in/s/NSLrRKrgFMrPYCd
TTA	TTAT.3G-36.508V16.11.0	16.11.0	Published	14.03.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.508V16.11.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.508.V17.6.0	17.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36508-h60.pdf
ATIS	ATIS.3GPP.36.508.V17.6.0	17.6.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.508.V17.6.0	17.6.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.508.V17.6.0.docx
ETSI	ETSI TS 136 508 V17.6.0 (2023-07)	17.6.0	Published	24.07.2023	https://www.etsi.org/deliver/etsi_ts\136500_136599\136508\17.06.00_60\ts_136508v170600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.508-17.6.0 V1.4.0	17.6.0	Published	02.11.2023	https://members.tsdsi.in/s/QAxo8wACy9reGiX
TTA	TTAT.3G-36.508V17.6.0	17.6.0	Published	27.10.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.508V17.6.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.508.V18.6.0	18.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36508-i60.pdf
ATIS	ATIS.3GPP.36.508.V18.6.0	18.6.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.508.V18.6.0	18.6.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.508.V18.6.0.zip
ETSI	ETSI TS 136 508 V18.6.0 (2024-10)	18.6.0	Published	15.10.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\136508\18.06.00_60\ts_136508v180600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.508-18.6.0 V1.1.0	18.6.0	Published	02.03.2025	https://members.tsdsi.in/s/Wpa6HK8YRgLTTWZ
TTA	TTAT.3G-36.508V18.6.0	18.6.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.508V18.6.0&searchCate=TTAS

2.1.6.2 TS 36.509

Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Special conformance testing functions for User Equipment (UE)

This document defines for User Equipment (UE) in E-UTRA FDD or TDD mode those special functions and their activation/deactivation methods that are required in UE for conformance testing purposes.

This document also describes the operation of these special functions for UEs supporting E-UTRA FDD or TDD mode, when operating in UTRA FDD and TDD mode, in GSM/GPRS mode, and in CDMA2000 mode.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.509.V10.3.0	10.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36509-a30.pdf
ATIS	ATIS.3GPP.36.509V1030	10.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10

CCSA	CCSA.3GPP.36.509V1030 7_ATIS/CCSA.3GPP.36.509V1030.doc	10.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 509 V10.3.0 (2014-09)	10.3.0	Published	26.09.2014	https://www.etsi.org/deliver/etsi_ts\136500_136599\136509\10.03.00_60\ts_136509v100300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.509-10.3.0 V1.0.0	10.3.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/M9sq2BQSEEBRNfW
TTA	TTAT.3G-36.509V10.3.0 36.509V10.3.0&searchCate=TTAS	10.3.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 11

ARIB	ARIB STD-T120-36.509.V11.0.0	11.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36509-b00.pdf
ATIS	ATIS.3GPP.36.509V1100	11.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.509V1100 7_ATIS/CCSA.3GPP.36.509V1100.doc	11.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 509 V11.0.0 (2015-07)	11.0.0	Published	28.07.2015	https://www.etsi.org/deliver/etsi_ts\136500_136599\136509\11.00.00_60\ts_136509v110000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.509-11.0.0 V1.0.0	11.0.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/Yj9GMrZbggsYqAZ
TTA	TTAT.3G-36.509V11.0.0 36.509V11.0.0&searchCate=TTAS	11.0.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 12

ARIB	ARIB STD-T120-36.509.V12.4.0	12.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36509-c40.pdf
ATIS	ATIS.3GPP.36.509V1240	12.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.509V1240 7_ATIS/CCSA.3GPP.36.509V1240.doc	12.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 509 V12.4.0 (2016-08)	12.4.0	Published	25.08.2016	https://www.etsi.org/deliver/etsi_ts\136500_136599\136509\12.04.00_60\ts_136509v120400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.509-12.4.0 V1.0.0	12.4.0	Published	30.08.2021	https://members.tsdsi.in/s/oKKZ6MaLgRwZ4Fb
TTA	TTAT.3G-36.509V12.4.0 36.509V12.4.0&searchCate=TTAS	12.4.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 13

ARIB	ARIB STD-T120-36.509.V13.9.0	13.9.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36509-d90.pdf
ATIS	ATIS.3GPP.36.509.V13.9.0	13.9.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.509.V13.9.0 7_ATIS/CCSA.3GPP.36.509.V13.9.0.doc	13.9.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 509 V13.9.0 (2023-10)	13.9.0	Published	09.10.2023	https://www.etsi.org/deliver/etsi_ts\136500_136599\136509\13.09.00_60\ts_136509v130900p.pdf
TSDSI	TSDSI STD T1.3GPP 36.509-13.9.0 V1.1.0	13.9.0	Published	30.08.2021	https://members.tsdsi.in/s/JckgrwCxyn6CAgo
TTA	TTAT.3G-36.509V13.9.0 36.509V13.9.0&searchCate=TTAS	13.9.0	Published	13.02.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 14

ARIB	ARIB STD-T120-36.509.V14.8.0	14.8.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36509-e80.pdf
ATIS	ATIS.3GPP.36.509.V14.8.0	14.8.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.509.V14.8.0 7_ATIS/CCSA.3GPP.36.509.V14.8.0.doc	14.8.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 509 V14.8.0 (2023-10)	14.8.0	Published	09.10.2023	https://www.etsi.org/deliver/etsi_ts\136500_136599\136509\14.08.00_60\ts_136509v140800p.pdf
TSDSI	TSDSI STD T1.3GPP 36.509-14.8.0 V1.2.0	14.8.0	Published	23.02.2024	https://members.tsdsi.in/s/snaSBozY9Gonjw2
TTA	TTAT.3G-36.509V14.8.0 36.509V14.8.0&searchCate=TTAS	14.8.0	Published	13.02.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-

Release 15

ARIB	ARIB STD-T120-36.509.V15.7.0	15.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36509-f70.pdf
ATIS	ATIS.3GPP.36.509.V15.7.0	15.7.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-15

CCSA	CCSA.3GPP.36.509.V15.7.0	15.7.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.509.V15.7.0.doc
ETSI	ETSI TS 136 509 V15.7.0 (2023-10)	15.7.0	Published	09.10.2023	https://www.etsi.org/deliver/etsi_ts\136500_136599\136509\15.07.00_60\ts_136509v150700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.509-15.7.0 V1.3.0	15.7.0	Published	23.02.2024	https://members.tsdsi.in/s/SoqfoYWaQ4wy6cj
TTA	TTAT.3G-36.509V15.7.0	15.7.0	Published	13.02.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.509V15.7.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.509.V16.6.0	16.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36509-g60.pdf
ATIS	ATIS.3GPP.36.509.V16.6.0	16.6.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.509.V16.6.0	16.6.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.509.V16.6.0.docx
ETSI	ETSI TS 136 509 V16.6.0 (2023-10)	16.6.0	Published	09.10.2023	https://www.etsi.org/deliver/etsi_ts\136500_136599\136509\16.06.00_60\ts_136509v160600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.509-16.6.0 V1.5.0	16.6.0	Published	23.02.2024	https://members.tsdsi.in/s/zr5X3cEZi4bnSWg
TTA	TTAT.3G-36.509V16.6.0	16.6.0	Published	13.02.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.509V16.6.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.509.V17.4.0	17.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36509-h40.pdf
ATIS	ATIS.3GPP.36.509.V17.4.0	17.4.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.509.V17.4.0	17.4.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.509.V17.4.0.docx
ETSI	ETSI TS 136 509 V17.4.0 (2023-10)	17.4.0	Published	09.10.2023	https://www.etsi.org/deliver/etsi_ts\136500_136599\136509\17.04.00_60\ts_136509v170400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.509-17.4.0 V1.4.0	17.4.0	Published	23.02.2024	https://members.tsdsi.in/s/Wfzi4iW3xaFKpWB
TTA	TTAT.3G-36.509V17.4.0	17.4.0	Published	13.02.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.509V17.4.0&searchCate=TTAS

2.1.6.3 TS 36.521-1

Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing

This document specifies the measurement procedures for the conformance test of the user equipment (UE) that contain transmitting characteristics, receiving characteristics and performance requirements as part of the 3G Long Term Evolution (3G LTE). Conformance test for the support of RRM (Radio Resource Management) are specified in TS 36.521-3.

The requirements are listed in different clauses only if the corresponding parameters deviate. More generally, tests are only applicable to those mobiles that are intended to support the appropriate functionality. To indicate the circumstances in which tests apply, this is noted in the "definition and applicability" part of the test.

For example, only Release 8 and later UE declared to support LTE shall be tested for this functionality. In the event that for some tests different conditions apply for different releases, this is indicated within the text of the test itself.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.521-1.V10.6.0	10.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36521-1-a60.pdf
ATIS	ATIS.3GPP.36.521-1V1060	10.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.521-1V1060	10.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-1V1060.doc
ETSI	ETSI TS 136 521-1 V10.6.0 (2013-07)	10.6.0	Published	03.07.2013	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652101\10.06.00_60/ts_13652101v100600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-1-10.6.0 V1.0.0	10.6.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/4cRpAncDWzX7Cnz
TTA	TTAT.3G-36.521-1V10.6.0	10.6.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-1V10.6.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.521-1.V11.4.0	11.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36521-1-b40.pdf
ATIS	ATIS.3GPP.36.521-1V1140	11.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.521-1V1140	11.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-1V1140.doc
ETSI	ETSI TS 136 521-1 V11.4.0 (2014-03)	11.4.0	Published	26.03.2014	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652101\11.04.00_60/ts_13652101v110400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-1-11.4.0 V1.0.0	11.4.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/q595EZ3fsNMi84e
TTA	TTAT.3G-36.521-1V11.4.0	11.4.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-1V11.4.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-36.521-1.V12.9.0	12.9.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36521-1-c90.pdf
ATIS	ATIS.3GPP.36.521-1V1290	12.9.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.521-1V1290	12.9.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-1V1290.doc
ETSI	ETSI TS 136 521-1 V12.9.0 (2016-05)	12.9.0	Published	20.05.2016	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652101\12.09.00_60/ts_13652101v120900p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-1-12.9.0 V1.0.0	12.9.0	Published	30.08.2021	https://members.tsdsi.in/s/FacfyKHdi39w6Mc
TTA	TTAT.3G-36.521-1V12.9.0	12.9.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-1V12.9.0&searchCate=TTAS
Release 13					
ARIB	ARIB STD-T120-36.521-1.V13.4.0	13.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36521-1-d40.pdf
ATIS	ATIS.3GPP.36.521-1V1340	13.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.521-1V1340	13.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-1V1340.doc
ETSI	ETSI TS 136 521-1 V13.4.0 (2017-04)	13.4.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652101\13.04.00_60/ts_13652101v130400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-1-13.4.0 V1.0.0	13.4.0	Published	30.08.2021	https://members.tsdsi.in/s/9W5o79aTPoQDCkn
TTA	TTAT.3G-36.521-1V13.4.0	13.4.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-1V13.4.0&searchCate=TTAS
Release 14					
ARIB	ARIB STD-T120-36.521-1.V14.6.0	14.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36521-1-e60.pdf
ATIS	ATIS.3GPP.36.521-1V1460	14.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.521-1V1460	14.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-1V1460.doc
ETSI	ETSI TS 136 521-1 V14.6.0 (2018-04)	14.6.0	Published	10.04.2018	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652101\14.06.00_60/ts_13652101v140600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-1-14.6.0 V1.1.0	14.6.0	Published	30.08.2021	https://members.tsdsi.in/s/woDDQzXND2j9M2D

TTA	TTAT.3G-36.521-1V14.6.0	14.6.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-1V14.6.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.521-1.V15.6.0	15.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36521-1-f60.pdf
ATIS	ATIS.3GPP.36.521-1V1560	15.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.521-1V1560	15.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-1V1560.doc
ETSI	ETSI TS 136 521-1 V15.6.0 (2020-04)	15.6.0	Published	01.04.2020	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652101\15.06.00_60\ts_13652101v150600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-1-15.6.0 V1.0.0	15.6.0	Published	30.08.2021	https://members.tsdsi.in/s/fiTDkWsdXmGfSMT
TTA	TTAT.3G-36.521-1V15.6.0	15.6.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-1V15.6.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.521-1.V16.11.0	16.11.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36521-1-gb0.pdf
ATIS	ATIS.3GPP.36.521-1.V16.11.0	16.11.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.521-1.V16.11.0	16.11.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-1.V16.11.0.docx
ETSI	ETSI TS 136 521-1 V16.11.0 (2022-01)	16.11.0	Published	25.01.2022	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652101\16.11.00_60\ts_13652101v161100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-1-16.11.0 V1.1.0	16.11.0	Published	29.07.2022	https://members.tsdsi.in/s/AnywE8229JQ6AAt
TTA	TTAT.3G-36.521-1V16.11.0	16.11.0	Published	14.03.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-1V16.11.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.521-1.V17.7.0	17.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36521-1-h70.pdf
ATIS	ATIS.3GPP.36.521-1.V17.7.0	17.7.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.521-1.V17.7.0	17.7.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-1.V17.7.0.docx
ETSI	ETSI TS 136 521-1 V17.7.0 (2023-07)	17.7.0	Published	24.07.2023	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652101\17.07.00_60\ts_13652101v170700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-1-17.7.0 V1.5.0	17.7.0	Published	02.11.2023	https://members.tsdsi.in/s/77xbjPPr6bX2wq2
TTA	TTAT.3G-36.521-1V17.7.0	17.7.0	Published	27.10.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-1V17.7.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.521-1.V18.6.0	18.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36521-1-i60.pdf
ATIS	ATIS.3GPP.36.521-1.V18.6.0	18.6.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.521-1.V18.6.0	18.6.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-1.V18.6.0.zip
ETSI	ETSI TS 136 521-1 V18.6.0 (2024-10)	18.6.0	Published	18.10.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652101\18.06.00_60\ts_13652101v180600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-1-18.6.0 V1.1.0	18.6.0	Published	02.03.2025	https://members.tsdsi.in/s/ksdfjcHFp96Jy56
TTA	TTAT.3G-36.521-1V18.6.0	18.6.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-1V18.6.0&searchCate=TTAS

2.1.6.4   TS 36.521-2

Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Implementation Conformance Statement (ICS)

This document provides the ICS proforma for 3G Evolved Universal Terrestrial Radio Access (E-UTRA) User Equipment (UE), in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-1 and ISO/IEC 9646-7.

This document specifies the recommended applicability statement for the test cases included in 3GPP TS 36.521-1 and 3GPP TS 36.521-3. These applicability statements are based on the features implemented in the UE.

Special conformance testing functions can be found in 3GPP TS 36.509 and the common test environments are included in 3GPP TS 36.508.

This document is valid for UE implemented according to 3GPP releases starting from Release 8 up to the Release indicated on the cover page of this document.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.521-2.V10.6.0	10.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36521-2-a60.pdf
ATIS	ATIS.3GPP.36.521-2V1060	10.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.521-2V1060	10.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-2V1060.doc
ETSI	ETSI TS 136 521-2 V10.6.0 (2013-07)	10.6.0	Published	02.07.2013	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652102\10.06.00_60\ts_13652102v100600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-2-10.6.0 V1.0.0	10.6.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/iAFqqtE6iqf9bfY
TTA	TTAT.3G-36.521-2V10.6.0	10.6.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-2V10.6.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.521-2.V11.4.0	11.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36521-2-b40.pdf
ATIS	ATIS.3GPP.36.521-2V1140	11.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.521-2V1140	11.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-2V1140.doc
ETSI	ETSI TS 136 521-2 V11.4.0 (2014-04)	11.4.0	Published	02.04.2014	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652102\11.04.00_60\ts_13652102v110400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-2-11.4.0 V1.0.0	11.4.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/YgRkNofACkDMKLm
TTA	TTAT.3G-36.521-2V11.4.0	11.4.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-2V11.4.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-36.521-2.V12.9.0	12.9.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36521-2-c90.pdf
ATIS	ATIS.3GPP.36.521-2V1290	12.9.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.521-2V1290	12.9.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-2V1290.doc
ETSI	ETSI TS 136 521-2 V12.9.0 (2016-11)	12.9.0	Published	14.11.2016	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652102\12.09.00_60\ts_13652102v120900p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-2-12.9.0 V1.0.0	12.9.0	Published	30.08.2021	https://members.tsdsi.in/s/PR7onFMSz2iZyYN
TTA	TTAT.3G-36.521-2V12.9.0	12.9.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-2V12.9.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.521-2.V13.4.0	13.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36521-2-d40.pdf
ATIS	ATIS.3GPP.36.521-2V1340	13.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.521-2V1340	13.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-2V1340.doc
ETSI	ETSI TS 136 521-2 V13.4.0 (2017-04)	13.4.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652102\13.04.00_60\ts_13652102v130400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-2-13.4.0 V1.0.0	13.4.0	Published	30.08.2021	https://members.tsdsi.in/s/ZLL9HbAwqPLJRkH
TTA	TTAT.3G-36.521-2V13.4.0	13.4.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-2V13.4.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.521-2.V14.6.0	14.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36521-2-e60.pdf
ATIS	ATIS.3GPP.36.521-2V1460	14.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.521-2V1460	14.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-2V1460.doc
ETSI	ETSI TS 136 521-2 V14.6.0 (2018-04)	14.6.0	Published	10.04.2018	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652102\14.06.00_60\ts_13652102v140600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-2-14.6.0 V1.1.0	14.6.0	Published	30.08.2021	https://members.tsdsi.in/s/q8badWsdLfbWEnc
TTA	TTAT.3G-36.521-2V14.6.0	14.6.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-2V14.6.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.521-2.V15.6.0	15.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36521-2-f60.pdf
ATIS	ATIS.3GPP.36.521-2V1560	15.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.521-2V1560	15.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-2V1560.doc
ETSI	ETSI TS 136 521-2 V15.6.0 (2020-04)	15.6.0	Published	01.04.2020	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652102\15.06.00_60\ts_13652102v150600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-2-15.6.0 V1.0.0	15.6.0	Published	30.08.2021	https://members.tsdsi.in/s/wHcDKjwincwpx44
TTA	TTAT.3G-36.521-2V15.6.0	15.6.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-2V15.6.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.521-2.V16.15.0	16.15.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36521-2-gf0.pdf
ATIS	ATIS.3GPP.36.521-2.V16.15.0	16.15.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.521-2.V16.15.0	16.15.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-2.V16.15.0.docx
ETSI	ETSI TS 136 521-2 V16.15.0 (2023-01)	16.15.0	Published	19.01.2023	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652102\16.15.00_60\ts_13652102v161500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-2 16.15.0 V1.3.0	16.15.0	Published	02.05.2023	https://members.tsdsi.in/s/YTdDRddo4LNf9HX
TTA	TTAT.3G-36.521-2V16.15.0	16.15.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-2V16.15.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.521-2.V17.3.0	17.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36521-2-h30.pdf
ATIS	ATIS.3GPP.36.521-2.V17.3.0	17.3.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.521-2.V17.3.0	17.3.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-2.V17.3.0.docx
ETSI	ETSI TS 136 521-2 V17.3.0 (2023-07)	17.3.0	Published	24.07.2023	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652102\17.03.00_60\ts_13652102v170300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-2-17.3.0 V1.3.0	17.3.0	Published	11.02.2023	https://members.tsdsi.in/s/PbWbSJ6iQfBqg8d
TTA	TTAT.3G-36.521-2V17.3.0	17.3.0	Published	27.10.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-2V17.3.0&searchCate=TTAS

Release 18

SDO	Document No.	Version	Status	Issued date	Location
ARIB	ARIB STD-T120-36.521-2.V18.6.0	18.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36521-2-i60.pdf
ATIS	ATIS.3GPP.36.521-2.V18.6.0	18.6.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.521-2.V18.6.0	18.6.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-2.V18.6.0.zip
ETSI	ETSI TS 136 521-2 V18.6.0 (2024-10)	18.6.0	Published	14.10.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652102\18.06.00_60\ts_13652102v180600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-2-18.6.0 V1.1.0	18.6.0	Published	03.02.2025	https://members.tsdsi.in/s/7CDS3E9eQHStLCw
TTA	TTAT.3G-36.521-2V18.6.0	18.6.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-2V18.6.0&searchCate=TTAS

2.1.6.5 TS 36.521-3

Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Radio Resource Management (RRM) conformance testing

This document specifies the measurement procedures for the conformance test of the user equipment (UE) that contain requirements for support of RRM (Radio Resource Management) as part of the 3G Long Term Evolution (3G LTE).

The requirements are listed in different clauses only if the corresponding parameters deviate. More generally, tests are only applicable to those mobiles that are intended to support the appropriate functionality. To indicate the circumstances in which tests apply, this is noted in the "test applicability" part of the test.

For example, only Release 8 and later UE declared to support LTE shall be tested for this functionality. In the event that for some tests different conditions apply for different releases, this is indicated within the text of the test itself.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.521-3.V10.5.0	10.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36521-3-a50.pdf
ATIS	ATIS.3GPP.36.521-3V1050	10.5.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.521-3V1050	10.5.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-3V1050.doc
ETSI	ETSI TS 136 521-3 V10.5.0 (2016-11)	10.5.0	Published	14.11.2016	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652103\10.05.00_60\ts_13652103v100500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-3-10.5.0 V1.0.0	10.5.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/Aiy4PFkY2ZwGFbQ
TTA	TTAT.3G-36.521-3V10.5.0	10.5.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-3V10.5.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.521-3.V11.4.0	11.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36521-3-b40.pdf
ATIS	ATIS.3GPP.36.521-3V1140	11.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.521-3V1140	11.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-3V1140.doc
ETSI	ETSI TS 136 521-3 V11.4.0 (2014-04)	11.4.0	Published	03.04.2014	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652103\11.04.00_60\ts_13652103v110400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-3-11.4.0 V1.0.0	11.4.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/YkHy5PPkngnnayE
TTA	TTAT.3G-36.521-3V11.4.0	11.4.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-3V11.4.0&searchCate=TTAS

Release 12

ARIB	ARIB STD-T120-36.521-3.V12.12.0	12.12.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36521-3-cc0.pdf
ATIS	ATIS.3GPP.36.521-3V12120	12.12.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.521-3V12120	12.12.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-3V12120.doc
ETSI	ETSI TS 136 521-3 V12.12.0 (2017-04)	12.12.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652103\12.12.00_60\ts_13652103v121200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-3-12.12.0 V1.0.0	12.12.0	Published	30.08.2021	https://members.tsdsi.in/s/JrgfCsqBSDMH7mp
TTA	TTAT.3G-36.521-3V12.12.0	12.12.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-3V12.12.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.521-3.V13.2.0	13.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36521-3-d20.pdf
ATIS	ATIS.3GPP.36.521-3V1320	13.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.521-3V1320	13.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-3V1320.doc
ETSI	ETSI TS 136 521-3 V13.2.0 (2017-04)	13.2.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652103\13.02.00_60\ts_13652103v130200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-3-13.2.0 V1.0.0	13.2.0	Published	30.08.2021	https://members.tsdsi.in/s/kdgXNnWdwaYHgwb
TTA	TTAT.3G-36.521-3V13.2.0	13.2.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-3V13.2.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.521-3.V14.5.0	14.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36521-3-e50.pdf
ATIS	ATIS.3GPP.36.521-3V1450	14.5.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.521-3V1450	14.5.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-3V1450.doc
ETSI	ETSI TS 136 521-3 V14.5.0 (2018-09)	14.5.0	Published	28.09.2018	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652103\14.05.00_60\ts_13652103v140500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-3-14.5.0 V1.1.0	14.5.0	Published	30.08.2021	https://members.tsdsi.in/s/q7JegNWbboniTqQ
TTA	TTAT.3G-36.521-3V14.5.0	14.5.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-3V14.5.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.521-3.V15.6.0	15.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36521-3-f60.pdf
ATIS	ATIS.3GPP.36.521-3V1560	15.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.521-3V1560	15.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-3V1560.doc
ETSI	ETSI TS 136 521-3 V15.6.0 (2020-04)	15.6.0	Published	01.04.2020	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652103\15.06.00_60\ts_13652103v150600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-3-15.6.0 V1.0.0	15.6.0	Published	30.08.2021	https://members.tsdsi.in/s/sWZg3DYzQaAAgjr
TTA	TTAT.3G-36.521-3V15.6.0	15.6.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-3V15.6.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.521-3.V16.15.0	16.15.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36521-3-gf0.pdf
ATIS	ATIS.3GPP.36.521-3.V16.15.0	16.15.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.521-3.V16.15.0	16.15.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-3.V16.15.0.docx
ETSI	ETSI TS 136 521-3 V16.15.0 (2023-01)	16.15.0	Published	19.01.2023	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652103\16.15.00_60\ts_13652103v161500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-3 16.15.0 V1.3.0	16.15.0	Published	02.05.2023	https://members.tsdsi.in/s/HiGdXYmYWXPXN58
TTA	TTAT.3G-36.521-3V16.15.0	16.15.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-3V16.15.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.521-3.V17.2.0	17.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36521-3-h20.pdf
ATIS	ATIS.3GPP.36.521-3.V17.2.0	17.2.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.521-3.V17.2.0	17.2.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-3.V17.2.0.docx
ETSI	ETSI TS 136 521-3 V17.2.0 (2024-08)	17.2.0	Published	02.08.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652103\17.02.00_60\ts_13652103v170200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-3-17.2.0 V1.2.0	17.2.0	Published	19.11.2024	https://members.tsdsi.in/s/PZiTHT5GRereJdq
TTA	TTAT.3G-36.521-3V17.2.0	17.2.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-3V17.2.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.521-3.V18.6.0	18.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36521-3-i60.pdf
ATIS	ATIS.3GPP.36.521-3.V18.6.0	18.6.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.521-3.V18.6.0	18.6.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.521-3.V18.6.0.zip
ETSI	ETSI TS 136 521-3 V18.6.0 (2024-10)	18.6.0	Published	21.10.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652103\18.06.00_60\ts_13652103v180600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.521-3-18.6.0 V1.1.0	18.6.0	Published	02.03.2025	https://members.tsdsi.in/s/SxPCy4xKCANxgGw
TTA	TTAT.3G-36.521-3V18.6.0	18.6.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.521-3V18.6.0&searchCate=TTAS

2.1.6.6   TS 36.523-1

Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification

This document specifies the protocol conformance testing for the 3rd Generation E-UTRAN User Equipment (UE).

