**3GPP TSG-RAN WG4 Meeting #** **110 R4-2401288**

**Athens, Greece, Feb. 26th – Mar. 1st , 2024**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.101-1** | **CR** | **2090** | **rev** |  | **Current version:** | **18.4.0** |  |
|  | | | | | | | | |
| *For* ***[HELP](http://www.3gpp.org/3G_Specs/CRs.htm)*** *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 | **X** | Radio Access Network |  | Core Network |  |

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| ***Title:*** | CR to reflect the completed 4Rx support for NR FR1 bands (<2.6GHz) into TS 38.101-1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | ZTE Corporation | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 4Rx\_NR\_bands\_R18-Core | | | | |  | | ***Date:*** | | 2024-03-04 |
|  |  | | | |  | | |  | |  |
| ***Category:*** | **B** |  | | | | | | ***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-16 (Release 16) Rel-17 (Release 17)* *Rel-18 (Release 18)*  *Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | This big CR is to reflect the completed 4Rx support for NR FR1 bands (2.6GHz) into TS 38.101-1 from RAN4 #110 meeting. | | | | | | | | |
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| ***Summary of change:*** | | The 4Rx support for NR FR1 bands (2.6GHz) into TS 38.101-1 completed in the following contributions are added from RAN4 #110 meeting.  The endorsed draft CRs in RAN4 #110 meeting are listed:  1. R4-2401265 draft CR to TS38.101-1: 4Rx for n26 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | n26 does not support 4Rx operation for FWA form factor | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 7.3.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | |  | | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | TS/TR ... CR ... | | | |
| ***affected:*** | | **X** |  | Test specifications | | | TS38.521-1 | | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | TS/TR ... CR ... | | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |

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| --- | --- |
| ***This CR's revision history:*** |  |

## << Start of change >>

### 7.3.2 Reference sensitivity power level

*<Unchanged texts are omitted>*

For UE(s) equipped with 4 Rx antenna ports, reference sensitivity for 2Rx antenna ports in Table 7.3.2-1a and in Table 7.3.2-1b shall be modified by the amount given in ΔRIB,4R in Table 7.3.2-2 for the applicable operating bands. For operating band frequency range ≤ 1 GHz, the 4Rx operation is primarily for FWA form factor, and when 4Rx operation is supported by handheld UE, ∆RIB,4R as indicated in Table 7.3.2-2 NOTE 2 is applied.

Table 7.3.2-2: Four antenna port reference sensitivity allowance ΔRIB,4R

|  |  |
| --- | --- |
| Operating band | ΔRIB,4R (dB) |
| n5, n8, n13, n26, n28, n71, n85, n105 | -2.71 |
| n5, n8, n28, n71, n20, n26 | -2.42 |
| n1, n2, n3, n25, n30, n40, n7, n34, n38, n39, n41, n66, n70 | -2.7 |
| n48, n77, n78, n79, n104 | -2.2 |
| NOTE 1: When 4 Rx operation is supported by FWA form factor  NOTE 2: When 4Rx operation is supported by handheld UE. | |

## << End change >>