**3GPP TSG-RAN4 Meeting #115 *R4-2508103***

**Malta, Malta, 19th May 2025 - 23rd May 2025**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.101-2** | **CR** | **0803** | **rev** | **-** | **Current version:** | **19.0.0** |  |
|  | | | | | | | | |
| *For* ***[HE](http://www.3gpp.org/3G_Specs/CRs.htm" \l "_blank)******[LP](http://www.3gpp.org/3G_Specs/CRs.htm" \l "_blank)*** *on using this form: comprehensive instructions can be found at  <http://www.3gpp.org/Change-Requests>.* | | | | | | | | |
|  | | | | | | | | |

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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | CR on UE RF requirements for EESS protection | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | China Unicom | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_mmWave\_protect-Core | | | | |  | ***Date:*** | | | 2025-05-23 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-19 |
|  | *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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | In RAN4#114, the CR R4-2501408 was agreed to capture the UE RF requirements for Rel-19 EESS.  However, for NS\_202, there is no additional spurious emission requirement of +1dBm/200MHz, and it is impossible the corresponding bit of modifiedMPR-Behavior for n257 and n258 is set to 0.  In the Annex H Modified MPR behavior, the A-MPR requirements corresponding to NS\_202 and NS\_205 are in the current spec version. No need to mention the referred version in Rel-19 specification. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Changes required are summarized below:   * Remove the condition related to the non-existing additional spurious emission of +1dBm/200MHz in the latest spec, and the corresponding A-MPR for NS\_202 and CA\_NS\_202. * Remove the release version for NS\_202/CA\_NS\_202 and NS\_205/CA\_NS\_205 in modifiedMPR-Behavior table. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The requirements would be related to non-existing additional spurious emission and cause ambiguity. For modifiedMPR-Behavior, the unnecessary release version for NS\_202 and NS\_205 require engineer to have to refer to the previous version even though the requirement remain unchanged in the latest version. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.2.3, 6.2A.3, Annex H | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | | **X** |  | Test specifications | | | | TS 38.521-2 | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

<start change>

#### 6.2.3.3 A-MPR for NS\_202

##### 6.2.3.3.1 A-MPR for NS\_202 for power class 1

For power class 1, A-MPR for NS\_202 shall be 11.0 dB.

##### 6.2.3.3.2 A-MPR for NS\_202 for power class 2

For power class 2, A-MPR for NS\_202 specified in clause 6.2.3.3.3 applies.

##### 6.2.3.3.3 A-MPR for NS\_202 for power class 3

For power class 3, A-MPR for NS\_202 shall be 2.0 dB.

##### 6.2.3.3.4 A-MPR for NS\_202 for power class 4

For power class 4, A-MPR for NS\_202 specified in clause 6.2.3.3.3 applies.

##### 6.2.3.3.5 A-MPR for NS\_202 for power class 5

For power class 5, A-MPR for NS\_202 specified in clause 6.2.3.3.3 applies.

##### 6.2.3.3.6 A-MPR for NS\_202 for power class 6

For power class 6, A-MPR for NS\_202 specified in clause 6.2.3.3.3 applies.

##### 6.2.3.3.7 A-MPR for NS\_202 for power class 7

For power class 7, A-MPR for NS\_202 specified in clause 6.2.3.3.3 applies.

< Next change >

#### 6.2A.3.3 A-MPR for CA\_NS\_202

##### 6.2A.3.3.1 A-MPR for CA\_NS\_202 for power class 1

- For intra-band contiguous UL CA, A-MPR for CA\_NS\_202 shall be 11.0 dB.

- For intra-band contiguous UL CA with non-contiguous RB allocation or non-contiguous UL CA, A-MPR for CA\_NS\_202 shall be 13.0 dB if offset frequency < BWintraCA, 11.0 dB otherwise.

Offset frequency is defined as the frequency from the upper edge of the protected frequency range i.e. 24 GHz to the lower edge of the aggregated channel bandwidth of the configured UL CA.

##### 6.2A.3.3.2 A-MPR for CA\_NS\_202 for power class 2

For UL CA, A-MPR for CA\_NS\_202 specified in sub-clause 6.2A.3.3.3 applies.

##### 6.2A.3.3.3 A-MPR for CA\_NS\_202 for power class 3

- For intra-band contiguous UL CA, A-MPR for CA\_NS\_202 shall be 5.0 dB if offset frequency < BWintraCA, 2.0 dB otherwise.