This is the first part of a multi-part test specification. The following information can be found in this part:

–   the overall test structure;

–   the test configurations;

–   the conformance requirement and reference to the core specifications;

–   the test purposes; and

–   a brief description of the test procedure, the specific test requirements and short message exchange table.

The following information relevant to testing could be found in accompanying specifications:

–   the default setting of the test parameters (TS 36.508);

–   the applicability of each test case (TS 36.523-2).

A detailed description of the expected sequence of messages could be found in the 3rd part of this test specification.

The Implementation Conformance Statement (ICS) pro-forma could be found in the 2nd part of this document.

This document is valid for UE implemented according to 3GPP releases starting from Release 8 up to the Release indicated on the cover page of this document.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.523-1.V10.4.0	10.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36523-1-a40.pdf
ATIS	ATIS.3GPP.36.523-1V1040	10.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.523-1V1040	10.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-1V1040.doc
ETSI	ETSI TS 136 523-1 V10.4.0 (2015-07)	10.4.0	Published	28.07.2015	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652301\10.04.00_60\ts_13652301v100400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-1-10.4.0 V1.0.0	10.4.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/CmjgTmSLTnbfRDY
TTA	TTAT.3G-36.523-1V10.4.0	10.4.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-1V10.4.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.523-1.V11.7.0	11.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36523-1-b70.pdf
ATIS	ATIS.3GPP.36.523-1V1170	11.7.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.523-1V1170	11.7.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-1V1170.doc
ETSI	ETSI TS 136 523-1 V11.7.0 (2015-07)	11.7.0	Published	28.07.2015	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652301\11.07.00_60\ts_13652301v110700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-1-11.7.0 V1.0.0	11.7.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/fxKyEEMgcPi8Dn7
TTA	TTAT.3G-36.523-1V11.7.0	11.7.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-1V11.7.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-36.523-1.V12.10.0	12.10.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36523-1-ca0.pdf
ATIS	ATIS.3GPP.36.523-1V12100	12.10.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.523-1V12100	12.10.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-1V12100.doc
ETSI	ETSI TS 136 523-1 V12.10.0 (2016-11)	12.10.0	Published	07.11.2016	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652301\12.10.00_60\ts_13652301v121000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-1-12.10.0 V1.0.0	12.10.0	Published	30.08.2021	https://members.tsdsi.in/s/DmkAbnXwJTTd3g4
TTA	TTAT.3G-36.523-1V12.10.0	12.10.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-1V12.10.0&searchCate=TTAS
Release 13					
ARIB	ARIB STD-T120-36.523-1.V13.5.0	13.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36523-1-d50.pdf
ATIS	ATIS.3GPP.36.523-1V1350	13.5.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.523-1V1350	13.5.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-1V1350.doc
ETSI	ETSI TS 136 523-1 V13.5.0 (2017-10)	13.5.0	Published	19.10.2017	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652301\13.05.00_60\ts_13652301v130500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-1-13.5.0 V1.0.0	13.5.0	Published	30.08.2021	https://members.tsdsi.in/s/atRP38MR9QMr9RF
TTA	TTAT.3G-36.523-1V13.5.0	13.5.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-1V13.5.0&searchCate=TTAS
Release 14					
ARIB	ARIB STD-T120-36.523-1.V14.4.0	14.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36523-1-e40.pdf
ATIS	ATIS.3GPP.36.523-1V1440	14.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.523-1V1440	14.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-1V1440.doc
ETSI	ETSI TS 136 523-1 V14.4.0 (2018-04)	14.4.0	Published	11.04.2018	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652301\14.04.00_60\ts_13652301v140400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-1-14.4.0 V1.1.0	14.4.0	Published	30.08.2021	https://members.tsdsi.in/s/HMPG7xD8yQAQAf8

| TTA | TTAT.3G-36.523-1V14.4.0 | 14.4.0 | Published | 02.08.2021 | https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-1V14.4.0&searchCate=TTAS |

Release 15

ARIB	ARIB STD-T120-36.523-1.V15.6.1	15.6.1	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36523-1-f61.pdf
ATIS	ATIS.3GPP.36.523-1V1561	15.6.1	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.523-1V1561	15.6.1	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-1V1561.doc
ETSI	ETSI TS 136 523-1 V15.6.1 (2020-04)	15.6.1	Published	02.04.2020	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652301\15.06.01_60\ts_13652301v150601p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-1-15.6.1 V1.0.0	15.6.1	Published	30.08.2021	https://members.tsdsi.in/s/sXNmT37jREJBpC8
TTA	TTAT.3G-36.523-1V15.6.1	15.6.1	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-1V15.6.1&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.523-1.V16.12.0	16.12.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36523-1-gc0.pdf
ATIS	ATIS.3GPP.36.523-1.V16.12.0	16.12.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.523-1.V16.12.0	16.12.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-1.V16.12.0.doc
ETSI	ETSI TS 136 523-1 V16.12.0 (2023-01)	16.12.0	Published	19.01.2023	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652301\16.12.00_60\ts_13652301v161200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-1 16.12.0 V1.2.0	16.12.0	Published	02.05.2023	https://members.tsdsi.in/s/5w5MZZzqbwtKFmB
TTA	TTAT.3G-36.523-1V16.12.0	16.12.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-1V16.12.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.523-1.V17.6.0	17.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36523-1-h60.pdf
ATIS	ATIS.3GPP.36.523-1.V17.6.0	17.6.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.523-1.V17.6.0	17.6.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-1.V17.6.0.docx
ETSI	ETSI TS 136 523-1 V17.6.0 (2023-07)	17.6.0	Published	24.07.2023	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652301\17.06.00_60\ts_13652301v170600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-1-17.6.0 V1.5.0	17.6.0	Published	02.11.2023	https://members.tsdsi.in/s/donCi2Aocz2Y9do
TTA	TTAT.3G-36.523-1V17.6.0	17.6.0	Published	27.10.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-1V17.6.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.523-1.V18.6.0	18.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36523-1-i60.pdf
ATIS	ATIS.3GPP.36.523-1.V18.6.0	18.6.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.523-1.V18.6.0	18.6.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-1.V18.6.0.zip
ETSI	ETSI TS 136 523-1 V18.6.0 (2024-10)	18.6.0	Published	23.10.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652301\18.06.00_60\ts_13652301v180600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-1-18.6.0 V1.1.0	18.6.0	Published	02.03.2025	https://members.tsdsi.in/s/E8za2oSSPwoFQTG
TTA	TTAT.3G-36.523-1V18.6.0	18.6.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-1V18.6.0&searchCate=TTAS

2.1.6.7 TS 36.523-2

Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification

This document provides the ICS proforma for 3rd Generation User Equipment (UE), in compliance with the relevant EPS (E-UTRA/EPC) requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-1 and ISO/IEC 9646-7.

This document also specifies a recommended applicability statement for the test cases included in TS 36.523-1. These applicability statements are based on the features implemented in the UE.

Special conformance testing functions can be found in TS 36.509 and the common test environments are included in 3GPP TS 36.508.

This document is valid for UE complying with EPS (E-UTRA/EPC) and implemented according to 3GPP releases starting from Release 8 up to the Release indicated on the cover page of this document.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.523-2.V10.3.0	10.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36523-2-a30.pdf
ATIS	ATIS.3GPP.36.523-2V1030	10.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.523-2V1030	10.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-2V1030.doc
ETSI	ETSI TS 136 523-2 V10.3.0 (2013-01)	10.3.0	Published	14.01.2013	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652302\10.03.00_60\ts_13652302v100300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-2-10.3.0 V1.0.0	10.3.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/E7g2eTYwb7a57Gw
TTA	TTAT.3G-36.523-2V10.3.0	10.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-2V10.3.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-36.523-2.V11.6.0	11.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36523-2-b60.pdf
ATIS	ATIS.3GPP.36.523-2V1160	11.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.523-2V1160	11.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-2V1160.doc
ETSI	ETSI TS 136 523-2 V11.6.0 (2014-04)	11.6.0	Published	03.04.2014	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652302\11.06.00_60\ts_13652302v110600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-2-11.6.0 V1.0.0	11.6.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/Jb5GDqEayn9fN32
TTA	TTAT.3G-36.523-2V11.6.0	11.6.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-2V11.6.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-36.523-2.V12.10.0	12.10.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36523-2-ca0.pdf
ATIS	ATIS.3GPP.36.523-2V12100	12.10.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.523-2V12100	12.10.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-2V12100.doc
ETSI	ETSI TS 136 523-2 V12.10.0 (2016-11)	12.10.0	Published	02.11.2016	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652302\12.10.00_60\ts_13652302v121000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-2-12.10.0 V1.0.0	12.10.0	Published	30.08.2021	https://members.tsdsi.in/s/wapEceBoDm8RkFr
TTA	TTAT.3G-36.523-2V12.10.0	12.10.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-2V12.10.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.523-2.V13.4.0	13.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36523-2-d40.pdf
ATIS	ATIS.3GPP.36.523-2V1340	13.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.523-2V1340	13.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-2V1340.doc
ETSI	ETSI TS 136 523-2 V13.4.0 (2017-04)	13.4.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652302\13.04.00_60\ts_13652302v130400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-2-13.4.0 V1.0.0	13.4.0	Published	30.08.2021	https://members.tsdsi.in/s/x4rX5GDA32YTWMm
TTA	TTAT.3G-36.523-2V13.4.0	13.4.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-2V13.4.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.523-2.V14.5.0	14.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36523-2-e50.pdf
ATIS	ATIS.3GPP.36.523-2V1450	14.5.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.523-2V1450	14.5.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-2V1450.doc
ETSI	ETSI TS 136 523-2 V14.5.0 (2018-04)	14.5.0	Published	10.04.2018	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652302\14.05.00_60\ts_13652302v140500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-2-14.5.0 V1.1.0	14.5.0	Published	30.08.2021	https://members.tsdsi.in/s/DetEqjqiAgHqmek
TTA	TTAT.3G-36.523-2V14.5.0	14.5.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-2V14.5.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.523-2.V15.6.0	15.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36523-2-f60.pdf
ATIS	ATIS.3GPP.36.523-2V1560	15.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.523-2V1560	15.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-2V1560.doc
ETSI	ETSI TS 136 523-2 V15.6.0 (2020-04)	15.6.0	Published	01.04.2020	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652302\15.06.00_60\ts_13652302v150600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-2-15.6.0 V1.0.0	15.6.0	Published	30.08.2021	https://members.tsdsi.in/s/WLaaZHtTipdQnpy
TTA	TTAT.3G-36.523-2V15.6.0	15.6.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-2V15.6.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.523-2.V16.12.0	16.12.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36523-2-gc0.pdf
ATIS	ATIS.3GPP.36.523-2.V16.12.0	16.12.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.523-2.V16.12.0	16.12.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-2.V16.12.0.docx
ETSI	ETSI TS 136 523-2 V16.12.0 (2023-01)	16.12.0	Published	19.01.2023	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652302\16.12.00_60\ts_13652302v161200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-2 16.12.0 V1.2.0	16.12.0	Published	02.05.2023	https://members.tsdsi.in/s/cAw4cbL8bcRK3wo
TTA	TTAT.3G-36.523-2V16.12.0	16.12.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-2V16.12.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.523-2.V17.6.0	17.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36523-2-h60.pdf
ATIS	ATIS.3GPP.36.523-2.V17.6.0	17.6.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.523-2.V17.6.0	17.6.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-2.V17.6.0.docx
ETSI	ETSI TS 136 523-2 V17.6.0 (2023-07)	17.6.0	Published	24.07.2023	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652302\17.06.00_60\ts_13652302v170600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-2-17.6.0 V1.4.0	17.6.0	Published	02.11.2023	https://members.tsdsi.in/s/b3HjdkDJpiZzmta
TTA	TTAT.3G-36.523-2V17.6.0	17.6.0	Published	27.10.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-2V17.6.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.523-2.V18.6.0	18.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36523-2-i60.pdf
ATIS	ATIS.3GPP.36.523-2.V18.6.0	18.6.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.523-2.V18.6.0	18.6.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-2.V18.6.0.docx
ETSI	ETSI TS 136 523-2 V18.6.0 (2024-10)	18.6.0	Published	14.10.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652302\18.06.00_60\ts_13652302v180600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-2-18.6.0 V1.1.0	18.6.0	Published	02.03.2025	https://members.tsdsi.in/s/TTqjQxe7Ec8iwks
TTA	TTAT.3G-36.523-2V18.6.0	18.6.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-2V18.6.0&searchCate=TTAS

2.1.6.8   TS 36.523-3

Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites

This document specifies the protocol and signalling conformance testing in TTCN-3 for the 3GPP UE at the UE-E-UTRAN radio interface.

The following TTCN test specification and design considerations can be found in this document:

–   the test system architecture;

–   the overall test suite structure;

–   the test models and ASP definitions;

–   the test methods and usage of communication ports definitions;

–   the test configurations;

–   the design principles and assumptions;

–   TTCN styles and conventions;

–   the partial PIXIT proforma;

–   the test suites.

The Abstract Test Suites designed in the document are based on the test cases specified in prose (3GPP TS 36.523-1). The applicability of the individual test cases is specified in the test ICS proforma specification (3GPP TS 36.523-2).

This document is valid for UE implemented according to 3GPP Rel-9 upwards.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-36.523-3.V10.5.1	10.5.1	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/36/A36523-3-a51.pdf
ATIS	ATIS.3GPP.36.523-3V1051	10.5.1	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.36.523-3V1051	10.5.1	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-3V1051.doc
ETSI	ETSI TS 136 523-3 V10.5.1 (2013-10)	10.5.1	Published	15.10.2013	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652303\10.05.01_60\ts_13652303v100501p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-3-10.5.1 V1.0.0	10.5.1	Published	30.08.2021	https://members.tsdsi.in/index.php/s/gNCMkZWdZb65gDp

| TTA | TTAT.3G-36.523-3V10.5.1 | 10.5.1 | Published | 02.08.2021 | https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-3V10.5.1&searchCate=TTAS |

Release 11

ARIB	ARIB STD-T120-36.523-3.V11.7.0	11.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/36/A36523-3-b70.pdf
ATIS	ATIS.3GPP.36.523-3V1170	11.7.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.36.523-3V1170	11.7.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-3V1170.doc
ETSI	ETSI TS 136 523-3 V11.7.0 (2016-01)	11.7.0	Published	15.01.2016	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652303\11.07.00_60\ts_13652303v110700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-3-11.7.0 V1.0.0	11.7.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/yQXnDfZceRmRkDd
TTA	TTAT.3G-36.523-3V11.7.0	11.7.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-3V11.7.0&searchCate=TTAS

Release 12

ARIB	ARIB STD-T120-36.523-3.V12.8.0	12.8.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/36/A36523-3-c80.pdf
ATIS	ATIS.3GPP.36.523-3V1280	12.8.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.36.523-3V1280	12.8.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-3V1280.doc
ETSI	ETSI TS 136 523-3 V12.8.0 (2017-04)	12.8.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652303\12.08.00_60\ts_13652303v120800p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-3-12.8.0 V1.0.0	12.8.0	Published	30.08.2021	https://members.tsdsi.in/s/y5DHBxYkqqoq8Tt
TTA	TTAT.3G-36.523-3V12.8.0	12.8.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-3V12.8.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-36.523-3.V13.4.0	13.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36523-3-d40.pdf
ATIS	ATIS.3GPP.36.523-3V1340	13.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.523-3V1340	13.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-3V1340.doc
ETSI	ETSI TS 136 523-3 V13.4.0 (2017-10)	13.4.0	Published	11.10.2017	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652303\13.04.00_60\ts_13652303v130400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-3-13.4.0 V1.0.0	13.4.0	Published	30.08.2021	https://members.tsdsi.in/s/yGAsbz3tJgENKQ3
TTA	TTAT.3G-36.523-3V13.4.0	13.4.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-3V13.4.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-36.523-3.V14.5.0	14.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36523-3-e50.pdf
ATIS	ATIS.3GPP.36.523-3V1450	14.5.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.523-3V1450	14.5.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-3V1450.doc
ETSI	ETSI TS 136 523-3 V14.5.0 (2018-10)	14.5.0	Published	16.10.2018	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652303\14.05.00_60\ts_13652303v140500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-3-14.5.0 V1.1.0	14.5.0	Published	30.08.2021	https://members.tsdsi.in/s/E62R5XMjetcxjTD
TTA	TTAT.3G-36.523-3V14.5.0	14.5.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-3V14.5.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-36.523-3.V15.4.0	15.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36523-3-f40.pdf
ATIS	ATIS.3GPP.36.523-3V1540	15.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.523-3V1540	15.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-3V1540.doc
ETSI	ETSI TS 136 523-3 V15.4.0 (2020-04)	15.4.0	Published	01.04.2020	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652303\15.04.00_60\ts_13652303v150400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-3-15.4.0 V1.0.0	15.4.0	Published	30.08.2021	https://members.tsdsi.in/s/GKF7SHE3mjdZ6xn

TTA	TTAT.3G-36.523-3V15.4.0	15.4.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-3V15.4.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-36.523-3.V16.11.0	16.11.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36523-3-gb0.pdf
ATIS	ATIS.3GPP.36.523-3.V16.11.0	16.11.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.523-3.V16.11.0	16.11.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-3.V16.11.0.docx
ETSI	ETSI TS 136 523-3 V16.11.0 (2022-01)	16.11.0	Published	25.01.2022	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652303\16.11.00_60\ts_13652303v161100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-3-16.11.0 V1.1.0	16.11.0	Published	29.07.2022	https://members.tsdsi.in/s/DFbFrnKTwo8dC4c
TTA	TTAT.3G-36.523-3V16.11.0	16.11.0	Published	14.03.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-3V16.11.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-36.523-3.V17.8.0	17.8.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36523-3-h80.pdf
ATIS	ATIS.3GPP.36.523-3.V17.8.0	17.8.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.523-3.V17.8.0	17.8.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-3.V17.8.0.docx
ETSI	ETSI TS 136 523-3 V17.8.0 (2024-08)	17.8.0	Published	02.08.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652303\17.08.00_60\ts_13652303v170800p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-3-17.8.0 V1.6.0	17.8.0	Published	19.11.2024	https://members.tsdsi.in/s/E6zWxrrtJPwHrc7
TTA	TTAT.3G-36.523-3V17.8.0	17.8.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-3V17.8.0&searchCate=TTAS

Release 18

ARIB	ARIB STD-T120-36.523-3.V18.5.0	18.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36523-3-i50.pdf
ATIS	ATIS.3GPP.36.523-3.V18.5.0	18.5.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.523-3.V18.5.0	18.5.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.523-3.V18.5.0.zip
ETSI	ETSI TS 136 523-3 V18.5.0 (2024-10)	18.5.0	Published	23.10.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\13652303\18.05.00_60\ts_13652303v180500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.523-3-18.5.0 V1.1.0	18.5.0	Published	02.03.2025	https://members.tsdsi.in/s/6Gp9Lzyff2ftgon
TTA	TTAT.3G-36.523-3V18.5.0	18.5.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.523-3V18.5.0&searchCate=TTAS

2.1.6.9 TS 36.579-1

Mission Critical (MC) services over LTE; Part 1: Common test environment

This document defines the common test environment required for testing Client and Server implementations for compliance to the Mission Critical Services over LTE protocol requirements defined by 3GPP.

It contains definitions of reference conditions and test signals, default messages and other parameters, generic procedures, and common requirements for test equipment with the goal for facilitating testing in general and test procedures specification in particular. Various parts of its content are referred to from other parts of the Mission Critical Services over LTE protocol conformance testing specification e.g. TS 36.579-2 and TS 36.579-3.

This document does not define the common test environment required for testing the implementation of the underlying LTE protocols, i.e. the LTE bearers used for transport of the Mission Critical Services signalling and media. This is defined in TS 36.508 and referred to from this document whenever needed.

In regard to default messages or other information elements contents, this document refers to content defined in requirements specifications specified by 3GPP or other organisations. In the case of Session Initiation Protocol (SIP) and Session Description Protocol (SDP) information elements this document refers to those specified in TS 34.229-1 and explicitly specifies only those relevant for the purposes of the Mission Critical Services over LTE protocol conformance testing.

In this release of the specification only Mission Critical Push To Talk (MCPTT) Services are considered. Future releases may include other Mission Critical Services.

SDO	Document No.	Version	Status	Issued date	Location
Release 13					
ARIB	ARIB STD-T120-36.579-1.V13.3.0	13.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36579-1-d30.pdf
ATIS	ATIS.3GPP.36.579-1V1330	13.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.579-1V1330	13.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-1V1330.doc
ETSI	ETSI TS 136 579-1 V13.3.0 (2020-04)	13.3.0	Published	02.04.2020	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657901\13.03.00_60\ts_13657901v130300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-1-13.3.0 V1.1.0	13.3.0	Published	30.08.2021	https://members.tsdsi.in/s/pS6pYmS8gGFyYQr
TTA	TTAT.3G-36.579-1V13.3.0	13.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-1V13.3.0&searchCate=TTAS
Release 14					
ARIB	ARIB STD-T120-36.579-1.V14.10.0	14.10.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36579-1-ea0.pdf
ATIS	ATIS.3GPP.36.579-1.V14.10.0	14.10.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.579-1.V14.10.0	14.10.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-1.V14.10.0.doc
ETSI	ETSI TS 136 579-1 V14.10.0 (2021-08)	14.10.0	Published	19.08.2021	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657901\14.10.00_60\ts_13657901v141000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-1-14.10.0 V1.1.0	14.10.0	Published	17.01.2023	https://members.tsdsi.in/s/RZmpkcFH8xZHJsY
TTA	TTAT.3G-36.579-1V14.10.0	14.10.0	Published	30.09.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-1V14.10.0&searchCate=TTAS
Release 15					
ARIB	ARIB STD-T120-36.579-1.V15.10.0	15.10.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36579-1-fa0.pdf
ATIS	ATIS.3GPP.36.579-1.V15.10.0	15.10.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.579-1.V15.10.0	15.10.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-1.V15.10.0.docx
ETSI	ETSI TS 136 579-1 V15.10.0 (2023-07)	15.10.0	Published	24.07.2023	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657901\15.10.00_60\ts_13657901v151000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-1-15.10.0 V1.5.0	15.10.0	Published	02.11.2023	https://members.tsdsi.in/s/M9a8J5jJk4eYNzM
TTA	TTAT.3G-36.579-1V15.10.0	15.10.0	Published	27.10.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-1V15.10.0&searchCate=TTAS
Release 16					
ARIB	ARIB STD-T120-36.579-1.V16.6.0	16.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36579-1-g60.pdf
ATIS	ATIS.3GPP.36.579-1.V16.6.0	16.6.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.579-1.V16.6.0	16.6.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-1.V16.6.0.docx
ETSI	ETSI TS 136 579-1 V16.6.0 (2024-10)	16.6.0	Published	14.10.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657901\16.06.00_60\ts_13657901v160600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-1-16.6.0 V1.6.0	16.6.0	Published	02.03.2025	https://members.tsdsi.in/s/MCQM2FKA2R3xkpd
TTA	TTAT.3G-36.579-1V16.6.0	16.6.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-1V16.6.0&searchCate=TTAS

2.1.6.10 TS 36.579-2

Mission Critical (MC) services over LTE; Part 2: Mission Critical Push To Talk (MCPTT) User Equipment (UE) Protocol conformance specification

This document specifies the protocol conformance testing for testing a MCPTT Client for compliance to the Mission Critical Push To Talk (MCPTT) over LTE protocol requirements defined by 3GPP.

