**3GPP TSG-RAN WG4 Meeting #97-eR4-2016818**

**Electronic Meeting, 2-13 Nov., 2020**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **38.101-1**  | **CR** | **0533** | **rev** | **1** | **Current version:** | **16.5.0** |  |
|  |
| *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 |  |

|  |
| --- |
|  |
| ***Title:***  | CR to 38.101-1 Add requirement on the UL CA configurations with no DL interruption |
|  |  |
| ***Source to WG:*** | China Telecom |
| ***Source to TSG:*** | R4 |
|  |  |
| ***Work item code:*** | NR\_RF\_FR1-Core |  | ***Date:*** | 2020-11-10 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-16 |
|  | *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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
|  |  |
| ***Reason for change:*** | In RAN4 #96e, it was agreed in WF R4-2011731 that DL interruption is not allowed for some inter-band EN-DC and UL CA configurations. The exact EN-DC and UL CA configurations for which DL interruptions are not allowed will be captured in TS 38.101-1 and TS 38.101-3 respectively |
|  |  |
| ***Summary of change:*** | Indicate that for some UL CA configurations, DL interruption is not allowed. |
|  |  |
| ***Consequences if not approved:*** | The specification is not clear. |
|  |  |
| ***Clauses affected:*** | 5.2A.2.1 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** | **X** |  |  Test specifications | TS 38.521-1 |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

## <Start of Changes>

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

For a specific reference, subsequent revisions do not apply.

For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document in the same Release as the present document.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 38.101-2: "NR; User Equipment (UE) radio transmission and reception; Part 2: Range 2 Standalone".

[3] 3GPP TS 38.101-3: "NR; User Equipment (UE) radio transmission and reception; Part 3: Range 1 and Range 2 Interworking operation with other radios".

[4] 3GPP TS 38.521-1: "NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Range 1 Standalone".

[5] Recommendation ITU-R M.1545: "Measurement uncertainty as it applies to test limits for the terrestrial component of International Mobile Telecommunications-2000".

[6] 3GPP TS 38.211: "NR; Physical channels and modulation".

[7] 3GPP TS 38.331: "Radio Resource Control (RRC) protocol specification".

[8] 3GPP TS 38.213: "NR; Physical layer procedures for control".

[9] ITU-R Recommendation SM.329-10, "Unwanted emissions in the spurious domain".

[10] 3GPP TS 38.214: "NR; Physical layer procedures for data".

[11] 3GPP TS 36.101: Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception;

[12] ETSI TS 102 792: "Intelligent Transport Systems (ITS); Mitigation techniques to avoid interference between European CEN Dedicated Short Range Communication (CEN DSRC) equipment and Intelligent Transport Systems (ITS) operating in the 5 GHz frequency range".

[13] 3GPP TS 38.133: "NR; Requirements for support of radio resource management".

## <next change>

#### 5.2A.2.1 Inter-band CA (two bands)

Table 5.2A.2.1-1: Inter-band CA operating bands involving FR1 (two bands)

