**3GPP TSG-RAN WG4 Meeting #104-e *R4-221***

**Electronic Meeting, 15 - 26 August, 2022**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.101-3** | **CR** | **DraftCR** | **rev** | **-** | **Current version:** | **16.12.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Draft CR for 38.101-3 to remove the frequency restriction for DC\_28\_n5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, HiSilicon | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | DC\_R16\_1BLTE\_1BNR\_2DL2UL-Core | | | | |  | ***Date:*** | | | 2022-08-23 |
|  |  | | | |  | |  | | |  |
| ***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 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:*** | | In Table 6.2B.3.3-1, NS\_17 is applied to DC\_28\_n5, so the 703~733 frequency restriction for DC\_28\_n5 is contradictory to the real deployment. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | To remove the note 8 (703~733 frequency restriction on DC\_28\_n5) in table 5.5B.4.1-1.  To modify the REFSENS exception requirements based on the test point specified for CA\_n5A-n28A. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The 703~733 frequency restriction for DC\_28\_n5 is contradictory to the real deployment. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.5B.4.1, 7.3B.2.4 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | | **X** |  | Test specifications | | | | TS 38.521-3 | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

## **<<Start of Change>>**

#### 5.5B.4.1 Inter-band EN-DC configurations within FR1 (two bands)

Table 5.5B.4.1-1: Inter-band EN-DC configurations within FR1 (two bands)