- For intra-band contiguous UL CA with non-contiguous RB allocation or non-contiguous UL CA, A-MPR for CA\_NS\_202 shall be 8.0 dB if offset frequency < BWintraCA, 2.0 dB otherwise.

Offset frequency is defined as the frequency from the upper edge of the protected frequency range i.e. 24 GHz to the lower edge of the aggregated channel bandwidth of the configured UL CA.

##### 6.2A.3.3.4 A-MPR for CA\_NS\_202 for power class 4

For UL CA, A-MPR for CA\_NS\_202 specified in sub-clause 6.2A.3.3.3 applies.

##### 6.2A.3.3.5 A-MPR for CA\_NS\_202 for power class 5

For UL CA, A-MPR for CA\_NS\_202 specified in sub-clause 6.2A.3.3.3 applies.

##### 6.2A.3.3.6 A-MPR for CA\_NS\_202 for power class 6

For UL CA, A-MPR for CA\_NS\_202 specified in sub-clause 6.2A.3.3.3 applies.

< Next change >

Annex H (Normative)  
Modified MPR behavior

# H.1 Indication of modified MPR behavior

This annex contains the definitions of the bits in the field *modifiedMPR-Behavior* indicated per supported NR band in the IE *RF-Parameters* [13] by a UE supporting an MPR or A-MPR modified in a given version of this specification. A modified MPR or A-MPR behaviour can apply to a supported NR band in stand-alone operation (including CA and NN-DC operation) or in non-standalone operation with the said NR band as part of an EN-DC or NE-DC band combination. Moreover, the bits in the field can explicitly indicate NS value(s) supported by a UE.

NOTE 1: In the present release, the *modifiedMPR-Behavior* is indicated [13] by an 8-bit bitmap per supported NR band.

Table H.1-1: Definitions of the bits in the field *modifiedMPRbehavior*

|  |  |  |  |
| --- | --- | --- | --- |
| NR Band | Index of field  (bit number) | Definition  (description of the supported functionality if indicator set to one) | Notes |
| n257 | 0 (leftmost bit) | - FR2 power class 3 MPR as defined in clause 6.2.2.3 of 38.101-2 | - This bit shall be set to 1 by a UE supporting n257 |
|  | 1 | - NS\_202 as defined in clause 6.2.3.3 or both NS\_202 and CA\_NS\_202 as defined in clause 6.2A.3.3 | - This bit shall be set to 1 by a UE supporting n257 or both n257 and CA\_n257 |
|  | 2 | - NS\_205 as defined in clause 6.2.3.6 or both NS\_205 and CA\_NS\_205 as defined in clause 6.2A.3.6 | - This bit shall be set to 1 by a UE supporting n257 or both n257 and CA\_n257 |
| n258 | 0 (leftmost bit) | - FR2 power class 3 MPR as defined in clause 6.2.2.3 of 38.101-2 | - This bit shall be set to 1 by a UE supporting n258 |
|  | 1 | Void |  |
|  | 2 | - NS\_203 as defined in clause 6.5.3.2.4 or both NS\_203 and CA\_NS\_203 as defined in clause 6.5A.3.2.4 of 38.101-2 v15.12.0 | - This bit shall be set to 1 by a UE supporting n258 or both n258 and CA\_n258 |
|  | 3 | - NS\_202 as defined in clause 6.2.3.3 or both NS\_202 and CA\_NS\_202 as defined in clause 6.2A.3.3 | - This bit shall be set to 1 by a UE supporting n258 or both n258 and CA\_n258 |
|  | 4 | - NS\_205 as defined in clause 6.2.3.6 or both NS\_205 and CA\_NS\_205 as defined in clause 6.2A.3.6 | - This bit shall be set to 1 by a UE supporting n258 or both n258 and CA\_n258 |
| n260 | 0 (leftmost bit) | - FR2 power class 3 MPR as defined in clause 6.2.2.3 of 38.101-2 | - This bit shall be set to 1 by a UE supporting n260 |
| n261 | 0 (leftmost bit) | - FR2 power class 3 MPR as defined in clause 6.2.2.3 of 38.101-2 | - This bit shall be set to 1 by a UE supporting n261 |

\*\*\*\* end change \*\*\*