**3GPP TSG-RAN4 Meeting #102-e *R4-2205384***

**Electronic Meeting, 21 February – 3 March, 2022**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **38.133** | **CR** | **-** | **rev** | **-** | **Current version:** | **17.4.0** |  |
|  |
| *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)*.* |
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| ***Proposed change affects:*** | UICC apps |  | ME | **x** | Radio Access Network |  | Core Network |  |

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|  |
| ***Title:***  | CR on general requirements for PRS measurements in RRC Inactive |
|  |  |
| ***Source to WG:*** | Huawei, HiSilicon |
| ***Source to TSG:*** | R4 |
|  |  |
| ***Work item code:*** | NR\_pos\_enh-Core |  | ***Date:*** | 2022-01-29 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-17 |
|  | *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 canbe 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:*** | Based on work split in WF R4-2202776, the general requirements and applicability for PRS measurement in RRC\_INACTIVE need to be defined. |
|  |  |
| ***Summary of change:*** | Define general requirements and applicability for PRS measurement in RRC\_INACTIVE. |
|  |  |
| ***Consequences if not approved:*** | The general requirements and applicability for PRS measurement in RRC\_INACTIVE are missing. |
|  |  |
| ***Clauses affected:*** | 5.5.1 (new) |
|  |  |
|  | **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>

5.5.1 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 PRS-RSRPP, in RRC\_INACTIVE state.

The requirements in clause 5.5.2, 5.5.3 5.5.4 and 5.5.5 are applicable to PRS resources that are not overlapped with other DL signals/channels.

- If a PRS resource is within the intitial DL BWP, the PRS resource overlap with other DL signals/channels when any other DL signals/channel occurs within the PRS resource.

- If a PRS resource is outside the intitial DL BWP, the PRS resource overlap with other DL signals/channels when any of the following conditions is met:

- any other DL signals/channel occurs within the PRS resource, or

- any other signals/channel occurs within X symbols before the PRS resource, or

- any other signals/channel occurs within X symbols after the PRS resource.

where X is defined in Table 5.5.1-1.

|  |  |  |  |
| --- | --- | --- | --- |
| **FR** |  | **NR Slot** **length (ms)** | **X** |
|  |  |
| FR1 | 0 | 1 | 7 |
| 1 | 0.5 | 14 |
| 2 | 0.25 | 28 |
| FR2 | 2 | 0.25 | 14 |
| 3 | 0.125 | 28 |
| Note 1: The FR1 value applies if one or both of the serving cell and the positioning frequency layer are in FR1. FR2 value applies both of the serving cell and the positioning frequency layer are in FR2. |

All measurement requirements specified in clause 5.5.2, 5.5.3 5.5.4 and 5.5.5 shall apply 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.

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

*Editor’s Note: FFS on the defnition of “PRS resource” for defining the collision between PRS resource and other DL signals/channels.*

<End of Change 1>