| EN-DC  configuration | Uplink EN-DC  configuration  (NOTE 1) | Single UL allowed | DL interruption allowed  (Note 14) |
| --- | --- | --- | --- |
| DC\_1A\_n3A  DC\_1C\_n3A | DC\_1A\_n3A  DC\_1C\_n3A | DC\_1\_n3 |  |
| DC\_1A\_n5A | DC\_1A\_n5A | No |  |
| DC\_1A\_n7A  DC\_1A\_n7B | DC\_1A\_n7A | No |  |
| DC\_1A-1A\_n7A  DC\_1A-1A\_n7B | DC\_1A\_n7A | No |  |
| DC\_1A\_n8A | DC\_1A\_n8A | No |  |
| DC\_1A\_n20A | DC\_1A\_n20A | No |  |
| DC\_1A\_n28A | DC\_1A\_n28A | No |  |
| DC\_1A\_n38A  DC\_1C\_n38A | DC\_1A\_n38A | No |  |
| DC\_1A\_n40A | DC\_1A\_n40A | No |  |
| DC\_1A\_n41A7 | DC\_1A\_n41A | No |  |
| DC\_1A\_n50A | DC\_1A\_n50A | No |  |
| DC\_1A\_n51A | DC\_1A\_n51A | No |  |
| DC\_1A\_n71A  DC\_1A\_n71B | DC\_1A\_n71A | No |  |
| DC\_1A\_n77A7  DC\_1A\_n77C7 | DC\_1A\_n77A | DC\_1\_n77 | No |
| DC\_1A\_n77(2A)7 | DC\_1A\_n77A | DC\_1\_n77 | No |
| DC\_1A\_n78A7  DC\_1A\_n78C7 | DC\_1A\_n78A | No | No |
| DC\_1A\_n78(2A)7 | DC\_1A\_n78A | No | No |
| DC\_1A\_n79A7  DC\_1A\_n79C7 | DC\_1A\_n79A | No | No |
| DC\_2A\_n5A | DC\_2A\_n5A | No |  |
| DC\_2A-2A\_n5A | DC\_2A\_n5A | No |  |
| DC\_2A\_n7A | DC\_2A\_n7A | No |  |
| DC\_2A\_n7(2A) | DC\_2A\_n7A | No |  |
| DC\_2A\_n12A | DC\_2A\_n12A | No |  |
| DC\_2A\_n38A | DC\_2A\_n38A | No |  |
| DC\_2A-2A\_n38A | DC\_2A\_n38A | No |  |
| DC\_2A\_n41A  DC\_2A\_n41C  DC\_2C\_n41A | DC\_2A\_n41A  DC\_2C\_n41A | No |  |
| DC\_2A-2A\_n41A  DC\_2A\_n41(2A) | DC\_2A\_n41A | No |  |
| DC\_2A\_n46A | DC\_2A\_n46A | No |  |
| DC\_2A\_n48A  DC\_2A\_n48B | DC\_2A\_n48A | No |  |
| DC\_2A\_n66A | DC\_2A\_n66A | DC\_2\_n66 |  |
| DC\_2A-2A\_n66A | DC\_2A\_n66A | DC\_2\_n66 |  |
| DC\_2A\_n71A  DC\_2A\_n71B  DC\_2C\_n71A | DC\_2A\_n71A  DC\_2C\_n71A | No |  |
| DC\_2A-2A\_n71A | DC\_2A\_n71A | No |  |
| DC\_2A\_n78A | DC\_2A\_n78A | DC\_2\_n78 |  |
| DC\_2A\_n78(2A) | DC\_2A\_n78A | DC\_2\_n78 |  |
| DC\_2A-2A\_n78A | DC\_2A\_n78A | DC\_2\_n78 |  |
| DC\_3A\_n1A  DC\_3C\_n1A | DC\_3A\_n1A  DC\_3C\_n1A | DC\_3\_n1 |  |
| DC\_3A-3A\_n1A | DC\_3A\_n1A | DC\_3\_n1 |  |
| DC\_3A\_n5A  DC\_3C\_n5A | DC\_3A\_n5A  DC\_3C\_n5A | DC\_3\_n5 |  |
| DC\_3A\_n7A  DC\_3A\_n7B  DC\_3C\_n7A  DC\_3C\_n7B | DC\_3A\_n7A  DC\_3A\_n7B  DC\_3C\_n7A | No |  |
| DC\_3A-3A\_n7A  DC\_3A-3A\_n7B | DC\_3A\_n7A | No |  |
| DC\_3A\_n8A | DC\_3A\_n8A | No |  |
| DC\_3A\_n20A | DC\_3A\_n20A | No |  |
| DC\_3A\_n28A  DC\_3C\_n28A | DC\_3A\_n28A  DC\_3C\_n28A | No |  |
| DC\_3A\_n34A | DC\_3A\_n34A | No |  |
| DC\_3A\_n38A  DC\_3C\_n38A | DC\_3A\_n38A | No |  |
| DC\_3A\_n40A | DC\_3A\_n40A | No |  |
| DC\_3A\_n41A7  DC\_3C\_n41A | DC\_3A\_n41A  DC\_3C\_n41A | DC\_3\_n41 | No |
| DC\_3A\_n50A | DC\_3A\_n50A | No |  |
| DC\_3A\_n51A | DC\_3A\_n51A | No |  |
| DC\_3A\_n71A  DC\_3A\_n71B | DC\_3A\_n71A | No |  |
| DC\_3A\_n77A7  DC\_3A\_n77C7 | DC\_3A\_n77A | DC\_3\_n77 | No |
| DC\_3A\_n77(2A)7 | DC\_3A\_n77A | DC\_3\_n77 | No |
| DC\_3A-3A\_n77A7 | DC\_3A\_n77A | DC\_3\_n77 | No |
| DC\_3A\_n78A7  DC\_3A\_n78C7  DC\_3C\_n78A7 | DC\_3A\_n78A | DC\_3\_n78 | No |
| DC\_3A\_n78(2A)7  DC\_3C\_n78(2A)7 | DC\_3A\_n78A | DC\_3\_n78 | No |
| DC\_3A-3A\_n78A7 | DC\_3A\_n78A | DC\_3\_n78 | No |
| DC\_3A\_n79A7  DC\_3A\_n79C7  DC\_3C\_n79A7 | DC\_3A\_n79A  DC\_3C\_n79A | No | No |
