**3GPP TSG-RAN WG1 Meeting #104-e R1-2xxxxxx**

**E-meeting, January 25 – February 5, 2021**

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| *CR-Form-v12.1* | | | | | | | | |
| **[DRAFT] CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.212** | **CR** | **xxxx** | **rev** | **-** | **Current version:** | **16.4.0** |  |
|  | | | | | | | | |
| *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:*** | CR on DMRS | | | | | | | | | |
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| ***Source to WG:*** | Moderator (OPPO), ZTE | | | | | | | | | |
| ***Source to TSG:*** | R1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_newRAT-Core | | | | |  | | ***Date:*** | | 2021-01-25 |
|  |  | | | |  | | |  | |  |
| ***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 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-15 (Release 15) Rel-16 (Release 16)*  *Rel-17 (Release 17) Rel-18 (Release 18)* | |
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| ***Reason for change:*** | | Based on the current UE feature group 16-2b-1b, supporting of the new DMRS port entry {0, 2, 3} is a UE capability for single-DCI based SDM scheme. Consequently, gNB can indicate UE DMRS port entry {0, 2, 3} only if UE supports the feature group 16-2b-1b. The text with bracket reiterating that in physical layer specification 38.212 is not ncessary. | | | | | | | | |
| ***T*** | |  | | | | | | | | |
| ***Summary of change:*** | | Delete the text in bracket in 38.212 | | | | | | | | |
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| ***Consequences if not approved:*** | | Uncessary text in bracket exsits in specification. | | | | | | | | |
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| ***Clauses affected:*** | | 7.3.1.2.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | |  | | | |
| ***Other specs*** | |  | **X** | Other core specifications | | |  | | | |
| ***affected:*** | |  | **X** | Test specifications | | |  | | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | |  | | | |
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| ***Other comments:*** | | Isolated impact analysis:   * No impact to existing gNB and UE implementation. | | | | | | | | |

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| ***This CR's revision history:*** |  |

##### 7.3.1.2.2 Format 1\_1

<Unchanged parts are omitted>

- Antenna port(s) – 4, 5, or 6 bits as defined by Tables 7.3.1.2.2-1/2/3/4 and Tables 7.3.1.2.2-1A/2A/3A/4A, where the number of CDM groups without data of values 1, 2, and 3 refers to CDM groups {0}, {0,1}, and {0, 1,2} respectively. The antenna ports  shall be determined according to the ordering of DMRS port(s) given by Tables 7.3.1.2.2-1/2/3/4 or Tables 7.3.1.2.2-1A/2A/3A/4A. When a UE receives an activation command that maps at least one codepoint of DCI field '*Transmission Configuration Indication*' to two TCI states, the UE shall use Table 7.3.1.2.2-1A/2A/3A/4A; otherwise, it shall use Tables 7.3.1.2.2-1/2/3/4. The UE can receive an entry with DMRS ports equals to 1000, 1002, 1003 when two TCI states are indicated in a codepoint of DCI field '*Transmission Configuration Indication*'.

##### <Unchanged parts are omitted>