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| **3GPP TSG RAN WG1 Meeting #103-e R1-200xxxx****e-Meeting, 26th  October – 3rd November, 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **38.214** | **CR** | **0xxx** | **rev** | **-** | **Current version:** | **16.3.0** |  |
|  |
| *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 | **X** | Core Network |  |

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|  |
| ***Title:***  |  |
|  |  |
| ***Source to WG:*** | Moderator (CATT), MediaTek |
| ***Source to TSG:*** |  RAN WG1 |
|  |  |
| ***Work item code:*** | **NR\_UE\_pow\_sav\_CORE** |  | ***Date:*** | 2020-11-03 |
|  |  |  |  |  |
| ***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)* |
|  |  |
| ***Reason for change:*** | In Clause 5.2.1.5.1a, the *minimumSchedulingOffsetK0-r16* is configured for DL BWP and *minimumSchedulingOffsetK2-r16* is configured for UL BWP. In Clause 5.2.2.5, the interference measurement is not required if the UE is configured by higher layer parameter *ps-TransmitPeriodicL1-RSRP* *to* report L1-RSRP during the time duration indicated by *drx-onDurationTimer* outside DRX active time. |
| ***-*** |  |
| ***Summary of change:*** | Adding “*minimumSchedulingOffsetK2-r16* for UL BWP in Clause 5.2.1.5.1a Remove CSI-RS and CSI-IM occasions for interference measurements for L1-RSRP during the time indicated by *drx-onDurationTimer* in Clause 5.2.2.5 |
|  |  |
| ***Consequences if not approved:*** | This CR is to correct the CSI-RS timing for UL BWP and L1-RSRP measurements indicated by *drx-onDuratinTimer*  |
|  |  |
| ***Clauses affected:*** | 5.1.6.1.3 |
|  |  |
|  | **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:*** | Isolated impact analysis:Current specification of CSI-RS timing with minimum scheduling offset configured for cross-slot scheduling have one RRC parameter *minimumSchedulingOffsetK0-r16* for both DL and UL BWP, which is incorrect. Additional *minimumSchedulingOffsetK2-r16* is added for UL BWP. Current specification for L1-RSRP measurements indicated by *drx-onDurationTimer* include the CSI-RS and CSI-IM occasion for interference measurements, which are not required*.* The CR is to remove the unnecessary requirements for L1-RSRP when it indicated by *drx-onDurationTimer*. |
|  |  |
| ***This CR's revision history:*** | This is the first version for this CR. |

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##### 5.2.1.5.1a Aperiodic CSI Reporting/Aperiodic CSI-RS when the triggering PDCCH and the CSI-RS have different numerologies

<Unchanged parts are omitted>

Aperiodic CSI-RS timing:

- When the aperiodic CSI-RS is used with aperiodic CSI reporting, the CSI-RS triggering offset *X* is configured per resource set by the higher layer parameter *aperiodicTriggeringOffset* or *aperiodicTriggeringOffset-r16,* including the case that the UE is not configured with *minimumSchedulingOffsetK0-r16* for any DL BWP or *minimumSchedulingOffsetK2-r16* for anyUL BWP and all the associated trigger states do not have the higher layer parameter *qcl-Type* set to 'QCL-TypeD' in the corresponding TCI states. The CSI-RS triggering offset has the values of {0, 1, …, 31} slots when the µPDCCH < µCSIRS and {0, 1, 2, 3, 4, 5, 6, …, 15, 16, 24} when the µPDCCH > µCSIRS.. The aperiodic CSI-RS is transmitted in a slot , if UE is configured with ca-SlotOffset for at least one of the triggered and triggering cell, and *Ks* = , otherwise, and where

*- n* is the slot containing the triggering DCI, *X* is the CSI-RS triggering offset in the numerology of CSI-RS according to the higher layer parameter *aperiodicTriggeringOffset* or *aperiodicTriggeringOffset-r16*,

- $μ\_{CSIRS}$ and $μ\_{PDCCH}$ are the subcarrier spacing configurations for CSI-RS and PDCCH, respectively,

- $N\_{slot, offset, PDCCH}^{CA}$ and $μ\_{offset,PDCCH}$are the$ N\_{slot, offset}^{CA}$ and the, respectively, which are determined by higher-layer configured ca-SlotOffset for the cell receiving the PDCCH respectively, $N\_{slot, offset, CSIRS}^{CA} $and  $μ\_{offset,CSIRS}$ are the$ N\_{slot, offset}^{CA}$ and the, respectively, which are determined by higher-layer configured ca-SlotOffset for the cell transmitting the CSI-RS respectively, as defined in [4, TS 38.211] clause 4.5

<Unchanged parts are omitted>

#### 5.2.2.5 CSI reference resource definition

<Unchanged parts are omitted>

When DRX is configured, the UE reports a CSI report only if receiving at least one CSI-RS transmission occasion for channel measurement and CSI-RS and/or CSI-IM occasion for interference measurement in DRX Active Time no later than CSI reference resource and drops the report otherwise. When the UE is configured to monitor DCI format 2\_6 and if the UE configured by higher layer parameter *ps-TransmitOtherPeriodicCSI* to report CSI with the higher layer parameter *reportConfigType* set to 'periodic' and *reportQuantity* set to quantities other than 'cri-RSRP' and 'ssb-Index-RSRP' when *drx-onDurationTimer* is not started, the UE shall report CSI during the time duration indicated by *drx-onDurationTimer* also outside active time according to the procedure described in Clause 5.2.1.4 if receiving at least one CSI-RS transmission occasion for channel measurement and CSI-RS and/or CSI-IM occasion for interference measurement during the time duration indicated by drx-onDurationTimer outside DRX active time or in DRX Active Time no later than CSI reference resource and drops the report otherwise. When the UE is configured to monitor DCI format 2\_6 and if the UE configured by higher layer parameter *ps-TransmitPeriodicL1-RSRP* to report L1-RSRP with the higher layer parameter *reportConfigType* set to 'periodic' and *reportQuantity* set to 'cri-RSRP' or 'ssb-Index-RSRP' when *drx-onDurationTimer* is not started, the UE shall report L1-RSRP during the time duration indicated by *drx-onDurationTimer* also outside active time according to the procedure described in clause 5.2.1.4 and when reportQuantity set to 'cri-RSRP' if receiving at least one CSI-RS transmission occasion for channel measurement during the time duration indicated by drx-onDurationTimer outside DRX active time or in DRX Active Time no later than CSI reference resource and drops the report otherwise.

<Unchanged parts are omitted>