| DC\_4A\_n38A | DC\_4A\_n38A | No |  |
| DC\_4A\_n41A | DC\_4A\_n41A | No |  |
| DC\_4A\_n78A | DC\_4A\_n78A | No |  |
| DC\_4A\_n78(2A) | DC\_4A\_n78A | No |  |
| DC\_5A\_n2A  DC\_5B\_n2A | DC\_5A\_n2A | No |  |
| DC\_5A-5A\_n2A | DC\_5A\_n2A | No |  |
| DC\_5A\_n7A | DC\_5A\_n7A | DC\_5\_n7 |  |
| DC\_5A\_n7(2A) | DC\_5A\_n7A | DC\_5\_n7 |  |
| DC\_5A\_n12A | DC\_5A\_n12A | No |  |
| DC\_5A\_n38A | DC\_5A\_n38A | DC\_5\_n38 |  |
| DC\_5A\_n40A | DC\_5A\_n40A | No |  |
| DC\_5A\_n48A  DC\_5A\_n48B | DC\_5A\_n48A | No |  |
| DC\_5A\_n66A  DC\_5B\_n66A | DC\_5A\_n66A | DC\_5\_n66 |  |
| DC\_5A-5A\_n66A | DC\_5A\_n66A | DC\_5\_n66 |  |
| DC\_5A\_n71A | DC\_5A\_n71A | No |  |
| DC\_5A\_n78A7 | DC\_5A\_n78A | No | No |
| DC\_5A\_n78(2A)7 | DC\_5A\_n78A | No | No |
| DC\_5A\_n79A | DC\_5A\_n79A | No | No |
| DC\_7A\_n1A  DC\_7C\_n1A | DC\_7A\_n1A  DC\_7C\_n1A | No |  |
| DC\_7A-7A\_n1A | DC\_7A\_n1A | No |  |
| DC\_7A\_n3A  DC\_7C\_n3A | DC\_7A\_n3A  DC\_7C\_n3A | No |  |
| DC\_7A\_n5A  DC\_7C\_n5A | DC\_7A\_n5A  DC\_7C\_n5A | DC\_7\_n5 |  |
| DC\_7A-7A\_n5A | DC\_7A\_n5A | DC\_7\_n5 |  |
| DC\_7A\_n8A | DC\_7A\_n8A | No |  |
| DC\_7A-7A\_n78A7 | DC\_7A\_n78A | No |  |
| DC\_7A-7A\_n78(2A)7 | DC\_7A\_n78A | No |  |
| DC\_7A\_n20A | DC\_7A\_n20A | No |  |
| DC\_7A\_n28A  DC\_7C\_n28A | DC\_7A\_n28A  DC\_7C\_n28A | No |  |
| DC\_7A\_n40A | DC\_7A\_n40A | Yes |  |
| DC\_7A\_n51A | DC\_7A\_n51A | No |  |
| DC\_7A\_n66A  DC\_7C\_n66A | DC\_7A\_n66A | No |  |
| DC\_7A-7A\_n66A | DC\_7A\_n66A | No |  |
| DC\_7A\_n71A | DC\_7A\_n71A | No |  |
| DC\_7A\_n77A7 | DC\_7A\_n77A | No |  |
| DC\_7A-7A\_n77A7 | DC\_7A\_n77A | No |  |
| DC\_7A\_n78A7  DC\_7C\_n78A7 | DC\_7A\_n78A  DC\_7C\_n78A | No |  |
| DC\_7A\_n78(2A)7  DC\_7C\_n78(2A)7 | DC\_7A\_n78A  DC\_7C\_n78A | No |  |
| DC\_8A\_n1A | DC\_8A\_n1A | No |  |
| DC\_8A\_n3A | DC\_8A\_n3A | No |  |
| DC\_8A\_n20A | DC\_8A\_n20A | Yes |  |
| DC\_8A\_n28A | DC\_8A\_n28A | No |  |
| DC\_8A\_n34A | DC\_8A\_n34A | No |  |
| DC\_8A\_n39A | DC\_8A\_n39A | No |  |
| DC\_8A\_n40A7 | DC\_8A\_n40A | No |  |
| DC\_8A\_n41A7  DC\_8A\_n41C | DC\_8A\_n41A | No | No |
| DC\_8A\_n41(2A) | DC\_8A\_n41A | No | No |
| DC\_8A\_n77A7 | DC\_8A\_n77A | No | No |
| DC\_8A\_n77(2A)7 | DC\_8A\_n77A | No | No |
| DC\_8A\_n78A7 | DC\_8A\_n78A | No | No |
| DC\_8A\_n79A7  DC\_8A\_n79C | DC\_8A\_n79A  DC\_8A\_n79C | No | No |
| DC\_8A\_n93A | DC\_8A\_n93A\_ULSUP-TDM | N/A |  |
| DC\_8A\_n94A | DC\_8A\_n94A\_ULSUP-TDM | N/A |  |
| DC\_11A\_n3A | DC\_11A\_n3A | No |  |
| DC\_11A\_n28A | DC\_11A\_n28A | No |  |
| DC\_11A\_n77A7 | DC\_11A\_n77A | No | No |
| DC\_11A\_n77(2A)7 | DC\_11A\_n77A | No | No |
| DC\_11A\_n78A7 | DC\_11A\_n78A | No | No |
| DC\_11A\_n79A7 | DC\_11A\_n79A | No |  |
| DC\_12A\_n2A | DC\_12A\_n2A | No |  |
| DC\_12A\_n5A | DC\_12A\_n5A | No |  |
| DC\_12A\_n7A  DC\_12A\_n7(2A) | DC\_12A\_n7A | No |  |
| DC\_12A\_n25A | DC\_12A\_n25A | No |  |
| DC\_12A\_n38A | DC\_12A\_n38A | No |  |
| DC\_12A\_n41A | DC\_12A\_n41A | No |  |
| DC\_12A\_n66A | DC\_12A\_n66A | No |  |
| DC\_12A\_n78A  DC\_12A\_n78(2A) | DC\_12A\_n78A | DC\_12\_n78 |  |
| DC\_13A\_n2A | DC\_13A\_n2A | No |  |
| DC\_13A\_n5A | DC\_13A\_n5A | DC\_13\_n5 |  |
| DC\_13A\_n7A  DC\_13A\_n7(2A) | DC\_13A\_n7A | No |  |
