**3GPP TSG- WG4 Meeting # 115 *R4-2505326***

**St Julian’s, Malta, May 19 – 23, 2025**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.101-1** | **CR** | **2727** | **rev** | **-** | **Current version:** | **19.1.0** |  |
|  | | | | | | | | |
| *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:*** | BigCR to 38.101-1: Simultaneous Rx-Tx | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, HiSilicon | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | LTE\_NR\_R19\_Simult\_RxTx-Core | | | | |  | ***Date:*** | | | 2025-05-26 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | ***B*** |  | | | | | ***Release:*** | | | Rel-19 |
|  | *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:*** | | 1. It was approved in WF R4-2502840 that for TDD-SDL band combination, simultaneous Rx-Tx is mandatory. For FDD-FDD and FDD-SDL band combinations, simultaneous Rx-Tx is mandatory without signaling. 2. The MSD for the 2nd test point of CA\_n40A-41A was agreed in February meeting and should be captured in spec. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 1. Update the mandatory simultaneous Rx-Tx requirements for TDD-SDL, FDD-FDD, FDD-SDL in clause 5.2A.2 2. Add the cross band isolation requirements for 2nd test point of CA\_n40A-n41A for PC3 and PC2 in clause 7.3A.6 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The conclusions of Rel-19 simultaneous Rx-Tx basket are not included in the spec. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.2A.2, 7.3A.6 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  |  | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | | **X** |  | Test specifications | | | | TS 38.521-1 | | |
| ***(show related CRs)*** | |  |  | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

## **<Start of Change>**

5.2A.2 Inter-band CA

NR inter-band carrier aggregation is designed to operate in the operating bands defined in Table 5.2A.2.1-1, 5.2A.2.2-1 and Table 5.2A.2.3-1, where all operating bands are within FR1.

If the mandatory simultaneous Rx/Tx capability applies for a lower order band combination, when the applicable lower order band combination is a band pair in a higher order band combination, the mandatory simultaneous Rx/Tx capability also applies for the band pair in the higher order band combination.

Unless stated otherwise, simultaneous Rx/Tx capability is mandatory for FR1+FR1 FDD-TDD and TDD-SDL CA combinations. Simultaneous Rx/Tx capability is mandatory without signaling for FR1+FR1 FDD-FDD and FDD-SDL CA combinations.

**Table 5.2A.2-1: Void**

**Table 5.2A.2-2: Void**

**Table 5.2A.2-3: Void**

## **<Next Change>**

7.3A.6 Reference sensitivity exceptions due to cross band isolation for CA

Sensitivity degradation is allowed for a band if it is impacted by UL of another band part which belongs to NR band of the same NR CA configuration due to cross band isolation issues. The reference sensitivity degradation for the victim band due to cross band isolation is specified only for the specific uplink and downlink test points specified in Table 7.3A.6-1 for either PC3 and PC2 NR CA from a PC3 aggressor NR UL band, and for PC2 NR CA, in Table 7.3A.6-1afrom a PC2 aggressor NR UL band, and in Table 7.3A.6-1b from a PC1.5 aggressor NR single band uplink, and in Table 7.3A.6-3 when a DL band < 1 GHz is victim of two simultaneous PC3 aggressor NR UL bands.

In Tables 7.3A.6-1, 7.3A.6-1a and 7.3A.6-1b the following terminology is used to define the source of cross-band isolation interference:

- “ACLR1” indicates that the first adjacent channel of the aggressor UL band falls into the Rx channel of victim band.

- “ACLR2” indicates that the second adjacent channel of the aggressor UL band falls into the Rx channel of victim band.

- “>ACLR2” indicates that neither the first, nor the second adjacent channel of the aggressor UL band falls into the Rx channel of victim band.

In Table 7.3A.6-3 only two DL / two UL < 1 GHz bands cases where one DL is simulateneously victim of UL channel ACLR1 of one band and UL channel ACLR1 or 2 of the other band are specified.

