**3GPP TSG-RAN WG1 Meeting #109-e *R1-22xxxxx***

**e-meeting, May 9th – 20th, 2022**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **38.212** | **CR** | **DRAFT** | **rev** | **-** | **Current version:** | **16.9.0** |  |
|  |
| *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:***  | Clarification of TPMI indication for UL full power transmission |
|  |  |
| ***Source to WG:*** | Moderator(CATT) |
| ***Source to TSG:*** | R1 |
|  |  |
| ***Work item code:*** | NR\_eMIMO-Core |  | ***Date:*** | 2022-04-17 |
|  |  |  |  |  |
| ***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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
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| ***Reason for change:*** | Table 7.3.1.1.2-3 in TS 38.212 can be used to determine precoding information and number of layers for 4 antenna ports, if transform precoder is enabled and *ul-FullPowerTransmission* is configured to *fullpower.* It is not captured in the title of Table 7.3.1.1.2-3 in the spec. |
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| ***Summary of change:*** | Clarify in the title of Table 7.3.1.1.2-3 that the table is also used for Precoding information and number of layers for 4 antenna ports, if transform precoder is enabled and *ul-FullPowerTransmission* is configured to *fullpower.* |
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| ***Consequences if not approved:*** | There is misalignment between the field description of DCI format 0-1 and caption of Table 7.3.1.1.2-3 that whether Table 7.3.1.1.2-3 is applicable when transform precoder is enabled and *ul-FullPowerTransmission* is configured to *fullpower*.  |
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| ***Clauses affected:*** | 7.3.1.1.2 |
|  |  |
|  | **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:*** | **Isolated impact analysis:**All UEs and gNBs in the network should have already implemented the CR. There is no isolated impact. |
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| ***This CR's revision history:*** |  |

##### 7.3.1.1.2 Format 0\_1

<Unrelated part omitted>

Table 7.3.1.1.2-3: Precoding information and number of layers for 4 antenna ports, if transform precoder is enabled and *ul-FullPowerTransmission* is either not configured or configured to *fullpowerMode2* or configured to *fullpower*, or if transform precoder is disabled, *maxRank* = 1, and *ul-FullPowerTransmission* is not configured or configured to *fullpowerMode2* or configured to *fullpower*

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| --- | --- | --- | --- | --- | --- |
| Bit field mapped to index | *codebookSubset* = *fullyAndPartialAndNonCoherent* | Bit field mapped to index | *codebookSubset*= *partialAndNonCoherent* | Bit field mapped to index | *codebookSubset*= *nonCoherent* |
| 0 | 1 layer: TPMI=0 | 0 | 1 layer: TPMI=0 | 0 | 1 layer: TPMI=0 |
| 1 | 1 layer: TPMI=1 | 1 | 1 layer: TPMI=1 | 1 | 1 layer: TPMI=1 |
| … | … | … | … | … | … |
| 3 | 1 layer: TPMI=3 | 3 | 1 layer: TPMI=3 | 3 | 1 layer: TPMI=3 |
| 4 | 1 layer: TPMI=4 | 4 | 1 layer: TPMI=4 |  |  |
| … | … | … | … |  |  |
| 11 | 1 layer: TPMI=11 | 11 | 1 layer: TPMI=11 |  |  |
| 12 | 1 layers: TPMI=12 | 12-15 | reserved |  |  |
| … | … |  |  |  |  |
| 27 | 1 layers: TPMI=27 |  |  |  |  |
| 28-31 | reserved |  |  |  |  |

<Unrelated part omitted>