**3GPP TSG- Meeting #**

, Fukuoka, Japan, -

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** |  | **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 |  | Radio Access Network |  | Core Network |  |

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|  | | | | | | | | | | |
| ***Title:*** | [2-14] Draft CR on Measurement Accuracy for SL PRS-RSRPP | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** |  | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** |  | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***Release:*** | | |  |
|  | *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:*** | | Based on work split for Rel-18 positoning enhancements (R4-2406382), the accuracy requirements for SL PRS-RSRPP need to be introduced. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Introduce the accuracy requirements for SL PRS-RSRPP measurements. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The accuracy requirements for SL PRS-RSRPP will be imcompleted. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | (new)10.4A.5.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | | **X** |  | Test specifications | | | | TS 38.533 | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**------------ START OF CHANGE 1--------------**

#### 10.4A.5.2 SL PRS-RSRPP accuracy requirements

##### 10.4A.5.2.1 Introduction

The requirements in clause 10.4A.5.2 shall apply provided the UE has received *SL-TDOA-RequestLocationInformation* or *SL-AOA-RequestLocationInformation* or *SL-TOA-RequestLocationInformation* or *SL-RTT-RequestLocationInformation* from LMF or another UE via SLPP requesting the UE to measure and report SL PRS-RSRPP measurements defined in TS 38.215 [4].

The requirements in Clause 10.4A.5.2 apply for the first path SL PRSRSRPP measurement.

##### 10.4A.5.2.2 Measurement Accuracy Requirements

###### 10.4A.5.2.2.2 Absolute SL PRS-RSRPP accuracy

The absolute accuracy requirements for SL PRS-RSRPP measurement for FR1 defined in Table 10.4A.5.2.2.2-1 are valid under the following conditions:

- Conditions defined in 38.101-1 Clause 7.3E for reference sensitivity are fulfilled.

- PRP 1,2|dBm according to Annex B.4A.1 for a corresponding Band.

NOTE 1: The requriements in this clause are derived based on two-tap channel defined in 38.101-4 Annex B.2.4 (a = 1, τd=0.45 µs and fD=5 Hz).

NOTE 2: The requirements in this clause are derived based on the difference between the estimated SL PRSRSRPP compared to the ideal SL PRSRSRPP defined as

where:

is the effective channel frequency response (over REs occupied by SL-PRS) measured without receiver noise.

is the exact delay of the p-th path in the channel model.

Table 10.4A.5.2.2.2-1: SL PRS-RSRPP absolute accuracy for FR1

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Accuracy | | Conditions | | | | | | | |
| Normal condition | Extreme condition | SL-PRS Ês/Iot | SL-PRS BW Note 2 | Number of samples, S | Io Note 4 range | | | | |
| NR operating band groups Note 5 | Minimum Io Note 1  dBm / SCSPRS | | | Maximum Io |
| dB | dB | dB | PRB |  |  | dBm / SCSPRS | | | dBm/BWChannel |
| dBm/15kHz | dBm/30kHz | dBm/60kHz |
| TBD | TBD | ≥ -3 dB | 48 | ≥ 4 | NR\_TDD\_FR1\_B | -126.5 | -123.5 | -120.5 | -50 |
| NR\_TDD\_FR1\_J | -122.5 | -119.5 | -116.5 | -50 |
| TBD | TBD | > 48 | ≥ 1 | Note 3 | | | | |
| TBD | TBD | ≥ 96 | ≥ 1 | Note 3 | | | | |
| NOTE 1: This minimum Io condition is expressed as the average Io per RE over all REs in an OFDM symbol.  NOTE 2: SL-PRS bandwidth is as indicated in *sl-PRS-BW* in T 38.355 [37].  NOTE 3: The same bands and the same Io conditions for each band apply for this requirement as for the corresponding requirement with the SL-PRS bandwidth of the smallest PRB number for the corresponding SCS.  NOTE 4: The Io is defined in SL-PRS positioning slots. The same Io range applies to SL-PRS and non-SL-PRS symbols. Io levels are different in SL-PRS and non-SL-PRS symbols within the same slot.  NOTE 5: NR operating band groups are as defined in Section 3.5.2. | | | | | | | | | |



**------------ END OF CHANGE 1--------------**