3GPP TSG-RAN WG4 Meeting # 102-e R4-2207188

Electronic Meeting, February 21 – March 3, 2022

**Source:** ZTE Corporation

**Title:** WF on MU value for the radiated emission measurements

**Agenda Item:** 4.1.5

**Document for:** Approval

# Background

In this meeting, some MU issues for NR BS EMC requirements were raised in [1]. However, in terms of the 1st round email discussion in [2], several issues are needed more discussion.

Based on the 1st round discussion, the following was captured in the summary [2]:

|  |  |
| --- | --- |
|  | **Status summary** |
| **Issue 1-1: Does it need to extend the highest test frequency of NR BS EMC radiated spurious emission for band n46 and n96 to 26 GHz to align with TS38.104?** | *No objections.*  *Tentative agreements:*  *-* Extend the highest test frequency of NR BS EMC radiated spurious emission for band n46 and n96 to 26 GHz to align with TS38.104  *Candidate options:*  *Recommendations for 2nd round:*  *- Include the above tentatinve agreements in the WF.* |
| **Issue 1-2: If the answer for issue 2-1 is Yes, can we agree 6dB as the MU value between 12.75GHz and 26 GHz for BS EMC?** | *Companies need more time to check, and one company propose to* *keep it open until next meeting and in case of no further inputs, use those proposed values by default in May meeting.*  *Since this issue have been discussed for several meeting, and it is for maintainance, moderator recommend companie can provide analysises in next meeting, and if there were no further analysises provided by other companies in next meeting, then the 6dB(EUT size*≤ *1m) and 9dB(EUT size > 1m) are recommended to be agreed as the MU value between 12.75GHz and 26 GHz for BS EMC*  *Tentative agreements:*  *Candidate options:*  *Recommendations for 2nd round:*  *- Focus on WF.* |

In this way forward, it is next steps on how to calculate and specify NR BS EMC measurement uncertainty are proposed.

# Way forward

## 2.1 WF on extend the highest test frequency of BS EMC radiated spurious emission

* Extend the highest test frequency of NR BS EMC radiated spurious emission for band n46 and n96 to 26 GHz to align with TS38.104

## 2.2 WF on MU value between 12.75 GHz and 26 GHz for BS EMC

* FFS on the MU value between 12.75GHz and 26GHz for BS EMC. Encourage companies provide analyses in next meeting

*Note 1: Considering it is for TEI and missing the MU value larger than 12.75GHz in Rel-15, it is important to define this value as soon as possible. It was already discussed for several meetings without agreement due to lack of analyses from other companies.*

*Note 2: If there are no further analyses provided by other companies in next meeting, then the value highlighted in yellow as below table would be recommended to be agreed as the MU value between 12.75 GHz and 26 GHz for BS EMC.*

|  |  |  |
| --- | --- | --- |
| *Parameter* | *Uncertainty for EUT dimension ≤ 1 m*  *(NOTE 1)* | *Uncertainty for EUT dimension >1 m*  *(NOTE 1)* |
| *Effective radiated RF power between 30 MHz and 180 MHz* | *±6 dB* | *±6 dB* |
| *Effective radiated RF power between 180 MHz and 4 GHz* | *±4 dB* | *±6 dB* |
| *Effective radiated RF power between 4 GHz and 12,75 GHz* | *±6 dB* | *±9 dB (NOTE 2)* |
| *Effective radiated RF power between 12,75 GHz and 26 GHz* | *±6 dB* | *±9 dB (NOTE 2)* |
| *Field strength between 30 MHz and 12,75 GHz* | *±6 dB* | *±6 dB* |
| *Field strength between 12,75 GHz and 26 GHz* | *±6 dB* | *±6 dB* |
| *NOTE 1: These MU values estimates and are not based on the MU budget calculations. For more background on MU derivation analyses refer to CISPR 16-4-2 [31] and ETSI TR 100 028-1 [32].*  *NOTE 2: This value may be reduced to ±6 dB when further information on the potential radiation characteristic of the EUT is available.* | | |

# References

[1] R4-2204429 [NR EMC] Further discussion on highest frequency and measurement uncertainty for NR BS radiated emission test, ZTE Corporation

[2] R4-22xxxxx, Summary for [303] after 1st round, ZTE Corporation