In particular this document contains:

–	the overall test structure;

–	the test configurations;

–	the conformance requirement and reference to the core specifications;

–	the test purposes; and

–	a brief description of the test procedure, the specific test requirements and short message exchange table.

This document is valid for MCPTT Clients implemented according to 3GPP releases starting from Release 13 up to the Release indicated on the cover page of this document.

The following information relevant to testing specified in this document could be found in accompanying specifications:

–	default setting of the test parameters TS 36.579-1;

–	Implementation Conformance Statement (ICS) TS 36.579-4 and Implementation eXtra Information for Testing (IXIT) TS 36.579-5;

–	the applicability of each test case TS 36.579-4.

The test cases are expected to be executed through the 3GPP radio interface. This document does not specify the protocol conformance testing for the EPS (LTE) bearers, which carry the MCPTT data sent or received by the MCPTT Client and which are required to be supported by the UE in which the MCPTT Client is installed. This is defined in TS 36.523-1.

SDO	Document No.	Version	Status	Issued date	Location
Release 13					
ARIB	ARIB STD-T120-36.579-2.V13.3.0	13.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36579-2-d30.pdf
ATIS	ATIS.3GPP.36.579-2V1330	13.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.579-2V1330	13.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-2V1330.doc
ETSI	ETSI TS 136 579-2 V13.3.0 (2020-04)	13.3.0	Published	02.04.2020	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657902\13.03.00_60\ts_13657902v130300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-2-13.3.0 V1.1.0	13.3.0	Published	30.08.2021	https://members.tsdsi.in/s/NmtS93kRTdGGdyz
TTA	TTAT.3G-36.579-2V13.3.0	13.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-2V13.3.0&searchCate=TTAS
Release 14					
ARIB	ARIB STD-T120-36.579-2.V14.12.0	14.12.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36579-2-ec0.pdf
ATIS	ATIS.3GPP.36.579-2.V14.12.0	14.12.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.579-2.V14.12.0	14.12.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-2.V14.12.0.doc

ETSI	ETSI TS 136 579-2 V14.12.0 (2023-01)	14.12.0	Published	23.01.2023	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657902\14.12.00_60\ts_13657902v141200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-2 14.12.0 V1.2.0	14.12.0	Published	02.05.2023	https://members.tsdsi.in/s/8F243dtaGETyTFb
TTA	TTAT.3G-36.579-2V14.12.0 2V14.12.0&searchCate=TTAS	14.12.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-

Release 15

ARIB	ARIB STD-T120-36.579-2.V15.8.0	15.8.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36579-2-f80.pdf
ATIS	ATIS.3GPP.36.579-2.V15.8.0	15.8.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.579-2.V15.8.0 7_ATIS/CCSA.3GPP.36.579-2.V15.8.0.docx	15.8.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 579-2 V15.8.0 (2023-07)	15.8.0	Published	24.07.2023	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657902\15.08.00_60\ts_13657902v150800p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-2-15.8.0 V1.4.0	15.8.0	Published	02.11.2023	https://members.tsdsi.in/s/e6P7E87jWx9XBdw
TTA	TTAT.3G-36.579-2V15.8.0 2V15.8.0&searchCate=TTAS	15.8.0	Published	27.10.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-

Release 16

ARIB	ARIB STD-T120-36.579-2.V16.6.0	16.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36579-2-g60.pdf
ATIS	ATIS.3GPP.36.579-2.V16.6.0	16.6.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.579-2.V16.6.0 7_ATIS/CCSA.3GPP.36.579-2.V16.6.0.docx	16.6.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 136 579-2 V16.6.0 (2024-10)	16.6.0	Published	14.10.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657902\16.06.00_60\ts_13657902v160600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-2-16.6.0 V1.6.0	16.6.0	Published	02.03.2025	https://members.tsdsi.in/s/Lwst2or5GYkwJf5
TTA	TTAT.3G-36.579-2V16.6.0 2V16.6.0&searchCate=TTAS	16.6.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-

2.1.6.11 TS 36.579-3

Mission Critical (MC) services over LTE; Part 3: Mission Critical Push To Talk (MCPTT) Server Application conformance specification

This document specifies the protocol conformance testing for testing a MCPTT Server for compliance to the Mission Critical Push To Talk (MCPTT) over LTE protocol requirements defined by 3GPP. This document addresses only MCPTT Server-Client, and MCPTT Server-Server communication scenarios. It does not cover, e.g. MCPTT Server-EPS, MCPTT Server-SIP Core, etc., scenarios which involve interfaces which implementation may widely vary.

In particular this specification contains:

– the overall test structure;

– the test configurations;

– the conformance requirement and reference to the core specifications;

– the test purposes; and

– a brief description of the test procedure, the specific test requirements and short message exchange table.

This document is valid for MCPTT Servers implemented according to 3GPP releases starting from Release 13 up to the Release indicated on the cover page of this document.

The following information relevant to testing specified in this document could be found in accompanying specifications:

– default setting of the test parameters TS 36.579-1;

– Implementation Conformance Statement (ICS) TS 36.579-4 and Implementation eXtra Information for Testing (IXIT) TS 36.579-5;

– the applicability of each test case TS 36.579-4.

This document does not specify the protocol conformance testing for the EPS (LTE) bearers which carry the MCPTT data sent or received by the MCPTT Server. The specification of such testing is out of the scope of RAN5.

SDO	Document No.	Version	Status	Issued date	Location
Release 13					
ARIB	ARIB STD-T120-36.579-3.V13.4.0	13.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36579-3-d40.pdf
ATIS	ATIS.3GPP.36.579-3.V13.4.0	13.4.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.579-3.V13.4.0	13.4.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-3.V13.4.0.doc
ETSI	ETSI TS 136 579-3 V13.4.0 (2024-08)	13.4.0	Published	02.08.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657903\13.04.00_60\ts_13657903v130400p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-3-13.4.0 V1.3.0	13.4.0	Published	19.11.2024	https://members.tsdsi.in/s/qH2BSabsx26Amrq
TTA	TTAT.3G-36.579-3V13.4.0	13.4.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-3V13.4.0&searchCate=TTAS
Release 14					
ARIB	ARIB STD-T120-36.579-3.V14.1.0	14.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36579-3-e10.pdf
ATIS	ATIS.3GPP.36.579-3.V14.1.0	14.1.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.579-3.V14.1.0	14.1.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-3.V14.1.0.doc
ETSI	ETSI TS 136 579-3 V14.1.0 (2024-08)	14.1.0	Published	02.08.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657903\14.01.00_60\ts_13657903v140100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-3-14.1.0 V1.0.0	14.1.0	Published	19.11.2024	https://members.tsdsi.in/s/8fJZg3WYoMfrA4a
TTA	TTAT.3G-36.579-3V14.1.0	14.1.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-3V14.1.0&searchCate=TTAS
Release 15					
ARIB	ARIB STD-T120-36.579-3.V15.0.0	15.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36579-3-f00.pdf
ATIS	ATIS.3GPP.36.579-3.V15.0.0	15.0.0	Published	05.06.2025	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.579-3.V15.0.0	15.0.0	Published	05.06.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-3.V15.0.0.doc
ETSI	ETSI TS 136 579-3 V15.0.0 (2024-05)	15.0.0	Published	15.05.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657903\15.00.00_60\ts_13657903v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-3-15.0.0 V1.0.0	15.0.0	Published	19.11.2024	https://members.tsdsi.in/s/jnXQDEYaN8aXfwe
TTA	TTAT.3G-36.579-3V15.0.0	15.0.0	Published	01.08.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-3V15.0.0&searchCate=TTAS

2.1.6.12 TS 36.579-4

Mission Critical (MC) services over LTE; Part 4: Test Applicability and Implementation Conformance Statement (ICS) proforma specification

This document provides the Implementation Conformance Statement (ICS) proforma for testing Client or Server implementations for compliance to the Mission Critical Services over LTE protocol requirements defined by 3GPP, and in accordance with the relevant guidance given in ISO/IEC 9646-1 and ISO/IEC 9646-7.

This document specifies the recommended applicability statement for the test cases included in 3GPP TS 36.579-2 and 3GPP TS 36.579-3. These applicability statements are based on the features implemented in the Client or the Server respectively.

This document is valid for Mission Critical Services Servers and Clients implemented according to 3GPP releases starting from Release 13 up to the Release indicated on the cover page of this document.

This document does not specify applicability or ICS for protocol conformance testing for the EPS (LTE) bearers which carry the Mission Critical Services data sent or received by the Client and/or the Server. These are defined in TS 36.523-2.

SDO	Document No.	Version	Status	Issued date	Location
Release 13					
ARIB	ARIB STD-T120-36.579-4.V13.2.0	13.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36579-4-d20.pdf
ATIS	ATIS.3GPP.36.579-4V1320	13.2.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.579-4V1320	13.2.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-4V1320.doc
ETSI	ETSI TS 136 579-4 V13.2.0 (2020-04)	13.2.0	Published	02.04.2020	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657904\13.02.00_60\ts_13657904v130200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-4-13.2.0 V1.1.0	13.2.0	Published	30.08.2021	https://members.tsdsi.in/s/ATzGH4iPCJeSgsf
TTA	TTAT.3G-36.579-4V13.2.0	13.2.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-4V13.2.0&searchCate=TTAS
Release 14					
ARIB	ARIB STD-T120-36.579-4.V14.7.0	14.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36579-4-e70.pdf
ATIS	ATIS.3GPP.36.579-4.V14.7.0	14.7.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.579-4.V14.7.0	14.7.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-4.V14.7.0.docx
ETSI	ETSI TS 136 579-4 V14.7.0 (2022-01)	14.7.0	Published	20.01.2022	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657904\14.07.00_60\ts_13657904v140700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-4-14.7.0 V1.1.0	14.7.0	Published	17.01.2023	https://members.tsdsi.in/s/jAbbQQ87zQNepA2
TTA	TTAT.3G-36.579-4V14.7.0	14.7.0	Published	14.03.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-4V14.7.0&searchCate=TTAS
Release 15					
ARIB	ARIB STD-T120-36.579-4.V15.6.0	15.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36579-4-f60.pdf
ATIS	ATIS.3GPP.36.579-4.V15.6.0	15.6.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.579-4.V15.6.0	15.6.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-4.V15.6.0.docx
ETSI	ETSI TS 136 579-4 V15.6.0 (2023-07)	15.6.0	Published	24.07.2023	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657904\15.06.00_60\ts_13657904v150600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-4-15.6.0 V1.2.0	15.6.0	Published	02.11.2023	https://members.tsdsi.in/s/4ztQGbBP6kn47WR
TTA	TTAT.3G-36.579-4V15.6.0	15.6.0	Published	27.10.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-4V15.6.0&searchCate=TTAS

ARIB	ARIB STD-T120-36.579-4.V16.6.0	16.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36579-4-g60.pdf
ATIS	ATIS.3GPP.36.579-4.V16.6.0	16.6.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.579-4.V16.6.0	16.6.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-4.V16.6.0.docx
ETSI	ETSI TS 136 579-4 V16.6.0 (2024-10)	16.6.0	Published	14.10.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657904\16.06.00_60\ts_13657904v160600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-4-16.8.0 V1.8.0	16.6.0	Published	02.03.2025	https://members.tsdsi.in/s/8RkWR9a2P93xDmT
TTA	TTAT.3G-36.579-4V16.6.0	16.6.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-4V16.6.0&searchCate=TTAS

2.1.6.13   TS 36.579-5

Mission Critical (MC) services over LTE; Part 5: Abstract test suite (ATS)

This document specifies the protocol and signalling conformance testing in TTCN-3 for the Mission Critical services over LTE signalling and protocol requirements defined by 3GPP.

The following TTCN test specification and design considerations can be found in this document:

– the test system architecture;

– the overall test suite structure;

– the test models and ASP definitions;

– the test methods and usage of communication ports definitions;

– the test configurations;

– the design principles and assumptions;

– TTCN styles and conventions;

– the partial Implementation eXtra Information for Testing (IXIT) proforma;

– the test suites.

The Abstract Test Suites designed in the document are based on the test cases specified in 3GPP TS 36.579-2. The test cases specified in 3GPP TS 36.579-3 are out of scope of this document.

The applicability of the individual test cases is specified in the test ICS proforma specification in 3GPP TS 36.579-4). Where appropriate the Abstract Test Suites belonging to this specification may refer to other Abstract Test Suites, e.g. 3GPP TS 36.523-3 for test requirements related to the EPS (LTE) bearers which carry the Mission Critical services data.

This document is valid for TTCN development for Mission Critical services clients' conformance tests according to 3GPP Releases starting from Release 13 up to the Release indicated on the cover page of this document.

SDO	Document No.	Version	Status	Issued date	Location
Release 13					
ARIB	ARIB STD-T120-36.579-5.V13.8.0	13.8.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/36/A36579-5-d80.pdf
ATIS	ATIS.3GPP.36.579-5.V13.8.0	13.8.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.36.579-5.V13.8.0	13.8.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-5.V13.8.0.doc
ETSI	ETSI TS 136 579-5 V13.8.0 (2021-08)	13.8.0	Published	19.08.2021	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657905\13.08.00_60\ts_13657905v130800p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-5-13.8.0 V1.1.0	13.8.0	Published	17.01.2023	https://members.tsdsi.in/s/NEgpxozCYiCwe62
TTA	TTAT.3G-36.579-5V13.8.0	13.8.0	Published	30.09.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-5V13.8.0&searchCate=TTAS
Release 14					
ARIB	ARIB STD-T120-36.579-5.V14.9.0	14.9.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36579-5-e90.pdf
ATIS	ATIS.3GPP.36.579-5.V14.9.0	14.9.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.579-5.V14.9.0	14.9.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-5.V14.9.0.docx
ETSI	ETSI TS 136 579-5 V14.9.0 (2023-01)	14.9.0	Published	23.01.2023	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657905\14.09.00_60\ts_13657905v140900p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-5 14.9.0 V1.2.0	14.9.0	Published	02.05.2023	https://members.tsdsi.in/s/qe4kwFnmnF9Qenk
TTA	TTAT.3G-36.579-5V14.9.0	14.9.0	Published	16.03.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-5V14.9.0&searchCate=TTAS
Release 15					
ARIB	ARIB STD-T120-36.579-5.V15.2.0	15.2.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36579-5-f20.pdf
ATIS	ATIS.3GPP.36.579-5.V15.2.0	15.2.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.579-5.V15.2.0	15.2.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-5.V15.2.0.docx
ETSI	ETSI TS 136 579-5 V15.2.0 (2024-08)	15.2.0	Published	02.08.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657905\15.02.00_60\ts_13657905v150200p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-5-15.2.0 V1.2.0	15.2.0	Published	19.11.2024	https://members.tsdsi.in/s/Fao6RRz5oKx7Acq
TTA	TTAT.3G-36.579-5V15.2.0	15.2.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-5V15.2.0&searchCate=TTAS
Release 16					
ARIB	ARIB STD-T120-36.579-5.V16.1.0	16.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36579-5-g10.pdf
ATIS	ATIS.3GPP.36.579-5.V16.1.0	16.1.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.579-5.V16.1.0	16.1.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-5.V16.1.0.docx
ETSI	ETSI TS 136 579-5 V16.1.0 (2024-08)	16.1.0	Published	02.08.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657905\16.01.00_60\ts_13657905v160100p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-5-16.1.0 V1.1.0	16.1.0	Published	19.11.2024	https://members.tsdsi.in/s/pX6DL4gK9mgmzy9
TTA	TTAT.3G-36.579-5V16.1.0	16.1.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-5V16.1.0&searchCate=TTAS
Release 17					
ARIB	ARIB STD-T120-36.579-5.V17.7.0	17.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/36/A36579-5-h70.pdf
ATIS	ATIS.3GPP.36.579-5.V17.7.0	17.7.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.36.579-5.V17.7.0	17.7.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-5.V17.7.0.zip
ETSI	ETSI TS 136 579-5 V17.7.0 (2024-10)	17.7.0	Published	14.10.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657905\17.07.00_60\ts_13657905v170700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-5-17.7.0 V1.7.0	17.7.0	Published	02.03.2025	https://members.tsdsi.in/s/HYGaXQandYSoCBB

| TTA | TTAT.3G-36.579-5V17.7.0 | 17.7.0 | Published | 31.01.2025 | https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-5V17.7.0&searchCate=TTAS |

Release 18

ARIB	ARIB STD-T120-36.579-5.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/36/A36579-5-i00.pdf
ATIS	ATIS.3GPP.36.579-5.V18.0.0	18.0.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.36.579-5.V18.0.0	18.0.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-5.V18.0.0.zip
ETSI	ETSI TS 136 579-5 V18.0.0 (2024-10)	18.0.0	Published	14.10.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657905\18.00.00_60\ts_13657905v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-5-18.2.0 V1.2.0	18.0.0	Published	26.07.2025	https://members.tsdsi.in/s/xTWqWfX9sKrTTRg
TTA	TTAT.3G-36.579-5V18.0.0	18.0.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-5V18.0.0&searchCate=TTAS

2.1.6.14   TS 36.579-6

Mission Critical (MC) services over LTE; Part 6: Mission Critical Video (MCVideo) User Equipment (UE) Protocol conformance specification

This document specifies the protocol conformance testing for testing a MCVideo Client for compliance to the Mission Critical Video (MCVideo) over LTE protocol requirements defined by 3GPP.

In particular this document contains:

–   the overall test structure;

–   the test configurations;

–   the conformance requirement and reference to the core specifications;

–   the test purposes; and

–   a brief description of the test procedure, the specific test requirements and short message exchange table.

This document is valid for MCVideo Clients implemented according to 3GPP releases starting from Release 13 up to the Release indicated on the cover page of this document.

The following information relevant to testing specified in this document could be found in accompanying specifications:

–   default setting of the test parameters TS 36.579-1;

–   Implementation Conformance Statement (ICS) TS 36.579-4 and Implementation eXtra Information for Testing (IXIT) TS 36.579-5;

–   the applicability of each test case TS 36.579-4.

The test cases are expected to be executed through the 3GPP radio interface. This document does not specify the protocol conformance testing for the EPS (LTE) bearers which carry the MCVideo data sent or received by the MCVideo Client and which are required to be supported by the UE in which the MCVideo Client is installed. This is defined in TS 36.523-1.

SDO	Document No.	Version	Status	Issued date	Location
Release 14					
ARIB	ARIB STD-T120-36.579-6.V14.3.0	14.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36579-6-e30.pdf
ATIS	ATIS.3GPP.36.579-6.V14.3.0	14.3.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.579-6.V14.3.0	14.3.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-6.V14.3.0.docx
ETSI	ETSI TS 136 579-6 V14.3.0 (2022-01)	14.3.0	Published	20.01.2022	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657906\14.03.00_60\ts_13657906v140300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-6-14.3.0 V1.1.0	14.3.0	Published	17.01.2023	https://members.tsdsi.in/s/kNiZaDm8z2K9x2z
TTA	TTAT.3G-36.579-6V14.3.0	14.3.0	Published	14.03.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-6V14.3.0&searchCate=TTAS
Release 15					
ARIB	ARIB STD-T120-36.579-6.V15.7.0	15.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36579-6-f70.pdf
ATIS	ATIS.3GPP.36.579-6.V15.7.0	15.7.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.579-6.V15.7.0	15.7.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-6.V15.7.0.docx
ETSI	ETSI TS 136 579-6 V15.7.0 (2023-07)	15.7.0	Published	24.07.2023	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657906\15.07.00_60\ts_13657906v150700p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-6-15.7.0 V1.4.0	15.7.0	Published	02.11.2023	https://members.tsdsi.in/s/HKbxmefTCjwCdAz
TTA	TTAT.3G-36.579-6V15.7.0	15.7.0	Published	27.10.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-6V15.7.0&searchCate=TTAS
Release 16					
ARIB	ARIB STD-T120-36.579-6.V16.5.0	16.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36579-6-g50.pdf
ATIS	ATIS.3GPP.36.579-6.V16.5.0	16.5.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.579-6.V16.5.0	16.5.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-6.V16.5.0.docx
ETSI	ETSI TS 136 579-6 V16.5.0 (2024-08)	16.5.0	Published	02.08.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657906\16.05.00_60\ts_13657906v160500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-6-16.5.0 V1.5.0	16.5.0	Published	19.11.2024	https://members.tsdsi.in/s/2JFWTpqxBp9ZDTX
TTA	TTAT.3G-36.579-6V16.5.0	16.5.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-6V16.5.0&searchCate=TTAS

2.1.6.15   TS 36.579-7

Mission Critical (MC) services over LTE; Part 7: Mission Critical Data (MCData) User Equipment (UE) Protocol conformance specification

This document specifies the protocol conformance testing for testing a MCData Client for compliance to the Mission Critical Data (MCData) over LTE protocol requirements defined by 3GPP.

In particular this document contains:

– 	the overall test structure;

– 	the test configurations;

– 	the conformance requirement and reference to the core specifications;

– 	the test purposes; and

– 	a brief description of the test procedure, the specific test requirements and short message exchange table.

This document is valid for MCData Clients implemented according to 3GPP releases starting from Release 13 up to the Release indicated on the cover page of this document.

The following information relevant to testing specified in this document could be found in accompanying specifications:

– default setting of the test parameters TS 36.579-1;

– Implementation Conformance Statement (ICS) TS 36.579-4 and Implementation eXtra Information for Testing (IXIT) TS 36.579-5;

– the applicability of each test case TS 36.579-4.

The test cases are expected to be executed through the 3GPP radio interface. This document does not specify the protocol conformance testing for the EPS (LTE) bearers which carry the MCData data sent or received by the MCData Client and which are required to be supported by the UE in which the MCData Client is installed. This is defined in TS 36.523-1.

According to 3GPP drafting rules, the references clause shall list only documents that are explicitly mentioned in the deliverable. This reference is not used within the document and thus shall be removed from references clause.

