**3GPP TSG- Meeting # *R4-2400491***

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** |  | **rev** |  | **Current version:** |  |  |
|  | | | | | | | | |
| *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 for Total power dynamic range (TPDR) | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** |  | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_newRAT-Core | | | | |  | ***Date:*** | | | 2024-02-19 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | A |  | | | | | ***Release:*** | | |  |
|  | *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:*** | | Some minor numbers are corrected in Total power dynamic range (TPDR) | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | **Proposal 1:** We propose to add in 9.4.3.1 “NOTE 2: The power difference in [dB] between the maximum power and the minimum power should be related to the maximum number of RBs (see NRB in Table 5.3.2) and the minimum number of RBs (which is 1 in this test) by using the following formula: 10 Log(NRB / 1).“  **Proposal 2:** We propose to modify Table 9.4.3.3-2 with the correct numbers for FR2-2 OTA. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The wrong numbers will stay in the requirement. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 9.4.3 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | |  | | |
| ***affected:*** | |  | **X** | Test specifications | | | |  | | |
| ***(show related CRs)*** | |  |  | O&M Specifications | | | |  | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**--- Start of changes of section 9.4.3.1 ---**

### 9.4.3 OTA total power dynamic range

#### 9.4.3.1 General

The OTA total power dynamic range is the difference between the maximum and the minimum transmit power of an OFDM symbol for a specified reference condition.

This requirement shall apply at each RIB supporting transmission in the *operating band*.

NOTE 1: The upper limit of the OTA total power dynamic range is the BS maximum carrier EIRP (Pmax,c,EIRP) when transmitting on all RBs. The lower limit of the OTA total power dynamic range is the average EIRP for single RB transmission in the same direction using the same beam. The OFDM symbol carries PDSCH and not contain RS or SSB.

NOTE 2: The power difference in [dB] between the maximum power and the minimum power should be related to the maximum number of RBs (see NRB in Table 5.3.2) and the minimum number of RBs, which is 1 in this test, by using the following formula: 10 Log(NRB / 1).

**--- End of changes of section 9.4.3.1 ---**

**--- Start of changes of section 9.4.3.3 ---**

#### 9.4.3.3 Minimum requirement for *BS type 2-O*

OTA total power dynamic range minimum requirement for *BS type 2-O* is specified such as for each NR carrier it shall be larger than or equal to the levels specified in table 9.4.3.3-1 in FR2-1 and table 9.4.3.3-2 in FR2-2.

**Table 9.4.3.3-1: Minimum requirement for BS type 2-O total power dynamic range in FR2-1**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SCS** | **OTA total power dynamic range (dB)** | | | |
| **(kHz)** | 50 MHz | 100 MHz | 200 MHz | 400 MHz |
| 60 | 18.2 | 21.2 | 24.2 | N/A |
| 120 | 15.0 | 18.2 | 21.2 | 24.2 |

Table 9.4.3.3-2: Minimum requirement for *BS type 2-O* total power dynamic range in FR2-2

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| SCS | OTA total power dynamic range (dB) | | | | |
| (kHz) | 100 MHz | 400 MHz | 800 MHz | 1600 MHz | 2000 MHz |
| 120 | 18.2 | 24.2 | N/A | N/A | N/A |
| 480 | N/A | 18.2 | 20.9 | 23.9 | N/A |
| 960 | N/A | 15.2 | 17.9 | 20.9 | 21.7 |

**--- End of changes in section 9.4.3.3 ---**