**Table 7.3A.6-1: Reference sensitivity exceptions (MSD) and uplink/downlink configurations due to cross band isolation from a PC3 aggressor NR UL band for NR CA FR1**

| **UL band** | **DL band** | **UL Fc** | **UL BW** | **SCS of UL band** | **UL RB Allocation** | **DL Fc** | **DL BW** | **MSD** | **Cross-band**  **Interference**  **source** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **(MHz)** | **(MHz)** | **(kHz)** | **LCRB** | **(MHz)** | **(MHz)** | **(dB)** |
| n1 | n3 | 1922.5 | 5 | 15 | 25 (RBstart=0) | 1877.5 | 5 | 3 | >ACLR2 |
| n1 | n3 | 1945 | 50 | 15 | 128 (RBstart=0) | 1877.5 | 5 | 19.7 | ACLR1 |
| n1 | n38 | 1955 | 50 | 15 | 128 (RBstart=142) | 2572.5 | 5 | 2.9 | >ACLR2 |
| n1 | n38 | 1955 | 50 | 15 | 128 (RBstart=142) | 2590 | 40 | 2.9 | >ACLR2 |
| n1 | n40 | 1955 | 50 | 15 | 128 (RBstart=142) | 2302.5 | 5 | 6.6 | >ACLR2 |
| n1 | n40 | 1970 | 20 | 15 | 100 (RBstart=6) | 2302.5 | 5 | 6.6 | >ACLR2 |
| n1 | n41 | 1955 | 50 | 15 | 128 (RBstart=142) | 2501 | 10 | 6.1 | >ACLR2 |
| n1 | n41 | 1970 | 20 | 15 | 100 (RBstart=6) | 2546 | 100 | 0.7 | >ACLR2 |
| n2 | n66 | 1910 | 40 | 15 | 40 (RBstart=176) | 2112.5 | 5 | [0] | >ACLR2 |
| n3 | n39 | 1770 | 30 | 15 | 50 (RBstart=110) | 1882.5 | 5 | 2.1 | >ACLR2 |
| n3 | n41 | 1760 | 50 | 15 | 50 (RBstart=220) | 2501 | 10 | 0.7 | >ACLR2 |
| n3 | n41 | 1760 | 50 | 15 | 50 (RBstart=220) | 2546 | 100 | 0.7 | >ACLR2 |
| n3 | n74 | 1712.5 | 5 | 15 | 25 (RBstart=0) | 1515.5 | 5 | 2.6 | >ACLR2 |
| n3 | n75 | 1712.5 | 5 | 15 | 25 (RBstart=0) | 1515.5 | 5 | 4.3 | >ACLR2 |
| n5 | n8 | 844 | 10 | 15 | 25 (RBstart=27) | 951.5 | 5 | 2.8 | >ACLR2 |
| n5 | n13 | 834 | 20 | 15 | 20 (RBstart=0) | 753.5 | 5 | 2.4 | >ACLR2 |
| n5 | n28 | 834 | 20 | 15 | 20 (RBstart=0) | 800.5 | 5 | 17.5 | ACLR2 |
| n5 | n71 | 834 | 20 | 15 | 20 (RBstart=0) | 649.5 | 5 | 3.9 | >ACLR2 |
| n5 | n105 | 834 | 20 | 15 | 20 (RBstart=0) | 649.5 | 5 | 3.3 | >ACLR2 |
| n7 | n3 | 2525 | 50 | 15 | 45 (RBstart=0) | 1877.5 | 5 | 0.6 | >ACLR2 |
| n7 | n40 | 2525 | 50 | 15 | 45 (RBstart=0) | 2397.5 | 5 | 3.7 | >ACLR2 |
| n12 | n71 | 706.5 | 15 | 15 | 20 (RBstart=0) | 649.5 | 5 | 3.8 | >ACLR2 |
| n13 | n5 | 782 | 10 | 15 | 20 (RBstart=32) | 871.5 | 5 | 2.1 | >ACLR2 |
| n18 | n285 | 822.5 | 15 | 15 | 25 (RBstart=0) | 800.5 | 5 | 31.3 | ACLR1 |
| n18 | n28 | 822.5 | 15 | 15 | 25 (RBstart=0) | 785.5 | 5 | 12.7 | ACLR2 |
| n20 | n71 | 842 | 20 | 15 | 20 (RBstart=0) | 649.5 | 5 | 2.6 | >ACLR2 |
| n26 | n28 | 824 | 20 | 15 | 25 (RBstart=0) | 800.5 | 5 | 36.9 | ACLR1 |
| n26 | n29 | 824 | 20 | 15 | 25 (RBstart=0) | 719.5 | 5 | 3.9 | >ACLR2 |
| n26 | n71 | 824 | 20 | 15 | 20 (RBstart=0) | 649.5 | 5 | 3.9 | >ACLR2 |
| n28 | n71 | 718 | 30 | 15 | 25 (RBstart=0) | 649.5 | 5 | 13.3 | ACLR2 |
| n28 | n105 | 718 | 30 | 15 | 25 (RBstart=0) | 649.5 | 5 | 12.1 | ACLR2 |
| n30 | n66 | 2310 | 10 | 15 | 20 (RBstart=0) | 2197.5 | 5 | 8.3 | >ACLR2 |
| n34 | n3 | 2017.5 | 15 | 15 | 75 (RBstart=0) | 1877.5 | 5 | 3 | >ACLR2 |
| n34 | n40 | 2017.5 | 15 | 15 | 75 (RBstart=4) | 2302.5 | 5 | 6 | >ACLR2 |
| n34 | n41 | 2017.5 | 15 | 15 | 75 (RBstart=4) | 2501 | 10 | 3.2 | >ACLR2 |
