**3GPP TSG #bisR1-240xxxx**

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

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** |  | **rev** |  | **Current version:** |  |  |
|  | | | | | | | | |
| *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:*** | CR on CSI processing criteria of CSI-ReportConfig containing a list of L sub-configurations | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | vivo, Ericsson | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | Netw\_Energy\_NR | | | | |  | ***Date:*** | | | 15 |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***Release:*** | | |  |
|  | *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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The current definition of is ambiguous if a *CSI-ReportConfig* contains a list of *L* sub-configurations. Current spec does not make it clear whether the number of CSI-RS resources corresponding to the i-th sub-configuration refers to CSI-RS resources for channel measurement or to CSI-RS resources for interference measurement (e.g. when *resourcesForChannelMeasurement* and *nzp-CSI-RS-ResourcesForInterference* are both configured). | | | | | | | | |
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| ***Summary of change:*** | | is the total number of CSI-RS resources in the CSI-RS resource set for channel measurement corresponding to the i-th sub-configuration. | | | | | | | | |
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| ***Consequences if not approved:*** | | The definition of corresponding to the i-th sub-configuration is not clear in the spec, i.e. whether it is total number of CSI-RS resources in the CSI-RS resource set for channel measurements, CSI-RS resources for interference measurements, or both the above two sets. | | | | | | | | |
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| ***Clauses affected:*** | | 5.2.1.6 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **N** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **N** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **N** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

#### 5.2.1.6 CSI processing criteria

< Unchanged parts are omitted >

A UE is not expected to be configured with an aperiodic CSI trigger state containing more than Reporting Settings. Processing of a CSI report occupies a number of CPUs for a number of symbols as follows:

- for a CSI report with CSI-ReportConfig with higher layer parameter *reportQuantity* set to 'none' and *CSI-RS-ResourceSet* with higher layer parameter *trs-Info* configured

- for a CSI report with *LTM-CSI-ReportConfig* or a CSI report with *CSI-ReportConfig* with higher layer parameter *reportQuantity* set to 'cri-RSRP', 'ssb-Index-RSRP', 'cri-SINR', 'ssb-Index-SINR', 'cri-RSRP- Index', 'ssb-Index-RSRP- Index', 'cri-SINR- Index', 'ssb-Index-SINR- Index ' or 'none' (and *CSI-RS-ResourceSet* with higher layer parameter *trs-Info* not configured)

- , for a CSI report with *CSI-ReportConfig* with higher layer parameter *reportQuantity* set to 'tdcp' and with number of delays configured by higher layer parameter *Y*, where the value of is reported by UE capability.

- for a CSI report with *CSI-ReportConfig* with higher layer parameter *reportQuantity* set to 'cri-RI-PMI-CQI', 'cri-RI-i1', 'cri-RI-i1-CQI', 'cri-RI-CQI', or 'cri-RI-LI-PMI-CQI',

- if max{ *µPDCCH*, *µCSI-RS, µUL*} ≤ 3, and if a CSI report is aperiodically triggered without transmitting a PUSCH with either transport block or HARQ-ACK or both when *L* = 0 CPUs are occupied, where the CSI corresponds to a single CSI with wideband frequency-granularity and to at most 4 CSI-RS ports in a single resource without CRI report and where *codebookType* is set to 'typeI-SinglePanel' or where *reportQuantity* is set to 'cri-RI-CQI', ,

- if a *CSI-ReportConfig* is configured with *codebookType* set to 'typeI-SinglePanel' and the corresponding CSI-RS Resource Set for channel measurement is configured with two Resource Groups and Resource Pairs, , where is the number of CPUs occupied by a pair of CMRs subject to *mTRP-CSI-numCPU-r17* and is defined in clause 5.2.1.4.2,

- if a *CSI-ReportConfig* contains a list of *L* sub-configurations provided by the higher layer parameter *csi-ReportSubConfigToAddModList*,

- for periodic CSI reporting, where is the total number of CSI-RS resources in the CSI-RS resource set for channel measurement corresponding to the *i*-th sub-configuration.

- for aperiodic and semi-persistent CSI reporting, where is the total number of CSI-RS resources in the CSI-RS resource set for channel measurement corresponding to the *i*-th sub-configuration, and where the *i*-th sub-configuration is from *N* indicated sub-configurations out of *L* sub-configurations contained in a *CSI-ReportConfig*, where and .

- if a *CSI-ReportConfig* is configured with the higher layer parameter *reportQuantity* set to 'cri-RI-PMI-CQI', *codebookType* set to 'typeII-CJT-r18' or 'typeII-CJT-PortSelection-r18' and the corresponding *NZP-CSI-RS-ResourceSet* for channel measurement is configured with resources, , where is reported by UE capability indication,

- if a *CSI-ReportConfig* is configured with the higher layer parameter *reportQuantity* set to 'cri-RI-PMI-CQI' and with *codebookType* set to 'typeII-Doppler-r18' or 'typeII-Doppler-PortSelection-r18',

- if the corresponding CSI-RS Resource Set for channel measurement is aperiodic and configured with CSI-RS resources, for and for , where is reported by UE capability indication,

- if the corresponding CSI-RS Resource Set for channel measurement is periodic or semi-persistent and configured with a single CSI-RS resource, for and ) for , where the value of is configured by the higher layer parameter *N4*, and is reported by UE capability indication,

- otherwise, , where is the number of CSI-RS resources in the CSI-RS resource set for channel measurement.

< Unchanged parts are omitted >