**3GPP TSG-RAN WG2 Meeting #128 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:**

Name: Bharat Shrestha

E-mail Address: bshresth@iqti.qualcomm.com

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

Attachments: -

**1. Overall Description:**

RAN2 discussed the potential confusion on configuration based on per band LTM UE capabilities for cross-band LTM switch operation. It remains unclear whether the band indicated for a capability refers to the source band or the target band.

Even for some per-band LTM 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*, it is not clear whether the configuration of maximum number of candidate cells is based on the 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
* ta-IndicationCellSwitch-r18

RAN2 would like to ask whether the per band reporting granularity of the above capabilities should refer to the source band or the target band.

**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