| DC\_13A\_n48A  DC\_13A\_n48B | DC\_13A\_n48A | No |  |
| DC\_13A\_n66A | DC\_13A\_n66A | No |  |
| DC\_13A\_n71A | DC\_13A\_n71A | No |  |
| DC\_13A\_n78A  DC\_13A\_n78(2A) | DC\_13A\_n78A | No |  |
| DC\_14A\_n2A | DC\_14A\_n2A | No |  |
| DC\_14A\_n66A | DC\_14A\_n66A | No |  |
| DC\_18A\_n3A | DC\_18A\_n3A | No |  |
| DC\_18A\_n77A7 | DC\_18A\_n77A | No | No |
| DC\_18A\_n78A7 | DC\_18A\_n78A | No | No |
| DC\_20A\_n91A | DC\_20A\_n91A\_ULSUP-TDM | N/A |  |
| DC\_20A\_n92A | DC\_20A\_n92A\_ULSUP-TDM | N/A |  |
| DC\_18A\_n79A7 | DC\_18A\_n79A | No |  |
| DC\_19A\_n77A7  DC\_19A\_n77C7 | DC\_19A\_n77A | No |  |
| DC\_19A\_n78A7  DC\_19A\_n78C7 | DC\_19A\_n78A | No | No |
| DC\_19A\_n79A7  DC\_19A\_n79C7 | DC\_19A\_n79A | No | No |
| DC\_20A\_n1A | DC\_20A\_n1A | No |  |
| DC\_20A\_n3A | DC\_20A\_n3A | No |  |
| DC\_20A\_n7A | DC\_20A\_n7A | DC\_20\_n7 |  |
| DC\_20A\_n8A | DC\_20A\_n8A | DC\_20\_n8 |  |
| DC\_20A\_n28A8, 11,13 | DC\_20A\_n28A | No |  |
| DC\_20A\_n38A | DC\_20A\_n38A | No |  |
| DC\_20A\_n41A | DC\_20A\_n41A | DC\_20\_n41 |  |
| DC\_20A\_n50A | DC\_20A\_n50A | No |  |
| DC\_20A\_n51A | DC\_20A\_n51A | No |  |
| DC\_20A\_n77A7 | DC\_20A\_n77A | No |  |
| DC\_20A\_n78A7 | DC\_20A\_n78A | No |  |
| DC\_20A\_n78(2A)7 | DC\_20A\_n78A | No |  |
| DC\_21A\_n77A7  DC\_21A\_n77C7 | DC\_21A\_n77A | No |  |
| DC\_21A\_n78A7  DC\_21A\_n78C7 | DC\_21A\_n78A | No | No |
| DC\_21A\_n79A7  DC\_21A\_n79C7 | DC\_21A\_n79A | No | No |
| DC\_25A\_n41A | DC\_25A\_n41A | No |  |
| DC\_25A-25A\_n41A | DC\_25A\_n41A | No |  |
| DC\_26A\_n25A | DC\_26A\_n25A | No |  |
| DC\_26A\_n41A | DC\_26A\_n41A | No |  |
| DC\_26A\_n77A7 | DC\_26A\_n77A | No |  |
| DC\_26A\_n78A7 | DC\_26A\_n78A | No |  |
| DC\_26A\_n79A7 | DC\_26A\_n79A | No |  |
| DC\_28A\_n3A | DC\_28A\_n3A | No |  |
| DC\_28A\_n5A | DC\_28A\_n5A | No |  |
| DC\_28A\_n7A  DC\_28A\_n7B | DC\_28A\_n7A  DC\_28A\_n7B | No |  |
| DC\_28A\_n51A | DC\_28A\_n51A | No |  |
| DC\_28A\_n8A | DC\_28A\_n8A | No |  |
| DC\_28A\_n40A | DC\_28A\_n40A | No |  |
| DC\_28A\_n41A7 | DC\_28A\_n41A | No |  |
| DC\_28A\_n50A | DC\_28A\_n50A | No |  |
| DC\_28A\_n77A7  DC\_28A\_n77C7 | DC\_28A\_n77A | No | No |
| DC\_28A\_n77(2A)7 | DC\_28A\_n77A | No | No |
| DC\_28A\_n78A7  DC\_28A\_n78C7 | DC\_28A\_n78A | No | No |
| DC\_28A\_n78(2A)7 | DC\_28A\_n78A | No | No |
| DC\_28A\_n79A7  DC\_28A\_n79C7 | DC\_28A\_n79A | No |  |
| DC\_30A\_n2A | DC\_30A\_n2A | No |  |
| DC\_30A\_n5A | DC\_30A\_n5A | No |  |
| DC\_30A\_n66A | DC\_30A\_n66A | No |  |
| DC\_38A\_n78A7 | DC\_38A\_n78A | No |  |
| DC\_39A\_n40A3 | DC\_39A\_n40A | No |  |
| DC\_39A\_n41A3  DC\_39C\_n41A3 | DC\_39A\_n41A  DC\_39C\_n41A | No | No |
| DC\_39A\_n78A5,7 | DC\_39A\_n78A | No |  |
| DC\_39A\_n79A7  DC\_39A\_n79C7 | DC\_39A\_n79A | No | No |
| DC\_40A\_n1A | DC\_40A\_n1A | No |  |
| DC\_40A\_n41A3  DC\_40C\_n41A3 | DC\_40A\_n41A | No |  |
| DC\_40A\_n77A | DC\_40A\_n77A | No |  |
| DC\_40A\_n78A  DC\_40C\_n78A | DC\_40A\_n78A  DC\_40C\_n78A | No |  |
| DC\_40A\_n79A7,12  DC\_40C\_n79A7,12 | DC\_40A\_n79A | No | No |
| DC\_41A\_n3A7  DC\_41C\_n3A7 | DC\_41A\_n3A  DC\_41C\_n3A | No |  |
| DC\_41A\_n28A7  DC\_41C\_n28A7 | DC\_41A\_n28A  DC\_41C\_n28A | No |  |
| DC\_41A\_n77A  DC\_41C\_n77A | DC\_41A\_n77A  DC\_41C\_n77A | No |  |
