**3GPP TSG-RAN WG1 Meeting 102-eR1-200xxxx**

**e-Meeting, August 17th – 28th, 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **38.215** | **CR** | **DRAFT** | **rev** | **-** | **Current version:** | **16.2.0** |  |
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| *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:***  | Corrections to CSI-SINR definition |
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| ***Source to WG:*** | Intel Corporation |
| ***Source to TSG:*** | R1 |
|  |  |
| ***Work item code:*** | NR\_eMIMO-Core |  | ***Date:*** | 2020-08-31 |
|  |  |  |  |  |
| ***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)* |
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| ***Reason for change:*** | In TS 38.215, in the sentence “CSI reference signals transmitted on all configured antenna ports can be used for CSI-SINR determination”, it is unclear whether it means that all of the antenna ports configured for the UE can be used for CSI-SINR determination, or all of the antenna ports of the CSI-RS resource are used for CSI-SINR determination. |
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| ***Summary of change:*** | Clarify that only antenna ports 3000 and 3001 can be used for L1-SINR. |
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| ***Consequences if not approved:*** | TS 38.214 and TS 38.215 are not aligned. |
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| ***Clauses affected:*** | 5.1.6 |
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|  | **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 ...  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

### 5.1.6 CSI signal-to-noise and interference ratio (CSI-SINR)

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| **Definition** | CSI signal-to-noise and interference ratio (CSI-SINR), is defined as the linear average over the power contribution (in [W]) of the resource elements carrying CSI reference signals divided by the linear average of the noise and interference power contribution (in [W]). If CSI-SINR is used for L1-SINR reporting with dedicated interference measurement resources, the interference and noise is measured over resource(s) indicated by higher layers as described in TS 38.214 [6]. Otherwise, the interference and noise are measured over the resource elements carrying CSI reference signals reference signals within the same frequency bandwidth.For CSI-SINR determination CSI reference signals transmitted on antenna port 3000 according to TS 38.211 [4] shall be used. If CSI-SINR is used for L1-SINR, CSI reference signals transmitted on antenna ports 3000, 3001 can be used for CSI-SINR determination.For intra-frequency CSI-SINR measurements not used for L1-SINR reporting, if the measurement gap is not configured, UE is not expected to measure the CSI-RS resource(s) outside of the active downlink bandwidth part.For frequency range 1, the reference point for the CSI-SINR shall be the antenna connector of the UE. For frequency range 2, CSI-SINR shall be measured based on the combined signal from antenna elements corresponding to a given receiver branch. For frequency range 1 and 2, if receiver diversity is in use by the UE, the reported CSI-SINR value shall not be lower than the corresponding CSI-SINR of any of the individual receiver branches. |
| **Applicable for** | If CSI-SINR is used for L1-SINR,RRC\_CONNECTED intra-frequency.Otherwise,RRC\_CONNECTED intra-frequency,RRC\_CONNECTED inter-frequency |