SDO	Document No.	Version	Status	Issued date	Location
Release 14					
ARIB	ARIB STD-T120-36.579-7.V14.3.0	14.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/36/A36579-7-e30.pdf
ATIS	ATIS.3GPP.36.579-7.V14.3.0	14.3.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.36.579-7.V14.3.0	14.3.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-7.V14.3.0.docx
ETSI	ETSI TS 136 579-7 V14.3.0 (2021-10)	14.3.0	Published	13.10.2021	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657907\14.03.00_60\ts_13657907v140300p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-7-14.3.0 V1.1.0	14.3.0	Published	17.01.2023	https://members.tsdsi.in/s/HHoLD7FpsQAZiaN
TTA	TTAT.3G-36.579-7V14.3.0	14.3.0	Published	27.01.2022	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-7V14.3.0&searchCate=TTAS
Release 15					
ARIB	ARIB STD-T120-36.579-7.V15.6.0	15.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/36/A36579-7-f60.pdf
ATIS	ATIS.3GPP.36.579-7.V15.6.0	15.6.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.36.579-7.V15.6.0	15.6.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-7.V15.6.0.docx
ETSI	ETSI TS 136 579-7 V15.6.0 (2024-08)	15.6.0	Published	02.08.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657907\15.06.00_60\ts_13657907v150600p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-7-15.6.0 V1.3.0	15.6.0	Published	19.11.2024	https://members.tsdsi.in/s/ANHQAE8yqNbdgnC
TTA	TTAT.3G-36.579-7V15.6.0	15.6.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-7V15.6.0&searchCate=TTAS
Release 16					
ARIB	ARIB STD-T120-36.579-7.V16.5.0	16.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/36/A36579-7-g50.pdf
ATIS	ATIS.3GPP.36.579-7.V16.5.0	16.5.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.36.579-7.V16.5.0	16.5.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.36.579-7.V16.5.0.docx
ETSI	ETSI TS 136 579-7 V16.5.0 (2024-10)	16.5.0	Published	14.10.2024	https://www.etsi.org/deliver/etsi_ts\136500_136599\13657907\16.05.00_60\ts_13657907v160500p.pdf
TSDSI	TSDSI STD T1.3GPP 36.579-7-16.5.0 V1.5.0	16.5.0	Published	02.03.2025	https://members.tsdsi.in/s/rLCoAFXstR9DgX2
TTA	TTAT.3G-36.579-7V16.5.0	16.5.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-36.579-7V16.5.0&searchCate=TTAS

2.1.6.16 TS 37.544

Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA); User Equipment (UE) Over The Air (OTA) performance; Conformance testing

This document describes the test procedure for the radiated performances measurements of the user equipment (UE).

The handheld UE measurement procedures explained in this document are defined for roaming bands for the speech mode position (beside the head and beside the head and hand) and hand phantom browsing mode position. Laptop mounted equipment (LME) measurement procedures are defined for roaming bands for the data mode transfer position (laptop ground plane phantom). Laptop embedded equipment (LEE) measurement procedures are defined for roaming bands for the data mode transfer position (free space).

The browsing mode position explained in this document applies when the UE is held in hand, but not pressed against ear (such as web browsing and navigation).

The data mode transfer position (free space) explained in this document applies when the UE is used away from the user's head. Free space measurements are applicable to devices used in the data mode transfer position that consist of the laptop mounted equipment (LME) plug-in UEs and laptop embedded equipment (LEE) UEs.

All bands are potential roaming bands, and the requirements for roaming bands shall therefore be fulfilled for all bands supported by a UE.

Radiated performance of multiple-antenna receivers for handheld UE is defined for roaming bands in free space configuration.

Recommended performance values for operating bands (Annex I) are however included in this specification for information. It should be recognised that the ability to meet the recommended performance values depends on the number of frequency bands supported by the UE.

The radiated radio tests considered here are:

1   The measurement of the Total Radiated Power (TRP)

2   The measurement of the Total Radiated Sensitivity (TRS)

3   The measurement of Total Radiated Multi-antenna Sensitivity (TRMS).

The test procedure described in this document measures the performance of the transmitter and the receiver, including the antenna and also the effects of the user.

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Release 14					
ARIB	ARIB STD-T120-37.544.V14.7.0	14.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/37/A37544-e70.pdf
ATIS	ATIS.3GPP.37.544V1470	14.7.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.37.544V1470	14.7.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.544V1470.doc
ETSI	ETSI TS 137 544 V14.7.0 (2018-12)	14.7.0	Published	21.12.2018	https://www.etsi.org/deliver/etsi_ts\137500_137599\137544\14.07.00_60\ts_137544v140700p.pdf
TSDSI	TSDSI STD T1.3GPP 37.544-14.7.0 V1.1.0	14.7.0	Published	30.08.2021	https://members.tsdsi.in/s/MW22PN3Ki9Pccjz
TTA	TTAT.3G-37.544V14.7.0	14.7.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.544V14.7.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-37.544.V15.0.0	15.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/37/A37544-f00.pdf
ATIS	ATIS.3GPP.37.544V1500	15.0.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.37.544V1500	15.0.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.544V1500.doc
ETSI	ETSI TS 137 544 V15.0.0 (2020-09)	15.0.0	Published	17.09.2020	https://www.etsi.org/deliver/etsi_ts\137500_137599\137544\15.00.00_60\ts_137544v150000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.544-15.0.0 V1.0.0	15.0.0	Published	30.08.2021	https://members.tsdsi.in/s/KJatLfTAEYigHWM
TTA	TTAT.3G-37.544V15.0.0	15.0.0	Published	10.06.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.544V15.0.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-37.544.V16.5.0	16.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/37/A37544-g50.pdf
ATIS	ATIS.3GPP.37.544.V16.5.0	16.5.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.544.V16.5.0	16.5.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.544.V16.5.0.doc
ETSI	ETSI TS 137 544 V16.5.0 (2024-10)	16.5.0	Published	14.10.2024	https://www.etsi.org/deliver/etsi_ts\137500_137599\137544\16.05.00_60\ts_137544v160500p.pdf
TSDSI	TSDSI STD T1.3GPP 37.544-16.5.0 V1.4.0	16.5.0	Published	02.03.2025	https://members.tsdsi.in/s/kAzL7ktmmQmQgSF
TTA	TTAT.3G-37.544V16.5.0	16.5.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.544V16.5.0&searchCate=TTAS

2.1.6.17   TS 37.571-1

Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification

This document specifies the procedures for the conformance test of the measurement requirements for FDD mode of UTRA and FDD or TDD mode of E-UTRA for the User Equipment (UE) that supports one or more of the defined positioning methods. These positioning methods are for UTRA: Assisted Global Positioning System (A-GPS), Assisted Global Navigation Satellite Systems (A-GNSS) and for E-UTRA: Assisted Global Navigation Satellite System (A-GNSS), Observed Time Difference of Arrival (OTDOA), Enhanced Cell ID (ECID).

Tests are only applicable to those mobiles that are intended to support the appropriate functionality. To indicate the circumstances in which tests apply, this is noted in the "Test applicability" part of the test.

The Implementation Conformance Statement (ICS) pro-forma could be found in the 3rd part of this document.

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Release 10					
ARIB	ARIB STD-T120-37.571-1.V10.8.0	10.8.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/37/A37571-1-a80.pdf
ATIS	ATIS.3GPP.37.571-1V1080	10.8.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.37.571-1V1080	10.8.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-1V1080.doc
ETSI	ETSI TS 137 571-1 V10.8.0 (2016-01)	10.8.0	Published	15.01.2016	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757101\10.08.00_60\ts_13757101v100800p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-1-10.8.0 V1.0.0	10.8.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/Zk5GAELPASExckg
TTA	TTAT.3G-37.571-1V10.8.0	10.8.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-1V10.8.0&searchCate=TTAS

Release 11

ARIB	ARIB STD-T120-37.571-1.V11.3.0	11.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/37/A37571-1-b30.pdf
ATIS	ATIS.3GPP.37.571-1V1130	11.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.37.571-1V1130	11.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-1V1130.doc
ETSI	ETSI TS 137 571-1 V11.3.0 (2016-01)	11.3.0	Published	15.01.2016	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757101\11.03.00_60\ts_13757101v110300p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-1-11.3.0 V1.0.0	11.3.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/LfKZKfkycDYqR2j
TTA	TTAT.3G-37.571-1V11.3.0	11.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-1V11.3.0&searchCate=TTAS

Release 12

ARIB	ARIB STD-T120-37.571-1.V12.8.0	12.8.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/37/A37571-1-c80.pdf
ATIS	ATIS.3GPP.37.571-1V1280	12.8.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.37.571-1V1280	12.8.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-1V1280.doc
ETSI	ETSI TS 137 571-1 V12.8.0 (2016-11)	12.8.0	Published	03.11.2016	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757101\12.08.00_60\ts_13757101v120800p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-1-12.8.0 V1.0.0	12.8.0	Published	30.08.2021	https://members.tsdsi.in/s/F8nCBrCj4dgK3EH
TTA	TTAT.3G-37.571-1V12.8.0	12.8.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-1V12.8.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-37.571-1.V13.3.0	13.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/37/A37571-1-d30.pdf
ATIS	ATIS.3GPP.37.571-1V1330	13.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.37.571-1V1330	13.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-1V1330.doc
ETSI	ETSI TS 137 571-1 V13.3.0 (2017-04)	13.3.0	Published	07.04.2017	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757101\13.03.00_60\ts_13757101v130300p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-1-13.3.0 V1.0.0	13.3.0	Published	30.08.2021	https://members.tsdsi.in/s/74zRNtii4raKJFs
TTA	TTAT.3G-37.571-1V13.3.0	13.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-1V13.3.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-37.571-1.V14.5.0	14.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/37/A37571-1-e50.pdf
ATIS	ATIS.3GPP.37.571-1V1450	14.5.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.37.571-1V1450	14.5.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-1V1450.doc
ETSI	ETSI TS 137 571-1 V14.5.0 (2018-04)	14.5.0	Published	10.04.2018	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757101\14.05.00_60\ts_13757101v140500p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-1-14.5.0 V1.1.0	14.5.0	Published	30.08.2021	https://members.tsdsi.in/s/RsEAy9TodYrEs2z
TTA	TTAT.3G-37.571-1V14.5.0	14.5.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-1V14.5.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-37.571-1.V15.6.0	15.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/37/A37571-1-f60.pdf
ATIS	ATIS.3GPP.37.571-1V1560	15.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.37.571-1V1560	15.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-1V1560.doc
ETSI	ETSI TS 137 571-1 V15.6.0 (2020-04)	15.6.0	Published	02.04.2020	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757101\15.06.00_60\ts_13757101v150600p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-1-15.6.0 V1.0.0	15.6.0	Published	30.08.2021	https://members.tsdsi.in/s/ftpDtT9qXgdepsq
TTA	TTAT.3G-37.571-1V15.6.0	15.6.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-1V15.6.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-37.571-1.V16.17.0	16.17.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/37/A37571-1-gh0.pdf
ATIS	ATIS.3GPP.37.571-1.V16.17.0	16.17.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.571-1.V16.17.0	16.17.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-1.V16.17.0.docx
ETSI	ETSI TS 137 571-1 V16.17.0 (2023-07)	16.17.0	Published	26.07.2023	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757101\16.17.00_60\ts_13757101v161700p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-1-16.17.0 V1.5.0	16.17.0	Published	02.11.2023	https://members.tsdsi.in/s/X9fAXaibJfZETFJ
TTA	TTAT.3G-37.571-1V16.17.0	16.17.0	Published	27.10.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-1V16.17.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-37.571-1.V17.6.0	17.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/37/A37571-1-h60.pdf
ATIS	ATIS.3GPP.37.571-1.V17.6.0	17.6.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.571-1.V17.6.0	17.6.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-1.V17.6.0.zip
ETSI	ETSI TS 137 571-1 V17.6.0 (2025-02)	17.6.0	Published	26.02.2025	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757101\17.06.00_60\ts_13757101v170600p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-1-17.6.0 V1.6.0	17.6.0	Published	02.03.2025	https://members.tsdsi.in/s/m4Wp6fAS77HEkCX
TTA	TTAT.3G-37.571-1V17.6.0	17.6.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-1V17.6.0&searchCate=TTAS

2.1.6.18 TS 37.571-2

Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance

This document specifies the protocol conformance testing for the 3rd Generation UTRAN and E-UTRAN User Equipment (UE) supporting UE positioning.

This is the second part of a multi-part test specification. The following information can be found in this part:

–   the overall protocol conformance test structure;

–   the protocol conformance test configurations;

–   the conformance requirement and reference to the core specifications;

–   the test purposes; and

–   a brief description of the test procedure, the specific test requirements and short message exchange table.

The Implementation Conformance Statement (ICS) pro-forma could be found in the 3rd part of this document.

This document is valid for UE supporting UE positioning implemented according to 3GPP releases starting from Release 99 up to the Release indicated on the cover page of this document.

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Release 10					
ARIB	ARIB STD-T120-37.571-2.V10.10.0	10.10.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/37/A37571-2-aa0.pdf
ATIS	ATIS.3GPP.37.571-2V10100	10.10.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10

CCSA	CCSA.3GPP.37.571-2V10100	10.10.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-2V10100.doc
ETSI	ETSI TS 137 571-2 V10.10.0 (2016-01)	10.10.0	Published	15.01.2016	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757102\10.10.00_60\ts_13757102v101000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-2-10.10.0 V1.0.0	10.10.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/P49b7TkDzfYkft5
TTA	TTAT.3G-37.571-2V10.10.0	10.10.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-2V10.10.0&searchCate=TTAS

Release 11

ARIB	ARIB STD-T120-37.571-2.V11.1.0	11.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/37/A37571-2-b10.pdf
ATIS	ATIS.3GPP.37.571-2V1110	11.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.37.571-2V1110	11.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-2V1110.doc
ETSI	ETSI TS 137 571-2 V11.1.0 (2016-01)	11.1.0	Published	15.01.2016	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757102\11.01.00_60\ts_13757102v110100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-2-11.1.0 V1.0.0	11.1.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/xiFdnGKHc5NsMSt
TTA	TTAT.3G-37.571-2V11.1.0	11.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-2V11.1.0&searchCate=TTAS

Release 12

ARIB	ARIB STD-T120-37.571-2.V12.7.0	12.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/37/A37571-2-c70.pdf
ATIS	ATIS.3GPP.37.571-2V1270	12.7.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.37.571-2V1270	12.7.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-2V1270.doc
ETSI	ETSI TS 137 571-2 V12.7.0 (2017-04)	12.7.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757102\12.07.00_60\ts_13757102v120700p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-2-12.7.0 V1.0.0	12.7.0	Published	30.08.2021	https://members.tsdsi.in/s/oDZcbdGLT93sYaq
TTA	TTAT.3G-37.571-2V12.7.0	12.7.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-2V12.7.0&searchCate=TTAS

Release 13

ARIB	ARIB STD-T120-37.571-2.V13.3.0	13.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/37/A37571-2-d30.pdf
ATIS	ATIS.3GPP.37.571-2V1330	13.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.37.571-2V1330	13.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-2V1330.doc
ETSI	ETSI TS 137 571-2 V13.3.0 (2017-10)	13.3.0	Published	11.10.2017	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757102\13.03.00_60\ts_13757102v130300p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-2-13.3.0 V1.0.0	13.3.0	Published	30.08.2021	https://members.tsdsi.in/s/K9KxoK2XLHSAgPE
TTA	TTAT.3G-37.571-2V13.3.0	13.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-2V13.3.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-37.571-2.V14.4.0	14.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/37/A37571-2-e40.pdf
ATIS	ATIS.3GPP.37.571-2V1440	14.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.37.571-2V1440	14.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-2V1440.doc
ETSI	ETSI TS 137 571-2 V14.4.0 (2018-04)	14.4.0	Published	10.04.2018	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757102\14.04.00_60\ts_13757102v140400p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-2-14.4.0 V1.1.0	14.4.0	Published	30.08.2021	https://members.tsdsi.in/s/grYeEbbwf33QxAw
TTA	TTAT.3G-37.571-2V14.4.0	14.4.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-2V14.4.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-37.571-2.V15.6.0	15.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/37/A37571-2-f60.pdf
ATIS	ATIS.3GPP.37.571-2V1560	15.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15

CCSA	CCSA.3GPP.37.571-2V1560	15.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-2V1560.doc
ETSI	ETSI TS 137 571-2 V15.6.0 (2020-04)	15.6.0	Published	02.04.2020	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757102\15.06.00_60\ts_13757102v150600p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-2-15.6.0 V1.0.0	15.6.0	Published	30.08.2021	https://members.tsdsi.in/s/f8P3mWXCZtaWLcw
TTA	TTAT.3G-37.571-2V15.6.0	15.6.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-2V15.6.0&searchCate=TTAS
Release 16					
ARIB	ARIB STD-T120-37.571-2.V16.16.0	16.16.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/37/A37571-2-gg0.pdf
ATIS	ATIS.3GPP.37.571-2.V16.16.0	16.16.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.571-2.V16.16.0	16.16.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-2.V16.16.0.docx
ETSI	ETSI TS 137 571-2 V16.16.0 (2023-07)	16.16.0	Published	26.07.2023	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757102\16.16.00_60\ts_13757102v161600p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-2-16.16.0 V1.5.0	16.16.0	Published	02.11.2023	https://members.tsdsi.in/s/W777nxfDZddb2oa
TTA	TTAT.3G-37.571-2V16.16.0	16.16.0	Published	27.10.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-2V16.16.0&searchCate=TTAS
Release 17					
ARIB	ARIB STD-T120-37.571-2.V17.4.0	17.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/37/A37571-2-h40.pdf
ATIS	ATIS.3GPP.37.571-2.V17.4.0	17.4.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.571-2.V17.4.0	17.4.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-2.V17.4.0.docx
ETSI	ETSI TS 137 571-2 V17.4.0 (2024-08)	17.4.0	Published	05.08.2024	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757102\17.04.00_60\ts_13757102v170400p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-2-17.4.0 V1.4.0	17.4.0	Published	19.11.2024	https://members.tsdsi.in/s/9BqEAf32Db8nQCL
TTA	TTAT.3G-37.571-2V17.4.0	17.4.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-2V17.4.0&searchCate=TTAS

2.1.6.19   TS 37.571-3

Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS)

This document provides the ICS proforma for 3rd Generation UTRAN and E-UTRAN User Equipment (UE) supporting UE positioning, in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-1 and ISO/IEC 9646-7.

This document also specifies a recommended applicability statement for the test cases included in 3GPP TS 37.571-1 and 3GPP TS 37.571-2. These applicability statements are based on the features implemented in the UE.

Special conformance testing functions can be found in 3GPP TS 34.109 for UTRA and 3GPP TS 36.509 for E-UTRA. The common test environments are included in 3GPP TS 34.108 for UTRA and in 3GPP TS 36.508 for E-UTRA.

This document is valid for UE supporting UE positioning implemented according to 3GPP releases starting from Release 99 up to the Release indicated on the cover page of this document.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-37.571-3.V10.8.0	10.8.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/37/A37571-3-a80.pdf
ATIS	ATIS.3GPP.37.571-3V1080	10.8.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10

CCSA	CCSA.3GPP.37.571-3V1080 7_ATIS/CCSA.3GPP.37.571-3V1080.doc	10.8.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 571-3 V10.8.0 (2016-01)	10.8.0	Published	15.01.2016	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757103\10.08.00_60\ts_13757103v100800p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-3-10.8.0 V1.0.0	10.8.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/aQriQaizeHf6Bep
TTA	TTAT.3G-37.571-3V10.8.0 3V10.8.0&searchCate=TTAS	10.8.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-

Release 11

ARIB	ARIB STD-T120-37.571-3.V11.1.0	11.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS-ARIB-STD-T120/Rel11/37/A37571-3-b10.pdf
ATIS	ATIS.3GPP.37.571-3V1110	11.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.37.571-3V1110 7_ATIS/CCSA.3GPP.37.571-3V1110.doc	11.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 571-3 V11.1.0 (2016-01)	11.1.0	Published	15.01.2016	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757103\11.01.00_60\ts_13757103v110100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-3-11.1.0 V1.0.0	11.1.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/B9aKnJS7kicNS6F
TTA	TTAT.3G-37.571-3V11.1.0 3V11.1.0&searchCate=TTAS	11.1.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-

Release 12

ARIB	ARIB STD-T120-37.571-3.V12.9.0	12.9.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS-ARIB-STD-T120/Rel12/37/A37571-3-c90.pdf
ATIS	ATIS.3GPP.37.571-3V1290	12.9.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.37.571-3V1290 7_ATIS/CCSA.3GPP.37.571-3V1290.doc	12.9.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 571-3 V12.9.0 (2017-04)	12.9.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757103\12.09.00_60\ts_13757103v120900p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-3-12.9.0 V1.0.0	12.9.0	Published	30.08.2021	https://members.tsdsi.in/s/AzC3KLJSC4JZcrB
TTA	TTAT.3G-37.571-3V12.9.0 3V12.9.0&searchCate=TTAS	12.9.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-

Release 13

ARIB	ARIB STD-T120-37.571-3.V13.3.0	13.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS-ARIB-STD-T120/Rel13/37/A37571-3-d30.pdf
ATIS	ATIS.3GPP.37.571-3V1330	13.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.37.571-3V1330 7_ATIS/CCSA.3GPP.37.571-3V1330.doc	13.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 571-3 V13.3.0 (2017-10)	13.3.0	Published	11.10.2017	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757103\13.03.00_60\ts_13757103v130300p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-3-13.3.0 V1.0.0	13.3.0	Published	30.08.2021	https://members.tsdsi.in/s/pEk5d5rwNNNf7i7
TTA	TTAT.3G-37.571-3V13.3.0 3V13.3.0&searchCate=TTAS	13.3.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-

Release 14

ARIB	ARIB STD-T120-37.571-3.V14.4.0	14.4.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS-ARIB-STD-T120/Rel14/37/A37571-3-e40.pdf
ATIS	ATIS.3GPP.37.571-3V1440	14.4.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.37.571-3V1440 7_ATIS/CCSA.3GPP.37.571-3V1440.doc	14.4.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 571-3 V14.4.0 (2018-04)	14.4.0	Published	10.04.2018	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757103\14.04.00_60\ts_13757103v140400p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-3-14.4.0 V1.1.0	14.4.0	Published	30.08.2021	https://members.tsdsi.in/s/JfQBkcbzYszGJ54
TTA	TTAT.3G-37.571-3V14.4.0 3V14.4.0&searchCate=TTAS	14.4.0	Published	02.08.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-

Release 15

ARIB	ARIB STD-T120-37.571-3.V15.6.0	15.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS-ARIB-STD-T120/Rel15/37/A37571-3-f60.pdf
ATIS	ATIS.3GPP.37.571-3V1560	15.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15

CCSA	CCSA.3GPP.37.571-3V1560 7_ATIS/CCSA.3GPP.37.571-3V1560.doc	15.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 571-3 V15.6.0 (2020-04)	15.6.0	Published	02.04.2020	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757103\15.06.00_60\ts_13757103v150600p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-3-15.6.0 V1.0.0	15.6.0	Published	30.08.2021	https://members.tsdsi.in/s/b8YTPcQSrzkMjg5
TTA	TTAT.3G-37.571-3V15.6.0 3V15.6.0&searchCate=TTAS	15.6.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-

Release 16

ARIB	ARIB STD-T120-37.571-3.V16.15.0	16.15.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/37/A37571-3-gf0.pdf
ATIS	ATIS.3GPP.37.571-3.V16.15.0	16.15.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.571-3.V16.15.0 7_ATIS/CCSA.3GPP.37.571-3.V16.15.0.docx	16.15.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 571-3 V16.15.0 (2024-08)	16.15.0	Published	05.08.2024	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757103\16.15.00_60\ts_13757103v161500p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-3-16.15.0 V1.4.0	16.15.0	Published	19.11.2024	https://members.tsdsi.in/s/yyCgAF6djHLrmoo
TTA	TTAT.3G-37.571-3V16.15.0 3V16.15.0&searchCate=TTAS	16.15.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-

Release 17

ARIB	ARIB STD-T120-37.571-3.V17.5.0	17.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/37/A37571-3-h50.pdf
ATIS	ATIS.3GPP.37.571-3.V17.5.0	17.5.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.571-3.V17.5.0 7_ATIS/CCSA.3GPP.37.571-3.V17.5.0.docx	17.5.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-
ETSI	ETSI TS 137 571-3 V17.5.0 (2024-08)	17.5.0	Published	05.08.2024	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757103\17.05.00_60\ts_13757103v170500p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-3-17.5.0 V1.5.0	17.5.0	Published	19.11.2024	https://members.tsdsi.in/s/wTTg6qTXJZCfeg2
TTA	TTAT.3G-37.571-3V17.5.0 3V17.5.0&searchCate=TTAS	17.5.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-

2.1.6.20   TS 37.571-4

Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites

This document specifies the protocol and signalling conformance testing in TTCN for the UE:

– A-GPS at the UTRA Uu interface;

– LTE positioning at the LTE-Uu interface;

– A-GNSS at the UTRA Uu interface.