| n38 | n1 | 2590 | 40 | 15 | 216 (RBstart=0) | 2167.5 | 5 | 1.9 | >ACLR2 |
| n38 | n2 | 2590 | 40 | 15 | 216 (RBstart=0) | 1987.5 | 5 | 0.6 | >ACLR2 |
| n38 | n25 | 2590 | 40 | 15 | 216 (RBstart=0) | 1992.5 | 5 | 0.6 | >ACLR2 |
| n38 | n66 | 2590 | 40 | 15 | 216 (RBstart=0) | 2197.5 | 5 | 1.9 | >ACLR2 |
| n38 | n78 | 2600 | 40 | 15 | 216 (RBstart=0) | 3305 | 10 | 8.3 | >ACLR2 |
| n39 | n41 | 1900 | 40 | 15 | 216 (RBstart=0) | 2501 | 10 | 3.3 | >ACLR2 |
| n40 | n1 | 2340 | 100 | 30 | 270 (RBstart=0) | 2167.5 | 5 | 21.9 | ACLR2 |
| n40 | n7 | 2350 | 100 | 30 | 270 (RBstart=3) | 2622.5 | 5 | 22.3 | >ACLR2 |
| n40 | n7 | 2350 | 100 | 30 | 270 (RBstart=3) | 2645 | 50 | 15.6 | >ACLR2 |
| n40 | n34 | 2350 | 100 | 30 | 270 (RBstart=0) | 2022.5 | 5 | 17.9 | >ACLR2 |
| n40 | n41 | 2350 | 100 | 30 | 270 (RBstart=3) | 2501 | 10 | 28.1 | ACLR2 |
| n40 | n41 | 2345 | 50 | 30 | 128 (RBstart=5) | 2565 | 100 | 11.2X | >ACLR2 |
| n41 | n1 | 2546 | 100 | 30 | 270 (RBstart=0) | 2167.5 | 5 | 18.1 | >ACLR2 |
| n41 | n2 | 2546 | 100 | 30 | 270 (RBstart=0) | 1987.5 | 5 | 0.6 | >ACLR2 |
| n41 | n3 | 2546 | 100 | 30 | 270 (RBstart=0) | 1877.5 | 5 | 0.6 | >ACLR2 |
| n41 | n25 | 2546 | 100 | 30 | 270 (RBstart=0) | 1992.5 | 5 | 0.6 | >ACLR2 |
| n41 | n34 | 2456 | 100 | 30 | 270 (RBstart=0) | 2022.5 | 5 | 7.2 | >ACLR2 |
| n41 | n39 | 2546 | 100 | 30 | 270 (RBstart=3) | 1917.5 | 5 | 1.6 | >ACLR2 |
| n41 | n40 | 2546 | 100 | 30 | 270 (RBstart=0) | 2397.5 | 5 | 31.4 | ACLR2 |
| n41 | n40 | 2565 | 100 | 30 | 270 (RBstart=0) | 2345 | 50 | 27.1X | ACLR2 |
| n41 | n48 | 2680 | 100 | 30 | 270 (RBstart=3) | 3552.5 | 5 | 8.3 | >ACLR2 |
| n411 | n66 | 2546 | 100 | 30 | 270 (RBstart=0) | 2197.5 | 5 | 10.5 | >ACLR2 |
| n41 | n70 | 2546 | 100 | 30 | 270 (RBstart=0) | 2017.5 | 5 | 0.6 | >ACLR2 |
| n41 | n77 | 2640 | 100 | 30 | 270 (RBstart=3) | 3305 | 10 | 8.3 | >ACLR2 |
| n41 | n78 | 2640 | 100 | 30 | 270 (RBstart=3) | 3305 | 10 | 8.3 | >ACLR2 |
| n46 | n48 | 5190 | 80 | 30 | 216 (RBstart=0) | 3697.5 | 5 | 13.3 | >ACLR2 |
| n46 | n48 | 5190 | 80 | 30 | 216 (RBstart=0) | 3650 | 100 | 6.2 | >ACLR2 |
| n46 | n77 | 5190 | 80 | 30 | 216 (RBstart=0) | 3975 | 10 | 10.5 | >ACLR2 |
| n46 | n77 | 5190 | 80 | 30 | 216 (RBstart=0) | 3930 | 100 | 5.5 | >ACLR2 |
| n46 | n78 | 5190 | 80 | 30 | 216 (RBstart=0) | 3795 | 10 | 10.4 | >ACLR2 |
| n46 | n78 | 5190 | 80 | 30 | 216 (RBstart=0) | 3750 | 100 | 5.1 | >ACLR2 |
| n48 | n411 | 3570 | 40 | 15 | 216 (RBstart=0) | 2685 | 10 | 4.5 | >ACLR2 |
| n48 | n411 | 3570 | 40 | 15 | 216 (RBstart=0) | 2640 | 100 | 4.5 | >ACLR2 |
| n48 | n46 | 3680 | 40 | 15 | 216 (RBstart=0) | 5160 | 20 | 15.7 | >ACLR2 |
| n48 | n96 | 3680 | 40 | 15 | 216 (RBstart=0) | 5935 | 20 | 15.7 | >ACLR2 |
| n66 | n2 | 1760 | 40 | 15 | 216 (RBstart=0) | 1932.5 | 5 | 1.2 | >ACLR2 |
| n66 | n25 | 1757.5 | 45 | 15 | 240 (RBstart=2) | 1932.5 | 5 | 1.4 | >ACLR2 |
| n66 | n2 | 1757.5 | 45 | 15 | 240 (RBstart=2) | 1932.5 | 5 | 1.2 | >ACLR2 |
| n66 | n41 | 1760 | 40 | 15 | 216 (RBstart=0) | 2501 | 10 | 0.4 | >ACLR2 |
| n71 | n5 | 688 | 20 | 15 | 20 (RBstart=86) | 871.5 | 5 | 2.0 | >ACLR2 |
