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| Plenary |  |
| 47th Meeting |  |
| Lisbon, 27 February - 2 March 2018 |  |
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| Date issued:  | 22 February 2018 |
| Source:  | Russian Federation |
| Subject:  | Technical conditions in Draft ECC Decision for 24.25-27.5 GHz |
| NGroup membership required to read? (Y/N) |
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| Summary:  |
| This contribution provides proposals for the Draft ECC Decision on Harmonised technical conditions for Mobile/Fixed Communications Networks (MFCN) in the band 24.25-27.5 GHz 24.25-27.5 GHz, which was submitted by ECC PT1 to the 47th ECC plenary meeting for consideration.  |
| Proposals:  |
| 1. Unwanted emissions total radiated power within 23.6-24 GHz passive band should not exceed -48 dBW/200 MHz for BS and -44 dBW/200 MHz for UT (based on worst-case result of ITU-R compatibility studies for sensor F6, similar sensor is being operated onboard Meteor-M satellites).
2. Guard band of 1.5-2.5 GHz to be introduced between 23.6-24 GHz passive band and frequency arrangements of MFCN. LS from 3GPP RAN4 clearly stated that a guard band of 1-1.5 GHz band would be required to meet -37 dBW/200 MHz unwanted emissions limit, which is insufficient to protect passive sensors. In the absence of any evidence like measurements of unwanted emissions and performance of AAS antennas in the out-of-band domain and absence of existing equipment, operating below 26.5 GHz band, it is a safe assumption to guarantee protection of passive services introducing a guard band of 1.5-2.5 GHz in addition to unwanted emission limits. Cpecific value for the guard band could be clarified during public consultations based on the additional information on application of possible techniques to suppress unwanted emissions, accompanied with results of modelling and measuring of unwanted emissions in the 23.6-24 GHz band.
3. Eirp mask in the upper hemisphere should be applied for BS to guarantee long-term protection of ISS and FSS services. This mask is based on envelope of 64 and 256 element AAS gain patterns, as specified in Recommendation ITU-R M.2101, maximum etilt angle of 10 degrees and peak eirp of BS limited to 60 dBm/200 MHz. This mask is applicable for elevation angles between 5 and 90 degrees. Analytical expression for that mask is 51-13\*log(Θ/5) dBm/200 MHz, where Θ is elevation angle. For comparison reasons, this mask is provided in Annex 1.
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