**3GPP TSG-SA5 Meeting #132e *S5-204397***

**e-meeting 17th 28th August 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **28.552** | **CR** | **0264** | **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:*** | Addition of SINR measurement | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | China Mobile | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | ePM\_KPI\_5G | | | | |  | ***Date:*** | | | 2020-8-28 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | SINR measurement is useful to troubleshoot weak coverage or low access rate for each cell. | | | | | | | | |
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| ***Summary of change:*** | | Addition of SINR measurement | | | | | | | | |
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| ***Consequences if not approved:*** | | It is difficult to trouble shoot weak coverage or low access rate for each cell according to defined measurements. | | | | | | | | |
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| ***Clauses affected:*** | | 5.1.1.x, A.x | | | | | | | | |
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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 ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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| **Start of 1st modification** |

#### 5.1.1.x SINR measurement

a) This measurement provides the distribution of SS-SINR received by gNB from UEs in the cell. the periodical UE measurement reports towards all of the UEs need to be triggered by gNB in the measured New Radio cell.

b) CC.

c) This measurement is obtained by incrementing the appropriate measurement bin using measured quantity value (See Table 10.1.16.1-1 in TS 38.133 [35]) when a SINR value is reported by a UE when *sinr* is used for *MeasQuantityResults* IE that is in *resultsSSB-Cell* IE within the *measResult* IE as configured by *MeasurementReport* configurations as defined in TS 38.331 [20].

d) A set of integer.

e) MR.NRScSSSINR.BinX

where X represents the range of Measured quantity SS-SINR value (-23 to 40 dB)

NOTE: Number of bins and the range for each bin is left to implementation.

f) NRCellCU

g) Valid for packet switched traffic

h) 5GS

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| **End of 1st modification** |

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| **Start of 2nd modification** |

# A.x Monitoring of SS-SINR

SS-SINR is the ratio of the received signal level and the sum of interference and noise, which is used in 5G NR networks to determine the quality of the radio channel. This measurement is useful to eveluate the QoS of Synchronization Signal through the SS-SINR distribution for each cell. It is helpful to troubleshooting weak coverage cell or low NR access rate cell according to the ratio of SS-SINR bins that is below predefined threshold and all of the SS-SINR bins.

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| **End of 2nd modification** |