**3GPP TSG-RAN4 Meeting #112 *revR4-2411130***

**Maastricht, Netherlands, 19th Aug 2024 - 23rd Aug 2024**

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| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
|  |
|  | **38.106** | **CR** | **0086** | **rev** | **1** | **Current version:** | **18.5.0** |  |
|  |
| *For [HE](http://www.3gpp.org/3G_Specs/CRs.htm%22%20%5Cl%20%22_blank)**[LP](http://www.3gpp.org/3G_Specs/CRs.htm%22%20%5Cl%20%22_blank)**on using this form: comprehensive instructions can be found at <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:***  | (NR\_netcon\_repeater-Core)CR for TS 38.106, Correction on requirement for 5MHz channel bandwidth for NCR MT |
|  |  |
| ***Source to WG:*** | CATT |
| ***Source to TSG:*** | R4 |
|  |  |
| ***Work item code:*** | NR\_netcon\_repeater-Core |  | ***Date:*** | 2024-08-05 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-18 |
|  | *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-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19) Rel-20 (Release 20)* |
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| ***Reason for change:*** | Since the PREFSENS for wanted signal mean power for ACS, in-band blocking, and receiver intermodulation for NCR-MT should be refer to Table 6.16.1.2-1 of TS 38.106 instead of that in TS 38.104 or TS 38.174. For WA NCR-MT type 1-H, ACS, in-band blocking, and receiver intermodulation requirement should be refer to TS38.104 instead of TS 38.174, since 5MHz CBW are not supported in TS38.174. |
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| ***Summary of change:*** | 1) Change ACS, in-band blocking, and receiver intermodulation requirement for WA NCR-MT type 1-H refer to that in TS 38.104 instead of TS 38.174.2) Add “PREFSENS used for wanted signal mean power in TS 38.104 should use PREFSENS in table 6.16.1.2-1 of TS 38.106”. |
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| ***Consequences if not approved:*** | The ACS, blocking, and receiver intermodulation requirement would be incorrect. |
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| ***Clauses affected:*** | 6.18.1.2, 6.18.1.3, 6.19.2, 6.19.3, 6.21.2, 6.21.3 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** | **X** |  |  Test specifications | TS38.115-1  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** | Revised from R4-2411130 |

## **<Start of Change 1>**

## 6.18 Adjacent channel selectivity for NCR-MT

### 6.18.1 Adjacent Channel Selectivity (ACS)

#### 6.18.1.1 General

Adjacent channel selectivity (ACS) is a measure of the receiver's ability to receive a wanted signal at its assigned channel frequency at the antenna connector for *NCR-MT type 1-C or TAB connector for NCR-MT type 1-H* in the presence of an adjacent channel signal with a specified centre frequency offset of the interfering signal to the band edge of a victim system.

#### 6.18.1.2 Minimum requirement for *NCR-MT type 1-C*

The throughput shall be ≥ 95% of the maximum throughput of the reference measurement channel as specified in annex B.1.5. For Wide Area *NCR-MT type 1-C*  the requirement formulation and interferer levels for minimum requirement are the same as specified for Wide Area BS type 1-C in TS 38.104 [2], clause 7.4.1.2. ~~However the P~~~~REFSENS~~ ~~used for wanted signal mean power shall not be the same as in TS38.104, but instead shall be the same as P~~~~REFSENS~~ ~~in table 6.16.1.2-1 of TS 38.106.~~The PREFSENS used for wanted signal mean power is specified in table 6.16.1.2-1.

For Local Area *NCR-MT type 1-C* , minimum requirement is the same as specified in TS 38.101-1 [13], clause 7.3.2.

#### 6.18.1.3 Minimum requirement for *NCR-MT type 1-H*

For Wide Area *NCR-MT type 1-H,* minimum requirement is the same as specified for *IAB-MT type 1-H* in TS 38.174 [22], clause 7.4.1.3. The PREFSENS used for wanted signal mean power is specified in table 6.16.1.2-1 of TS 38.106.

For Local Area *NCR-MT type 1-H*, minimum requirement is the same as specified in TS 38.101-1 [13], clause 7.3.2.

## **<End of Change 1>**

## **<Start of Change 2>**

## 6.19 Blocking characteristics for NCR-MT

### 6.19.1 General

The in-band blocking characteristics is a measure of the receiver's ability to receive a wanted signal at its assigned channel at the *TAB connector* for *NCR-MT type 1-C* and *NCR-MT type 1-H* in the presence of an unwanted interferer, which is an NR signal for general blocking or an NR signal with one resource block for narrowband blocking.

### 6.19.2 Minimum requirement for NCR-MT type 1-C

The throughput shall be ≥ 95% of the maximum throughput of the reference measurement channel as specified in annex B.1.5. For Wide Area *NCR-MT type 1-C*, the requirement formulation and interferer levels for minimum requirement are the same as specified for Wide Area BS type 1-C in TS 38.104 [2], clause 7.4.2.2.

The PREFSENS used for wanted signal mean power is specified in table 6.16.1.2-1 of TS 38.106.

For Local Area *NCR-MT type 1-C*, minimum requirement is the same as specified in TS 38.101-1 [13] clause 7.6.2.

### 6.19.3 VoidMinimum requirement for NCR-MT type 1-H

The throughput shall be ≥ 95% of the maximum throughput of the reference measurement channel as specified in annex B.1.5. For Wide Area *NCR-MT type 1-H*, minimum requirement at TAB connector is the same as specified for IAB-MT in TS 38.174 [22], clause 7.4.2.3.

The PREFSENS used for wanted signal mean power is specified in table 6.16.1.2-1 of TS 38.106.

For Local Area *NCR-MT type 1-H*, minimum requirement at TAB connector is the same as specified in TS 38.101-1 [13], clause 7.6.2.

## **<End of Change 2>**

## **<Start of Change 3>**

## 6.21 Receiver intermodulation characteristics for NCR-MT

### 6.21.1 General

Third and higher order mixing of the two interfering RF signals can produce an interfering signal in the band of the desired channel. Intermodulation response rejection is a measure of the capability of the receiver to receive a wanted signal on its assigned channel frequency at the antenna connector for *NCR-MT type 1-C* or TAB connector for *NCR-MT type 1-H* in the presence of two interfering signals which have a specific frequency relationship to the wanted signal.

### 6.21.2 Minimum requirement for NCR-MT type 1-C

The throughput shall be ≥ 95% of the maximum throughput of the reference measurement channel as specified in annex B.1.5. For Wide Area *NCR-MT type 1-C* , the requirement formulation and interferer levels for minimum requirement are the same as specified for Wide Area *BS type 1-C* in TS 38.104 [2], clause 7.7.2. The PREFSENS used for wanted signal mean power is specified in table 6.16.1.2-1 of TS 38.106.

For Local Area *NCR-MT type 1-C* , minimum requirement at antenna connector is the same as specified in TS 38.101-1 [13], clause 7.8.2.

### 6.21.3 Minimum requirement for NCR-MT type 1-H

The throughput shall be ≥ 95% of the maximum throughput of the reference measurement channel as specified in annex B.1.5. For Wide Area *NCR-MT type 1-H*, minimum requirement at TAB connector is the same as specified for *IAB-MT type 1-H* in TS 38.174 [22], clause 7.7.3. The PREFSENS used for wanted signal mean power is specified in table 6.16.1.2-1 of TS 38.106.

For Local Area *NCR-MT type 1-H*, minimum requirement at TAB connector is the same as specified in TS 38.101-1 [13], clause 7.8.2.

## **<End of Change 3>**