|  |  |
| --- | --- |
| **World Radiocommunication Conference (WRC-19) Sharm el-Sheikh, Egypt, 28 October – 22 November 2019** |  |
|  |  |
|  |  |
| COMMITTEE 4 | **Document 260-E** |
|  | **11 November 2019** |
|  | **Original: English** |
|  | |
| Pakistan (Islamic Republic of) | |
| Proposals for the work of the conference | |
|  | |
| Agenda item 1.13 | |

1.13 to consider identification of frequency bands for the future development of International Mobile Telecommunications (IMT), including possible additional allocations to the mobile service on a primary basis, in accordance with Resolution **238 (WRC-15)**;

*Resolution* ***238 (WRC-15)*** *– Studies on frequency-related matters for International Mobile Telecommunications identification including possible additional allocations to the mobile services on a primary basis in portion(s) of the frequency range between 24.25 and 86 GHz for the future development of International Mobile Telecommunications for 2020 and beyond*

This contribution includes proposals based on Method A2, Alternative 2 of the CPM Report with the following options for conditions related to the bands 24.25-27.5 GHz:

– Condition A2a: Option 1 – Resolution **750 (Rev.WRC-19)** in Table 1-1.

– Resolution **750 (Rev.WRC-15**) Table 1-1 to be updated with the unwanted emission levels as below values which are adequate to ensure the compatibility with EESS (passive) in the adjacent band at 23.6-24 GHz.

• IMT-2020 BS: −32 dB(W/200 MHz)

• IMT-2020 UE: −28 dB(W/200 MHz)

For all other conditions, no action is necessary due to results of sharing and compatibility studies. In detail, the following is applied:

– Condition A2b: Option 3 – no condition necessary

– Condition A2c: Option 5 – no condition necessary

– Condition A2d: Option 4 – no condition necessary

– Condition A2e: Option 9 – no condition necessary

– Condition A2f: Option 3 – no condition necessary

– Condition A2g: Option 5 – no condition necessary

Modifications to Article 5

ARTICLE 5

Frequency allocations

Section IV – Table of Frequency Allocations  
(See No. 2.1)

MOD PAK/260/1

**5.338A** In the frequency bands 1 350-1 400 MHz, 1 427-1 452 MHz, 22.55-23.55 GHz, 24.25-27.5 GHz, 30-31.3 GHz, 49.7‑50.2 GHz, 50.4-50.9 GHz, 51.4-52.6 GHz, 81-86 GHz and 92-94 GHz, Resolution **750 (Rev.WRC‑19)** applies.     (WRC‑19)

**Reasons:** Protection of passive services in 23.6-24 GHz.

MOD PAK/260/2#49833

22-24.75 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 24.25-24.45  FIXED  MOBILE except aeronautical mobile ADD 5.A113  MOD 5.338A\* | 24.25-24.45  MOBILE except aeronautical mobile ADD 5.A113  MOD 5.338A\*  RADIONAVIGATION | 24.25-24.45  FIXED  MOBILE ADD 5.A113  MOD 5.338A\*  RADIONAVIGATION |
| 24.45-24.65  FIXED  INTER-SATELLITE  MOBILE except aeronautical mobile ADD 5.A113 | 24.45-24.65  INTER-SATELLITE  MOBILE except aeronautical mobile ADD 5.A113  RADIONAVIGATION | 24.45-24.65  FIXED  INTER-SATELLITE  MOBILE ADD 5.A113  RADIONAVIGATION |
|  | 5.533 | 5.533 |
| 24.65-24.75  FIXED  FIXED-SATELLITE (Earth-to-space) 5.532B  INTER-SATELLITE  MOBILE except aeronautical mobile ADD 5.A113 | 24.65-24.75  INTER-SATELLITE  MOBILE except aeronautical mobile ADD 5.A113  RADIOLOCATION- SATELLITE (Earth-to-space) | 24.65-24.75  FIXED  FIXED-SATELLITE (Earth-to-space) 5.532B  INTER-SATELLITE  MOBILE ADD 5.A113 |
|  |  | 5.533 |

**Reasons:** The identification of the band 24.25-27.5 GHz to IMT will help satisfy the need for additional spectrum in the bands above 24 GHz. Protection of passive services in 23.6-24 GHz is addressed through the modification of No. 5.338A.

MOD PAK/260/3#49834

24.75-29.9 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 24.75-25.25  FIXED  FIXED-SATELLITE (Earth-to-space) 5.532B  MOBILE except aeronautical mobileADD 5.A113 | 24.75-25.25  FIXED-SATELLITE (Earth-to-space) 5.535  MOBILE except aeronautical mobileADD 5.A113 | 24.75-25.25  FIXED  FIXED-SATELLITE (Earth-to-space) 5.535  MOBILEADD 5.A113 |
| 25.25-25.5 FIXED  INTER-SATELLITE 5.536  MOBILEADD 5.A113  Standard frequency and time signal-satellite (Earth-to-space) | | |
| 25.5-27EARTH EXPLORATION-SATELLITE (space-to Earth) MOD 5.536B \*\*  FIXED  INTER-SATELLITE 5.536  MOBILEADD 5.A113  SPACE RESEARCH (space-to-Earth) 5.536C  Standard frequency and time signal-satellite (Earth-to-space)  5.536A | | |
| 27-27.5  FIXED  INTER-SATELLITE 5.536  MOBILE ADD 5.A113 | 27-27.5  FIXED  FIXED-SATELLITE (Earth-to-space)  INTER-SATELLITE 5.536 5.537  MOBILE ADD 5.A113 | |

**Reasons:** The identification of the band 24.25-27.5 GHz to IMT will help satisfy the need for additional spectrum in the bands above 24 GHz.

ADD PAK/260/4#49835

5.A113The frequency band 24.25-27.5 GHz is identified for use by administrations wishing to implement the terrestrial component of International Mobile Telecommunications (IMT). This identification does not preclude the use of this frequency band by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. Resolution **750 (Rev.WRC‑19)** applies.     (WRC‑19)

**Reasons:** The identification of the band 24.25-27.5 GHz to IMT will help satisfy the need for additional spectrum in the bands above 24 GHz.

MOD PAK/260/5

RESOLUTION 750 (Rev.WRC‑19)

Compatibility between the Earth exploration-satellite service (passive) and relevant active services

The World Radiocommunication Conference (Sharm el-Sheikh, 2019),

…

resolves

1 that unwanted emissions of stations brought into use in the frequency bands and services listed in Table 1‑1 below shall not exceed the corresponding limits in that table, subject to the specified conditions;

…

TABLE 1-1

|  |  |  |  |
| --- | --- | --- | --- |
| **EESS (passive) band** | **Active service band** | **Active service** | **Limits of unwanted emission power from active service stations in a specified bandwidth within the EESS (passive) band1** |
| … | … | … | … |
| 23.6-24 GHz | 24.25-27.5 GHz | Mobile | For IMT-2020 BS: −32 dB(W/200 MHz)  For IMT-2020 UE: −28 dB(W/200 MHz) |
| … | … | … | … |

**Reasons:** The identification of the band 24.25-27.5 GHz to IMT will require limits in Resolution **750 (Rev. WRC-15)** to ensure near adjacent band compatibility with EESS (passive) in the band 23.6-24.0 GHz.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_