| n71 | n12 | 688 | 20 | 15 | 20 (RBstart=86) | 731.5 | 5 | 8.2 | ACLR2 |
| n71 | n20 | 688 | 20 | 15 | 20 (RBstart=86) | 796 | 5 | 3.0 | >ACLR2 |
| n71 | n26 | 688 | 20 | 15 | 20 (RBstart=86) | 861.5 | 5 | 2.0 | >ACLR2 |
| n71 | n28 | 688 | 20 | 15 | 20 (RBstart=86) | 760.5 | 5 | 6.5 | >ACLR2 |
| n71 | n29 | 688 | 20 | 15 | 20 (RBstart=86) | 719.5 | 5 | 17.5 | ACLR2 |
| n71 | n85 | 688 | 20 | 15 | 20 (RBstart=86) | 730.5 | 5 | 8.26 | ACLR2 |
| n71 | n85 | 680.5 | 35 | 15 | 20 (Rbstart=168) | 730.5 | 5 | 237 | ACLR1 |
| n77 | n7 | 3350 | 100 | 30 | 270 (RBstart=0) | 2687.5 | 5 | 4.5 | >ACLR2 |
| n77 | n401 | 3350 | 100 | 30 | 270 (RBstart=0) | 2397.5 | 10 | 4.5 | >ACLR2 |
| n77 | n401 | 3350 | 100 | 30 | 270 (RBstart=0) | 2350 | 100 | 4.5 | >ACLR2 |
| n77 | n411 | 3350 | 100 | 30 | 270 (RBstart=0) | 2685 | 10 | 4.5 | >ACLR2 |
| n77 | n411 | 3350 | 100 | 30 | 270 (RBstart=0) | 2640 | 100 | 4.5 | >ACLR2 |
| n78 | n71 | 3350 | 100 | 30 | 270 (RBstart=0) | 2687.5 | 5 | 4.5 | >ACLR2 |
| n78 | n38 | 3350 | 100 | 30 | 270 (RBstart=0) | 2617.5 | 5 | 3.3 | >ACLR2 |
| n78 | n38 | 3350 | 100 | 30 | 270 (RBstart=0) | 2600 | 40 | 3.3 | >ACLR2 |
| n78 | n401 | 3350 | 100 | 30 | 270 (RBstart=0) | 2397.5 | 5 | 4.5 | >ACLR2 |
| n78 | n401 | 3350 | 100 | 30 | 270 (RBstart=0) | 2350 | 100 | 4.5 | >ACLR2 |
| n78 | n411 | 3350 | 100 | 30 | 270 (RBstart=0) | 2685 | 10 | 4.5 | >ACLR2 |
| n78 | n411 | 3350 | 100 | 30 | 270 (RBstart=0) | 2640 | 100 | 4.5 | >ACLR2 |
| n78 | n46 | 3750 | 100 | 30 | 270 (RBstart=3) | 5160 | 20 | 13.5 | >ACLR2 |
| n783 | n79 | 3750 | 100 | 30 | 270 (RBstart=3) | 4420 | 40 | 2 | >ACLR2 |
| n783 | n79 | 3750 | 100 | 30 | 270 (RBstart=3) | 4405 | 10 | 2 | >ACLR2 |
| n78 | n104 | 3750 | 100 | 30 | 270 (RBstart=0) | 6435 | 20 | 14.4 | >ACLR2 |
| n79 | n783 | 4450 | 100 | 30 | 270 (RBstart=0) | 3795 | 10 | 2.6 | >ACLR2 |
| n79 | n783 | 4450 | 100 | 30 | 270 (RBstart=0) | 3750 | 100 | 2.6 | >ACLR2 |
| n85 | n71 | 705.5 | 15 | 15 | 20 (Rbstart=0) | 649.5 | 5 | 3.8 | >ACLR2 |
| n96 | n48 | 5965 | 80 | 30 | 216 (RBstart=0) | 3697.5 | 5 | 13.3 | >ACLR2 |
| n96 | n48 | 5965 | 80 | 30 | 216 (RBstart=0) | 3650 | 100 | 6.2 | >ACLR2 |
| n104 | n78 | 6475 | 100 | 30 | 270 (RBstart=0) | 3795 | 10 | 15.8 | >ACLR2 |
| n105 | n5 | 693 | 20 | 15 | 20 (RBstart=86) | 871.5 | 5 | 1.7 | >ACLR2 |
| n105 | n28 | 693 | 20 | 15 | 20 (RBstart=86) | 760.5 | 5 | 6.9 | >ACLR2 |
| NOTE 1: Applicable only when harmonic mixing MSD for this combination is not applied.  NOTE 2: Void  NOTE 3: The requirements only apply for UEs supporting inter-band carrier aggregation with simultaneous Rx/Tx capability. Simultaneous Rx/Tx capability does not apply for UEs supporting band n78 with a n77 implementation.  NOTE 4: Void  NOTE 5: The MSD exceptions are applicable to the case that interference of UL band 3rd order IMD product falls into the affected DL channels.  NOTE 6: Applicable to UE not supporting n71 optional maximum symmetrical UL/DL channel bandwidth  NOTE 7: Applicable to UE supporting n71 optional maximum symmetrical UL/DL channel bandwidth  NOTE X: Applicable when n41 spectrum is restricted to 2515-2675MHz. | | | | | | | | | |

