**3GPP TSG-RAN WG4 Meeting #100-e *R4-2120661***

**Electronic Meeting, 16 – 27 August, 2021**

**Title: LS on work towards two new recommendations "Generic unwanted emission characteristics of base / mobile stations using the terrestrial radio interfaces of IMT-2020"§**

**Response to: LS R4-2119596 from ITU-R Working Party 5D on work towards two new recommendations "Generic unwanted emission characteristics of base / mobile stations using the terrestrial radio interfaces of IMT-2020"**

**Release: -**

**Work Item: -**

**Source: RAN WG4**

**To: TSG RAN**

**Cc: RAN WG5**

**Contact person: Johan Sköld**

**Send any reply LS to: 3GPP Liaisons Coordinator,** **mailto:3GPPLiaison@etsi.org**

**Attachments: -**

# 1 Overall description

In the LS from ITU-R WP5D in R4-2119596, the group informs about the creation of two new recommendations for Generic unwanted emission characteristics and *“kindly invite the Proponents of IMT-2020 to provide relevant materials for these new Recommendations consistent with the Recommendation ITU-R M.2150.”,* including *“Generic unwanted emission characteristics of base stations using the terrestrial radio interfaces of IMT-2020 including information on the requirement reference point (e.g. power at antenna connector or TRP)”*. TSG RAN has tasked RAN4 and RAN5 to respond on the updates. This response concerns the BS part.

Recommendation ITU-R M.2150 is based on information from 3GPP 38- and 37-series specifications dated 2020-07, both for Release 15 and 16. Since NR specifications have a higher complexity than LTE specifications, it is expected that the new Generic unwanted emissions recommendations will also be of higher complexity:

* Recommendation ITU-R M.2150 contain both NR BS specifications (38-series) and MSR BS specifications (37-series). It will have to be investigated to what extent MSR BS needs to be reflected in the new recommendation, considering that those BS requirements are already reflected in Recommendation ITU-R M.2070.
* There will be added complexity from the multiple types of NR BS in two Frequency Ranges: BS type 1-C, BS type 1-H, BS Type 1-O and BS type 2-O. Requirements are expressed differently for different types and the limits vary with the frequency ranges.
* The NR BS specification covers operation in a total of 53 bands in FR1 and FR2, where some unwanted emissions requirements are band specific.

The high complexity means that providing the relevant materials for the new recommendations will take some time. It will not be possible to respond at the 40th meeting of WP 5D (7-23 February 2022). RAN WG4 expects a response to be available in time for the 41st meeting of WP 5D, presently scheduled for 13-24 June 2022 and with a contribution deadline on **6 June 2022**.

RAN WG4 will also consider different possibilities for how to respond. A possible simplified approach to the LS response could be that 3GPP submits a list of references to 3GPP specifications instead of complete text for the recommendation.

# 2 Actions

**To TSG RAN**

**ACTION:** 1. RAN WG4 asks TSG RAN to take the above information for ITU-R M.2070 into account when drafting an LS response to ITU‑R WP5D.

 2. RAN WG4 asks TSG RAN to consider the proposed time plan for responding by WP5D #41 in June and to inform RAN WG4 about when a response needs to be finalized, in order to respond to WP5D by the submission deadline on 6 June 2022.

# 3 Dates of next TSG RAN WG4 meetings

TSG-RAN4 Meeting #101-bis-e 17 – 25 January, 2022 Online

TSG-RAN4 Meeting #102-e 21 February –3 March, 2022 Online

TSG-RAN4 Meeting #103-e 16 – 27 May, 2022 Online