| DC\_41A\_n77(2A)  DC\_41C\_n77(2A) | DC\_41A\_n77A  DC\_41C\_n77A | No |  |
| DC\_41A\_n78A  DC\_41C\_n78A  DC\_41D\_n78A | DC\_41A\_n78A  DC\_41C\_n78A | No |  |
| DC\_41A\_n78(2A)  DC\_41C\_n78(2A) | DC\_41A\_n78A  DC\_41C\_n78A | No |  |
| DC\_41A\_n79A6,7  DC\_41A\_n79C6,7  DC\_41C\_n79A6,7 | DC\_41A\_n79A  DC\_41C\_n79A | No | No |
| DC\_42A\_n28A7  DC\_42C\_n28A7 | DC\_42A\_n28A  DC\_42C\_n28A | No |  |
| DC\_42A\_n51A | DC\_42A\_n51A | No |  |
| DC\_42A\_n77A3,4,9,11  DC\_42A\_n77C3,4,9,11  DC\_42C\_n77A3,4,9,11  DC\_42C\_n77C3,4,9,11  DC\_42D\_n77A3,4,9,11  DC\_42D\_n77C3,4,9,11  DC\_42E\_n77A3,4,9,11  DC\_42E\_n77C3,4,9,11 | N/A | N/A |  |
| DC\_42A\_n77(2A)3,4,9,11  DC\_42C\_n77(2A)3,4,9,11 | N/A | N/A |  |
| DC\_42A\_n78A3,4,9,11  DC\_42A\_n78C3,4,9,11  DC\_42C\_n78A3,4,9,11  DC\_42C\_n78C3,4,9,11  DC\_42D\_n78A3,4,9,11  DC\_42D\_n78C3,4,9,11  DC\_42E\_n78A3,4,9,11  DC\_42E\_n78C3,4,9,11 | N/A | N/A |  |
| DC\_42A\_n79A9,15  DC\_42A\_n79C9,15  DC\_42C\_n79A9,15  DC\_42C\_n79C9,15  DC\_42D\_n79A9,15  DC\_42D\_n79C9,15  DC\_42E\_n79A9,15  DC\_42E\_n79C9,15 | N/A | N/A |  |
| DC\_46A\_n78A2  DC\_46C\_n78A2  DC\_46D\_n78A2  DC\_46E\_n78A2 | N/A | N/A |  |
| DC\_48A\_n5A | DC\_48A\_n5A | No |  |
| DC\_48A\_n12A | DC\_48A\_n12A | No |  |
| DC\_48A\_n46A  DC\_48B\_n46A  DC\_48C\_n46A  DC\_48D\_n46A  DC\_48E\_n46A  DC\_48A\_n46B  DC\_48B\_n46B  DC\_48C\_n46B  DC\_48D\_n46B  DC\_48E\_n46B  DC\_48A\_n46C  DC\_48B\_n46C  DC\_48C\_n46C  DC\_48D\_n46C  DC\_48E\_n46C  DC\_48A\_n46D  DC\_48B\_n46D  DC\_48C\_n46D  DC\_48D\_n46D  DC\_48E\_n46D  DC\_48A\_n46E  DC\_48B\_n46E  DC\_48C\_n46E  DC\_48D\_n46E  DC\_48E\_n46E | DC\_48A\_n46A  DC\_48B\_n46A | No |  |
| DC\_48A\_n66A | DC\_48A\_n66A | No |  |
| DC\_48A\_n71A  DC\_48B\_n71A  DC\_48C\_n71A  DC\_48D\_n71A | DC\_48A\_n71A | No |  |
| DC\_48A-48A\_n71A  DC\_48A-48A-48A\_n71A | DC\_48A\_n71A | No |  |
| DC\_66A\_n2A | DC\_66A\_n2A | DC\_66\_n2 |  |
| DC\_66A-66A\_n2A | DC\_66A\_n2A | DC\_66\_n2 |  |
| DC\_66A\_n5A  DC\_66B\_n5A  DC\_66C\_n5A | DC\_66A\_n5A | DC\_66\_n5 |  |
| DC\_66A-66A\_n5A  DC\_66A-66A-66A\_n5A | DC\_66A\_n5A | DC\_66\_n5 |  |
| DC\_66A\_n7A  DC\_66A-66A\_n7A  DC\_66A\_n7(2A)  DC\_66A-66A\_n7(2A) | DC\_66A\_n7A | No |  |
| DC\_66A\_n12A | DC\_66A\_n12A | No |  |
| DC\_66A\_n25A | DC\_66A\_n25A | DC\_66\_n25 |  |
| DC\_66A\_n38A | DC\_66A\_n38A | No |  |
| DC\_66A-66A\_n38A | DC\_66A\_n38A | No |  |
| DC\_66A\_n41A  DC\_66A\_n41C | DC\_66A\_n41A | No |  |
| DC\_66A\_n41(2A) | DC\_66A\_n41A | No |  |
| DC\_66A\_n46A | DC\_66A\_n46A | No |  |
| DC\_66A\_n48A  DC\_66A\_n48B | DC\_66A\_n48A | No |  |
| DC\_66A-66A\_n48A  DC\_66A-66A\_n48B | DC\_66A\_n48A | No |  |
| DC\_66A\_n71A  DC\_66C\_n71A  DC\_66A\_n71B | DC\_66A\_n71A | No |  |
| DC\_66A-66A\_n71A | DC\_66A\_n71A | No |  |
| DC\_66A\_n78A | DC\_66A\_n78A | No |  |
| DC\_66A\_n78(2A) | DC\_66A\_n78A | No |  |
| DC\_66A-66A\_n78A | DC\_66A\_n78A | No |  |
| DC\_66A-66A\_n78(2A) | DC\_66A\_n78A | No |  |
| DC\_71A\_n5A | DC\_71A\_n5A | No |  |
| DC\_71A\_n38A | DC\_71A\_n38A | No |  |
| DC\_71A\_n48A | DC\_71A\_n48A | No |  |
| DC\_71A\_n66A | DC\_71A\_n66A | No |  |
| DC\_71A\_n78A | DC\_71A\_n78A | No |  |
| NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.  NOTE 2: Restricted to E-UTRA operation when inter-band carrier aggregation is configured. The downlink operating band for Band 46 is paired with the uplink operating band (external E-UTRA band) of the carrier aggregation configuration that is supporting the configured Pcell.  NOTE 3: The minimum requirements apply only when there is non-simultaneous Tx/Rx operation between E-UTRA and NR carriers. This restriction applies also for these carriers when applicable EN-DC configuration is part of a higher order EN-DC configuration.  NOTE 4: For UEs not indicating *interBandMRDC-WithOverlapDL-Bands-r16*, the minimum requirements for intra-band non-contiguous EN-DC apply for the Band 42 and Band n77/n78 combination. For UEs not indicating *interBandMRDC-WithOverlapDL-Bands-r16*, when UE capability *interBandContiguousMRDC* is indicated, the minimum requirements for intra-band-contiguous EN-DC also should be met in addtion to intra-band non-contiguous EN-DC*.* For these UEs, the said intra-band requirements also apply for these carriers when applicable EN-DC configuration is a subset of a higher order EN-DC configuration.  NOTE 5: The frequency range above 3600 MHz for Band n78 is not used in this combination.  NOTE 6: The frequency range below 2506 MHz for Band 41 is not used in this combination.  NOTE 7: Applicable for UE supporting inter-band EN-DC with mandatory simultaneous Rx/Tx capability.  NOTE 8: The frequency range in band n28 / 28 is restricted for this band combination to 703 - 733 MHz for the UL and 758-788 MHz for the DL. This restriction also apply for any band combinations when DC\_20\_n28/ DC\_28\_n20/ CA\_20-28/ CA\_n20-n28 is a subset of a higher order band combination.  NOTE 9: The combination is not used alone as fall back mode of other band combinations in which UL in Band 42 is not used.  NOTE 10: Void.  NOTE 11: For UEs not indicating *interBandMRDC-WithOverlapDL-Bands-r16*, the minimum requirements for inter-band EN-DC apply when the maximum power spectral density imbalance between downlink carriers is within 6 dB. For UEs indicating interBandMRDC-WithOverlapDL-Bands-r16, the power imbalance requirement defined in clause 7.6B.2.6 apply.For these UEs, the power spectral density imbalance condition also applies for these carriers when applicable EN-DC configuration is a subset of a higher order EN-DC configuration.  NOTE 12: Applicable for frequency range above 4800 MHz for Band n79 in this combination.  NOTE 13: For UEs not indicating *interBandMRDC-WithOverlapDL-Bands-r16*, the minimum requirements apply for synchronized DL carriers with a maximum receive time difference ≤ 3 usec. The requirements also apply for these carriers when applicable EN-DC configuration is a subset of a higher order EN-DC configuration.  NOTE 14: Applicable when dynamic switching between two uplink carriers is conducted. The DL interruption requirements for NR DL carrier(s) and E-UTRA DL carrier(s) are specified in clause 8.2.1.2.14 of 38.133 [15] and clause 7.32.2.12 of 36.133 [16] respectively.  NOTE 15: Simultaneous Rx/Tx capability does not apply for UEs supporting band 42 with a n77 implementation only. Same restrictions are applied to related higher order configurations. | | | |

