**3GPP TSG-RAN WG4 Meeting #99-eR4-2110071**

**Electronic Meeting, May. 19-27, 2021**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.101-1** | **CR** | **0806** | **rev** | **-** | **Current version:** | **17.1.0** |  |
|  | | | | | | | | |
| *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 |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | CR to 38.101-1 Introduce DL interruption clarification for CA conduting Tx Switching | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | China Telecom | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | DL\_intrpt\_combos\_TxSW\_R17-Core | | | | |  | ***Date:*** | | | 2021-04-28 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Introduce DL interruption clarification for UL CA configurations for which DL interruptions are not allowed when conducting Tx switching. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Indicate that for the following UL CA configurations, for which DL interruption are not allowed.  CA\_n3-n40-n41  CA\_n3-n41-n79  CA\_n8-n39-n41  CA\_n8-n41-n79  CA\_n39-n41-n79  CA\_n40-n41-n79  CA\_n3-n40  CA\_n1-n3-n78 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The DL interruption clarification for CAs in the spec are not clear. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.2A.2.1, 5.2A.2.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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>

#### 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) | DL interruption allowed (Note 8) |
| 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 | No |
| CA\_n1-n78 | n1, n78 | No |
| CA\_n1-n79 | n1, n79 | No |
| 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-n18 | n3, n18 |  |
| CA\_n3-n28 | n3, n28 |  |
| CA\_n3-n38 | n3, n38 |  |
| CA\_n3-n40 | n3, n40 | No |
| CA\_n3-n41 | n3, n41 | No |
| CA\_n3-n771 | n3, n77 | No |
| CA\_n3-n781 | n3, n78 | No |
| CA\_n3-n791 | n3, n79 | No |
| CA\_n5-n7 | n5, n7 |  |
| CA\_n5-n25 | n5, n25 |  |
| CA\_n5-n48 | n5, n48 |  |
| CA\_n5-n66 | n5, n66 |  |
| CA\_n5-n77 | n5, n77 |  |
| CA\_n5-n78 | n5, n78 | No |
| CA\_n5-n79 | n5, n79 | No |
| CA\_n7-n25 | n7, n25 |  |
| CA\_n7-n28 | n7, n28 |  |
| CA\_n7-n66 | n7, n66 |  |
| CA\_n7-n77 | n7, n77 |  |
| CA\_n7-n78 | n7, n78 |  |
| CA\_n8-n20 | n8, n20 |  |
| CA\_n8-n28 | n8, n28 |  |
| CA\_n8-n391 | n8, n39 |  |
| CA\_n8-n40 | n8, n40 |  |
| CA\_n8-n41 | n8, n41 | No |
| CA\_n8-n751 | n8, n75 |  |
| CA n8-n781 | n8, n78 | No |
| CA\_n8-n791 | n8, n79 | No |
| CA\_n13-n25 | n13, n25 |  |
| CA\_n13-n66 | n13, n66 |  |
| CA\_n18-n41 | n18, n41 |  |
| CA\_n20-n282 | n20, n28 |  |
| CA\_n20-n75 | n20, n75 |  |
| CA\_n20-n78 | n20, n78 |  |
| CA\_n25-n29 | n25, n29 |  |
| CA\_n25-n38 | n25, n38 |  |
| CA\_n25-n41 | n25, n41 |  |
| CA\_n25-n466 | n25, n46 |  |
| CA\_n25-n48 | n25, n48 |  |
| CA\_n25-n66 | n25, n66 |  |
| CA\_n25-n71 | n25, n71 |  |
| CA\_n25-n77 | n25, n77 |  |
| 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 | No |
| CA\_n28-n781 | n28, n78 | No |
| CA\_n28-n79 | n28, n79 |  |
| CA\_n29-n66 | n29, n66 |  |
| CA\_n29-n70 | n29, n70 |  |
| CA\_n34-n791 | n34, n79 |  |
| CA\_n38-n66 | n38, n66 |  |
| CA\_n38-n781 | n38, n78 |  |
| CA\_n39-n40 | n39, n40 |  |
| CA\_n39-n41 | n39, n41 | No |
| CA\_n39-n791 | n39, n79 | No |
| CA\_n40-n41 | n40, n41 |  |
| CA\_n40-n78 | n40, n78 |  |
| CA\_n40-n791,4 | n40, n79 | No |
| CA\_n41-n501 | n41, n50 |  |
| CA\_n41-n66 | n41, n66 |  |
| CA\_n41-n711 | n41, n71 |  |
| CA\_n41-n771 | n41, n77 |  |
| CA\_n41-n78 | n41, n78 |  |
| CA\_n41-n791,3 | n41, n79 | No |
| 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\_n71-n77 | n71, n77 |  |
| CA\_n71-n78 | n71, n78 |  |
| CA\_n75-n781 | n75, n78 |  |
| CA\_n76-n781 | n76, n78 |  |
| CA\_n77-n795,7 | 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: For UEs supporting band n77, the minimum requirements apply only when there is non-simultaneous Rx/Tx operation between n78-n79 NR carriers. This restriction applies also for these carriers when applicable NR CA configuration is part of a higher order configuration.  NOTE 6: The PCell is allocated in the licensed band in this combination.  NOTE 7: The minimum requirements apply only when there is non-simultaneous Rx/Tx operation between n77-n79 NR carriers. This restriction applies also for these carriers when applicable NR CA configuration is part of a higher order configuration.  NOTE 8: Applicable when dynamic Tx switching is conducted. The DL interruption requirement is specified in clause 8.2.2.2.10 of 38.133 [13]. | | |

