**3GPP TSG-RAN WG4 Meeting #106-bis-eR4-xxxx**

**Electronic Meeting, April 17 – 26, 2023**

**Title: Reply LS on FR2 RLM/BFD and beam sweeping from multiple directions**

**Response to: R5-231830**

**Release: Rel-15**

**Work Item: TEI15\_Test, 5GS\_NR\_LTE-UEConTest**

**Source: RAN4**

**To: RAN5**

**Cc: -**

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

**Attachments: -**

# 1 Overall description

RAN4 appreciates the observations on FR2 RLM and BFD test cases explained in the LS R5-231830. The RLM test cases adopted AoA setup 3 to incorporate UE Rx beam tracking towards two AoAs, which is considered one of the key enablers for FR2 NR operation. RAN4 agrees with the RAN5 assessment that the purpose of AoA setup 3 may not be fully achieved with the current test configurations. It is also RAN4 consensus that it is sufficient to have one test case which can reflect the UE Rx beam tracking aspect. With this consensus, RAN4 reached the following agreement in RAN4 #106-bis-e meeting:

***Agreements:***

* **RAN4 is to swap the SNR levels of SSB#0 and SSB#1 in T4 and T5 for RLM INS**
* **RLM OOS test cases are not changed**

Accordingly, RAN4 answers the questions asked in the LS R5-231830.

Q1: Can RLM FR2 test cases be revised to address the lack of testing coverage identified in this paper, (e.g. by changing the test parameters)?

A1: FR2 RLM In-syn test cases (A.5.5.1.2 and A.5.5.1.6, A.7.5.1.2 and A.7.5.1.6) will be revised such that SNR levels, in T4 an T5, of the configured two RLM resources are swapped in respective test cases.

Q2: Would BFD test cases /test definition ensure UE beam sweeping testing from different AoAs?

A2: As BFD test cases are defined based on AoA setup 1, the test case do not ensure UE beam sweeping ability and performance.

### 2 Actions

**To RAN2**

**ACTION:**

RAN4 kindly asks RAN2 to take RAN4 feedback provided above into account.

### 3 Dates of next TSG RAN4 meetings

RAN WG4 Meeting #107 May 22 – May 26, 2023 Incheon, Korea

RAN WG4 Meeting #108 Aug 21 – Aug 25, 2023 Toulouse, France