**3GPP TSG-RAN WG1 Meeting #103e *R1-200NNNN***

**e-Meeting, October 26 – November 13, 2020**

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| **DRAFT CHANGE REQUEST** |
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|  | **38.214** | **CR** |  | **rev** | **-** | **Current version:** | **16.3.0** |  |
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| *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 | **X** | Core Network |  |

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| ***Title:***  | Draft CR for correction on the QCL description between PRS and SSB |
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| ***Source to WG:*** | Moderator (Ericsson), OPPO, Huawei/HiSilicon |
| ***Source to TSG:*** |  |
|  |  |
| ***Work item code:*** | NR\_pos-Core |  | ***Date:*** | 2020-11-05 |
|  |  |  |  |  |
| ***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 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-12 (Release 12)**Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
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| ***Reason for change:*** |  In the PRS reception procedure in the QCL description for DL PRS, if the DL PRS is configured as both 'QCL-Type-C' and 'QCL-Type-D' with SS/PBCH Block, the SS/PBCH block should be the same one for both QCL types. However, the same value of SS/PBCH block index cannot ensure the same SSB/PBCH block since the SS/PBCH blocks from different cells may have the same SS/PBCH block index.  |
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| ***Summary of change:*** | To ensure both SSBs are the same, it is clarified that the SSB index is the same for both types of QCL, and that these index are from the same cell. Where the text affected by the CR, the -r16 suffix is removed if present. |
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| ***Consequences if not approved:*** | There is a risk that the QCL relation between SSB and PRS is incorrect.  |
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| ***Clauses affected:*** | 5.1.6.5 |
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|  | **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:*** |  |

---- Unchanged texts omitted ----

5.1.6.5 PRS reception procedure

---- Unchanged texts omitted ----

 A DL PRS resource is defined by:

*- dl-PRS-ResourceList-r16* determines the DL PRS resources that are contained within one DL PRS resource set.

*- nr-DL-PRS-ResourceId-r16* determines the DL PRS resource configuration identity. All DL PRS resource IDs are locally defined within a DL PRS resource set.

*- dl-PRS-SequenceId-r16* is used to initialize cinit value used in pseudo random generator [4, TS38.211, 7.4.1.7.2] for generation of DL PRS sequence for a given DL PRS resource.

*- dl-PRS-CombSizeN-and-ReOffset-r16* defines the starting RE offset of the first symbol within a DL PRS resource in frequency. The relative RE offsets of the remaining symbols within a DL PRS resource are defined based on the initial offset and the rule described in Clause 7.4.1.7.3 of [4, TS38.211].

*- dl-PRS-ResourceSlotOffset-r16* determines the starting slot of the DL PRS resource with respect to corresponding DL PRS resource set slot offset

*- dl-PRS-ResourceSymbolOffset-r16* determines the starting symbol of a slot configured with the DL PRS resource.

*- dl-PRS-NumSymbols-r16* defines the number of symbols of the DL PRS resource within a slot where the allowable values are given in Clause 7.4.1.7.1 of [4, TS38.211].

*- dl-PRS-QCL-Info-r16* defines any quasi-colocation information of the DL PRS resource with other reference signals. The DL PRS may be configured with QCL ‘typeD’ with a DL PRS from a serving cell or a non-serving cell, or with *rs-Type* to be ‘typeC’, ‘typeD’, or ‘typeC-plus-typeD’ with a SS/PBCH Block from a serving or non-serving cell.

---- Unchanged texts omitted ----