**3GPP TSG-RAN WG4 Meeting #104-bis *R4-*** ***2215960***

**Electronic Meeting, October 10 – 19, 2022**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **38.114** | **CR** | **draftCR** | **rev** |  | **Current version:** | **17.1.0** |  |
|  |
| *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:***  | Draft CR to TS 38.114 Clause 4.5 |
|  |  |
| ***Source to WG:*** | Ericsson |
| ***Source to TSG:*** | R4 |
|  |  |
| ***Work item code:*** | NR\_repeaters-Core/Perf |  | ***Date:*** | 2022-09-26 |
|  |  |  |  |  |
| ***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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
|  |  |
| ***Reason for change:*** | Test configurations for NR repeater is not defined in the specification. |
|  |  |
| ***Summary of change:*** | The missing content of clause 4.5 is introduced, based on the agreement in R4-2210506. |
|  |  |
| ***Consequences if not approved:*** | The specification is incomplete. |
|  |  |
| ***Clauses affected:*** |  |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  |  |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  |  |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  |  |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

---------- start of changes----------

## 4.5 NR repeaters test configurations

The present clause defines the NR repeaters test configurations that shall be used for demonstrating conformance. A single NR repeater carrier shall be used for testing of single-carrier capable NR repeaters.

The signal's channel bandwidth and subcarrier spacing used to build NR Test Configurations shall be selected according to table 4.7.2-1 in TS 38.115-1 [3] clause 4.7 for *NR repeaters type 1-C*, and table 4.7.2.1-1 in TS 38.115-2 [4] clause 4.7 for *NR repeaters type 2-O*. The passband frequency range declared per *operating band* in TS 38.115-1 [3] clause 4.6, and TS 38.115-2 [4] clause 4.6 shall be used.

For other NR repeaters, the test configurations in table 4.5-1 and table 4.5-2 shall be used. The NR repeaters test configurations (RTCx) are defined in TS 38.115-1 [3], clause 4.7 for *NR repeaters type 1-C* and in TS 38.115-2 [4], clause 4.7 for *NR repeaters type 2-O*.

Table 4.5-1: Test configurations for *NR repeaters type 1-C*

| Repeater test case | Repeater capable of single or multiple passbands in a single band | Repeater capable of multi-band operation |
| --- | --- | --- |
|  | Single passband repeater | Multiple passband capable repeater with identical parameters per passband | Multiple passband capable repeater with different parameters per passband | Common connector | Separate connectors |
| Emission tests | RTC1 |  RTC1, RTC2 | RTC1, RTC2 | RTC1/2 (Note 1), RTC4 | RTC1/2 (Note 1, 2), RTC4 (Note 2) |
| Immunity tests | RTC1 | RTC1, RTC2 | RTC1, RTC2 | RTC1/2 (Note 1), RTC4 | RTC1/2 (Note 1, 2), RTC4 (Note 2) |
| NOTE 1: RTC1 and/or RTC2 shall be applied in each supported operating band.NOTE 2: For single-band operation test, other antenna connector(s) is (are) terminated. |

Table 4.5-2: Test configurations for *NR repeaters type 2-O*

| Repeater test case  | Repeater capable of single or multiple passbands in a single band |
| --- | --- |
|  | Single passband repeater | Multiple passband capable repeater with identical parameters per passband | Multiple passband capable repeater with different parameters per passband |
| Emission tests | RTC1 |  RTC1, RTC2 | RTC1, RTC2 |
| Immunity tests | RTC1 | RTC1, RTC2 | RTC1, RTC2 |

# 5 Performance assessment

---------- end of changes----------

**Note: The content in clause 4.6 and clause 4.7 in TS 38.115-2 are not updated yet, please refer to R4-2214802 “TP to TS 38.115-2 Manufacturer declarations for NR FR2 repeaters” for clause 4.6, and R4-2214786 “TP to TS 38.115-2: Test Configurations and Requirement applicability” for clause 4.7, which were endorsed during RAN4#104.**