**3GPP TSG-RAN WG2 Meeting #128 [draft] R2-2410947**

Orlando, USA, 18th - 22nd November 2024

Title: [Draft] LS on LTM UE capabilities for cross-band operation

Response to: -

Release: Release 18

Work Item: NR\_Mob\_enh2-Core

Source: Qualcomm [To be RAN2]

To: RAN1

Cc:

**Contact Person:**

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Attachments: -

**1. Overall Description:**

RAN2 discussed the potential confusion on configuration based on per band LTM UE capabilities for cross-band LTM switch operation. For some per band UE capabilities, the UE can indicate supported value of the parameter differently for different band (including FR1 and FR2).

For example, in ue-TA-Measurement-r18, the UE can report different values of maximum number of candidate cells that the UE maintains the TA for. All the candidate cells may belong to the target band. In this case, it is not clear whether the configuration of maximum number of candidate cells is based on source band or target band when LTM switch operation is performed between source band and target band.

Below is list of capabilities where such potential confusion could exist.

* ue-TA-Measurement-r18
* ltm-BeamIndicationJointTCI-r18
* ltm-BeamIndicationSeparateTCI-r18
* rach-EarlyTA-Measurement-r18
* ltm-MAC-CE-JointTCI-r18
* ltm-MAC-CE-SeparateTCI-r18

RAN2 would like to ask whether the capabilities associated source band or target band are considered for cross-band LTM switch operation.

**2. Actions:**

**To** **RAN1**

**ACTION:**  RAN2 kindly asks RAN1 to provide feedback on the above question.

**3. Date of Next RAN2 Meetings:**

TSG-RAN WG2#129 2025-02-17 to 2025-02-21 Athens, GR

TSG-RAN WG2#129bis 2025-04-07 to 2025-04-11 China