**3GPP TSG-SA5 Meeting #132-e *S5-204376***

**Online, 17th Aug 2020 - 28th Aug 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **28.552** | **CR** | **0261** | **rev** | **-** | **Current version:** | **16.6.0** |  |
|  | | | | | | | | |
| *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 |  | Radio Access Network | **X** | Core Network |  |

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| ***Title:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | China Telecom Corporation Ltd., ZTE | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | ePM\_KPI\_5G | | | | |  | ***Date:*** | | | 2020-08-07 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***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-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:*** | | The MCS scheduling strategies of MU-MIMO and SU-MIMO are different due to factors such as user pairing and interference. So it is necessary to distinguish statistics and measurements of MCS distribution for MU-MIMO and SU-MIMO. | | | | | | | | |
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| ***Summary of change:*** | | Add PDSCH and PUSCH MCS distribution measurement of MU-MIMO. | | | | | | | | |
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| ***Consequences if not approved:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.1.1.12.X(new), 5.1.1.12.Y(new), A.27 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

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| **1st change** |

##### 5.1.1.12 MCS related Measurements

##### 5.1.1.12.X PDSCH MCS Distribution for MU-MIMO

a) This measurement provides the distribution of the MCS scheduled for PDSCH RB by NG-RAN in MU-MIMO scenario.

b) CC

c) This measurement is obtained by incrementing the appropriate measurement bin with the number of the PDSCH RBs according to the MCS scheduled by NG-RAN for MU-MIMO. The RBs used for broadcast should be excluded.

d) Each measurement is a single integer value.

e) CARR.MUPDSCHMCSDist.BinX, where X represents the index of the MCS value (0 to 31).

f) NRCellDU.

g) Valid for packet switching.

h) 5GS.

##### 5.1.1.12.Y PUSCH MCS Distribution for MU-MIMO

a) This measurement provides the distribution of the MCS scheduled for PUSCH RB by NG-RAN in MU-MIMO scenario.

b) CC.

c) This measurement is obtained by incrementing the appropriate measurement bin with the number of the PUSCH RBs according to the MCS scheduled by NG-RAN for MU-MIMO.

d) Each measurement is a single integer value.

e) CARR. MUPUSCHMCSDist.BinX, where X represents the index of the MCS value (0 to 31).

f) NRCellDU.

g) Valid for packet switching.

h) 5GS.

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| **Next change** |

# A.27 Monitoring of RF measurements

MCS represents the modulation and coding schemes scheduled for the physical resources by NG-RAN. The measurements of MCS distribution is a useful metric reflecting the efficiency for PDSCH and PUSCH RBs. It is helpful for operator to optimize the scheduling of physical resources to improve the network efficiency and overall service quality.

The MCS scheduling strategies of MU-MIMO and SU-MIMO are different due to factors such as user pairing and interference. So it is necessary to distinguish statistics and measurements of MCS distribution for MU-MIMO and SU-MIMO.

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| **End of changes** |