3GPP TSG-RAN WG4 Meeting # 100-e DRAFT R4-2115637

Electronic Meeting, August 16-27, 2021

**Source:** Huawei

**Title:** WF on BS RF requirements for RMR900 and RMR1900

**Agenda Item:** 8.4.3, 8.5.3

**Document for:** Approval

# Introduction

Contributions treating on BS RF requirements for RMR were submitted to the RAN4#100-e meeting in [2-5]. Those were discussed during in [100-e][317] RAIL\_900\_1900MHz\_BSRF topic in [1].

# Way forward

The following WF related to both RMR900 and RMR1900, unless otherwise stated.

Based on the discussion in [1], the following Way Forward highlighted in green is proposed for **approval** (other non-highlighted bullets are captured as topic suggestions for future discussion, only):

**1. Way Forward 1 (Sub topic 1-1: EIRP requirements conversion to conducted requirements)**:

For the next meeting, provided pros and cons analyses for the following options for the EIRP‑based ECC requirements conversion to conducted requirements:

1. Manufacturer declaration based approach,
2. Fixed antenna gain approach.

Other options are not precluded for the analysis next meeting

**Way Forward 2 (Sub topic 1-2 and 3-2: BS rated output power)**:

Continue the discussion next meeting, including considerations of the following items:

- ECC rated power limit translation (based on table 3 of ECC Decision (20)02 for RMR900, and based on table 9 of ECC Decision (20)02 for RMR1900),

- Manufacturer declarations of the rated output power (BS product capability).

**Way Forward 3 (Sub topic 1-3: OBUE category B option 2 requirement)**:

Continue the discussion next meeting, including considerations of the following items:

- General OBUE Cat B option 2 requirements,

- Potential need to consider RMR-specific requirements (based on table 5 of ECC Decision (20)02 for RMR900),

**Way Forward 4 (Sub topic 1-4 and 3-3: Additional spurious limit requirements):**

Continue the discussion next meeting, including considerations of the following items:

- Potential need to consider RMR-specific requirements (based on table 6 of ECC Decision (20)02 for RMR900, and based on table 10 of ECC Decision (20)02 for RMR1900),

- Investigate the resulting/expected levels and their validity compared to the general spurious emission limits.

**Way Forward 5 (Sub topic 2-1: additional BS blocking requirement):**

Continue the discussion next meeting, including considerations of the following items (based on table 7 of ECC Decision (20)02):

- provide analysis of the signal levels specifics, including consideration of the mean (3gpp spec) vs. max (ECC recommendation) levels.

**Way Forward 6** (**Sub-topic 4-2: consideration of BS enhanced selectivity for band n1):**

RAN4 will not specify any requirement to capture the BS enhanced selectivity (band n1) assumption. A note should be added in TS 38.104 and/or in 1900MHz band TR to highlight this.

**Way Forward 7 (Sub-topic 5-3: consideration of RMR co-location with MFCN BSs)**:

In principle, RMR BSs are not expected to be co-located with MFCN BSs. Nevertheless, in a coordinated approach co-location is of interest and need to be considered in 3GPP spec.

# References

1. R4-2115790 Email discussion summary for [100-e][317] RAIL\_900\_1900MHz\_BSRF, Moderator (Huawei)
2. R4-2113749 RMR 900 MHz - BS RF, Ericsson
3. R4-2113752 RMR 1900 MHz - BS RF, Ericsson
4. R4-2114368 On 900MHz RMR RAN4 BS RF requirements impact due to ECC Decision (20), Nokia, Nokia Shanghai Bell
5. R4-2114371 On 1900MHz RMR RAN4 BS RF requirements impact due to ECC Decision (20), Nokia, Nokia Shanghai Bell