**3GPP TSG RAN WG1 #118bisR1-xxxxx**

**Hefei, China, October 14 – 18, 2024**

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| *CR-Form-v12.2* | | | | | | | | |
| **DRAFT CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.211** | **CR** |  | **rev** | **-** | **Current version:** | **17.9.0** |  |
|  | | | | | | | | |
| *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:*** | Alignment of parameter names | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_SL\_enh-Core, NR\_MIMO\_evo\_DL\_UL-Core | | | | |  | ***Date:*** | | | 2024-10-18 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***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 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:*** | | * Incorrect description of S-SS/PBCH block (R1-2409198) * Incorrect value range for *dmrs-TypeA-Position* (R1-2408205) | | | | | | | | |
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| ***Summary of change:*** | | * Correction of block index description * Correction of the value range | | | | | | | | |
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| ***Consequences if not approved:*** | | * The antenna port description for DMRS associated with a PSBCH in TS 38.211 is unclear. * Misalignment between specifications | | | | | | | | |
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| ***Clauses affected:*** | | 7.3.2.2, 8.2.4 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

#### 7.3.2.2 Control-resource set (CORESET)

A control-resource set consists of resource blocks in the frequency domain and symbols in the time domain.

A control-channel element consists of 6 resource-element groups (REGs) where a resource-element group equals one resource block during one OFDM symbol. Resource-element groups within a control-resource set are numbered in increasing order in a time-first manner, starting with 0 for the first OFDM symbol and the lowest-numbered resource block in the control resource set.

A UE can be configured with multiple control-resource sets. Each control-resource set is associated with one CCE-to-REG mapping only.

The CCE-to-REG mapping for a control-resource set can be interleaved or non-interleaved and is described by REG bundles:

- REG bundle  is defined as REGs  where  is the REG bundle size, , and is the number of REGs in the CORESET

- CCE  consists of REG bundles  where  is an interleaver

For non-interleaved CCE-to-REG mapping, and .

For interleaved CCE-to-REG mapping, for and for . The interleaver is defined by

where .

The UE is not expected to handle configurations resulting in the quantity not being an integer.

For a CORESET configured by the *ControlResourceSet* IE:

- is given by the higher-layer parameter *frequencyDomainResources*;

- is given by the higher-layer parameter *duration*, where is supported only if the higher-layer parameter *dmrs-TypeA-Position* equals ’pos3’;

- interleaved or non-interleaved mapping is given by the higher-layer parameter *cce-REG-MappingType*;

- equals 6 for non-interleaved mapping and is given by the higher-layer parameter *reg-BundleSize* for interleaved mapping;

- is given by the higher-layer parameter *interleaverSize*;

- is given by the higher-layer parameter *shiftIndex* if provided, otherwise ;

- for both interleaved and non-interleaved mapping, the UE may assume

- the same precoding being used within a REG bundle if the higher-layer parameter *precoderGranularity* equals *sameAsREG-bundle*;

- the same precoding being used across the all resource-element groups within the set of contiguous resource blocks in the CORESET, and that no resource elements in the CORESET overlap with an SSB or LTE cell-specific reference signals as indicated by the higher-layer parameter *lte-CRS-ToMatchAround*, *lte-CRS-PatternList1*, or *lte-CRS-PatternList2*, if the higher-layer parameter *precoderGranularity* equals *allContiguousRBs*.

For CORESET 0 configured by the *ControlResourceSetZero* IE:

- and are defined by clause 13 of [5, TS 38.213];

- the UE may assume interleaved mapping

- ;

- ;

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- the UE may assume normal cyclic prefix when CORESET 0 is configured by MIB or SIB1;

- the UE may assume the same precoding being used within a REG bundle.

### 8.2.4 Antenna ports

An antenna port is defined in clause 4.4.1.

The following antenna ports are defined for the sidelink:

- Antenna ports starting with 1000 for PSSCH

- Antenna ports starting with 2000 for PSCCH

- Antenna ports starting with 3000 for CSI-RS

- Antenna ports starting with 4000 for S-SS/PSBCH

- Antenna ports starting with 5000 for PSFCH

For DM-RS associated with a PSBCH, the channel over which a PSBCH symbol on one antenna port is conveyed can be inferred from the channel over which a DM-RS symbol on the same antenna port is conveyed only if the two symbols are within a S-SS/PSBCH block transmitted within the same slot, and with the same block index.

For DM-RS associated with a PSSCH, the channel over which a PSSCH symbol on one antenna port is conveyed can be inferred from the channel over which a DM-RS symbol on the same antenna port is conveyed only if the two symbols are within the same frequency resource as the scheduled PSSCH and in the same slot.

For DM-RS associated with a PSCCH, the channel over which a PSCCH symbol on one antenna port is conveyed can be inferred from the channel over which a DM-RS symbol on the same antenna port is conveyed only if the two symbols are within the same frequency resource as the transmitted PSCCH and in the same slot.