The following TTCN test specification and design considerations can be found in this document:

– Test system architecture;

– Test models and ASP definitions;

– Test methods and usage of communication ports definitions;

– Test configurations;

– Design principles and assumptions;

– TTCN styles and conventions;

– Partial PIXIT proforma;

– Test suites in TTCN-2 and TTCN-3;

– The Test Suites designed and implemented in this document are based on the test specifications in prose in 3GPP TS 37.571-2;

– The applicability of the individual test cases is specified in the test ICS proforma specification in 3GPP TS 37.571-3.

SDO	Document No.	Version	Status	Issued date	Location
Release 10					
ARIB	ARIB STD-T120-37.571-4.V10.10.0	10.10.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/37/A37571-4-aa0.pdf
ATIS	ATIS.3GPP.37.571-4V10100	10.10.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.37.571-4V10100	10.10.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-4V10100.doc
ETSI	ETSI TS 137 571-4 V10.10.0 (2016-01)	10.10.0	Published	15.01.2016	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757104\10.10.00_60\ts_13757104v101000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-4-10.10.0 V1.0.0	10.10.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/Anm79kQXXe5raLn
TTA	TTAT.3G-37.571-4V10.10.0	10.10.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-4V10.10.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-37.571-4.V11.1.0	11.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/37/A37571-4-b10.pdf
ATIS	ATIS.3GPP.37.571-4V1110	11.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.37.571-4V1110	11.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-4V1110.doc
ETSI	ETSI TS 137 571-4 V11.1.0 (2016-01)	11.1.0	Published	15.01.2016	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757104\11.01.00_60\ts_13757104v110100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-4-11.1.0 V1.0.0	11.1.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/JiK6eqAywy8w229
TTA	TTAT.3G-37.571-4V11.1.0	11.1.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-4V11.1.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-37.571-4.V12.6.0	12.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/37/A37571-4-c60.pdf
ATIS	ATIS.3GPP.37.571-4V1260	12.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.37.571-4V1260	12.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-4V1260.doc
ETSI	ETSI TS 137 571-4 V12.6.0 (2017-04)	12.6.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757104\12.06.00_60\ts_13757104v120600p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-4-12.6.0 V1.0.0	12.6.0	Published	30.08.2021	https://members.tsdsi.in/s/qeDzjy7spJnQa8M
TTA	TTAT.3G-37.571-4V12.6.0	12.6.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-4V12.6.0&searchCate=TTAS
Release 13					
ARIB	ARIB STD-T120-37.571-4.V13.5.0	13.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/37/A37571-4-d50.pdf
ATIS	ATIS.3GPP.37.571-4V1350	13.5.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.37.571-4V1350	13.5.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-4V1350.doc
ETSI	ETSI TS 137 571-4 V13.5.0 (2018-04)	13.5.0	Published	10.04.2018	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757104\13.05.00_60\ts_13757104v130500p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-4-13.5.0 V1.1.0	13.5.0	Published	30.08.2021	https://members.tsdsi.in/s/54gjXCHYo9eLZok
TTA	TTAT.3G-37.571-4V13.5.0	13.5.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-4V13.5.0&searchCate=TTAS

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ARIB	ARIB STD-T120-37.571-4.V14.5.0	14.5.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/37/A37571-4-e50.pdf
ATIS	ATIS.3GPP.37.571-4V1450	14.5.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.37.571-4V1450	14.5.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-4V1450.doc
ETSI	ETSI TS 137 571-4 V14.5.0 (2020-04)	14.5.0	Published	17.04.2020	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757104\14.05.00_60\ts_13757104v140500p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-4-14.5.0 V1.1.0	14.5.0	Published	30.08.2021	https://members.tsdsi.in/s/qzn23iH5k7sEz5L
TTA	TTAT.3G-37.571-4V14.5.0	14.5.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-4V14.5.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-37.571-4.V15.7.0	15.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/37/A37571-4-f70.pdf
ATIS	ATIS.3GPP.37.571-4.V15.7.0	15.7.0	Published	21.02.2023	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.37.571-4.V15.7.0	15.7.0	Published	21.02.2023	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-4.V15.7.0.doc
ETSI	ETSI TS 137 571-4 V15.7.0 (2021-08)	15.7.0	Published	19.08.2021	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757104\15.07.00_60\ts_13757104v150700p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-4-15.7.0 V1.1.0	15.7.0	Published	01.11.2022	https://members.tsdsi.in/s/EZTf4qBrMJpLFPC
TTA	TTAT.3G-37.571-4V15.7.0	15.7.0	Published	30.09.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-4V15.7.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-37.571-4.V16.9.0	16.9.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/37/A37571-4-g90.pdf
ATIS	ATIS.3GPP.37.571-4.V16.9.0	16.9.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.571-4.V16.9.0	16.9.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-4.V16.9.0.docx
ETSI	ETSI TS 137 571-4 V16.9.0 (2024-08)	16.9.0	Published	05.08.2024	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757104\16.09.00_60\ts_13757104v160900p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-4-16.9.0 V1.4.0	16.9.0	Published	19.11.2024	https://members.tsdsi.in/s/m4YmPnSnrbTQsBW
TTA	TTAT.3G-37.571-4V16.9.0	16.9.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-4V16.9.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-37.571-4.V17.6.0	17.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/37/A37571-4-h60.pdf
ATIS	ATIS.3GPP.37.571-4.V17.6.0	17.6.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.571-4.V17.6.0	17.6.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-4.V17.6.0.zip
ETSI	ETSI TS 137 571-4 V17.6.0 (2024-08)	17.6.0	Published	05.08.2024	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757104\17.06.00_60\ts_13757104v170600p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-4-17.6.0 V1.6.0	17.6.0	Published	19.11.2024	https://members.tsdsi.in/s/CsiPTMypQypqtdz
TTA	TTAT.3G-37.571-4V17.6.0	17.6.0	Published	11.11.2024	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-4V17.6.0&searchCate=TTAS

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ARIB	ARIB STD-T120-37.571-4.V18.0.0	18.0.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel18/37/A37571-4-i00.pdf
ATIS	ATIS.3GPP.37.571-4.V18.0.0	18.0.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-18
CCSA	CCSA.3GPP.37.571-4.V18.0.0	18.0.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-4.V18.0.0.zip
ETSI	ETSI TS 137 571-4 V18.0.0 (2024-10)	18.0.0	Published	14.10.2024	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757104\18.00.00_60\ts_13757104v180000p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-4-18.0.0 V1.0.0	18.0.0	Published	02.03.2025	https://members.tsdsi.in/s/yqBoe3r7pd5KK3Y
TTA	TTAT.3G-37.571-4V18.0.0	18.0.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-4V18.0.0&searchCate=TTAS

2.1.6.21 TS 37.571-5

Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data

This document specifies the test scenarios and assistance data required for the conformance test for FDD or TDD mode of UTRA and E-UTRA for the User Equipment (UE) that supports one or more of the defined positioning methods. For UTRA these are Assisted Global Positioning System (A-GPS) and Assisted Global Navigation Satellite System (A-GNSS). For E-UTRA these are A-GNSS, Observed Time Difference of Arrival (OTDOA) and Enhanced Cell ID (ECID).

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Release 10					
ARIB	ARIB STD-T120-37.571-5.V10.11.0	10.11.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel10/37/A37571-5-ab0.pdf
ATIS	ATIS.3GPP.37.571-5V10110	10.11.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-10
CCSA	CCSA.3GPP.37.571-5V10110	10.11.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-5V10110.doc
ETSI	ETSI TS 137 571-5 V10.11.0 (2016-01)	10.11.0	Published	15.01.2016	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757105\10.11.00_60\ts_13757105v101100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-5-10.11.0 V1.0.0	10.11.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/qsByS6Tmt63yPKR
TTA	TTAT.3G-37.571-5V10.11.0	10.11.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-5V10.11.0&searchCate=TTAS
Release 11					
ARIB	ARIB STD-T120-37.571-5.V11.1.0	11.1.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel11/37/A37571-5-b10.pdf
ATIS	ATIS.3GPP.37.571-5V1110	11.1.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-11
CCSA	CCSA.3GPP.37.571-5V1110	11.1.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-5V1110.doc
ETSI	ETSI TS 137 571-5 V11.1.0 (2016-01)	11.1.0	Published	15.01.2016	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757105\11.01.00_60\ts_13757105v110100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-5-11.1.0 V1.0.0	11.1.0	Published	30.08.2021	https://members.tsdsi.in/index.php/s/tHLrtq7LCHsQRiQ
TTA	TTAT.3G-37.571-5V11.1.0	11.1.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-5V11.1.0&searchCate=TTAS
Release 12					
ARIB	ARIB STD-T120-37.571-5.V12.7.0	12.7.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel12/37/A37571-5-c70.pdf
ATIS	ATIS.3GPP.37.571-5V1270	12.7.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-12
CCSA	CCSA.3GPP.37.571-5V1270	12.7.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-5V1270.doc
ETSI	ETSI TS 137 571-5 V12.7.0 (2017-04)	12.7.0	Published	10.04.2017	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757105\12.07.00_60\ts_13757105v120700p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-5-12.7.0 V1.0.0	12.7.0	Published	30.08.2021	https://members.tsdsi.in/s/QkjGrPGebKnBiny
TTA	TTAT.3G-37.571-5V12.7.0	12.7.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-5V12.7.0&searchCate=TTAS
Release 13					
ARIB	ARIB STD-T120-37.571-5.V13.3.0	13.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel13/37/A37571-5-d30.pdf
ATIS	ATIS.3GPP.37.571-5V1330	13.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-13
CCSA	CCSA.3GPP.37.571-5V1330	13.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-5V1330.doc
ETSI	ETSI TS 137 571-5 V13.3.0 (2017-10)	13.3.0	Published	11.10.2017	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757105\13.03.00_60\ts_13757105v130300p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-5-13.3.0 V1.0.0	13.3.0	Published	30.08.2021	https://members.tsdsi.in/s/NZ2pmwm9tTjpbdS

TTA	TTAT.3G-37.571-5V13.3.0	13.3.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-5V13.3.0&searchCate=TTAS

Release 14

ARIB	ARIB STD-T120-37.571-5.V14.3.0	14.3.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel14/37/A37571-5-e30.pdf
ATIS	ATIS.3GPP.37.571-5V1430	14.3.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-14
CCSA	CCSA.3GPP.37.571-5V1430	14.3.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-5V1430.doc
ETSI	ETSI TS 137 571-5 V14.3.0 (2018-04)	14.3.0	Published	10.04.2018	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757105\14.03.00_60\ts_13757105v140300p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-5-14.3.0 V1.1.0	14.3.0	Published	30.08.2021	https://members.tsdsi.in/s/txyF9aYm8SZYN6m
TTA	TTAT.3G-37.571-5V14.3.0	14.3.0	Published	30.07.2021	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-5V14.3.0&searchCate=TTAS

Release 15

ARIB	ARIB STD-T120-37.571-5.V15.6.0	15.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel15/37/A37571-5-f60.pdf
ATIS	ATIS.3GPP.37.571-5V1560	15.6.0	Published	28.06.2021	https://www.atis.org/3gpp-transpositions#Rel-15
CCSA	CCSA.3GPP.37.571-5V1560	15.6.0	Published	28.06.2021	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-5V1560.doc
ETSI	ETSI TS 137 571-5 V15.6.0 (2020-04)	15.6.0	Published	02.04.2020	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757105\15.06.00_60\ts_13757105v150600p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-5-15.6.0 V1.0.0	15.6.0	Published	30.08.2021	https://members.tsdsi.in/s/ZEJsMTbrag2qnzB
TTA	TTAT.3G-37.571-5V15.6.0	15.6.0	Published	11.09.2020	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-5V15.6.0&searchCate=TTAS

Release 16

ARIB	ARIB STD-T120-37.571-5.V16.11.0	16.11.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel16/37/A37571-5-gb0.pdf
ATIS	ATIS.3GPP.37.571-5.V16.11.0	16.11.0	Published	27.08.2024	https://www.atis.org/3gpp-transpositions#Rel-16
CCSA	CCSA.3GPP.37.571-5.V16.11.0	16.11.0	Published	27.08.2024	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-5.V16.11.0.docx
ETSI	ETSI TS 137 571-5 V16.11.0 (2023-07)	16.11.0	Published	26.07.2023	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757105\16.11.00_60\ts_13757105v161100p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-5-16.11.0 V1.4.0	16.11.0	Published	02.11.2023	https://members.tsdsi.in/s/a3FwLLzDpfqsTmm
TTA	TTAT.3G-37.571-5V16.11.0	16.11.0	Published	27.10.2023	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-5V16.11.0&searchCate=TTAS

Release 17

ARIB	ARIB STD-T120-37.571-5.V17.6.0	17.6.0	Published	25.03.2025	https://www.arib.or.jp/english/html/overview/doc/T120_T23_SPECS/ARIB-STD-T120/Rel17/37/A37571-5-h60.pdf
ATIS	ATIS.3GPP.37.571-5.V17.6.0	17.6.0	Published	03.01.2025	https://www.atis.org/3gpp-transpositions#Rel-17
CCSA	CCSA.3GPP.37.571-5.V17.6.0	17.6.0	Published	03.01.2025	https://www.ccsa.org.cn/api/portalsFile/downloadOldFile?type=17&oldFileUrl=2025/M.2012-7_ATIS/CCSA.3GPP.37.571-5.V17.6.0.zip
ETSI	ETSI TS 137 571-5 V17.6.0 (2024-10)	17.6.0	Published	14.10.2024	https://www.etsi.org/deliver/etsi_ts\137500_137599\13757105\17.06.00_60\ts_13757105v170600p.pdf
TSDSI	TSDSI STD T1.3GPP 37.571-1-17.6.0 V1.6.0	17.6.0	Published	02.03.2025	https://members.tsdsi.in/s/Ao6FpsND25TqJDs
TTA	TTAT.3G-37.571-5V17.6.0	17.6.0	Published	31.01.2025	https://www.tta.or.kr/eng/ttaSearchEngView.do?key=461&searchStandardNo=TTAT.3G-37.571-5V17.6.0&searchCate=TTAS

2.2 Other specifications

The foundations of the radio aspects of *LTE-Advanced* are based on LTE Release 8 and LTE Release 9 specifications, available on the 3GPP web site.

Information on system and core network specifications can be found in the 3GPP web site for a complete system perspective. These system and core network specifications address the network, terminal, and service aspects required to provide an integrated mobility solution including aspects such as user services, connectivity, interoperability, mobility and roaming, security, codecs and media, operations and maintenance, charging, etc.

All the 3GPP specifications can be found at the following link: https://www.3gpp.org/specifications/specification-numbering. 3GPP specifications are reviewed and updated after each Technical Specification Group Plenary meeting (held every year in March, June, September and December).

Annex 2

Specification of the WirelessMAN-Advanced radio interface technology

Background

IMT-Advanced is a system with global development activity and the IMT-Advanced terrestrial radio interface specifications identified in this Recommendation have been developed by the ITU in collaboration with the GCS[10] Proponents and the Transposing Organizations. It is noted from Document IMT-ADV/24(Rev.3), that:

–   The GCS Proponent must be one of the RIT[11]/SRIT[12] Proponents for the relevant technology, and must have legal authority to grant to ITU-R the relevant legal usage rights to the relevant specifications provided within a GCS corresponding to a technology in Recommendation ITU-R M.2012

–   A Transposing Organization must have been authorized by the relevant GCS Proponent to produce transposed standards for a particular technology, and must have the relevant legal usage rights.

It is further noted that GCS Proponents and Transposing Organizations must also qualify appropriately under the auspices of Resolution ITU-R 9-5 and the ITU-R "Guidelines for the contribution of material of other organizations to the work of the Study Groups and for inviting other organizations to take part in the study of specific matters (Resolution ITU-R 9-5)".

The ITU has provided the global and overall framework and requirements, and has developed the Global Core Specification jointly with the GCS Proponent. The detailed standardization has been undertaken within the recognized Transposing Organizations which operate in concert with the GCS

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[10] Global Core Specifications.

[11] Radio Interface Technology.

[12] Set of Radio Interface Technologies.

Proponent. This Recommendation therefore makes extensive use of references to externally developed specifications.

This approach was considered to be the most appropriate solution to enable completion of this Recommendation within the aggressive schedules set by the ITU and by the needs of administrations, operators and manufacturers.

This Recommendation has therefore been constructed to take full advantage of this method of work and to allow the global standardization time-scales to be maintained. The main body of this Recommendation has been developed by the ITU, with each Annex containing references pointing to the location of the more detailed information.

This Annex 2 contains the detailed information developed by the ITU and "IEEE" (the GCS Proponent) and IEEE, ARIB, TTA, ITRI and WiMAX Forum (the Transposing Organizations). Such use of referencing enables timely completion and update of the high-level elements of this Recommendation, with change control procedures, transposition, and public enquiry procedures being undertaken within the external organization. This information has generally been adopted unchanged, recognizing the need to minimize duplication of work, and the need to facilitate and support an ongoing maintenance and update process.

This general agreement, noting that the detailed information of the radio interface should to a large extent be achieved by reference to the work of external organizations, highlights not only the ITU's significant role as a catalyst in stimulating, coordinating and facilitating the development of advanced telecommunications technologies, but also its forward-looking and flexible approach to the development of this and other telecommunications standards for the 21st century.

A more detailed understanding of the process for the development of the first release of this Recommendation may be found in Document IMT-ADV/24(Rev.3) whereas details on the process for the development of Revisions of this Recommendation may be found in Document IMT-ADV/25(Rev.2).

1 Overview of the radio interface technology

The WirelessMAN-Advanced radio interface specification is developed by IEEE. A complete end-to-end system based on WirelessMAN-Advanced is called WiMAX 2, as developed by the WiMAX Forum.

1.1 Overview of physical layer

The following sections highlights selected physical layer (PHY) features.

1.1.1 Multiple access scheme

WirelessMAN-Advanced uses OFDMA as the multiple-access scheme in downlink (DL) and uplink (UL). It further supports both TDD and FDD duplex schemes including H-FDD operation of the mobile stations (MSs) in the FDD networks. The frame structure attributes, and baseband processing are common for both duplex schemes. The OFDMA parameters are summarized in Table 2. *WirelessMAN-Advanced* also supports wider channel bandwidths, up to 160 MHz, with carrier aggregation. In Table 2, TTG and RTG denote transmit/receive and receive/transmit transition gaps, respectively.

TABLE 2

OFDMA parameters

Nominal channel bandwidth (MHz)			5	7	8.75	10	20
Sampling factor			28/25	8/7	8/7	28/25	28/25
Sampling frequency (MHz)			5.6	8	10	11.2	22.4
FFT size			512	1 024	1 024	1 024	2 048
Subcarrier spacing (kHz)			10.94	7.81	9.76	10.94	10.94
Useful symbol time T_u (µs)			91.429	128	102.4	91.429	91.429
CP $T_g = 1/8\ T_u$	Symbol time T_s (µs)		102.857	144	115.2	102.857	102.857
	FDD	Number of OFDM symbols per 5 ms frame	48	34	43	48	48
		Idle time (µs)	62.857	104	46.40	62.857	62.857
	TDD	Number of OFDM symbols per 5 ms frame	47	33	42	47	47
		TTG + RTG (µs)	165.714	248	161.6	165.714	165.714
CP $T_g = 1/16\ T_u$	Symbol time T_s (µs)		97.143	136	108.8	97.143	97.143
	FDD	Number of OFDM symbols per 5 ms frame	51	36	45	51	51
		Idle time (µs)	45.71	104	104	45.71	45.71
	TDD	Number of OFDM symbols per 5 ms frame	50	35	44	50	50
		TTG + RTG (µs)	142.853	240	212.8	142.853	142.853
CP $T_g = 1/4\ T_u$	Symbol Time T_s (µs)		114.286	160	128	114.286	114.286
	FDD	Number of OFDM symbols per 5 ms frame	43	31	39	43	43
		Idle time (µs)	85.694	40	8	85.694	85.694
	TDD	Number of OFDM symbols per 5 ms frame	42	30	37	42	42
		TTG + RTG (µs)	199.98	200	264	199.98	199.98

1.1.2 Frame structure

A superframe is a collection of consecutive equally-sized radio frames whose beginning is marked with a superframe header (SFH), which carries short-term and long-term system configuration information.

In order to decrease the air-link access latency, the radio frames are further divided into a number of subframes where each subframe comprises of an integer number of OFDM symbols. The transmission time interval (TTI) is defined as the transmission latency over the air-link and is equal to a multiple of subframe length (default is one subframe). There are four types of subframes: 1) type-1 subframe, which consists of six OFDM symbols, 2) type-2 subframe, which consists of seven OFDM symbols, 3) type-3 subframe which consists of five OFDM symbols, and 4) type-4 subframe, which consists of nine OFDM symbols and can be used only in UL for channel bandwidth of 8.75 MHz when supporting legacy, i.e. OFDMA TDD WMAN, frames.

The basic frame structure is shown in Fig. 13, where superframe length is 20 ms (comprised of four radio frames), radio frame size is 5 ms, and subframe length depends on channel bandwidth, length of cyclic prefix, and subframe type, i.e. type-1/2/3/4. The number of subframes per radio frame is predetermined to maximize the spectral efficiency for each frame configuration depending on channel bandwidth, length of cyclic prefix, subframe type, and duplex mode.

The concept of time zones applies to both TDD and FDD systems. These time zones are time-division multiplexed across time domain in the DL to support both new and legacy MSs. For UL transmissions both time and frequency-division multiplexing approaches can be used to support legacy and new terminals. The non-backward compatible improvements and features are restricted to the new zones. All backward compatible features and functions are used in the legacy zones.

FIGURE 13

Basic frame structure
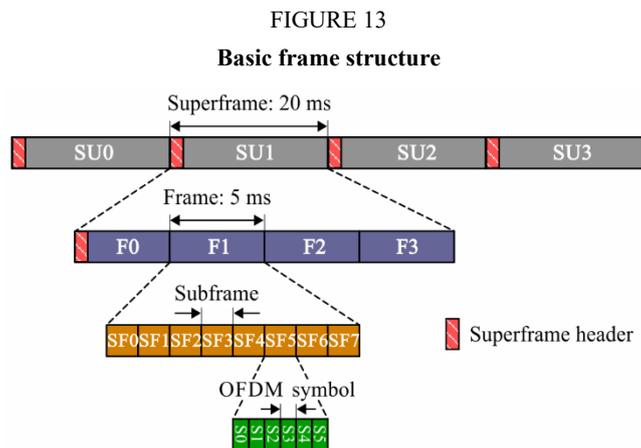
M.2012-13

1.1.3 Physical structure and resource unit

The DL/UL subframes are divided into a number of frequency partitions, where each partition consists of a set of physical resource units (PRUs) over the available number of OFDM symbols in the subframe. Each frequency partition can include localized and/or distributed physical resource units. Frequency partitions can be used for different purposes such as fractional frequency reuse (FFR). The DL/UL resource partitioning and mapping is illustrated in Fig. 14. PRU is the basic physical unit for resource allocation that comprises 18 contiguous subcarriers by N_{sym} contiguous OFDM symbols where N_{sym} is 6, 7, 5 and 9 OFDM symbols for type-1, type-2, type-3 and type-4 subframes, respectively (type-4 is used only for UL). A logical resource unit (LRU) is the basic logical unit for distributed and localized resource allocations. LRU comprises of $18 \times N_{sym}$ subcarriers.

