**3GPP TSG-RAN4 Meeting #** **102-e R4-22xxxxx**

**Electronic Meeting, February 21 – March 3, 2022**

|  |
| --- |
| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **38.133** | **CR** | **-** | **rev** | **-** | **Current version:** | **17.4.0** |  |
|  |
| *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)*.* |
|  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **x** | Radio Access Network |  | Core Network |  |

|  |
| --- |
|  |
| ***Title:***  | Scheduling restriction for L1-SINR for FR2 HST |
|  |  |
| ***Source to WG:*** | Huawei, HiSilicon |
| ***Source to TSG:*** | R4 |
|  |  |
| ***Work item code:*** | NR\_HST\_FR2-Core |  | ***Date:*** | 2022-2-26 |
|  |  |  |  |  |
| ***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 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)* |
|  |  |
| ***Reason for change:*** | The inter-frequency high speed RRM enhancement requirements shall applied when [highSpeedMeasFlag-r17] is configured and UE supports [inter-frequencymeas-r17].It is agreed in [R4-2202767]* Scheduling restriction related to large propagation delay difference caused by inter-RRH beam switching in FR2 HST:
* FFS the necessity of UL scheduling restriction (i.e., the UE is not expected to transmit PUCCH/PUSCH/SRS) after cross-RRH TCI state switch until the first TRS is received after the TCI state switch.
* RAN4 introduce scheduling restriction for the symbol before and after reference symbols used for L1-RSRP measurement.
* Such scheduling restriction shall be specified in clauses of L1 measurement (i.e., L1-SINR and L1-RSRP)
 |
|  |  |
| ***Summary of change:*** | RAN4 introduce scheduling restriction for the symbol before and after reference symbols used for L1-SINR measurement. |
|  |  |
| ***Consequences if not approved:*** | Requirements for FR2 HST are not completed. |
|  |  |
| ***Clauses affected:*** | 9.8.6.3 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **x** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** | **x** |  |  Test specifications | TS38.533 |
| ***(show related CRs)*** |  | **x** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

<Start of Change 1>

9.8.6.3 Scheduling availability of UE performing L1-SINR measurement on FR2

The following scheduling restriction applies due to L1-SINR measurement.

- For the cases of CSI-RS used for L1-SINR measurement of CSI-RS based CMR only case and CSI-RS based CMR plus CSI-RS based ZP-IMR/NZP-IMR case and CSI-RS based CMR plus ZP-IMR case, where CSI-RS is QCLed with active TCI state for PDCCH/PDSCH and not in a CSI-RS resource set with repetition ON, and N=1 applies as specified in clause 9.8.4

- There are no scheduling restrictions due to L1-SINR measurement performed based on the CSI-RS.

- Otherwise

- The UE is not expected to transmit PUCCH/PUSCH/SRS or receive PDCCH/PDSCH/CSI-RS for tracking/CSI-RS for CQI on the CSI-RS for L1-RSRP measurement symbols to be measured for L1-SINR for FR2 power class 6 UE which is not configured with *[highSpeedMeasFlagFR2-r17]*, and for the UE not supporting FR2 power class 6;

- The UE is not expected to transmit PUCCH/PUSCH/SRS or receive PDCCH/PDSCH/CSI-RS for tracking/CSI-RS for CQI on the symbols to be measured for L1-SINR, and on 1 data symbol before symbols to be measured for L1-SINR and 1 data symbol after symbols to be measured for L1-SINR for FR2 power class 6 UE configured with *[highSpeedMeasFlagFR2-r17]*.

When network indicate

When intra-band carrier aggregation is performed, the scheduling restrictions on serving cell where L1-SINR measurement is performed apply to all serving cells in the band on the symbols that fully or partially overlap with restricted symbols.

If following conditions are met,

- UE has been notified about system information update through paging,

- The gap between UE’s reception of PDCCH that UE monitors in the Type 2-PDCCH CSS set and that notifies system information update, and the PDCCH that UE monitors in the Type0-PDCCH CSS set, is greater than 2 slots,

for the SSB and CORESET for RMSI scheduling multiplexing patterns 3, UE is expected to receive the PDCCH that UE monitors in the Type0-PDCCH CSS set, and the corresponding PDSCH, on SSB symbols to be measured for L1-SINR measurement; and

for the SSB and CORESET for RMSI scheduling multiplexing patterns 2, UE is expected to receive PDSCH that corresponds to the PDCCH that UE monitors in the Type0-PDCCH CSS set, on SSB symbols to be measured for L1-SINR measurement.

<End of Change 1>