**Table 7.3A.6-1a-1: Reference sensitivity exceptions (MSD) and uplink/downlink configurations due to cross band isolation from a PC2 aggressor NR UL band for NR CA FR1**

| **UL band** | **DL band** | **UL Fc** | **UL BW** | **SCS of UL band** | **UL RB Allocation** | **DL Fc** | **DL BW** | **MSD** | **Cross-band**  **Interference**  **source** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **(MHz)** | **(MHz)** | **(kHz)** | **LCRB** | **(MHz)** | **(MHz)** | **(dB)** |
| n2 | n66 | 1900 | 20 | 15 | 50 (RBstart=56) | 2112.5 | 5 | 0.76  0.97 | >ACLR2 |
| n3 | n1 | 1760 | 50 | 15 | 50 (RBstart=220) | 2112.5 | 5 | 0.86  1.17 | >ACLR2 |
| n3 | n7 | 1760 | 50 | 15 | 50 (RBstart=220) | 2622.5 | 5 | 0.56  0.77 | >ACLR2 |
| n7 | n1 | 2525 | 50 | 15 | 45 (RBstart=0) | 2167.5 | 5 | 0.86  1.17 | >ACLR2 |
| n7 | n3 | 2525 | 50 | 15 | 45 (RBstart=0) | 1877.5 | 5 | 1.16  1.57 | >ACLR2 |
| n25 | n41 | 1760 | 40 | 15 | 40 (RBstart=176) | 2501 | 10 | 0.86  17 | >ACLR2 |
| n25 | n66 | 1895 | 40 | 15 | 40 (RBstart=176) | 2112.5 | 5 | 0.76  0.97 | >ACLR2 |
| n39 | n41 | 1900 | 40 | 15 | 216 (RBstart=0) | 2501 | 10 | 4.7 | >ACLR2 |
| n40 | n3 | 2350 | 100 | 30 | 270 (RBstart=0) | 1877.5 | 5 | 0.6 | >ACLR2 |
| n40 | n41 | 2350 | 100 | 30 | 270 (RBstart=3) | 2501 | 10 | 31.1 | ACLR2 |
| n40 | n41 | 2345 | 50 | 30 | 128 (RBstart=5) | 2565 | 100 | 13.9 | >ACLR2 |
| n41 | n1 | 2546 | 100 | 30 | 270 (RBstart=0) | 2167.5 | 5 | 20.8 | >ACLR2 |
| n41 | n3 | 2546 | 100 | 30 | 270 (RBstart=0) | 1877.5 | 5 | 2.3 | >ACLR2 |
| n41 | n25 | 2546 | 100 | 30 | 270 (RBstart=0) | 1992.5 | 5 | 1.6 | >ACLR2 |
| n41 | n39 | 2546 | 100 | 30 | 270 (RBstart=3) | 1917.5 | 5 | 2.7 | >ACLR2 |
| n41 | n40 | 2546 | 100 | 30 | 270 (RBstart=0) | 2397.5 | 5 | 34.4 | ACLR2 |
| n41 | n40 | 2565 | 100 | 30 | 270 (RBstart=0) | 2345 | 50 | 30.1 | ACLR2 |
| n41 | n66 | 2546 | 100 | 30 | 270 (RBstart=0) | 2197.5 | 5 | 13.1 | >ACLR2 |
| n41 | n77 | 2640 | 100 | 30 | 270 (RBstart=3) | 3305 | 10 | 10.5 | >ACLR2 |
| n41 | n79 | 2640 | 100 | 30 | 270 (RBstart=3) | 4405 | 10 | 3.1 | >ACLR2 |
| n66 | n2 | 1760 | 40 | 15 | 216 (RBstart=0) | 1932.5 | 5 | 1.96  3.37 | >ACLR2 |
| n66 | n25 | 1757.5 | 45 | 15 | 240 (RBstart=2) | 1932.5 | 5 | 2.26  3.87 | >ACLR2 |
| n66 | n41 | 1760 | 40 | 15 | 216 (RBstart=0) | 2501 | 10 | 0.86  17 | >ACLR2 |