|  |  |  |
| --- | --- | --- |
| NR CA Band | NR Band(Table 5.2-1) | Mandatory on no DL interruption (Note 7) |
| CA\_n1-n3 | n1, n3 |  |
| CA\_n1-n7 | n1, n7 |  |
| CA\_n1-n8 | n1, n8 |  |
| CA\_n1-n28 | n1, n28 |  |
| CA\_n1-n40 | n1, n40 |  |
| CA\_n1-n41 | n1, n41 |  |
| CA\_n1-n77 | n1, n77 | Yes |
| CA\_n1-n78 | n1, n78 | Yes |
| CA\_n1-n79 | n1, n79 | Yes |
| CA\_n2-n5 | n2, n5 |  |
| CA\_n2-n48 | n2, n48 |  |
| CA\_n2-n66 | n2, n66 |  |
| CA\_n2-n77 | n2, n77 |  |
| CA\_n2-n78 | n2, n78 |  |
| CA\_n3-n7 | n3, n7 |  |
| CA\_n3-n8 | n3, n8 |  |
| CA\_n3-n28 | n3, n28 |  |
| CA\_n3-n38 | n3, n38 |  |
| CA\_n3-n40 | n3, n40 |  |
| CA\_n3-n41 | n3, n41 | Yes |
| CA\_n3-n771 | n3, n77 | Yes |
| CA\_n3-n781 | n3, n78 | Yes |
| CA\_n3-n791 | n3, n79 | Yes |
| CA\_n5-n7 | n5, n7 |  |
| CA\_n5-n66 | n5, n66 |  |
| CA\_n5-n77 | n5, n77 |  |
| CA\_n5-n78 | n5, n78 | Yes |
| CA\_n5-n79 | n5, n79 | Yes |
| CA\_n7-n25 | n7, n25 |  |
| CA\_n7-n28 | n7, n28 |  |
| CA\_n7-n66 | n7, n66 |  |
| CA\_n7-n78 | n7, n78 |  |
| CA\_n8-n391 | n8, n39 |  |
| CA\_n8-n40 | n8, n40 |  |
| CA\_n8-n41 | n8, n41 | Yes |
| CA\_n8-n751 | n8, n75 |  |
| CA n8-n781 | n8, n78 | Yes |
| CA\_n8-n791 | n8, n79 | Yes |
| CA\_n20-n282 | n20, n28 |  |
| CA\_n20-n75 | n20, n75 |  |
| CA\_n20-n78 | n20, n78 |  |
| CA\_n25-n41 | n25, n41 |  |
| CA\_n25-n466 | n25, n46 |  |
| CA\_n25-n66 | n25, n66 |  |
| CA\_n25-n71 | n25, n71 |  |
| CA\_n25-n78 | n25,n78 |  |
| CA\_n28-n40 | n28, n40 |  |
| CA\_n28-n41 | n28, n41 |  |
| CA\_n28-n50 | n28, n50 |  |
| CA\_n28-n752 | n28, n75 |  |
| CA\_n28-n77 | n28, n77 | Yes |
| CA\_n28-n781 | n28, n78 | Yes |
| CA\_n29-n66 | n29, n66 |  |
| CA\_n29-n70 | n29, n70 |  |
| CA\_n38-n66 | n38, n66 |  |
| CA\_n38-n781 | n38, n78 |  |
| CA\_n39-n40 | n39, n40 |  |
| CA\_n39-n41 | n39, n41 | Yes |
| CA\_n39-n791 | n39, n79 | Yes |
| CA\_n40-n41 | n40, n41 |  |
| CA\_n40-n78 | n40, n78 |  |
| CA\_n40-n791,4 | n40, n79 | Yes |
| CA\_n41-n501 | n41, n50 |  |
| CA\_n41-n66 | n41, n66 |  |
| CA\_n41-n711 | n41, n71 |  |
| CA\_n41-n78 | n41, n78 |  |
| CA\_n41-n791,3 | n41, n79 | Yes |
| CA\_n46-n486 | n46, n48 |  |
| CA\_n46-n666 | n46, n66 |  |
| CA\_n48-n66 | n48, n66 |  |
| CA\_n50-n78 | n50, n78 |  |
| CA\_n66-n70 | n66, n70 |  |
| CA\_n66-n71 | n66, n71 |  |
| CA\_n66-n77 | n66, n77 |  |
| CA\_n66-n78 | n66, n78 |  |
| CA\_n70-n71 | n70, n71 |  |
| CA\_n75-n781 | n75, n78 |  |
| CA\_n76-n781 | n76, n78 |  |
| CA\_n77-n79 | n77, n79 |  |
| CA\_n78-n795 | n78, n79 |  |
| CA\_n78-n92 | n78, n92 |  |
| NOTE 1: Applicable for UE supporting inter-band carrier aggregation with mandatory simultaneous Rx/Tx capability.NOTE 2: The frequency range in band n28 is restricted for this band combination to 703-733 MHz for the UL and 758-788 MHz for the DL.NOTE 3: The frequency range below 2506 MHz for Band n41 is not used in this combination.NOTE 4: Applicable for frequency range above 4800 MHz for Band n79 in this combination.NOTE 5: Simultaneous Rx/Tx capability does not apply for UEs supporting band n78 with a n77 implementation.NOTE 6: The PCell is allocated in the licensed band in this combination.NOTE 7: Applicable when dynamic switching between two uplink carriers is conducted. The DL interruption requirement is specified in clause 8.2.2.2.10 of 38.133 [13]. |

## <End of Changes>