**3GPP TSG-RAN WG4 Meeting # 104-e *R4-221xxxx***

**Electronic Meeting, 15 August - 26 August, 2022**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.101-4** | **CR** | **draftCR** | **rev** | 1 | **Current version:** | **17.5.0** |  |
|  | | | | | | | | |
| *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:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_redcap-Perf | | | | |  | ***Date:*** | | | 2022-08-25 |
|  |  | | | |  | |  | | |  |
| ***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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Define applicability of CSI reporting requirements for RedCap | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Define applicability of CSI reporting requirements for RedCap | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | It is not clear what requirements are applicable for RedCap UE. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.1.1.1, 6.1.1.6 (new), 8.1.1.1, 8.1.1.6 (new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **x** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | | **x** |  | Test specifications | | | | TS38.521-4 | | |
| ***(show related CRs)*** | |  | **x** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Revision of R4-2212891 | | | | | | | | |

----------------------------------------------------- Beginning of Change ------------------------------------------------------------

### 6.1.1 Applicability of requirements

#### 6.1.1.1 General

The minimum performance requirements are applicable to all FR1 operating bands defined in TS 38.101-1 [6] except for test cases listed in Clause 6.2.2.2.1.4, Clause 6.2.3.2.1.4, Clause 6.2A.3.1.2 and Clause 6.2A.4.1.2 which are only applicable for FR1 bands restricted to operation with shared spectrum.

The minimum performance requirements in Clause 6 are mandatary for UE supporting NR operation, except test cases listed in Clause 6.1.1.3, 6.1.1.4, 6.1.1.5, 6.1.1.6.

If same test is listed for different UE features/capabilities in Clauses 6.1.1.3 and 6.1.1.4, then this test shall apply for UEs which support all corresponding UE features/capabilities.

------------------------------------------------------------- End of change ------------------------------------------------------------

----------------------------------------------------- Beginning of Change ------------------------------------------------------------

#### 6.1.1.6 Applicability of requirements for RedCap

The performance requirements in Table 6.1.1.6-1 shall apply for UEs which support optional feature *supportOfRedCap*.

Table 6.1.1.6-1: Requirements applicability for RedCap

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| UE capability | Test type | | Test list | Applicability notes |
| RedCap with 1RX | FR1 FDD and HD-FDD (Note 1) | CQI | All tests in Clause 6.2.1.1.1.1  All tests in Clause 6.2.1.1.2.1 |  |
|  |  | PMI | All tests in Clause 6.3.1.1.1 |  |
|  | FR1 TDD | CQI | All tests in Clause 6.2.1.2.1.1  All tests in Clause 6.2.1.2.2.1 |  |
|  |  | PMI | All tests in Clause 6.3.1.2.1 |  |
| RedCap with 2RX | FR1 FDD and HD-FDD (Note 1) | CQI | All tests in Clause 6.2.2.1.1.4  All tests in Clause 6.2.2.1.2.X |  |
|  |  | PMI | Clause 6.3.2.1.1 (Test 1) |  |
|  |  | RI | Clause 6.4.2.1.1 (Test 1) |  |
|  | FR1 TDD | CQI | All tests in Clause 6.2.2.2.1.5  All tests in Clause 6.2.2.2.2.X |  |
|  |  | PMI | Clause 6.3.2.2.7 (Test 1) |  |
|  |  | RI | Clause 6.4.2.2.1 (Test 1) |  |
| Note 1: If UE support only HD-FDD in a FDD band, this UE is tested with HD-FDD mode otherwise UE is tested with full-duplex FDD mode | | | | |

------------------------------------------------------------- End of change ------------------------------------------------------------

----------------------------------------------------- Beginning of Change ------------------------------------------------------------

### 8.1.1 Applicability of requirements

#### 8.1.1.1 General

The minimum performance requirements are applicable to the FR2 operating bands defined in TS 38.101-2 [7] with FDL\_high not exceeding 48200 MHz.

The minimum performance requirements in Clause 8 are mandatory for UE supporting NR operation, except test cases listed in Clause 8.1.1.3, 8.1.1.4, 8.1.1.5, 8.1.1.6.

If same test is listed for different UE features/capabilities in Clauses 8.1.1.3 and 8.1.1.4, then this test shall apply for UEs which support all corresponding UE features/capabilities.

------------------------------------------------------------- End of change ------------------------------------------------------------

----------------------------------------------------- Beginning of Change ------------------------------------------------------------

#### 8.1.1.6 Applicability of requirements for RedCap

The performance requirements in Table 8.1.1.6-1 shall apply for UEs which support optional feature *supportOfRedCap*.

Table 8.1.1.6-1: Requirements applicability for RedCap

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| UE capability | Test type | | Test list | Applicability notes |
| RedCap with 2RX | FR2 TDD | CQI | Clause 8.2.2.2.1.1 (Tests 1 and 2)  Clause 8.2.2.2.2.1 (Test 1) |  |
|  |  | PMI | Clause 8.3.2.2.1 (Tests 2) |  |
|  |  | RI | Clause 8.4.2.2 (Test 2) |  |

------------------------------------------------------------- End of change ------------------------------------------------------------