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

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

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

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| ***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 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:*** | 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.  |
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| ***Summary of change:*** | Adding power boosting feature [41-2] and [41-3] suppport for FR1+FR2 inter-band CA and FR1+FR2 DC. |
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| ***Consequences if not approved:*** | The power boosting feature in Rel-18 does not support the power boosting for CA and DC cases |
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| ***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 ------------------------------------------------------