3GPP TSG-RAN WG4 Meeting #114bis Rev R4-2503948

**Wuhan, Hubei, China, 07th – 11th April, 2025**

**Source:** Ericsson, Nokia

**Title:** EESS protection - TP to TR 38749 - BS updates

**Agenda item:** 6.17.3

**Document for:** Approval

# Introduction

This contribution is a text proposal to fix mistakes and further clarified the BS section in TR 38.749 on Protection of Earth Exploration Satellite Service (EESS) for the BS subclause.

# Conclusion

**Proposal: Approve the TP as proposed in Annex.**

*<Start of the change>*

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] ITU-R Radio Regulations, 2020 Edition

[3] EU Decision 2019/784, Commission Implementing Decision (EU) 2019/784 of 14 May 2019 on harmonisation of the 24,25-27,5 GHz frequency band for terrestrial systems capable of providing wireless broadband electronic communications services in the Union.

[4] EU Decision 2020/590, Commission Implementing Decision (EU) 2020/590 of 24 April 2020 amending Decision (EU) 2019/784 as regards an update of relevant technical conditions applicable to the 24,25-27,5 GHz frequency band.

[5] ECC(20) 055 Annex 18, CEPT letter dated 6 March 2020 ‘CEPT response on additional input regarding the impact of the WRC-19 outcome on the harmonised technical conditions for the 26 GHz band’

[6] ECC Decision(18)06, Harmonised technical conditions for Mobile/Fixed Communications Networks (MFCN) in the band 24.25- 27.5 GHz, Approved 06 July 2019, last amended 20 November 2020.

[7] R4-2417982, Discussion on Rel-19 EESS, Huawei, Hisilicon, RAN4#113

[8] R4-2415726, 24 GHz EESS band phase 2 requirements and UE compliance, Qualcomm Incorporated, RAN4#112bis

[9] R4-2415329, Initial considerations on EESS protection requirements, Apple, RAN4#112bis

[10] R4-2416065, mmWave UE spurious emission UE RF, Nokia, RAN4#112bis[11] 3GPP TS 38.104: “NR; Base Station (BS) radio transmission and reception”.[12] 3GPP TS 38.141-2: "NR; Base Station (BS) conformance testing; Part 2: Radiated conformance testing".

*<End of the change>*

*<Start of the change>*

# 9 BS RF requirements

## 9.1 Background

The Earth Exploration Satellite Service (EESS) protection requirements in the frequency range 23.6-24.0 GHz (as per WRC-19 Radio Regulations Resolution 750 [2] and EU Decision 2020/590 [4]) were specified via additional OTA OBUE requirements and additional OTA spurious emission requirements in the BS specifications.

Additional OTA OBUE requirements and additional OTA spurious emission requirements were previously considering the ITU-R applicability date of 1 September 2027) .

As mentioned in clause 6.2, the ECC Decision(18)06 amended on 20 November 2020 [6] and the EU Decision 2019/784 [3] amended with the Commission Implementing Decision 2020/590 [4] specified the same sets of unwanted emission limits but with a different transition date (i.e., 1 January 2024 instead of 1 September 2027) for European Union and other CEPT countries.

## 9.2 BS RF impacts

Within this WI, to address the Regulation issues mentioned above, the BS additional OTA OBUE limits (sub-clause 9.7.4.3.4.1) and additional OTA transmitter spurious emissions requirements (sub-clause 9.7.5.3.3.1) for protection of EESS were updated:

- The Note 1 (Table 9.7.4.3.4.1-1 and Table 9.7.5.3.4.1-1), clarifies the limit pointed by this note (-3dBm/200MHz) is applicable “in countries not adopting EU Decision 2020/590 [4]”

- The Note 2 (Table 9.7.4.3.4.1-1 and Table 9.7.5.3.4.1-1) clarifies that the limit pointed by this note (-9dBm/200MHz) is also applicable to “BS in countries adopting EU Decision 2020/590 [4]”.

New BS/IAB/Repeater requirements apply in the earliest releases of the respective specifications, from Rel-15 onwards.*<End of the change>*