## **<<End of Change>>**

## **<<Start of Change>>**

##### 7.3B.2.3.4 Reference sensitivity exceptions due to cross band isolation for EN-DC in NR FR1

Sensitivity degradation is allowed for a band if it is impacted by UL of another band part of the same EN-DC configuration due to cross band isolation issues. Reference sensitivity exceptions for the victim band are specified in Table 7.3B.2.3.4-1 and Table 7.3B.2.3.4-1a with uplink configuration of the agressor band specified in Table 7.3B.2.3.4-2.

Table 7.3B.2.3.4-1: Reference sensitivity exceptions (MSD) due to cross band isolation for PC3 EN-DC in NR FR1

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| E-UTRA or NR Band / Channel bandwidth of the affected DL band / MSD | | | | | | | | | | | | | | |
| UL band | DL band | 5 MHz  (dB) | 10 MHz  (dB) | 15 MHz  (dB) | 20 MHz  (dB) | 25 MHz  (dB) | 30 MHz  (dB) | 40 MHz  (dB) | 50 MHz  (dB) | 60 MHz  (dB) | 70 MHz  (dB) | 80 MHz  (dB) | 90 MHz  (dB) | 100 MHz  (dB) |
| n13 | 3 | [3] | 2.3 | 2 | 1.8 |  |  |  |  |  |  |  |  |  |
| n1 | 40 | 6.6 | 6.6 | 6.6 | 6.6 |  |  |  |  |  |  |  |  |  |
| 13 | n3 | 3 | 2.2 | 1.9 | 1.7 | 1.6 | 1.5 | 1.4 |  |  |  |  |  |  |
| 1 | n40 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 |  | 6.6 |  |  |
| 1 | n41 |  | 6.1 | 6.1 | 6.1 |  | 6.1] | 6.1 | 6.1 | 6.1 |  | 6.1 | 6.1 | 6.1 |
| n3 | 11 | 6.4 | 6.1 |  |  |  |  |  |  |  |  |  |  |  |
| 3 | n41 |  | 0.7 | 0.7 | 0.7 |  | 0.7 | 0.7 | 0.7 | 0.7 |  | 0.7 | 0.7 | 0.7 |
| 3 | n51 | 6.4 |  |  |  |  |  |  |  |  |  |  |  |  |
| 30 | n66 | 8.3 | 8.3 | 8.3 | 8.3 | 8.3 | 8.3 | 8.3 |  |  |  |  |  |  |
| n3 | 41 | 0.7 | 0.7 | 0.7 | 0.7 |  |  |  |  |  |  |  |  |  |
| n5 | 28 | [17.5] | [15.8] | [14.0] | [11.7] |  |  |  |  |  |  |  |  |  |
| 7 | n40 | 3.7 | 3.4 | 3.2 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 |  | 3.1 |  |  |
| n34 | 3 | 3 | 2.2 | 1.9 | 1.7 |  |  |  |  |  |  |  |  |  |
| n38 | 1 | 1.9 | 1.9 | 1.9 | 1.9 |  |  |  |  |  |  |  |  |  |
| n38 | 2 | 0.6 | 0.6 | 0.6 | 0.6 |  |  |  |  |  |  |  |  |  |
| n38 | 4 | 1.9 | 1.9 | 1.9 | 1.9 |  |  |  |  |  |  |  |  |  |
| n38 | 66 | 1.9 | 1.9 | 1.9 | 1.9 |  |  |  |  |  |  |  |  |  |
| n40 | 1 | 8.3 | 8.3 | 8.3 | 8.3 |  |  |  |  |  |  |  |  |  |
| n41 | 4 | 3.5 | 3.5 | 3.5 | 3.5 |  |  |  |  |  |  |  |  |  |
| 40 | n1 | 8.3 | 8.3 | 8.3 | 8.3 | 8.3 | 8.3 | 8.3 | 8.3 |  |  |  |  |  |
| n40 | 7 | 3.7 | 3.7 | 3.7 | 3.7 |  |  |  |  |  |  |  |  |  |
| n41 | 1 | 9.1 | 9.1 | 9.1 | 9.1 |  |  |  |  |  |  |  |  |  |
| n41 | 2 | 0.6 | 0.6 | 0.6 | 0.6 |  |  |  |  |  |  |  |  |  |
| n41 | 3 | 0.6 | 0.6 | 0.6 | 0.6 |  |  |  |  |  |  |  |  |  |
| 41 | n3 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |  |  |  |  |  |  |
| n41 | 661 | 3.5 | 3.5 | 3.5 | 3.5 |  |  |  |  |  |  |  |  |  |
| n41 | 25 | 0.6 | 0.6 | 0.6 | 0.6 |  |  |  |  |  |  |  |  |  |
| n50 | 3 | 2.5 | 1.9 | 1.6 | 1.5 |  |  |  |  |  |  |  |  |  |
| n77 | 71 | 4.5 | 4.5 | 4.5 | 4.5 |  |  |  |  |  |  |  |  |  |
| n77 | 411 | 4.5 | 4.5 | 4.5 | 4.5 |  |  |  |  |  |  |  |  |  |
| 41 | n77 |  | 8.3 | 8.3 | 8.3 | 7.3 | 6.5 | 6.3 | 5.3 | 4.5 | 4.3 | 4.0 | 3.9 | 3.8 |
| n78 | 71 | 4.5 | 4.5 | 4.5 | 4.5 |  |  |  |  |  |  |  |  |  |
| n78 | 38 | 3.3 | 3.3 | 3.3 | 3.3 |  |  |  |  |  |  |  |  |  |
| n78 | 401 | 4.5 | 4.5 | 4.5 | 4.5 |  |  |  |  |  |  |  |  |  |
| n78 | 411 | 4.5 | 4.5 | 4.5 | 4.5 |  |  |  |  |  |  |  |  |  |
| n78 | 46 |  |  |  | 7 |  |  |  |  |  |  |  |  |  |
| 41 | n78 |  | 8.3 | 8.3 | 8.3 | 7.3 | 6.5 | 6.3 | 5.3 | 4.5 | 4.3 | 4.0 | 3.9 | 3.8 |
| n79 | 426 | 2.6 | 2.6 | 2.6 | 2.6 |  |  |  |  |  |  |  |  |  |
| n843 | 3 | 3 | 2.3 | 2 | 1.8 |  |  |  |  |  |  |  |  |  |
| 48 | n46 | - | - | - | 7 | - | - | 5.7 | - | 5.1 | - | 4.7 | - | - |
| n46 | 48 | 13.3 | 10.4 | 8.8 | 7.8 | - | - | 7.8 | 7 | 6.5 | - | 5.7 | 5.4 | 5.1 |
| NOTE 1: Applicable only when harmonic mixing MSD for this combination is not applied.  NOTE 2: The B41 requirements are modified by -0.5dB when carrier frequency of the assigned E-UTRA channel bandwidth is within 2515 – 2690 MHz.  NOTE 3: These requirements apply when the uplink is active in Band n1, n84 and the separation between the lower edge of the uplink channel in Band n1, n84 and the upper edge of the downlink channel in Band 3 is < 60 MHz. For each channel bandwidth in Band 3, the requirement applies regardless of channel bandwidth in Band n1, n84.  NOTE 4: The DL victim band should be configured using the lowest SCS that is compatible with the highest CBW for which an MSD is specified.  NOTE 5: MSD test point can be chosen according to supported BW and lowest SCS supported by the UE.  NOTE 6: The requirements only apply for UEs supporting inter-band DC\_42\_n79 ENDC with simultaneous Rx/Tx capability. Simultaneous Rx/Tx capability does not apply for UEs supporting band 42 with a n77 implementation only. These restrictions are applicable to related higher order configurations. | | | | | | | | | | | | | | |

