**3GPP TSG RAN WG1 #114** **R1-230xxxx**

**Toulouse, France, August 21st – 25th, 2023**

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| *CR-Form-v12.2* | | | | | | | | |
| **DRAFT CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.213** | **CR** |  | **rev** |  | **Current version:** | **17.6.0** |  |
|  | | | | | | | | |
| *For* [***HELP***](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:*** | Introduction of QCL-TypeD priorities for overlapping CORESETs in M-DCI/M-TRP operation [QCL-TypeD CORESET priority for M-TRP] | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Samsung | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI18 | | | | |  | ***Date:*** | | | 2023-09-01 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | B |  | | | | | ***Release:*** | | | Rel-18 |
|  | *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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Introduction of the Rel-17 QCL-TypeD prioritization rules for PDCCH receptions in overlapping CORESETs for M-DCI based M-TRP operation. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Introduce support of the Rel-17 QCL-TypeD prioritization rules for PDCCH receptions in overlapping CORESETs for M-DCI based M-TRP operation. | | | | | | | | |
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| ***Consequences if not approved:*** | | No support of the Rel-17 QCL-TypeD prioritization rules for PDCCH receptions in overlapping CORESETs for M-DCI based M-TRP operation. | | | | | | | | |
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| ***Clauses affected:*** | | 10.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **x** |  | Other core specifications | | | | TS 38.331 | | |
| ***affected:*** | |  | **x** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **x** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

## 10.1 UE procedure for determining physical downlink control channel assignment

\*\*\* Unchanged parts are omitted \*\*\*

If a UE

- is configured for single cell operation or for operation with carrier aggregation in a same frequency band, and

- monitors PDCCH candidates in overlapping PDCCH monitoring occasions in multiple CORESETs that have been configured with same or different *qcl-Type* set to 'typeD' properties on active DL BWP(s) of one or more cells

the UE monitors PDCCHs only in a CORESET, and in any other CORESET from the multiple CORESETs that have been configured with *qcl-Type* set to same 'typeD' properties as the CORESET, on the active DL BWP of a cell from the one or more cells

- the CORESET corresponds to the CSS set with the lowest index in the cell with the lowest index containing CSS, if any; otherwise, to the USS set with the lowest index in the cell with lowest index

- the lowest USS set index is determined over all USS sets with at least one PDCCH candidate in overlapping PDCCH monitoring occasions

If a UE

- is not provided *coresetPoolIndex* for first CORESETs, or is provided *coresetPoolIndex* with value 0 for first CORESETs, and

- is provided *coresetPoolIndex* with value 1 for second CORESETs, and

- is provided *twoQCLTypeDforMulti-DCI*

the UE applies the procedures in the above paragraph independently across the first CORESETs and the second CORESETs.

If a UE

- is configured for single cell operation or for operation with carrier aggregation in a same frequency band,

- monitors PDCCH candidates in overlapping PDCCH monitoring occasions in multiple CORESETs that have been configured with same or different *qcl-Type* set to 'typeD' properties on active DL BWP(s) of one or more cells, and

- is provided *twoQCLTypeDforPDCCHRepetition*

the UE monitors PDCCHs only in a first CORESET with *qcl-Type* set to first 'typeD' properties and, if any, in a second CORESET with *qcl-Type* set to second 'typeD' properties that are different than the first 'typeD' properties, and in any other CORESET from the multiple CORESETs with corresponding *qcl-Type* set to either the first 'typeD' properties or to the second 'typeD' properties

- the first CORESET corresponds to the CSS set with the lowest index in the cell with the lowest index containing CSS sets, if any; otherwise, to the USS set with the lowest index in the cell with lowest index

- excluding CSS sets and USS sets associated with CORESETs with *qcl-Type* set to first 'typeD' properties, the second CORESET corresponds to the CSS set with the lowest index in the cell with the lowest index containing CSS sets, if any; otherwise, to the USS set with the lowest index in the cell with lowest index, where the CSS set or the USS set includes *searchSpaceLinkingId* with same value as any CSS set or any USS set associated with CORESETs with *qcl-Type* set to first 'typeD' properties

- the lowest USS set index is determined over all USS sets with at least one PDCCH candidate in overlapping PDCCH monitoring occasions

\*\*\* Unchanged parts are omitted \*\*\*