**3GPP TSG-RAN4 Meeting #112R4-2413437**

Maastricht, NL, Aug. 19 – Aug. 23, 2024

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** | **4949** | **rev** | **-** | **Current version:** |  |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network |  |

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|  | | | | | | | | | | |
| ***Title:*** | CR to 38.133 on LTM test case maintenance | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_Mob\_enh2-Perf | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***Release:*** | | | Rel-18 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)*  *Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Maintenance on LTM requirements | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Maintenance of LTM requirements | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Corresponding RRM requirement will be incorrect. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | A.3.16B.2, 10.1.19D.1.2, 10.1.19E.1.2, 10.1.20A.1.2, 10.1.20B.1.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | | **X** |  | Test specifications | | | | TS38.533 | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

Start of Change 1

### A.3.16B.2 LTM candidate DLorJoint TCI states

Table A.3.16B.2-1: LTM candidate DLorJoint TCI States

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameter | Candidate DLorJoint TCI.State.0 | Candidate DLorJoint TCI.State.1 | Candidate DLorJoint TCI.State.2 | Candidate DLorJoint TCI.State.3 |
| Candidatetci-StateId | Id0 | Id1 | Id2 | Id3 |
| qcl-Type1 | typeA | typeA | typeA | typeA |
| referenceSignal of qcl-Type 1 Note2 | SSB0 | Resource #4 in TRS resource set 1 Note3 | SSB0 | Resource #4 in TRS resource set 1 Note3 |
| qcl-Type2Note1 | typeD | typeD | typeD | typeD |
| referenceSignal of qcl-Type2 Note2 | SSB0 | Resource #4 in TRS resource set 1 Note3 | SSB0 | Resource #4 in TRS resource set 1 Note3 |
| pathlossReferenceRS | SSB0 | SSB0 | N/A | N/A |
| additionalPCI | N/A | N/A | N/A | N/A |
| Note 1: qcl-Type2 of typeD only where applicable. For RRM test cases, this will be only in FR2  Note 2: referenceSignal configurations towards which the TCI states are configured are defined in a test-specific manner.  Note 3: Reference TRS resource sets are defined in A.3.17, and the applicable TRS resource set(s) are specified in each test case. When a single TRS resource set is configured for a candidate cell in a test case, it is considered as resource set 1. The TCI state of the TRS is the CandidateDLorJoint TCI.State.2. | | | | |

End of Change 1

Start of Change 2

…Unchanged text omitted...

##### 10.1.19D.1.2 Relative Accuracy

The relative accuracy of SSB based L1-RSRP is defined as the L1-RSRP measured on one SSB compared to the largest measured value of L1-RSRP among the SSBs configured in LTM CSI config for the cell(s) on the same frequency in FR1.The accuracy requirements in Table 10.1.19D.1.2-1 are valid under the following conditions:

- Conditions defined in clause 7.3 of TS 38.101-1 [18] for reference sensitivity are fulfilled.

- Conditions for L1-RSRP measurements are fulfilled according to Annex B.2.4.1 for a corresponding Band for each relevant SSB.

…Unchanged text omitted...

##### 10.1.19E.1.2 Relative Accuracy

The relative accuracy of SSB based L1-RSRP is defined as the L1-RSRP measured on one SSB configured for LTM CSI config on one cell on a frequency in FR1 compared to the largest measured value of L1-RSRP among all the SSBs configured for LTM CSI config on any other cell on another frequency in FR1.

The accuracy requirements in Table 10.1.19E.1.2-1 are valid under the following conditions:

- Conditions defined in clause 7.3 of TS 38.101-1 [18] for reference sensitivity are fulfilled.

- Conditions for L1-RSRP measurements are fulfilled according to Annex B.2.4.1 for a corresponding Band for each relevant SSB.

- |SSB\_RP1dBm - SSB\_RP2dBm| ≤ 27 dB

- |Channel 1\_Io ‑Channel 2\_Io | ≤ 20 dB

End of Change 2

Start of Change 3

…Unchanged text omitted...

##### 10.1.20A.1.2 Relative Accuracy

The relative accuracy of SSB based L1-RSRP is defined as the L1-RSRP measured on one SSB compared to the largest measured value of L1-RSRP among all the SSBs configured for LTM CSI config onthe cell(s) on the same frequency in FR2.

The accuracy requirements in Table 10.1.20A.1.2-1 are valid under the following conditions:

- Conditions defined in clause 7.3 of TS 38.101-2 [19] for reference sensitivity are fulfilled.

- Conditions for L1-RSRP measurements are fulfilled according to Annex B.2.4.1 for a corresponding Band for each relevant SSB.

- The measured signals are in the directions covered by the percentile EIS spherical coverage of the UE, defined in clause 7.3.4 of TS 38.101-2 [19].

…Unchanged text omitted...

##### 10.1.20B.1.2 Relative Accuracy

The relative accuracy of SSB based L1-RSRP is defined as the L1-RSRP measured on one SSB configured for LTM CSI config on one cell on a frequency in FR2 compared to the largest measured value of L1-RSRP among all the SSBs configured for LTM CSI config on any other cell on another frequency in FR2.

The accuracy requirements in Table 10.1.20B.1.2-1 are valid under the following conditions:

- Conditions defined in clause 7.3 of TS 38.101-2 [19] for reference sensitivity are fulfilled.

- Conditions for L1-RSRP measurements are fulfilled according to Annex B.2.4.1 for a corresponding Band for each relevant SSB.

- |SSB\_RP1dBm - SSB\_RP2dBm| ≤ 27dB

- |Channel 1\_Io ‑Channel 2\_Io | ≤ 20 dB

- The measured signals are in the directions covered by the percentile EIS spherical coverage of the UE, defined in clause 7.3.4 of TS 38.101-2 [19].

End of Change 3