**3GPP TSG-RAN WG4 Meeting # 104-e R4-22xxxxx**

**Electronic Meeting, August 15-26, 2022**

**Agenda item:** 9.5.4

**Source:** ZTE Corporation

**Title:** WF on performance criteria and test arrangement of repeater EMC

**Document for:** Approval

# Background

This WF captures any agreements and open issues in the [104-e][303] NR\_EMC e-mail discussion summary for NR repeater EMC at the RAN4 #104-e meeting.

*Issue 2-1 Which candidate criteria for performance assessment should be adopted for NR Repeater EMC testing?*

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| *Company* | *Comments* |
| *Qualcomm* | *Option 1 has its merit that it follows EUTRA but RAN4 needs to ensure that the testability using the gain is feasible as motivated by ZTE for their option 2. If not feasible, option 2 should be adopted.* |
| *Nokia* | *Preferred Option 2 as a starting point, which is aligned with RF sessions.*  *For Option 1, TRP is needed to compute gain.* |
| *Huawei* | *Similar as above, we are still lacking confidence in the selection of either of them. We would like to understand better how the NR repeater differs from EUTRA repeater in that respect. Reuse of EUTRA approach for 1-C would be straightforward, but have we already agreed to use the same metric for 1-C and 2-O?*  *More discussion needed.* |

*Issue 2-2: Whether or not monitor UL and DL performance for TDD NR repeater together?*

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| *Company* | *Comments* |
| *Qualcomm* | *Ok with option 1.* |
| *Nokia* | *A question for clarification: Does Option 1 apply to Type 1-C and 2-O repeaters?* |
| *Huawei* | *Related RF session decision may not necessarily be equally applicable to the EMC testing. RF testing aims to verify RF chains performance. EMC testing has different goals. Furthermore, analysis of the EMC testing aspects requires more time.*  *All in all: we would like to have more time for analysis of such single link testing applicability for EMC, e.g. RF decision reuse to be confirmed by next meeting.* |

# Way forward

The agreements for the following open issues are as follows:

*Issue 2-1 Which candidate criteria for performance assessment should be adopted for NR Repeater EMC testing?*

*Option 1: Gain;*

*Option 2: Power accuracy;*

* **Agreement 1: The performance assessment of NR repeater EMC should be chosen from gain or power accuracy. While the choice of it is still under study. Companies are encouraged to further check the testability of gain and the difference between EUTRA repeater and NR repeater.**

*Issue 2-2: Whether or not monitor UL and DL performance for TDD NR repeater together?*

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| **Company** | **Comments** |
| Nokia | *Issue 2-1 Which candidate criteria for performance assessment should be adopted for NR Repeater EMC testing?*  The proposed agreement is fine. From our understanding, no EUTRA repeaters correspond to Type 2-O repeaters.  *Issue 2-2: Whether or not monitor UL and DL performance for TDD NR repeater together?*  FFS. |
| Company B |  |
| Company C |  |

* **Agreement 2:** Wait for the discussion above.

# Reference

[1] draft R4-2214163\_Summary for [303]\_for1st round, RAN4#104-e