**3GPP TSG-RAN4 Meeting #111 *R4-2409111***

**Fukuoka , Japan, 20 – 24 May, 2024**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.101-3** | **CR** | **<CR#>** | **rev** | **<Rev#>** | **Current version:** | **18.5.1** |  |
|  | | | | | | | | |
| *For* [***HELP***](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)*.* | | | | | | | | |
|  | | | | | | | | |

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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Draft CR to 38.101-3 for powerr boosting feature supporting CA | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson, Qualcomm, Intel | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI18 | | | | |  | ***Date:*** | | | 2024-5-20 |
|  |  | | | |  | |  | | |  |
| ***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 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:*** | | The power-boosting feature is not supported for inter-band UL CA in current specification. UE supporting power boosting feature for the single CC could support also power boosting feature for inter-band CA case, as the power boosting is per PA with single CC. The specifications needs update to enable boosted operation in inter-CA configurations. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Adding power boosting feature [41-2] and [41-3] suppport for FR1+FR2 inter-band CA and FR1+FR2 DC. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The power boosting feature in Rel-18 does not support the power boosting for CA and DC cases | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.2A.4.1, 6.2B.5 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **x** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | | **x** |  | Test specifications | | | | TS 38.521-1/2/3 | | |
| ***(show related CRs)*** | |  | **x** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

------------------------------------------------------------- START CHANGE ------------------------------------------------------

### 6.2A.4 Configured output power for CA

#### 6.2A.4.1 Configured output power level

For inter-band NR CA between FR1 and FR2, UE configured output power specified in TS 38.101-1 [2] and TS 38.101-2 [3] apply for each frequency range respectively.

For inter-band NR CA between FR1 and FR2 with a single uplink component carrier configured in FR1, when the IE [powerBoostPi2BPSKRel18] or [powerBoostQPSKRel18] is set to 1 for a UE supporting the capability of [powerBoostTSRel18] or [powerBoostRel18], the configured maximum output power PCMAX,c on serving cell c shall be set as specified for PCMAX,f,c in clause 6.2.4.

------------------------------------------------------------- NEXT CHANGE ------------------------------------------------------

### 6.2B.5 Configured output power for NR-DC

#### 6.2B.5.1 Configured output power level

##### 6.2B.5.1.1 Inter-band NR-DC between FR1 and FR2

For both synchronous and non-synchronous inter-band NR-DC [12] with MCG in FR1 and SCG in FR2 combined with one uplink serving cell per CG, the UE is allowed to set its configured maximum output power PCMAX,*c(i),i* for serving cell *c(i)* of CG *i, i = 1,2* as specified in clause 6.2.4 of TS 38.101-1 [2] and clause 6.2.4 TS 38.101-2 [3] independently.

For inter-band NR-DC between FR1 and FR2 with a single uplink component carrier configured in FR1, when the IE [powerBoostPi2BPSKRel18] or [powerBoostQPSKRel18] is set to 1 for a UE supporting the capability of [powerBoostTSRel18] or [powerBoostRel18], the configured maximum output power PCMAX,c on serving cell c shall be set as specified for PCMAX,f,c in clause 6.2.4.

------------------------------------------------------------- END OF CHANGES ------------------------------------------------------