FIGURE 14
Resource mapping process
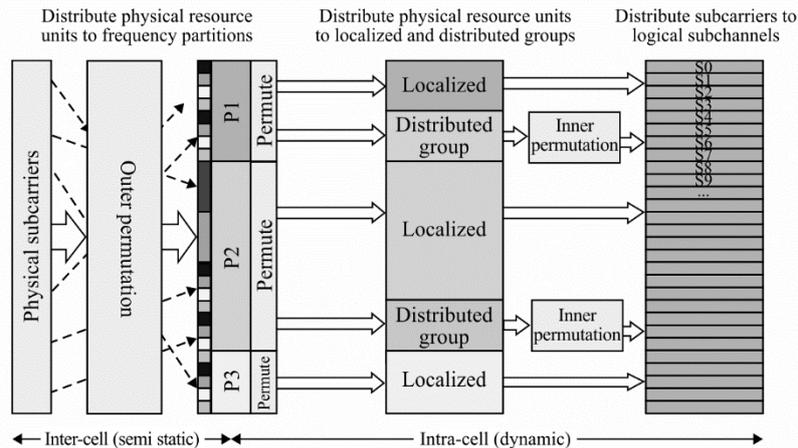
M.2012-14

1.1.4 Resource mapping

The resource mapping process is defined as follows as illustrated in Fig. 14, where Pi denotes the i-th frequency partition.

The PRUs are first subdivided into sub-bands and mini-bands where a sub-band comprises four adjacent PRUs and a mini-band comprises one PRU. The sub-bands are suitable for frequency selective allocations as they provide a contiguous allocation of PRUs in frequency. The mini-bands are suitable for frequency diverse allocations and are permuted in frequency (outer permutation in Fig. 14).

After frequency partitioning, the partition between localized or contiguous resource units (CRUs) and distributed resource units (DRUs) is done on a sector specific basis. All sub-bands are categorized into CRU, while mini-bands are categorized into either CRU or DRU. CRUs are used to achieve frequency-selective scheduling gain. A CRU comprises a group of subcarriers which are contiguous across frequency. DRUs are used to achieve frequency diversity gain. A DRU contains a group of subcarriers which are spread across a frequency partition. The sizes of the CRU and DRU are equal to that of PRU.

To form CRUs and DRUs, the subcarriers over the OFDM symbols of a sub-frame are partitioned into guard and used subcarriers. The DC subcarrier is not used. The used subcarriers are divided into PRUs. Each PRU contains pilot and data subcarriers. The number of used pilot and data subcarriers depends on MIMO mode, rank and number of multiplexed MS, as well as the number of OFDM symbols within a sub-frame.

The subcarrier (tone-pair) permutation defined for DRU of a DL frequency partition spreads the subcarriers across all the distributed resource allocations within a frequency partition. After mapping all pilots, the remaining used subcarriers are paired into contiguous subcarrier-pairs (tone-pairs), and then are permuted to define the distributed logical resource units (DLRUs). The DL subcarrier permutation is performed per OFDM symbol within a sub-frame. Each of the DRUs of an UL frequency partition is divided into 3 tiles of 6 adjacent subcarriers over N_{sym} symbols. The tiles are collectively permuted across all the distributed resource allocations within a frequency partition to define DLRUs. The contiguous logical resource unit (CLRU) are obtained from direct mapping of CRUs. CLRUs are categorized into sub-band-based LRUs, so-called sub-band logical resource unit (SLRU), and mini-band-based LRUs, so called mini-band logical resource unit (NLRU).

1.1.5   Modulation and coding

FIGURE 15

Coding and modulation procedures
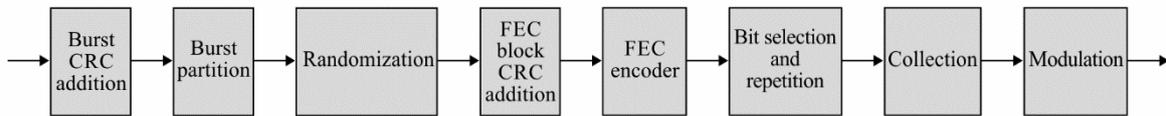
M.2012-15

Figure 15 shows the channel coding and modulation procedures. A cyclic redundancy check (CRC) is appended to a burst (i.e. a physical layer data unit) prior to partitioning. The 16-bit CRC is calculated over the entire bits in the burst. If the burst size including burst CRC exceeds the maximum FEC block size, the burst is partitioned into KFB FEC blocks, each of which is encoded separately. If a burst is partitioned into more than one forward error correction (FEC) blocks, a FEC block CRC is appended to each FEC block before the FEC encoding. The FEC block CRC of a FEC block is calculated based on the entire bits in that FEC block. Each partitioned FEC block including 16-bit FEC block CRC has the same length. The maximum FEC block size is 4 800 bits. Concatenation rules are based on the number of information bits and do not depend on the structure of the resource allocation (number of logical resource units and their size). *WirelessMAN-Advanced* utilizes the convolutional turbo code (CTC) with code rate of 1/3. The CTC scheme is extended to support additional FEC block sizes. Furthermore, the FEC block sizes can be regularly increased with predetermined block size resolutions. The FEC block sizes which are multiple of seven are removed for the tail-biting encoding structure. The encoder block depicted in Fig. 15 includes the interleaver.

Bit selection and repetition are used in *WirelessMAN-Advanced* to achieve rate matching. Bit selection adapts the number of coded-bits to the size of the resource allocation which may vary depending on the resource unit size and sub-frame type. The total subcarriers in the allocated resource unit are segmented to each FEC block. The total number of information and parity bits generated by FEC encoder are considered as the maximum size of circular buffer. Repetition is performed when the number of transmitted bits is larger than the number of selected bits. The selection of coded bits is done cyclically over the buffer. The mother-code bits, the total number of information and parity bits generated by FEC encoder, are considered as a maximum size of circular buffer. In case that the size of the circular buffer N_{buffer} is smaller than the number of mother-code bits, the first N_{buffer} bits of mother-code bits are considered as selected bits.

Modulation constellations of QPSK, 16-QAM, and 64-QAM are supported. The mapping of bits to the constellation point depends on the constellation-rearrangement (CoRe) version used for HARQ retransmission as described and further depends on the MIMO scheme. The QAM symbols are mapped into the input of the MIMO encoder. The sizes include the addition of CRC (per burst and per FEC block), if applicable. Other sizes require padding to the next burst size. The code rate and modulation depend on the burst size and the resource allocation.

Incremental redundancy HARQ (HARQ-IR) is used in *WirelessMAN-Advanced* by determining the starting position of the bit selection for HARQ retransmissions. Chase combining HARQ (HARQ-CC) is also supported and considered as a special case of HARQ-IR. The 2-bit sub-packet identifier (SPID) is used to identify the starting position. The CoRe scheme can be expressed by a bit-level interleaver.

The resource allocation and transmission formats in each retransmission in DL can be adapted with control signalling. The resource allocation in each retransmission in UL can be fixed or adaptive according to control signalling. In HARQ re-transmissions, the bits or symbols can be transmitted in a different order to exploit the frequency diversity of the channel.

For HARQ retransmission, the mapping of bits or modulated symbols to spatial streams may be applied to exploit spatial diversity with given mapping pattern, depending on the type of HARQ-IR. In this case, the predefined set of mapping patterns should be known to the transmitter and receiver. In DL HARQ, the base station (BS) may transmit coded bits exceeding current available soft buffer capacity.

1.1.6   Pilot structure

Transmission of pilot subcarriers in DL is necessary to allow channel estimation, channel quality measurement (e.g. channel quality indicator, CQI), frequency offset estimation, etc. To optimize the system performance in different propagation environments, *WirelessMAN-Advanced* supports both common and dedicated pilot structures. The classification of pilots into common and dedicated is done based on their usage. The common pilots can be used in distributed allocation by all MSs. Dedicated pilots can be used with both localized and distributed allocations. They are associated with user specific pilot index. The dedicated pilots are associated with a specific resource allocation, are intended to be used by the MSs allocated to specific resource allocation, and therefore shall be precoded or beamformed in the same way as the data subcarriers of the resource allocation. The pilot structure is defined for up to eight streams and there is a unified design for common and dedicated pilots. There is equal pilot density per spatial stream; however, there is not necessarily equal pilot density per OFDM symbols.

FIGURE 16

Pilot structures for 1, 2, 4 and 8 streams for Type-1 sub-frame
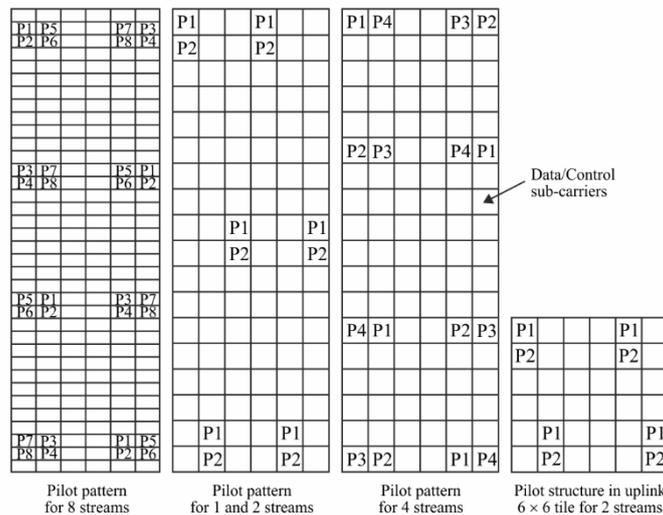
For the sub-frame consisting of five OFDM symbols, the last OFDM symbol is deleted. For the sub-frame consisting of seven OFDM symbols, the first OFDM symbol is added as the 7th OFDM symbol. To overcome the effects of pilot interference among the neighbouring sectors or BSs, an interlaced pilot structure is utilized by cyclically shifting the base pilot pattern such that the pilots of neighbouring cells do not overlap.

The UL pilots are dedicated to localized and distributed resource units and are precoded using the same precoding as the data subcarriers of the resource allocation. The pilot structure is defined for up to four transmit streams for SU-MIMO and up to eight streams for CSM. When pilots are power-boosted, each data subcarrier should have the same transmission power across all OFDM symbols in a resource block.

The 18 × 6 UL resource blocks use the same pilot patterns as the DL counterpart. The pilot pattern for 6 × 6 tile structure is used for DLRU only in case the number of streams is one or two and it is also shown in Fig. 16.

1.1.7 Control channels

DL control channels carry essential information for system operation. Depending on the type of control signalling, information is transmitted over different time intervals (i.e. from superframe to sub-frame intervals). The system configuration parameters are transmitted at the superframe intervals, whereas control signalling related to user data allocations is transmitted at the frame/sub-frame intervals.

1.1.7.1 Downlink control channels

Superframe Header (SFH)

The superframe header (SFH) carries essential system parameters and configuration information. The content of SFH is divided into two segments; i.e. primary and secondary SFHs. The primary SFH is transmitted every superframe, whereas the secondary SFH is transmitted over one or more superframes. The primary and secondary SFHs are located in the first sub-frame within a superframe and are time-division-multiplexed with the advanced preamble. The SFH occupies no more than 5 MHz bandwidth. The primary SFH is transmitted using predetermined modulation and coding scheme. The secondary SFH is transmitted using predetermined modulation scheme while its repetition coding factor is signalled in the primary SFH. The primary and secondary SFHs are transmitted using two spatial streams and space-frequency block coding to improve coverage and reliability. The MS is not required to know the antenna configuration prior to decoding the primary SFH. The information transmitted in the secondary SFH is divided into different sub-packets. The secondary SFH sub-packet 1 (SP1) includes information needed for network re-entry. The secondary SFH sub-packet 2 (SP2) contains information for initial network entry. The secondary SFH sub-packet 3 (SP3) contains remaining system information for maintaining communication with the BS.

Advanced MAP (A-MAP)

The advanced MAP (A-MAP) consists of both user-specific and non-user-specific control information. Non-user-specific control information includes information that is not dedicated to a specific user or a specific group of users. It contains information required to decode user-specific control signalling. User specific control information consists of information intended for one or more users. It includes scheduling assignment, power control information, and HARQ feedback. Resources can be allocated persistently to the MSs. Group control information is used to allocate resources and/or configure resources to one or multiple MSs within a user group. Within a subframe, control and data channels are frequency-division-multiplexed. Both control and data channels are transmitted on logical resource units that span over all OFDM symbols within a subframe.

Each DL subframe contains a control region including both non-user-specific and user-specific control information. All A-MAPs share a time-frequency region known as A-MAP region. The control regions are located in every subframe. The corresponding UL allocations occurs L subframes later, where L is determined by A-MAP relevance. The coding rate is predetermined for non-user-specific information while it is indicated by SFH for user-specific control information.

An A-MAP allocation Information Element (IE) is defined as the basic element of unicast service control. A unicast control IE may be addressed to one user using a unicast identifier or to multiple users using a multicast/broadcast identifier. The identifier is masked with CRC in the A-MAP allocation IE. It may contain information related to resource allocation, HARQ, MIMO transmission mode, etc. Each A-MAP IE is coded separately.

Non-user-specific control information is encoded separately from the user-specific control information. In the DL subframes, frequency partition for reuse-1 and/or frequency partition for power-boosted reuse-3 may contain an A-MAP region. The A-MAP region occupies the first few DLRUs in a frequency partition. The structure of an A-MAP region is illustrated in Fig. 17. The resource occupied by each A-MAP physical channel may vary depending on the system configuration and scheduler operation. There are different types of A-MAPs as follows:

– **Assignment A-MAP** contains resource assignment information which is categorized into multiple types of resource assignment IEs (assignment A-MAP IE).

– **HARQ Feedback A-MAP** contains HARQ ACK/NACK information for UL data transmission.

– **Power Control A-MAP** includes fast power control command to MSs.

There are different assignment A-MAP IE types that distinguish between DL/UL, persistent/non-persistent, single user/group resource allocation, basic/extended IE scenarios.

FIGURE 17

A-MAP location and structure (example)
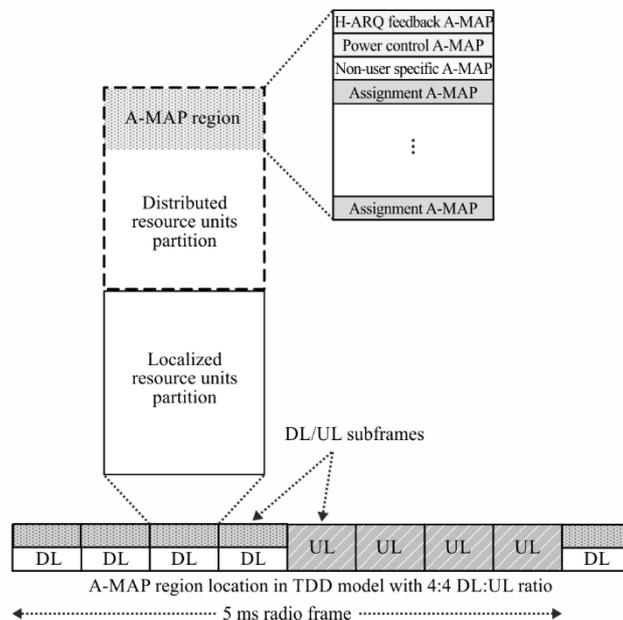
M.2012-17

1.1.7.2   Uplink control channels

Fast Feedback Channel (FBCH)

The UL fast feedback channel (FBCH) carries CQI and MIMO feedback.

CQI feedback provides information about channel conditions as seen by the MS. This information is used by the BS for link adaptation, resource allocation, power control, etc. The channel quality measurement includes both narrowband and wideband measurements. The CQI feedback overhead can be reduced through differential feedback or other compression techniques. Examples of CQI include effective carrier to interference plus noise ratio (CINR), band selection, etc.

MIMO feedback provides wideband and/or narrowband spatial characteristics of the channel that are required for MIMO operation. The MIMO mode, preferred matrix index, rank adaptation information, channel covariance matrix elements, and best sub-band index are examples of MIMO feedback information.

There are two types of UL FBCHs: a) primary fast feedback channel (P-FBCH) and b) secondary fast feedback channel (S-FBCH).S-FBCH can be used to support CQI reporting at higher code rate and thus more CQI information bits. FBCH is frequency-division-multiplexed with other UL control and data channels.

FBCH starts at a predetermined location, with the size defined in a DL broadcast control message. Fast feedback allocations to an MS can be periodic and the allocations are configurable. The specific type of feedback information carried on each fast feedback opportunity can be different. The number of bits carried in the fast feedback channel can be adaptive. For efficient transmission of feedback channels, a mini-tile is defined comprising two subcarriers by six OFDM symbols. One LRU consists of nine mini-tiles and can be shared by multiple FBCHs.

HARQ feedback channel

HARQ feedback (ACK/NACK) is used to acknowledge DL data transmissions. The UL HARQ feedback channel starts at a predetermined offset with respect to the corresponding DL transmission. The HARQ feedback channel is frequency-division-multiplexed with other control and data channels. Orthogonal codes are used to multiplex multiple HARQ feedback channels. The HARQ feedback channel comprises three distributed mini-tiles.

Sounding channel

The sounding channel is used by an MS to transmit sounding reference signals to enable the BS to measure UL channel conditions. The sounding channel may occupy either specific UL sub-bands or the entire bandwidth over an OFDM symbol. The BS can configure an MS to transmit the UL sounding signal over predefined subcarriers within specific sub-bands or the entire bandwidth. The sounding channel is orthogonally multiplexed (in time or frequency) with other control and data channels. Furthermore, the BS can configure multiple user terminals to transmit sounding signals on the corresponding sounding channels using code-, frequency-, or time-division multiplexing. Power control for the sounding channel can be utilized to adjust the sounding quality. The transmit power from each mobile terminal may be separately controlled according to certain CINR target values.

Ranging channel

The ranging channel is used for UL synchronization. The ranging channel can be further classified into ranging for non-synchronized and synchronized MSs. The ranging channel for non-synchronized MS(NS-RCH) is used for initial network entry and for handover to a target BS. The ranging channel for synchronized MS(S-RCH) is used for periodic ranging. In a femtocell, MSs shall perform initial ranging, handover ranging, and periodic ranging by using the S-RCH.

Bandwidth request (BR) channel

Bandwidth request (BR) channels are used to request UL grant. BRs are transmitted through BR preamble with or without messages. BR messages can include information about the status of queued traffic at the MS such as buffer size and quality of service parameters. Contention or non-contention based random access is used to transmit BR information on this control channel.

The BR channel starts at a configurable location with the configuration defined in a DL broadcast control message. The BR channel is frequency-division-multiplexed with other UL control and data channels. A BR tile is defined as six contiguous subcarriers by six OFDMA symbols. Each BR channel consists of three distributed BR tiles. Multiple BR preamble can be transmitted on the same BR channel using code-division multiplexing.

1.1.8 Power control

Power control mechanism is supported for DL and UL. Using DL power control, user-specific information with dedicated pilot is received by the terminal with the controlled power level. The DL advanced MAPs can be power-controlled based on the terminal UL channel quality feedback.

The UL power control is supported to compensate the path loss, shadowing, fast fading and implementation loss as well as to mitigate inter-cell and intra-cell interference. The BS can transmit necessary information through control channel or message to terminals to support UL power control. The parameters of power control algorithm are optimized on system-wide basis by the BS and broadcasted periodically.

In high-mobility scenarios, power control scheme may not be able to compensate the fast-fading channel effect because of the variations of the channel impulse response. As a result, the power control is used to compensate the distance-dependent path loss, shadowing and implementation loss only.

The channel variations and implementation loss are compensated via open-loop power control without frequently interacting with the BS. The terminal can determine the transmit power based on the transmission parameters sent by the serving BS, UL channel transmission quality, DL channel state information, and interference knowledge obtained from DL. Open-loop power control provides a coarse initial power setting of the terminal when an initial connection is established.

The dynamic channel variations are compensated via closed-loop power control with power control commands from the serving BS. The BS measures UL channel state and interference information using UL data and/or control channel transmissions and sends power control commands to the terminal. The terminal adjusts its transmission power based on the power control commands from the BS.

1.1.9 Downlink synchronization

WirelessMAN-Advanced utilizes a new hierarchical structure for the DL synchronization where two types of preambles, a) primary advanced preamble (PA-Preamble) and b) secondary advanced preamble (SA-Preamble), are transmitted (Fig. 18). One PA-Preamble symbol and two SA-Preamble symbols exist within the superframe. The location of the A-Preamble symbol is specified as the first symbol of frame except for the last frame. PA-Preamble is located at the first symbol of second frame in a superframe while SA-Preamble is located at the first symbol of the first and the third frames. The PA-Preamble carries information about system bandwidth and carrier configuration. The PA-Preamble has a fixed bandwidth of 5 MHz. A frequency reuse of one is applied to the PA-Preamble in frequency domain. SA-Preamble is repeated once every two frames and spans the entire system bandwidth and carries the cell ID. A frequency reuse of three is used for this set of sequences to mitigate inter-cell interference. SA-Preamble carries 768 distinct cell IDs.

The set of SA-Preamble sequences is partitioned, and each partition is dedicated to specific BS type such as macro BS, femto BS, etc. The partition information is broadest in the secondary SFH and AAI-SCD message.

FIGURE 18

Structure of advanced preambles
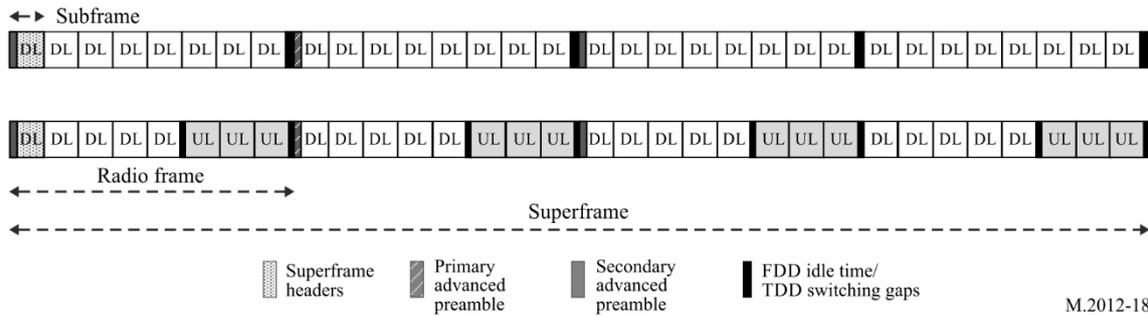
M.2012-18

1.1.10   Multi-antenna techniques

1.1.10.1   MIMO structure

WirelessMAN-Advanced supports several advanced multi-antenna techniques including single and multi-user MIMO (spatial multiplexing and beamforming) as well as a number of transmit diversity schemes. In single-user MIMO (SU-MIMO) scheme only one user can be scheduled over one (time, frequency, space) resource unit. In multi-user MIMO (MU-MIMO), on the other hand, multiple users can be scheduled in one resource unit. Vertical encoding utilizes one encoder block (or layer), whereas multi-layer encoding uses multiple encoders (or multiple layers). A layer is defined as a coding and modulation input path to the MIMO encoder. A stream is defined as the output of the MIMO encoder that is further processed through the beamforming or the precoder block. For spatial multiplexing, the rank is defined as the number of streams to be used for the user.

FIGURE 19

MIMO structure
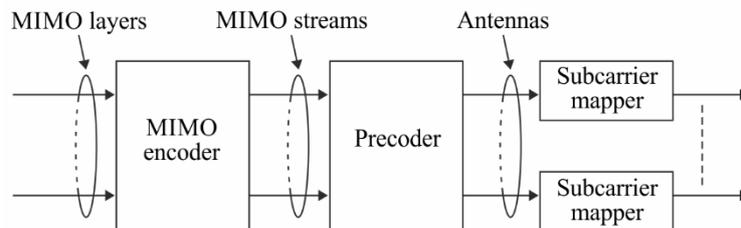
M.2012-19

The MIMO transmitter structure is shown in Fig. 19. The encoder block contains the channel encoder, interleaving, rate-matching, and modulating blocks per layer. The resource mapping block maps the complex-valued modulation symbols to the corresponding time-frequency resources. The MIMO encoder block maps the layers onto the streams, which are further processed through the precoder block.

The precoder block maps the streams to antennas by generating the antenna-specific data symbols according to the selected MIMO mode. The OFDM symbol construction block maps antenna-specific data to the OFDM symbols. Table 3 contains information on various MIMO modes supported by WirelessMAN-Advanced.

