**3GPP TSG-RAN WG4 Meeting #105R4-2218290**

**Toulouse, France, November 14 – November 18, 2022**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.307** | **CR** | **0111** | **rev** |  | **Current version:** | **17.7.0** |  |
|  | | | | | | | | |
| *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 |  | Core Network |  |

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| ***Title:*** | CR on release independent for Rel-17 FR1 HST RRM | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | CMCC | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_HST\_FR1\_enh-Perf | | | | |  | ***Date:*** | | | 2022-11-04 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The draft CR on release independent for Rel-17 FR1 HST RRM was agreed in RAN4 #102-bis-e meeting (R4-2208513). However, some how it was not captured in TS 38.307 | | | | | | | | |
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| ***Summary of change:*** | | Rel.17 NR FR1 HST RRM requirements are supported from Rel-16 in a release independent manner. | | | | | | | | |
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| ***Consequences if not approved:*** | | Rel.17 NR FR1 HST RRM requirements are not supported from Rel-16. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.4, Annex C | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

## << Start of 1st change >>

## 5.4 Other release independent features for NR frequency range 1

This clause covers requirements for a Rel-15 UE coming from all other release independent features that are not covered under clause 5.1, 5.2 and 5.3, e.g. generic baseband requirements or requirements that are not band/CA/SUL configuration specific.

Table 5.4-1: Additional requirements of other release independent features

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| --- | --- | --- | --- |
| Feature | Release  independent from | Requirements to be fulfilled  (see 38.307 of the REL when the feature was introduced) | Further information |
| RRM requirements for high speed train scenario | Rel-15 (NOTE 1) | Table C.1-1 | Rel-16 WI NR\_HST introduced band independent RRM requirements: see Table C.1-1 |
| UE demodulation requirements for high speed train scenario | Rel-15 (NOTE 1) | Table C.2-1 | Rel-16 WI NR\_HST introduced band independent UE demodulation requirements: see Table C.2-1 |
| RF requirements for 4Rx UEs | Rel-15 | Table B.4.10-1, Table B.4.10-2 |  |
| [Transparent Tx diversity] | [Rel-15] | [Table B.4.11-1] | [Rel-17 WI NR\_RF\_TxD introduced transparent Tx diversity requirements: see Table B.4.11-1] |
| UE demodulation and CSI requirements for MMSE-IRC receiver for scenarios with inter cell and intra cell inter user interference | Rel-15 | Table B.3.3-1 | Rel-17 WI NR\_demod\_enh2-Perf: see Table B.3.3-1. These requirements are optional for Rel-15 and Rel-16 UEs and can be executed based on UE declaration. |
| RRM enhancement for FR1 high speed train scenario enhancement | Rel-16 (NOTE 2) | Table C.3-1 | Rel-17 WI NR\_HST\_FR1\_enh introduced band independent RRM enhancement: see Table C.3-1 |
| NOTE 1: Rel-15 UEs supporting the high speed train are assumed to read the Rel-16 high speed train scenario information, which is broadcast to all UEs.  NOTE 2: Rel-16 UEs supporting the high speed train are assumed to read the Rel-17 high speed train scenario information, which is broadcast to all UEs. | | | |

<< End of 1st change >>

## << Start of 2nd change >>

## C.3 Common RRM requirements for FR1 high speed train scenario enhancement

The requirements and test cases listed in Table C.3-1 are specified in TS 38.133 Rel-17.

Table C.3-1: RRM requirements for FR1 high speed train scenario enhancement

|  |  |
| --- | --- |
| Clause | Description |
| 4.2.2.4 in TS 38.133 | Cell Re-selection requirements for inter-frequency NR cells for FR1 high speed train scenario |
| 9.2.5 in TS 38.133 | NR intra-frequency measurements without measurement gaps for activated SCell and deactivated SCell for FR1 high speed train scenario |
| 9.2.6 in TS 38.133 | NR intra-frequency measurements with measurement gaps for active SCell for FR1 high speed train scenario |
| 9.3.4 in TS 38.133 | Inter-frequency measurement with measurement gaps for FR1 high speed train scenario |
| 9.3.5 in TS 38.133 | Inter-frequency measurement with measurement gaps for FR1 high speed train scenario |
| 9.3.9 in TS 38.133 | Inter frequency measurements without measurement gaps for FR1 high speed train scenario |
| 9.5.4 in TS 38.133 | L1-RSRP measurement requirements for FR1 high speed train scenario |

<< End of 2nd change >>