| n66 | n70 | 1760 | 40 | 15 | 216 (RBstart=0) | 1997.5 | 5 | 1.96  3.37 | >ACLR2 |
| n70 | n66 | 1702.5 | 15 | 15 | 75 (RBstart=4) | 2112.5 | 5 | 0.46  0.57 | >ACLR2 |
| n71 | n85 | 688 | 20 | 15 | 20 (RBstart=86) | 730.5 | 5 | 10.94,6  15.94,7 | ACLR2 |
| n71 | n85 | 680.5 | 35 | 15 | 20 (Rbstart=168) | 730.5 | 5 | 265,6  32.35,7 | ACLR1 |
| n77 | n2 | 3350 | 100 | 30 | 270 (RBstart=0) | 1987.5 | 5 | 1.0 | >ACLR2 |
| n77 | n7 | 3350 | 100 | 30 | 270 (RBstart=0) | 2687.5 | 5 | 6.5 | >ACLR2 |
| n77 | n25 | 3350 | 100 | 30 | 270 (RBstart=0) | 1992.5 | 5 | 1.0 | >ACLR2 |
| n77 | n30 | 3350 | 100 | 30 | 270 (RBstart=0) | 2357.5 | 5 | 1.0 | >ACLR2 |
| n77 | n401 | 3350 | 100 | 30 | 270 (RBstart=0) | 2397.5 | 10 | 6.5 | >ACLR2 |
| n77 | n401 | 3350 | 100 | 30 | 270 (RBstart=0) | 2350 | 100 | 6.5 | >ACLR2 |
| n77 | n411 | 3350 | 100 | 30 | 270 (RBstart=0) | 2685 | 10 | 6.5 | >ACLR2 |
| n77 | n411 | 3350 | 100 | 30 | 270 (RBstart=0) | 2640 | 100 | 6.5 | >ACLR2 |
| n77 | n66 | 3350 | 100 | 30 | 270 (RBstart=0) | 2197.5 | 5 | 1.0 | >ACLR2 |
| n78 | n7 | 3350 | 100 | 30 | 270 (RBstart=0) | 2687.5 | 5 | 6.5 | >ACLR2 |
| n78 | n401 | 3350 | 100 | 30 | 270 (RBstart=0) | 2395 | 10 | 6.5 | >ACLR2 |
| n78 | n401 | 3350 | 100 | 30 | 270 (RBstart=0) | 2350 | 100 | 1.2 | >ACLR2 |
| n783 | n79 | 3750 | 100 | 30 | 270 (RBstart=3) | 4405 | 10 | 5 | >ACLR2 |
| n783 | n79 | 3750 | 100 | 30 | 270 (RBstart=3) | 4450 | 100 | 5 | >ACLR2 |
| n79 | n41 | 4450 | 100 | 30 | 270 (RBstart=0) | 2685 | 10 | 3.5 | >ACLR2 |
| n79 | n783 | 4450 | 100 | 30 | 270 (RBstart=0) | 3795 | 10 | 5.6 | >ACLR2 |
| n79 | n783 | 4450 | 100 | 30 | 270 (RBstart=0) | 3750 | 100 | 5.6 | >ACLR2 |
| NOTE 1: Applicable only when harmonic mixing MSD for this combination is not applied.  NOTE 2: Void.  NOTE 3: The requirements only apply for UEs supporting inter-band carrier aggregation with simultaneous Rx/Tx capability. Simultaneous Rx/Tx capability does not apply for UEs supporting band n78 with a n77 implementation.  NOTE 4: Applicable to UE not supporting n71 optional maximum symmetrical UL/DL channel bandwidth  NOTE 5: Applicable to UE supporting n71 optional maximum symmetrical UL/DL channel bandwidth.  NOTE 6: Applicable to UE’s supporting PC2 with 1Tx  NOTE 7: Applicable to UE’s supporting PC2 with 2Tx | | | | | | | | | |

