**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 dynamic spectrum sharing (DSS) enhancements | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Samsung | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_DSS\_enh-Core | | | | |  | ***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 DSS enhancements in NR. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Enable reception of PDCCH candidates overlapping with LTE CRS REs. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | No support for reception of PDCCH candidates overlapping with LTE CRS REs. | | | | | | | | |
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| ***Clauses affected:*** | | 10 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

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

# 10 UE procedure for receiving control information

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

A UE is not required to monitor PDCCH candidates for a Type0/0A/0B/1/1A /2/2A -PDCCH CSS set when the active TCI state for a corresponding CORESET is not associated with *physCellId* in *ServingCellConfigCommon*.

If a UE monitors the PDCCH candidate for a Type0-PDCCH CSS set on the serving cell according to the procedure described in clause 13, the UE may assume that no SS/PBCH block is transmitted in REs used for monitoring the PDCCH candidate on the serving cell.

If at least one RE of a PDCCH candidate for a UE on the serving cell overlaps with at least one RE of *lte-CRS-ToMatchAround* or of *LTE-CRS-PatternList*, the UE

- is not required to monitor the PDCCH candidate if the UE is not provided *pdcchCandidateReception-WithCRSOverlap*,

- monitors the PDCCH candidate if the UE is provided *pdcchCandidateReception-WithCRSOverlap* and the UE indicates an associated capability corresponding to the configuration of *lte-CRS-ToMatchAround* or of *LTE-CRS-PatternList* [18, TS 38.306].

If a UE is provided *availableRB-SetsPerCell,* the UE is not required to monitor PDCCH candidates that overlap with any RB from RB sets that are indicated as unavailable for receptions by an available RB set indicator field in DCI format 2\_0 as described in clause 11.1.1. If the UE does not obtain the available RB set indicator for a symbol, the UE monitors PDCCH candidates on all RB sets in the symbol.

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

When *precoderGranularity* = *allContiguousRBs*, a UE does not expect

- to be configured a set of resource blocks of a CORESET that includes more than four sub-sets of resource blocks that are not contiguous in frequency

- any RE of a CORESET to overlap with any RE determined from

- *lte-CRS-ToMatchAround* or *LTE-CRS-PatternList* if the UE is not provided *pdcchCandidateReception-WithCRSOverlap* and the UE does not indicate an associated capability corresponding to the configuration of *lte-CRS-ToMatchAround* or of *LTE-CRS-PatternList*, or

- a SS/PBCH block.

If a UE is provided two TCI states indicating quasi co-location information of the DM-RS antenna port for PDCCH reception in a CORESET associated with a Type3-PDCCH CSS set, the UE may assume the quasi co-location information indicated in both of the two TCI states for the PDCCH reception in the CORESET.

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