#### 5.2A.2.2 Inter-band CA (three bands)

Table 5.2A.2.2-1: Inter-band CA operating bands involving FR1 (three bands)

|  |  |  |
| --- | --- | --- |
| NR CA Band | NR Band  (Table 5.2-1) | DL interruption allowed  (Note 3) |
| CA\_n1-n3-n7 | n1, n3, n7 |  |
| CA\_n1-n3-n8 | n1, n3, n8 |  |
| CA\_n1-n3-n28 | n1, n3, n28 |  |
| CA\_n1-n3-n41 | n1, n3, n41 |  |
| CA\_n1-n3-n78 | n1, n3, n78 | No for CA\_n1-n78, CA\_n3-n78 |
| CA\_n1-n7-n28 | n1, n7, n28 |  |
| CA\_n1-n7-n78 | n1，n7, n78 |  |
| CA\_n1-n8-n78 | n1, n8, n78 |  |
| CA\_n1-n8-n79 | n1, n8, n79 |  |
| CA\_n1-n28-n78 | n1, n28, n78 |  |
| CA\_n1-n40-n78 | n1, n40, n78 |  |
| CA\_n1-n77-n79 | n1, n77, n79 |  |
| CA\_n1-n78-n79 | n1, n78, n79 |  |
| CA\_n2-n66-n77 | n2, n66, n77 |  |
| CA\_n3-n5-n7 | n3, n5, n7 |  |
| CA\_n3-n7-n28 | n3, n7, n28 |  |
| CA\_n3-n7-n78 | n3, n7, n78 |  |
| CA\_n3-n8-n78 | n3, n8, n78 |  |
| CA\_n3-n18-n41 | n3, n18, n41 |  |
| CA\_n3-n28-n41 | n3, n28, n41 |  |
| CA\_n3-n28-n77 | n3, n28, n77 |  |
| CA\_n3-n28-n78 | n3, n28, n78 |  |
| CA\_n3-n40-n41 | n3, n40, n41 | No for CA n3-n40, CA n3-n41 |
| CA\_n3-n41-n77 | n3, n41, n77 |  |
| CA\_n3-n41-n78 | n3, n41, n78 |  |
| CA\_n3-n41-n79 | n3, n41, n79 | No |
| CA\_n5-n7-n78 | n5, n7, n78 |  |
| CA\_n5-n25-n66 | n5, n25, n66 |  |
| CA\_n5-n25-n77 | n5, n25, n77 |  |
| CA\_n5-n25-n78 | n5, n25, n78 |  |
| CA\_n5-n66-n77 | n5, n66, n77 |  |
| CA\_n5-n66-n78 | n5, n66, n78 |  |
| CA\_n7-n25-n66 | n7, n25, n66 |  |
| CA\_n7-n28-n78 | n7, n28, n78 |  |
| CA\_n7-n66-n78 | n7, n66, n78 |  |
| CA\_n8-n39-n41 | n8, n39, n41 | No |
| CA\_n8-n40-n41 | n8, n40, n41 |  |
| CA\_n8-n41-n79 | n8, n41, n79 | No |
| CA\_n8-n78-n79 | n8, n78, n79 |  |
| CA\_n13-n25-n66 | n13, n25, n66 |  |
| CA\_n20-n28-n78 | n20, n28, n78 |  |
| CA\_n25-n29-n66 | n25, n29, n66 |  |
| CA\_n25-n38-n78 | n25, n38, n78 |  |
| CA\_n25-n41-n66 | n25, n41, n66 |  |
| CA\_n25-n41-n71 | n25, n41, n71 |  |
| CA\_n25-n41-n77 | n25, n41, n77 |  |
| CA\_n25-n48-n66 | n25, n48, n66 |  |
| CA\_n25-n66-n71 | n25, n66, n71 |  |
| CA\_n25-n66-n77 | n25, n66, n77 |  |
| CA\_n25-n66-n78 | n25, n66, n78 |  |
| CA\_n25-n71-n77 | n25, n71, n77 |  |
| CA\_n28-n77-n79 | n28, n77, n79 |  |
| CA\_n28-n78-n79 | n28, n78, n79 |  |
| CA\_n28-n40-n78 | n28, n40, n78 |  |
| CA\_n28-n41-n77 | n28, n41, n77 |  |
| CA\_n28-n41-n78 | n28, n41, n78 |  |
| CA\_n29-n66-n70 | n29, n66, n70 |  |
| CA\_n38-n66-n78 | n38, n66, n78 |  |
| CA\_n39-n40-n41 | n39, n40, n41 |  |
| CA\_n39-n40-n79 | n39, n40, n79 |  |
| CA\_n39-n41-n79 | n39, n41, n79 | No |
| CA\_n40-n41-n791,2 | n40, n41, n79 | No for CA n40-n79, CA n41-n79 |
| CA\_ n41-n66-n71 | n41, n66, n71 |  |
| CA\_ n41-n66-n77 | n41, n66, n77 |  |
| CA\_n41-n71-n77 | n41, n71, n77 |  |
| CA\_n66-n70-n71 | n66, n70, n71 |  |
| CA\_n66-n71-n77 | n66, n71, n77 |  |
| CA\_n66-n71-n78 | n66, n71, n78 |  |
| NOTE 1: The frequency range below 2506 MHz for Band n41 is not used in this band combination.  NOTE 2: Applicable for frequency range above 4800 MHz for Band n79 in this band combination.  NOTE 3: Applicable when dynamic Tx switching is conducted. The DL interruption requirement is specified in clause 8.2.2.2.10 of 38.133 [13]. | | |

## <End of Changes>