**Table 7.3A.6-1a-2: Void**

**Table 7.3A.6-1b: Reference sensitivity exceptions (MSD) and uplink/downlink configurations due to cross band isolation from a PC1.5 aggressor NR single UL band for DL NR CA FR1**

| **UL band** | **DL band** | **UL Fc** | **UL BW** | **SCS of UL band** | **UL RB Allocation** | **DL Fc** | **DL BW** | **MSD** | **Cross-band**  **Interference**  **source** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **(MHz)** | **(MHz)** | **(kHz)** | **LCRB** | **(MHz)** | **(MHz)** | **(dB)** |
| n40 | n3 | 2350 | 100 | 30 | 270 (RBstart=0) | 1877.5 | 5 | 1.2 | >ACLR2 |
| n40 | n41 | 2350 | 100 | 30 | 270 (RBstart=3) | 2501 | 10 | 37.9 | ACLR2 |
| n41 | n1 | 2546 | 100 | 30 | 270 (RBstart=0) | 2167.5 | 5 | 23.5 | >ACLR2 |
| n41 | n3 | 2546 | 100 | 30 | 270 (RBstart=0) | 1877.5 | 5 | 3.9 | >ACLR2 |
| n41 | n25 | 2546 | 100 | 30 | 270 (RBstart=0) | 1992.5 | 5 | 2.8 | >ACLR2 |
| n41 | n40 | 2546 | 100 | 30 | 270 (RBstart=0) | 2397.5 | 5 | 41.2 | ACLR2 |
| n41 | n66 | 2521 | 50 | 30 | 128 (RBstart=0) | 2197.5 | 5 | 7.7 | >ACLR2 |
| n41 | n77 | 2640 | 100 | 30 | 270 (RBstart=3) | 3305 | 10 | 13.3 | >ACLR2 |
| n41 | n39 | 2546 | 100 | 30 | 270 (RBstart=3) | 1917.5 | 5 | 6.7 | >ACLR2 |
| n77 | n2 | 3350 | 100 | 30 | 270 (RBstart=0) | 1987.5 | 5 | 1.8 | >ACLR2 |
| n77 | n7 | 3350 | 100 | 30 | 270 (RBstart=0) | 2687.5 | 5 | 9.0 | >ACLR2 |
| n77 | n25 | 3350 | 100 | 30 | 270 (RBstart=0) | 1992.5 | 5 | 1.8 | >ACLR2 |
| n77 | n30 | 3350 | 100 | 30 | 270 (RBstart=0) | 2357.5 | 5 | 1.8 | >ACLR2 |
| n77 | n401 | 3350 | 100 | 30 | 270 (RBstart=0) | 2395 | 10 | 9.0 | >ACLR2 |
| n77 | n401 | 3350 | 100 | 30 | 270 (RBstart=0) | 2350 | 100 | 2.2 | >ACLR2 |
| n77 | n411 | 3350 | 100 | 30 | 270 (RBstart=0) | 2685 | 10 | 9.0 | >ACLR2 |
| n77 | n411 | 3350 | 100 | 30 | 270 (RBstart=0) | 2640 | 100 | 9.0 | >ACLR2 |
| n77 | n66 | 3350 | 100 | 30 | 270 (RBstart=0) | 2197.5 | 5 | 1.8 | >ACLR2 |
| n78 | n1 | 3350 | 100 | 30 | 270 (RBstart=0) | 1987.5 | 5 | 2.7 | >ACLR2 |
| n78 | n7 | 3350 | 100 | 30 | 270 (RBstart=0) | 2687.5 | 5 | 9.0 | >ACLR2 |
| n78 | n401 | 3350 | 100 | 30 | 270 (RBstart=0) | 2395 | 10 | 9.0 | >ACLR2 |
| n78 | n401 | 3350 | 100 | 30 | 270 (RBstart=0) | 2350 | 100 | 2.2 | >ACLR2 |
| n783 | n79 | 3750 | 100 | 30 | 270 (RBstart=3) | 4405 | 10 | 8 | >ACLR2 |
| n783 | n79 | 3750 | 100 | 30 | 270 (RBstart=3) | 4420 | 40 | 8 | >ACLR2 |
| n783 | n79 | 3750 | 100 | 30 | 270 (RBstart=3) | 4450 | 100 | 8 | >ACLR2 |
| n79 | n783 | 4450 | 100 | 30 | 270 (RBstart=0) | 3795 | 10 | 8.6 | >ACLR2 |
| n79 | n783 | 4450 | 100 | 30 | 270 (RBstart=0) | 3750 | 100 | 8.6 | >ACLR2 |
| NOTE 1: Applicable only when harmonic mixing MSD for this combination is not applied.  NOTE 2: Void.  NOTE 3: The requirements only apply for UEs supporting inter-band carrier aggregation with simultaneous Rx/Tx capability. Simultaneous Rx/Tx capability does not apply for UEs supporting band n78 with a n77 implementation. | | | | | | | | | |