TABLE 3

DL MIMO modes

Mode index	Description	MIMO encoding format	MIMO precoding
Mode 0	Open-Loop SU-MIMO (TX Diversity)	Space-Frequency Block Coding (SFBC)	Non-Adaptive
Mode 1	Open-Loop SU-MIMO (Spatial Multiplexing)	Vertical Encoding	Non-Adaptive
Mode 2	Closed-Loop SU-MIMO (Spatial Multiplexing)	Vertical Encoding	Adaptive
Mode 3	Open-Loop MU-MIMO (Spatial Multiplexing)	Multi-layer Encoding	Non-Adaptive
Mode 4	Closed-Loop MU-MIMO (Spatial Multiplexing)	Multi-layer Encoding	Adaptive
Mode 5	Open-Loop SU-MIMO (TX Diversity)	Conjugate Data Repetition (CDR)	Non-Adaptive

The minimum antenna configuration in the DL and UL is 2×2 and 1×2, respectively. For open-loop spatial multiplexing and closed-loop SU-MIMO, the number of streams is constrained to the minimum of number of transmit or receive antennas. The MU-MIMO can support up to two streams with two transmit antennas and up to four streams for four transmit antennas and up to eight streams for eight transmit antennas. Table 4 summarized the DL MIMO parameters for various MIMO modes.

TABLE 4

DL MIMO parameters

	Number of transmit antennas	STC rate per layer	Number of streams	Number of subcarriers	Number of layers
MIMO Mode 0	2	1	2	2	1
	4	1	2	2	1
	8	1	2	2	1
MIMO Mode 1 and MIMO Mode 2	2	1	1	1	1
	2	2	2	1	1
	4	1	1	1	1
	4	2	2	1	1
	4	3	3	1	1
	4	4	4	1	1
	8	1	1	1	1
	8	2	2	1	1
	8	3	3	1	1
	8	4	4	1	1
	8	5	5	1	1

TABLE 4 (*end*)

	Number of transmit antennas	STC rate per layer	Number of streams	Number of subcarriers	Number of layers
	8	6	6	1	1
	8	7	7	1	1
	8	8	8	1	1
MIMO Mode 3 and MIMO Mode 4	2	1	2	1	2
	4	1	2	1	2
	4	1	3	1	3
	4	1	4	1	4
	8	1	2	1	2
	8	1	3	1	3
	8	1	4	1	4
MIMO Mode 4	4	2 and 1[a]	3	1	2
	4	2 and 1[b]	4	1	3
	4	2	4	1	2
	8	2 and 1[a]	3	1	2
	8	2 and 1[b]	4	1	3
	8	2	4	1	2
	8	1	8	1	8
	8	2 and 1[c]	8	1	7
	8	2 and 1[d]	8	1	6
	8	2 and 1[e]	8	1	5
	8	2	8	1	4
MIMO Mode 5	2	1/2	1	2	1
	4	1/2	1	2	1
	7	1/2	1	2	1

[a]   2 streams to one MS and 1 stream to another MS, with 1 layer each.

[b]   2 streams to one MS and 1 stream each to the other two MSs, with 1 layer each.

[c]   2 streams to one MS and 1 stream each to the other six MSs, with 1 layer each.

[d]   2 streams each to two MS and 1 stream each to the other four MSs, with 1 layer each.

[e]   2 streams each to three MS and 1 stream each to the other two MSs, with 1 layer each.

The stream to antenna mapping depends on the MIMO scheme. In DL, the CQI and rank feedback are transmitted to assist the BS in rank adaptation, mode switching, and rate adaptation. For spatial multiplexing, the rank is defined as the number of streams to be used for each user. In FDD and TDD systems, unitary codebook-based precoding is used for closed-loop SU-MIMO. In DL, an MS may feedback some information to the BS in closed-loop SU-MIMO such as rank, sub-band selection, CQI, precoding matrix index, and long-term channel state information.

In DL, the MU-MIMO transmission with up to two streams per user is supported. Beamforming is enabled with this precoding mechanism. *WirelessMAN-Advanced* has the capability to adapt between SU-MIMO and MU-MIMO in a predefined and flexible manner. Multi-BS MIMO techniques are

also supported for improving sector and cell-edge throughput using multi-BS collaborative precoding, network coordinated beamforming, or inter-cell interference cancellation.

For UL MIMO, the BS will schedule users to resource blocks and determines the modulation and coding scheme (MCS) level and MIMO parameters (mode, rank, etc.). The supported antenna configurations include one, two or four transmit antennas and more than two receive antennas. The UL MIMO modes and parameters are shown in Table 5 and Table 6, respectively.

TABLE 5

UL MIMO modes

Mode Index	Description	MIMO Encoding Format	MIMO Precoding
Mode 0	Open-Loop SU-MIMO (TX Diversity)	SFBC	Non-Adaptive
Mode 1	Open-Loop SU-MIMO (Spatial Multiplexing)	Vertical Encoding	Non-Adaptive
Mode 2	Closed-Loop SU-MIMO (Spatial Multiplexing)	Vertical Encoding	Adaptive
Mode 3	Open-Loop Collaborative Spatial Multiplexing (MU-MIMO)	Vertical Encoding	Non-Adaptive
Mode 4	Closed-Loop Collaborative Spatial Multiplexing (MU-MIMO)	Vertical Encoding	Adaptive

TABLE 6

UL MIMO parameters

	Number of transmit antennas	STC rate per layer	Number of streams	Number of subcarriers	Number of layers
MIMO Mode 0	2	1	2	2	1
	4	1	2	2	1
MIMO Mode 1	1	1	1	1	1
MIMO Mode 1 and MIMO Mode 2	2	1	1	1	1
	2	2	2	1	1
	4	1	1	1	1
	4	2	2	1	1
	4	3	3	1	1
	4	4	4	1	1
MIMO Mode 3 and MIMO Mode 4	1	1	1	1	1
	2	1	1	1	1
	2	2	2	1	1
	4	1	1	1	1
	4	2	2	1	1
	4	3	3	1	1
	4	4	4	1	1

The supported UL transmit diversity modes include two and four transmit antenna schemes with rate 1 such as space frequency block coding (SFBC) and two stream precoder. In FDD and TDD systems, unitary codebook-based precoding is supported. In this mode, the MS transmits a sounding reference signal in the UL to assist the UL scheduling and precoder selection in the BS. The BS signals the resource allocation, MCS, rank, preferred precoder index, and packet size to the MS. UL MU-MIMO enables multiple MSs to be spatially multiplexed on the same radio resources. Both open-loop and closed-loop MU-MIMO are supported. The MSs with single transmit antenna can operate in open-loop SU- or MU-MIMO mode.

1.2 Overview of MAC layer

The following sections describe selected MAC features.

1.2.1 MAC addressing

WirelessMAN-Advanced defines global and logical addresses for an MS that identify the user and its connections during a session. The MS is identified by the globally unique 48-bit IEEE extended unique identifier assigned by the IEEE Registration Authority. The MS is further assigned the following logical identifiers: 1) A station identifier during network entry (or network re-entry), that uniquely identifies the MS within the cell, and 2) a flow identifier (FID) that uniquely identifies the control connections and transport connections with the MS. A temporary station identifier is used to protect the mapping between the actual station identifier during network entry. A deregistration identifier is defined to uniquely identify the MS within the set of paging group identifiers, paging cycle, and paging offset.

1.2.2 Network entry

Network entry is the procedure through which an MS detects a cellular network and establishes a connection with that network. The network entry has the following steps (see Fig. 20):

–   synchronization with the BS by acquiring the preambles;

–   acquiring necessary system information such as BS and network service provider identifiers for initial network entry and cell selection;

–   initial ranging;

–   basic capability negotiation;

–   authentication/authorization and key exchange;

–   registration and service flow setup.

FIGURE 20

Network entry procedures
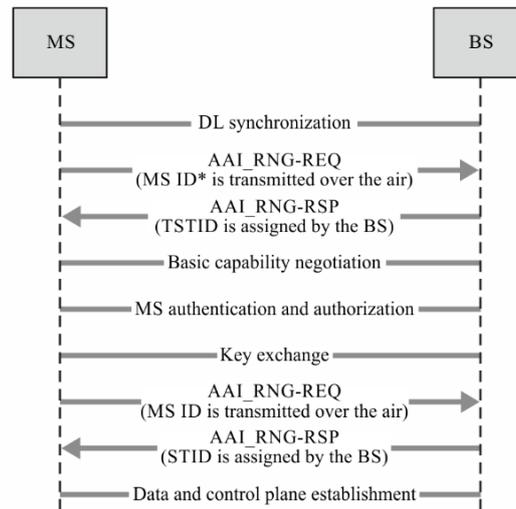
M.2012-20

1.2.3   Connection management and quality of service

A connection is defined as a mapping between the MAC layers of a BS and one (or several) MS. If there is a one-to-one mapping between one BS and one MS, the connection is called a unicast connection; otherwise, it is called a multicast or broadcast connection. Two types of connections are specified: control connections and transport connections. Control connections are used to carry MAC control messages. Transport connections are used to carry user data including upper layer signalling messages. A MAC control message is never transferred over transport connection, and user data is never transferred over the control connections. One pair of bi-directional (DL/UL) unicast control connections are automatically established when an MS performs initial network entry.

All the user data communications are in the context of transport connections. A transport connection is unidirectional and established with a unique FID. Each transport connection is associated with an active service flow to provide various levels of QoS required by the service flow. An MS may have multiple transport connections which have different set of QoS parameters, and each transport connection may have one or more sets of QoS parameters.

The transport connection is established when the associated active service flow is admitted or activated, and released when the associated service flow becomes inactive. Transport connections can be preprovisioned or dynamically created. Pre-provisioned connections are those established by system for an MS during the MS network entry. On the other hand, the BS or the MS can create new connections dynamically if required.

1.2.4   MAC header

WirelessMAN-Advanced specifies a number of efficient MAC headers for various applications comprising of fewer fields with shorter size compared to the generic MAC header of OFDMA TDD WMAN. The advanced generic MAC header in Fig. 21 consists of Extended Header Indicator, FID, and Payload Length fields. Other MAC header types include two-byte short-packet MAC header, which is defined to support small-payload applications such as VoIP and is characterized by small data packets and non-ARQ connection, Fragmentation extended header, Packing extended header for transport connections, MAC Control extended header for control connections, and Multiplexing extended header that is used when data from multiple connections associated with the same security association is present in the payload of the MAC protocol data unit (PDU).

FIGURE 21

Advanced generic MAC headers

| FID (4)	EH (1)	Length MSB (3)
Length LSB (8)		
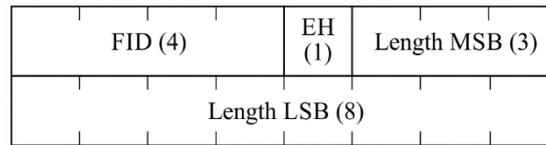
M.2012-21

1.2.5   ARQ and HARQ functions

An ARQ block is generated from one or multiple MAC service data units (SDUs) or MAC SDU fragment(s). ARQ blocks can be variable in size and are sequentially numbered.

WirelessMAN-Advanced uses adaptive asynchronous and non-adaptive synchronous HARQ schemes in the DL and UL, respectively. The HARQ operation is relying on an N-process (multi-channel) stop-and-wait protocol. In adaptive asynchronous HARQ, the resource allocation and transmission format for the HARQ retransmissions may be different from the initial transmission. In case of retransmission, control signalling is required to indicate the resource allocation and transmission format along with other HARQ necessary parameters. A non-adaptive synchronous HARQ scheme is used in the UL where the parameters and the resource allocation for the retransmission are known a priori.

1.2.6   Mobility management and handover

WirelessMAN-Advanced supports both network-controlled and MS-assisted handover (HO). As illustrated in Fig. 22, the handover procedures may be initiated by either MS or BS; the final handover decision and target BS selection may be made either by the serving BS or the MS. The MS executes the handover or cancels the procedure through HO cancellation message. The network re-entry procedures with the target BS, as shown in Fig. 22, may be optimized by target BS possession of MS information obtained from serving BS via core network. The MS may also maintain communication with serving BS while performing network re-entry at target BS as directed by serving BS.

FIGURE 22

Handover procedures
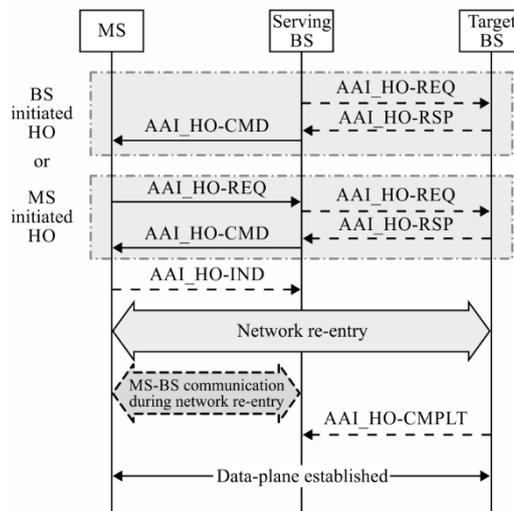
M.2012-22

1.2.7 Power management

WirelessMAN-Advanced provides power management functions including sleep mode and idle mode to mitigate power consumption of the MS. Sleep mode is a state in which an MS performs prenegotiated periods of absence from the serving BS. The sleep mode may be enacted when an MS is in the connected state. Using the sleep mode, the MS is provided with a series of alternative listening and sleep windows. The listening window is the time interval in which MS is available for transmit/receive of control signalling and data. The WirelessMAN-Advanced has the capability of dynamically adjusting the duration of sleep and listening windows within a sleep cycle based on changing traffic patterns and HARQ operations. When MS is in active mode, sleep parameters are negotiated between MS and BS. The base station instructs the MS to enter sleep mode. MAC management messages can be used for sleep mode request/response. The period of the sleep cycle is measured in units of frames or superframes and is the sum of a sleep and listening windows. During the MS listening window, BS may transmit the traffic indication message intended for one or multiple MSs. The listening window can be extended through explicit or implicit signalling. The maximum length of the extension is to the end of the current sleep cycle.

Idle mode allows the MS to become periodically available for DL broadcast traffic messaging such as paging message without registration with the network. The network assigns MSs in the idle mode to a paging group during idle mode entry or location update. If an MS is assigned to multiple paging groups, it may also be assigned multiple paging offsets within a paging cycle where each paging offset corresponds to a separate paging group. The assignment of multiple paging offsets to an MS allows monitoring of the paging messages at different paging offset when the MS is located in one of its paging groups. The distance between two adjacent paging offsets should be long enough so that the MS paged in the first paging offset can inform the network before the next paging offset in the same paging cycle occurs, thereby avoiding unnecessary paging in the next paging offset. The MS monitors the paging message during listening interval. The paging message contains identification of the MSs to be notified of pending traffic or location update. The start of the paging listening interval is calculated based on paging cycle and paging offset are defined in terms of number of superframes.

The serving BS transmits the list of paging group identifiers (PGID) at the predetermined location at the beginning of the paging available interval. During paging available interval, the MS monitors the SFH and if there is an indication of any change in system configuration information, the MS will acquire the latest system information at the next instance of SFH transmission (i.e. next SFH). To provide location privacy, the paging controller assigns Deregistration identifiers to uniquely identify the MSs in the idle mode in a particular paging group.

An MS in idle mode performs location update, if either of these conditions are met, paging group location update, timer-based location update, or power down location update. The MS performs the location update when the MS detects a change in paging group by monitoring the PGIDs, which are transmitted by the BS. The MS periodically performs location update procedure prior to the expiration of idle mode timer. At every location update including paging group update, the idle mode timer is reset.

1.2.8 Security

Security functions provide subscribers with privacy, authentication, and confidentiality across WirelessMAN-Advanced network. The PKM protocol provides mutual and unilateral authentication and establishes confidentiality between the MS and the BS by supporting transparent exchange of authentication and authorization (EAP) messages.

The MS and the BS may support encryption methods and algorithms for secure transmission of MAC PDUs. WirelessMAN-Advanced supports selectively confidentiality or integrity protection over MAC control messages. Figure 23 shows the functional blocks of security architecture.

FIGURE 23

Functional blocks of security architecture
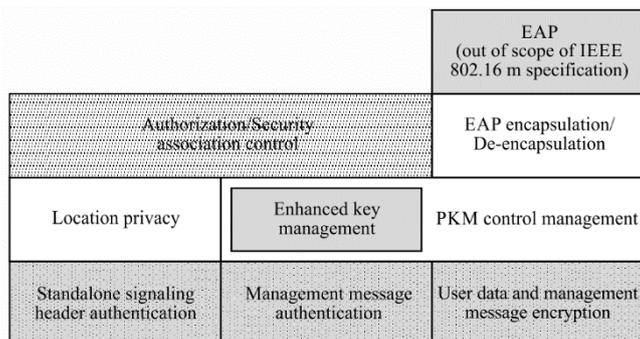
M.2012-23

The security architecture is divided into security management and encryption and integrity logical entities. The security management functions include overall security management and control, EAP encapsulation/de-encapsulation, privacy key management (PKM) control, security association management, and identity/location privacy. To accomplish identity/location privacy, the MSID (i.e. MS MAC address) is not disclosed over the air even during network entry. The BS assigns a station identifier (STID) to the MS which is securely transmitted to the MS so that the MS's identity and location can be hidden. The encryption and integrity protection entity functions include encryption of user data and authentication, control message authentication, message confidentiality protection.

2 Detailed specifications of the radio interface technology[13]

The material in § 2 reflects the structure of the IEEE specifications from the first release of Recommendation ITU-R M.2012 (01-2012) prior to the IEEE revising the structure of the specifications related to WirelessMAN-Advanced on 8 June 2013.

Detailed specifications described in this Annex are developed around a "Global Core Specification" (GCS)[14], which is related to externally developed materials incorporated by specific references for a specific technology. The process and use of the GCS, references, and related notifications and certifications are found as Document IMT-ADV/24(Rev.3).

The IMT-Advanced standards contained in this section are derived from the global core specification for WirelessMAN-Advanced contained at http://ties.itu.int/u/itu-r/ede/rsg5/IMT-Advanced/GCS/M.2012-0/WirelessMAN-Advanced/here (ITU-Extranet). The following notes apply to the sections below:

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[13] On 8 June 2012, the IEEE-SA Standards Board approved IEEE Std 802.16.1 (*WirelessMAN-Advanced Air Interface for Broadband Wireless Access Systems*) as a new IEEE standard. IEEE Std 802.16.1 encompasses the WirelessMAN-Advanced air interface, with some minor improvements. On the same date, the Standards Board approved IEEE Std 802.16-2012 as a new revision of IEEE Std 802.16, which now excludes the WirelessMAN-Advanced air interface.

Accordingly, the material in § 2.2 reflects IEEE's structure of the WirelessMAN-Advanced air interface specification IEEE Std 802.16 which is composed of IEEE Std 802.16-2009, as amended, consecutively, by IEEE Std 802.16j-2009, IEEE Std 802.16h-2010, and IEEE Std 802.16m-2011.

[14] A "GCS" (Global Core Specification) is the set of specifications that defines a single RIT, an SRIT, or a RIT within an SRIT.

1)   The identified relevant ***Transposing Organizations*** should make their reference material available from their website.

2)   This information was supplied by the ***Transposing Organizations*** and relates to their own deliverables of the transposed global core specification.

2.1   Description of the global core specification and the transposed standards

IEEE Std 802.16 is composed of IEEE Std 802.16-2009, as amended, consecutively, by IEEE Std 802.16j-2009, IEEE Std 802.16h-2010, and IEEE Std 802.16m-2011. IEEE Std 802.16 is described in § 2.2.1.1.

In accordance with clause 16.1.1 of IEEE Std 802.16, the *WirelessMAN-Advanced* GCS is specified in the clauses of IEEE Std 802.16 as indicated in Table 7. Anything in IEEE Std 802.16 that is not included in Table 7 is excluded from the *WirelessMAN-Advanced* GCS.

TABLE 7

Description of the *WirelessMAN-Advanced* GCS

IEEE Std 802.16 Clause and Subject	IEEE Std 802.16-2009	IEEE Std 802.16j-2009	IEEE Std 802.16h-2010	IEEE Std 802.16m-2011
Clause 1.4: Reference models	Base specification		Amended	Amended
Clause 2: Normative references	Base specification		Amended	Amended
Clause 3: Definitions	Base specification	Amended	Amended	Amended
Clause 4: Abbreviations and acronyms	Base specification	Amended	Amended	Amended
Clause 5.2: Packet convergence sublayer	Base specification			Amended
Clause 16: *WirelessMAN-Advanced* air interface				Base specification
Annex R: MAC control messages				Base specification
Annex S: Test vectors				Base specification
Annex T: Supported frequency bands				Base specification
Annex U: Radio specifications				Base specification
Annex V: Default capability class and parameters				Base specification

2.1.1   IEEE Std 802.16

IEEE Std 802.16: Standard for local and metropolitan area networks – Air interface for broadband wireless access systems

This standard specifies the air interface, including the medium access control layer (MAC) and physical layer (PHY), of combined fixed and mobile point-to-multipoint broadband wireless access (BWA) systems providing multiple services. The MAC is structured to support multiple PHY specifications, each suited to a particular operational environment.

IEEE Std 802.16 is composed of IEEE Std 802.16-2009, as amended, consecutively, by IEEE Std 802.16j-2009, IEEE Std 802.16h-2010, and IEEE Std 802.16m-2011.

2.1.1.1   IEEE Std 802.16-2009

Standard for local and metropolitan area networks – Part 16: Air interface for broadband wireless access systems

This standard specifies the air interface, including the medium access control layer (MAC) and physical layer (PHY), of combined fixed and mobile point-to-multipoint broadband wireless access (BWA) systems providing multiple services. The MAC is structured to support multiple PHY specifications, each suited to a particular operational environment.

2.1.1.2   IEEE Std 802.16j-2009

Standard for local and metropolitan area networks – Part 16: Air interface for broadband wireless access systems – Amendment 1: Multiple relay specification

This amendment updates and expands IEEE Std 802.16-2009, specifying physical layer and medium access control layer enhancements to IEEE Std 802.16 for licensed bands to enable the operation of relay stations. Subscriber station specifications are not changed.

2.1.1.3   IEEE Std 802.16h-2010

Standard for local and metropolitan area networks – Part 16: Air interface for broadband wireless access systems – Amendment 2: Improved coexistence mechanisms for license-exempt operation

This amendment updates and expands IEEE Std 802.16, specifying improved mechanisms, as policies and medium access control enhancements, to enable coexistence among license-exempt systems and to facilitate the coexistence of such systems with primary users.

2.1.1.4   IEEE Std 802.16m-2011

Standard for local and metropolitan area networks – Part 16: Air interface for broadband wireless access systems – Amendment 3: Advanced air interface

This amendment specifies the *WirelessMAN-Advanced* air interface, an enhanced air interface designed to meet the requirements of the IMT-Advanced standardization activity conducted by the ITU-R. The amendment is based on the WirelessMAN-OFDMA specification of IEEE Std 802.16 and provides continuing support for WirelessMAN-OFDMA subscriber stations.

2.1.2   Transposed standards

2.1.2.1   Transpositions: IEEE

Reserved.

