**3GPP TSG-RAN4 Meeting #99-e *R4-2110880***

**Electronic Meeting, May 19–27, 2021**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.133** | **CR** | **2093** | **rev** | **-** | **Current version:** | **16.7.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **x** | Radio Access Network |  | Core Network |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | CR on CSSF and measurement capability for PRS measurement 38.133 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, HiSilicon | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_pos-Core | | | | |  | ***Date:*** | | | 2021-04-30 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | There are some remaining open issues in generic requirements for PRS measurements:  - applicability condition of measurement period requirements considering UE capability  - definition of PRS resource overlappign with MG | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Update the requirement applicability for above issues. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | requirement applicability for PRS measurement are incomplete. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 9.9.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **x** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **x** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **x** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

<Start of Change 1>

### 9.9.1 Introduction

This clause contains requirements for UE capable of performing NR positioning measurements defined in TS 38.215 [4], including RSTD, PRS-RSRP, UE Rx-Tx time difference, and NR E-CID measurements.

For RSTD, PRS-RSRP and UE Rx-Tx time difference measurements, the requirements in clauses 9.9.2, 9.9.3 and 9.9.4 apply provided:

- UE is configured with measurement gaps

- No active BWP switching occurs during the measurement gaps for PRS measurement, and

All measurement requirements specified in clause 9.9.2, 9.9.3 and 9.9.4 shall apply without DRX as well as for any DRX configuration specified in TS 38.331 [2].

UE is not required to perform additional SSB measurement for the SSB configured as QCL source of PRS resources.

UE is only required to measure PRS resources that are fully or partially overlapped with measurement gaps. A PRS resource is considered to be fully (partially) overlapped with measurement gaps if all (some) of its instances are overlapped with a measurement gap occasion. A PRS resource instance is considered to be overlapped with measurement gap occasion if the minimum number of repetitions of the instance is fully covered by the MGL excluding RF switching time, where the minimum number is given in the accuracy requirements in clause 10.1.23, 10.1.24 and 10.1.25 for RSTD, PRS-RSRP and UE Rx-Tx time difference, respectively.

Measurement requirements do not apply for a PRS resource if the minimum number of repetitions of a single resource instance

- is larger than UE capability N (*durationOfPRS-ProcessingSysmbols* in TS 37.355 [34]), or

- is larger than MGL, or

- is across one than one time duration of N within duration K (defined in clause 5.1.6.5 of TS 38.214 [26])

where the minimum number is given in the accuracy requirements in clause 10.1.23, 10.1.24 and 10.1.25 for RSTD, PRS-RSRP and UE Rx-Tx time difference, respectively.

When UE is configured measurement for more than one positioning requests, the measurement period for each requests can be longer than measurement period when UE is configured measurement for that single positioning request.

<End of Change 1>