**Table 7.3A.6-1c: Reference sensitivity exceptions (MSD) and uplink/downlink configurations due to cross band isolation from a power class 5 aggressor NR single UL band for DL NR CA FR1**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **UL band** | **DL band** | **UL Fc** | **UL BW** | **SCS of UL band** | **UL RB Allocation** | **DL Fc** | **DL BW** | **MSD** | **Cross-band**  **Interference**  **source** |
| **(MHz)** | **(MHz)** | **(kHz)** | **LCRB** | **(MHz)** | **(MHz)** | **(dB)** |
| n46 | n48 | 5190 | 80 | 30 | 216 (RBstart=0) | 3697.5 | 5 | 11 | >ACLR2 |
| n46 | n48 | 5190 | 80 | 30 | 216 (RBstart=0) | 3650 | 100 | 3.9 | >ACLR2 |
| n46 | n78 | 5190 | 80 | 30 | 216 (RBstart=0) | 3795 | 10 | 8.1 | >ACLR2 |
| n46 | n78 | 5190 | 80 | 30 | 216 (RBstart=0) | 3750 | 100 | 2.8 | >ACLR2 |
| n96 | n48 | 5965 | 80 | 30 | 216 (RBstart=0) | 3697.5 | 5 | 11 | >ACLR2 |
| n96 | n48 | 5965 | 80 | 30 | 216 (RBstart=0) | 3650 | 100 | 3.9 | >ACLR2 |
| NOTE 1: Void | | | | | | | | | |

**Table 7.3A.6-2: Void**

**Table 7.3A.6-3: Reference sensitivity exceptions (MSD) and uplink/downlink configurations due to cross band isolation from two simulataneous PC3 aggressor NR UL bands for NR CA FR1**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **UL band** | **DL band** | **UL Fc** | **UL BW** | **SCS of UL band** | **UL RB Allocation** | **DL Fc** | **DL BW** | **MSD** | **Cross-band**  **Interference**  **source** |
| **(MHz)** | **(MHz)** | **(kHz)** | **LCRB** | **(MHz)** | **(MHz)** | **(dB)** |
| n5 | n28 | 834 | 20 | 15 | 20 (RBstart=0) | 788 | 30 | 3.1 | ACLR2 |
| n28 |  | 733 | 30 | 15 | 25 (RBstart=135) |  |  |  | ACLR1 |
| n26 | n28 | 824 | 20 | 15 | 25 (RBstart=0) | 788 | 30 | 13.5 | ACLR1 |
| n28 |  | 733 | 30 | 15 | 25 (RBstart=135) |  |  |  | ACLR1 |

## **<End of Change>**