2.1.2.2 Transpositions: ARIB

	Base specification per IEEE Std 802.16-2009	Amendment per IEEE Std 802.16j-2009	Amendment per IEEE Std 802.16h-2010	Amendment per IEEE Std 802.16m-2011
Transposing Organization	ARIB	ARIB	ARIB	ARIB
Document number	ARIB STD-T105 Annex 1	ARIB STD-T105 Annex 2	ARIB STD-T105 Annex 3	ARIB STD-T105 Annex 4
Version	1.30	1.30	1.30	1.30
Date	18 December 2012	18 December 2012	18 December 2012	18 December 2012
Clause 1.4: Reference models	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%201_IEEE%20Std%20802%2016-2009.pdf (Clause 1.4, ARIB transposition of IEEE Std 802.16-2009)	Not applicable	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%203_IEEE%20Std%20802%2016h-2010.pdf (Clause 1.4, ARIB transposition of IEEE Std 802.16h)	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%204_IEEE%20Std%20802%2016m-2011.pdf (Clause 1.4, ARIB transposition of IEEE Std 802.16m)
Clause 2: Normative references	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%201_IEEE%20Std%20802%2016-2009.pdf (Clause 2, ARIB transposition of IEEE Std 802.16-2009)	Not applicable	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%203_IEEE%20Std%20802%2016h-2010.pdf (Clause 2, ARIB transposition of IEEE Std 802.16h)	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%204_IEEE%20Std%20802%2016m-2011.pdf (Clause 2, ARIB transposition of IEEE Std 802.16m)
Clause 3: Definitions	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%201_IEEE%20Std%20802%2016-2009.pdf (Clause 3, ARIB transposition of IEEE Std 802.16-2009)	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%202_IEEE%20Std%20802%2016j-2009.pdf (Clause 3, ARIB transposition of IEEE Std 802.16j)	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%203_IEEE%20Std%20802%2016h-2010.pdf (Clause 3, ARIB transposition of IEEE Std 802.16h)	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%204_IEEE%20Std%20802%2016m-2011.pdf (Clause 3, ARIB transposition of IEEE Std 802.16m)
Clause 4: Abbreviations and acronyms	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%201_IEEE%20Std%20802%2016-2009.pdf (Clause 4, ARIB transposition of IEEE Std 802.16-2009)	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%202_IEEE%20Std%20802%2016j-2009.pdf (Clause 4, ARIB transposition of IEEE Std 802.16j)	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%203_IEEE%20Std%20802%2016h-2010.pdf (Clause 4, ARIB transposition of IEEE Std 802.16h)	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%204_IEEE%20Std%20802%2016m-2011.pdf (Clause 4, ARIB transposition of IEEE Std 802.16m)
Clause 5.2: Packet convergence sublayer	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%201_IEEE%20Std%20802%2016-2009.pdf (Clause 5.2, ARIB transposition of IEEE Std 802.16-2009)	Not applicable	Not applicable	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%204_IEEE%20Std%20802%2016m-2011.pdf (Clause 5.2, ARIB transposition of IEEE Std 802.16m)

	Base specification per IEEE Std 802.16-2009	Amendment per IEEE Std 802.16j-2009	Amendment per IEEE Std 802.16h-2010	Amendment per IEEE Std 802.16m-2011
Clause 16: WirelessMAN-Advanced air interface	Not applicable	Not applicable	Not applicable	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%204_IEEE%20Std%20802%2016m-2011.pdf (Clause 16, ARIB transposition of IEEE Std 802.16m)
Annex R: MAC control messages	Not applicable	Not applicable	Not applicable	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%204_IEEE%20Std%20802%2016m-2011.pdf (Annex R, ARIB transposition of IEEE Std 802.16m)
Annex S: Test vectors	Not applicable	Not applicable	Not applicable	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%204_IEEE%20Std%20802%2016m-2011.pdf (Annex S, ARIB transposition of IEEE Std 802.16m)
Annex T: Supported frequency bands	Not applicable	Not applicable	Not applicable	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%204_IEEE%20Std%20802%2016m-2011.pdf (Annex T, ARIB transposition of IEEE Std 802.16m)
Annex U: Radio specifications	Not applicable	Not applicable	Not applicable	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%204_IEEE%20Std%20802%2016m-2011.pdf (Annex U, ARIB transposition of IEEE Std 802.16m)
Annex V: Default capability class and parameters	Not applicable	Not applicable	Not applicable	http://www.arib.or.jp/IMT-Advanced/WirelessMAN-Advanced.1.30/ARIB%20STD-T105%20Annex%204_IEEE%20Std%20802%2016m-2011.pdf (Annex V, ARIB transposition of IEEE Std 802.16m)

2.1.2.3   Transpositions: TTA

	Base specification per IEEE Std 802.16-2009	Amendment per IEEE Std 802.16j-2009	Amendment per IEEE Std 802.16h-2010	Amendment per IEEE Std 802.16m-2011
Transposing Organization	TTA	TTA	TTA	TTA
Document number	TTAE.IE-802.16-2009	TTAE.IE-802.16j	TTAE.IE-802.16h	TTAE.IE-802.16m
Version	1.0	1.0	1.0	1.0
Date	29 June 2011	29 June 2011	29 June 2011	29 June 2011
Clause 1.4: Reference models	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16-2009 (Clause 1.4, TTA transposition of IEEE Std 802.16-2009)	Not applicable	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16h (Clause 1.4, TTA transposition of IEEE Std 802.16h)	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16m (Clause 1.4, TTA transposition of IEEE Std 802.16m)
Clause 2: Normative references	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16-2009 (Clause 2, TTA transposition of IEEE Std 802.16-2009)	Not applicable	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16h (Clause 2, TTA transposition of IEEE Std 802.16h)	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16m (Clause 2, TTA transposition of IEEE Std 802.16m)
Clause 3: Definitions	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16-2009 (Clause 3, TTA transposition of IEEE Std 802.16-2009)	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16j (Clause 3, TTA transposition of IEEE Std 802.16j)	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16h (Clause 3, TTA transposition of IEEE Std 802.16h)	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16m (Clause 3, TTA transposition of IEEE Std 802.16m)
Clause 4: Abbreviations and acronyms	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16-2009 (Clause 4, TTA transposition of IEEE Std 802.16-2009)	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16j (Clause 4, TTA transposition of IEEE Std 802.16j)	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16h (Clause 4, TTA transposition of IEEE Std 802.16h)	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16m (Clause 4, TTA transposition of IEEE Std 802.16m)
Clause 5.2: Packet convergence sublayer	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16-2009 (Clause 5.2, TTA transposition of IEEE Std 802.16-2009)	Not applicable	Not applicable	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16m (Clause 5.2, TTA transposition of IEEE Std 802.16m)
Clause 16: WirelessMAN-Advanced air interface	Not applicable	Not applicable	Not applicable	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16m (Clause 16, TTA transposition of IEEE Std 802.16m)
Annex R: MAC control messages	Not applicable	Not applicable	Not applicable	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16m (Annex R, TTA transposition of IEEE Std 802.16m)

	Base specification per IEEE Std 802.16-2009	**Amendment per IEEE Std 802.16j-2009**	**Amendment per IEEE Std 802.16h-2010**	**Amendment per IEEE Std 802.16m-2011**
Annex S: Test vectors	Not applicable	Not applicable	Not applicable	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16m (Annex S, TTA transposition of IEEE Std 802.16m)
Annex T: Supported frequency bands	Not applicable	Not applicable	Not applicable	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16m (Annex T, TTA transposition of IEEE Std 802.16m)
Annex U: Radio specifications	Not applicable	Not applicable	Not applicable	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16m (Annex U, TTA transposition of IEEE Std 802.16m)
Annex V: Default capability class and parameters	Not applicable	Not applicable	Not applicable	http://www.tta.or.kr/data/ttasDown.jsp?where=14688&pk_num=TTAE.IE-802.16m (Annex V, TTA transposition of IEEE Std 802.16m)

2.1.2.4   Transpositions: WiMAX Forum

	Base specification per IEEE Std 802.16-2009	**Amendment per IEEE Std 802.16j-2009**	**Amendment per IEEE Std 802.16h-2010**	**Amendment per IEEE Std 802.16m-2011**
Transposing Organization	WIMAX FORUM	WIMAX FORUM	WIMAX FORUM	WIMAX FORUM
Document number	T28-001-R020v01, WIMAX FORUM transposition of IEEE Std 802.16-2009	T28-001-R020v01, WIMAX FORUM transposition of IEEE Std 802.16j	T28-001-R020v01, WIMAX FORUM transposition of IEEE Std 802.16h	T28-001-R020v01, WIMAX FORUM transposition of IEEE Std 802.16m
Version	V01	V01	V01	V01
Date	20 September 2011	20 September 2011	20 September 2011	20 September 2011
Clause 1.4: Reference models	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Clause 1.4, WIMAX FORUM transposition of IEEE Std 802.16-2009)	Not applicable	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Clause 1.4, WIMAX FORUM transposition of IEEE Std 802.16h)	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Clause 1.4, WIMAX FORUM transposition of IEEE Std 802.16m)
Clause 2: Normative references	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Clause 2, WIMAX FORUM transposition of IEEE Std 802.16-2009)	Not applicable	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Clause 2, WIMAX FORUM transposition of IEEE Std 802.16h)	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Clause 2, WIMAX FORUM transposition of IEEE Std 802.16m)

	Base specification per IEEE Std 802.16-2009	Amendment per IEEE Std 802.16j-2009	Amendment per IEEE Std 802.16h-2010	Amendment per IEEE Std 802.16m-2011
Clause 3: Definitions	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Clause 3, WIMAX FORUM transposition of IEEE Std 802.16-2009)	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Clause 3, WIMAX FORUM transposition of IEEE Std 802.16j)	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Clause 3, WIMAX FORUM transposition of IEEE Std 802.16h)	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Clause 3, WIMAX FORUM transposition of IEEE Std 802.16m)
Clause 4: Abbreviations and acronyms	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Clause 4, WIMAX FORUM transposition of IEEE Std 802.16-2009)	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Clause 4, WIMAX FORUM transposition of IEEE Std 802.16j)	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Clause 4, WIMAX FORUM transposition of IEEE Std 802.16h)	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Clause 4, WIMAX FORUM transposition of IEEE Std 802.16m)
Clause 5.2: Packet convergence sublayer	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Clause 5.2, WIMAX FORUM transposition of IEEE Std 802.16-2009)	Not applicable	Not applicable	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Clause 5.2, WIMAX FORUM transposition of IEEE Std 802.16m)
Clause 16: WirelessMAN-Advanced air interface	Not applicable	Not applicable	Not applicable	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Clause 16, WIMAX FORUM transposition of IEEE Std 802.16m)
Annex R: MAC control messages	Not applicable	Not applicable	Not applicable	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Annex R, WIMAX FORUM transposition of IEEE Std 802.16m)
Annex S: Test vectors	Not applicable	Not applicable	Not applicable	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Annex S, WIMAX FORUM transposition of IEEE Std 802.16m)
Annex T: Supported frequency bands	Not applicable	Not applicable	Not applicable	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Annex T, WIMAX FORUM transposition of IEEE Std 802.16m)
Annex U: Radio specifications	Not applicable	Not applicable	Not applicable	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Annex U, WIMAX FORUM transposition of IEEE Std 802.16m)

	Base specification per IEEE Std 802.16-2009	Amendment per IEEE Std 802.16j-2009	Amendment per IEEE Std 802.16h-2010	Amendment per IEEE Std 802.16m-2011
Annex V: Default capability class and parameters	Not applicable	Not applicable	Not applicable	http://www.wimaxforum.org/files/WMF-IMT-Advanced-Spec-T28-001-R020v01.pdf (Annex V, WIMAX FORUM transposition of IEEE Std 802.16m)

3 Detailed specification of the radio interface technology[15]

The material in § 2.3 reflects the structure of the IEEE specifications subsequent to the IEEE revising the structure of the relevant IEEE specifications related to WirelessMAN-Advanced on 8 June 2013 beginning with Revision 1 of Recommendation ITU-R M.2012 (2014).

Detailed specifications described in this Annex are developed around a "Global Core Specification" (GCS), which is related to externally developed materials incorporated by specific references for a specific technology. The process and use of the GCS, references, and related notifications and certifications are found as Document IMT-ADV/24(Rev.3).

The IMT-Advanced standards contained in this section are derived from the global core specification for WirelessMAN-Advanced contained here: https://extranet.itu.int/rsg-meetings/sg5/wp5d/GCS/Documents/Forms/AllItems.aspx?FolderCTID=0x012000F0910BD7779E5A46818C91087717A358&id=%2Frsg%2Dmeetings%2Fsg5%2Fwp5d%2FGCS%2FDocuments%2FIMT%2DAdvanced%2FM%2E2012%2D6%2FWirelessMAN%2DAdvanced (ITU-Extranet). The following notes apply to the sections below:

1) The identified relevant Transposing Organizations should make their reference material available from their website.

2) This information was supplied by the ***Transposing Organizations*** and relates to their own deliverables of the transposed global core specification.

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[15] On 8 June 2012, the IEEE-SA Standards Board approved IEEE Std 802.16.1 (*WirelessMAN-Advanced Air Interface for Broadband Wireless Access Systems*) as a new IEEE standard. IEEE Std 802.16.1 encompasses the WirelessMAN-Advanced air interface, with some minor improvements. On the same date, the Standards Board approved IEEE Std 802.16-2012 as a new revision of IEEE Std 802.16, which now excludes the WirelessMAN-Advanced air interface.

Accordingly, the material in § 3 reflects IEEE's transfer of the WirelessMAN-Advanced air interface specification to IEEE Std 802.16.1. The WirelessMAN-Advanced GCS for § 3 includes IEEE Std 802.16.1 but not IEEE Std 802.16.

IEEE has further enhanced IEEE Std 802.16.1 with two amendments:

– IEEE Std 802.16.1a: WirelessMAN-Advanced Air Interface for Broadband Wireless Access Systems – Amendment: Higher Reliability Networks.

– IEEE Std 802.16.1b: WirelessMAN-Advanced Air Interface for Broadband Wireless Access Systems – Amendment: Enhancements to Support Machine-to-Machine Applications.

The content of these two standards is also included in § 3.

3.1 Description of the global core specification and the transposed standards

IEEE Std 802.16.1 is composed of IEEE Std 802.16.1-2012, as amended, consecutively, by IEEE Std 802.16.1b-2012 and IEEE Std 802.16.1a-2013. IEEE Std 802.16.1 is described in § 3.1.1.

TABLE 8

Description of the *WirelessMAN-Advanced* GCS

IEEE Std 802.16.1 Clause and Subject	IEEE Std 802.16.1-2012	IEEE Std 802.16.1b-2012	IEEE Std 802.16.1a-2013
Clause 1: Overview	Base specification	Amended	Amended
Clause 2: Normative references	Base specification		
Clause 3: Definitions	Base specification	Amended	Amended
Clause 4: Abbreviations and acronyms	Base specification		Amended
Clause 5: Service-Specific Convergence Sublayer	Base specification		Amended
Clause 6: WirelessMAN-Advanced Air Interface	Base specification	Amended	Amended
Annex A: Bibliography	Base specification		
Annex B: Control Messages	Base specification	Amended	Amended
Annex C: Test Vectors	Base specification		
Annex D: Supported frequency bands	Base specification		
Annex E: Radio specifications	Base specification		
Annex F: Default capability class and parameters	Base specification		

3.1.1 IEEE Std 802.16.1

IEEE Std 802.16.1: IEEE Standard for WirelessMAN-Advanced Air Interface for Broadband Wireless Access Systems

This standard specifies the WirelessMAN-Advanced Air Interface, including the medium access control layer (MAC) and physical layer (PHY), of a broadband wireless access (BWA) system supporting multiple services.

IEEE Std 802.16.1 is composed of IEEE Std 802.16.1-2012, as amended, consecutively, by IEEE Std 802.16.1b-2012 and IEEE Std 802.16.1a-2013.

3.1.1.1 IEEE Std 802.16.1-2012

IEEE Standard for WirelessMAN-Advanced Air Interface for Broadband Wireless Access Systems

This standard specifies the WirelessMAN-Advanced Air Interface, including the medium access control layer (MAC) and physical layer (PHY), of a broadband wireless access (BWA) system supporting multiple services.

3.1.1.2   IEEE Std 802.16.1b-2012

IEEE Standard for WirelessMAN-Advanced Air Interface for Broadband Wireless Access Systems – Amendment 1: Enhancements to Support Machine-to-Machine Applications

This amendment specifies enhancements to the WirelessMAN-Advanced Air Interface. The enhancements provide improved support for machine-to-machine applications. As of the approval date, the applicable version of IEEE Std 802.16.1 is IEEE Std 802.16.1-2012, as amended by IEEE 802.16.1b-2012.

3.1.1.3   IEEE Std 802.16.1a-2013

IEEE Standard for WirelessMAN-Advanced Air Interface for Broadband Wireless Access Systems – Amendment 2: Higher Reliability Networks

This amendment updates and expands IEEE Std 802.16.1, specifying enhanced mechanisms to support Higher Reliability Networks. As of the publication date, the current version of IEEE Std 802.16.1 is IEEE Std 802.16.1-2012, as amended by IEEE Std 802.16.1b-2012 and IEEE Std 802.16.1a-2013.

3.1.2   Transposed standards

3.1.2.1   Transpositions: IEEE

	Base standard per IEEE Std 802.16.1-2012	**Amendment per IEEE Std 802.16.1b-2012**	**Amendment per IEEE Std 802.16.1a-2013**
Transposing Organization	IEEE	IEEE	IEEE
Document Number	IEEE Std 802.16.1-2012	IEEE Std 802.16.1b-2012	IEEE Std 802.16.1a-2013
Version	2012	2012	2013
Issued Date	8 June 2012	30 August 2012	6 March 2013
Document	IEEE transposition of IEEE Std 802.16.1-2012	IEEE transposition of IEEE Std 802.16.1b-2012	IEEE transposition of IEEE Std 802.16.1a-2013

3.1.2.2   Transpositions: ARIB

Reserved.

3.1.2.3   Transpositions: TTA

	Base standard per IEEE Std 802.16.1-2012	**Amendment per IEEE Std 802.16.1b-2012**	**Amendment per IEEE Std 802.16.1a-2013**
Transposing Organization	TTA	TTA	TTA
Document Number	TTAE.IE-802.16.1-2012	TTAE.IE-802.16.1b-2012	*Not applicable*
Version	1.0	1.0	*Not applicable*
Issued Date	21 December 2012	26 June 2013	*Not applicable*

	Base standard per IEEE Std 802.16.1-2012	**Amendment per IEEE Std 802.16.1b-2012**	**Amendment per IEEE Std 802.16.1a-2013**
Document	http://committee.tta.or.kr/include/Download.jsp?filename=stnfile/TTAE_[1].IE-802.16.1-2012.pdf (TTA transposition of IEEE Std 802.16.1-2012)	http://committee.tta.or.kr/include/Download.jsp?filename=stnfile/TTAE.IE-802.16.1b-2012.zip (TTA transposition of IEEE Std 802.16.1b-2012)	*Not applicable*

3.1.2.4   Transpositions: WiMAX Forum

Reserved.

3.1.2.5   Transpositions: ITRI

	Base standard per IEEE Std 802.16.1-2012	**Amendment per IEEE Std 802.16.1b-2012**	**Amendment per IEEE Std 802.16.1a-2013**
Transposing Organization	ITRI	ITRI	ITRI
Document Number	ITRI-2013-Std-001	ITRI-2013-Std-001	ITRI-2013-Std-001
Version	2013	2013	2013
Issued Date	6 September 2013	6 September 2013	6 September 2013
Document	http://std-share.itri.org.tw/Content/Files/Stdlink/ITRI-BWA-001.pdf	http://std-share.itri.org.tw/Content/Files/Stdlink/ITRI-BWA-001.pdf	http://std-share.itri.org.tw/Content/Files/Stdlink/ITRI-BWA-001.pdf

Attachment
to Annex 2

Abbreviations

AAS	Active antenna system
ACK/NAK	Acknowledgement / Negative acknowledgement
A-GNSS	Assisted global navigation satellite systems
A-GPS	Assisted global positioning system
AP	Application protocol
ARIB	Association of Radio Industries and Businesses
ARQ	Automatic repeat request
AS	Access stratum
ATIS	Alliance for Telecommunications Industry Solutions
ATS	Abstract test suite

BCH   Broadcast channel
CCSA   China Communications Standards Association
CMAS   Commercial mobile alert system
CoMP   Coordinated multipoint
CQI   Channel quality identifier
CSI   Channel-state information
CTC   Convolutional turbo code
DCI   Downlink control information
DFTS   Discrete Fourier transform-spread
DLC   Data link control layer
DL-CoMP   Downlink coordinated multipoint
DL-SCH   Downlink shared channel
DRX   Discontinuous reception
DwPTS   Downlink part
ECID   Enhanced Cell ID
EMC   Electromagnetic compatibility
EPC   Evolved packet core
EPDCCH   Enhanced physical downlink control channel
E-SMLC   Evolved serving mobile location centre
ETSI   European Telecommunications Standards Institute
ETWS   Earthquake and tsunami warning system
E-UTRA   Evolved universal terrestrial radio access
FDD   Frequency-division duplex
FEC   Forward error correction
FFR   Fractional frequency reuse
FSTD   Frequency switched transmit diversity
GCS   Global core specifications
GNSS   Global navigation satellite system
GPRS   General packet radio service
GPS   Global positioning system
GSM   Global system for mobile communications
HARQ   Hybrid automatic-repeat-request
ICIC   Inter-cell interference coordination
ICS   Implementation conformance statement
IMEI   International mobile station equipment identities
IMS   IP multimedia subsystems
IMT   International mobile telecommunications
IXIT   Implementation eXtra Information for Testing
LAA   Licensed-assisted access
LBT   Listen before talk

LEE	laptop embedded equipment
LME	Laptop mounted equipment
LMU	Location measurement unit
LPP	LTE positioning protocol
LTE	Long term evolution
LWA	LTE/WLAN aggregation
LWAAP	LTE-WLAN aggregation adaptation protocol
LWIP	Level integration using IPsec tunnel
MAC	Medium access control
MBMS	Multimedia broadcast multicast service
MBSFN	Multimedia broadcast multicast service single frequency network
MC	Mission critical
MCE	Multiple channel equipment
MCPTT	Mission critical push to talk
MCS	Modulation and coding scheme
MIMO	Multiple-input/multiple-output
MME	Mobility management entity
MPDCCH	MTC physical downlink control channel
MTC	Machine-type communications
NB-IoT	Narrow-band Internet of Things
NPBCH	Narrowband physical broadcast channel
NPDCCH	Narrowband physical downlink control channel
NPDSCH	Narrowband physical downlink shared channel
NPRACH	Narrowband physical random access channel
NPUSCH	Narrowband physical uplink shared channel
O&M	Operations and maintenance
OFDM	Orthogonal frequency-division multiplexing
OFDMA	Orthogonal frequency-division multiple access
OTA	Over the air
OTDOA	Observed time difference of arrival
PAPR	Peak-to-average power ratio
PBCH	Physical broadcast channel
PCFICH	Physical control format indicator channel
PDCCH	Physical downlink control channel
PDCP	Packet data convergence protocol
PDSCH	Physical downlink shared channel
PDU	Protocol data unit
PHICH	Physical hybrid automatic-repeat-request indicator channel
PHS	Payload header suppression
PHY	Physical layer

PIXIT	Protocol implementation extra information for testing
PMCH	Physical multicast channel
PRACH	Physical random access channel
PRBs	Physical resource blocks
ProSe	Proximity based Services
PSBCH	Physical sidelink broadcast channel
PSCCH	Physical sidelink control channel
PSDCH	Physical sidelink discovery channel
PSSCH	Physical sidelink shared channel
PUCCH	Physical uplink control channel
PUSCH	Physical uplink shared channel
PWS	Public warning system
QAM	Quadrature amplitude modulation
QoS	Quality of service
QPSK	Quadrature phase shift keying
RI	Radio interface
RIT	Radio interface technology
RLC	Radio link control
RRC	Radio resource control
RRM	Radio resource management
SDP	Session description protocol
SDU	Service data unit
SFBC	Space-frequency block coding
SFH	Super frame header
SIM	Subscriber identity module
SIP	Session initiation protocol
SLmAP	SLm interface application protocol
SON	Self-organizing networks
SPDCCH	Short physical downlink control channel
SPS	Semi-persient scheduling
SPUCCH	Short physical uplink control channel
SRIT	Set of radio interface technology
TDD	Time division duplex
TD-SCDMA	Time division synchronous code division multiple access
TF	Transport format
TRMS	Total radiated multi-antenna sensitivity
TRP	Total radiated power
TRS	Total radiated sensitivity
TSDSI	Telecommunications Standards Development Society, India
TTA	Telecommunications Technology Association

TTC	Telecommunication Technology Committee
TTCN	Testing and test control notation
TTI	Transmission time interval
UCI	Uplink control information
UE	User equipment
UL-CoMP	Uplink coordinated multipoint
UL-SCH	Uplink shared channel
UpPTS	Uplink part
V2V	Vehicle to vehicle
WirelessMAN	Wireless metropolitan area networks
WLAN	Wireless local area network
WT	Wireless local area network termination
XwAP	Xw application protocol

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