Table 7.3B.2.3.4-1a: Reference sensitivity exceptions (MSD) due to cross band isolation for PC2 EN-DC in NR FR1

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | E-UTRA or NR Band / Channel bandwidth of the affected DL band / MSD | | | | | | | | | | | | |
| UL band | DL band | 5 MHz  (dB) | 10 MHz  (dB) | 15 MHz  (dB) | 20 MHz  (dB) | 25 MHz  (dB) | 30 MHz  (dB) | 40 MHz  (dB) | 50 MHz  (dB) | 60 MHz  (dB) | 80 MHz  (dB) | 90 MHz  (dB) | 100 MHz  (dB) |
| 3 | n41 |  | 0.7 | 0.7 | 0.7 |  | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| n41 | 3 | 2.3 | 2.3 | 2.3 | 2.3 |  |  |  |  |  |  |  |  |

Table 7.3B.2.3.4-2: Uplink configuration for reference sensitivity exceptions due to cross band isolation for EN-DC in NR FR1

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| E-UTRA or NR Band / SCS / Channel bandwidth of the affected DL band / UL RB allocation of the agressor band | | | | | | | | | | | | | | | |
| UL band | DL band | SCS of UL band (kHz) | 5 MHz  (LCRB) | 10 MHz  (LCRB) | 15 MHz  (LCRB) | 20 MHz  (LCRB) | 25 MHz  (LCRB) | 30 MHz  (LCRB) | 40 MHz  (LCRB) | 50 MHz  (LCRB) | 60 MHz  (LCRB) | 70 MHz  (LCRB) | 80 MHz  (LCRB) | 90 MHz  (LCRB) | 100 MHz  (LCRB) |
| n1 | 3 | 15 | 25 | 25 | 25 | 25 |  |  |  |  |  |  |  |  |  |
| n1 | 40 | 15 | 25 | 50 | 75 | 100 |  |  |  |  |  |  |  |  |  |
| 1 | n3 | 15 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |  |  |  |  |  |  |
| 1 | n40 | 15 | 25 | 50 | 75 | 100 | 100 | 100 | 100 | 100 | 100 |  | 100 |  |  |
| 1 | n41 | 15 |  | 100 | 100 | 100 |  | 100 | 100 | 100 | 100 |  | 100 | 100 | 100 |
| n3 | 11 | 15 | 25 | 50 |  |  |  |  |  |  |  |  |  |  |  |
| 3 | n41 | 15 |  | 50 | 50 | 50 |  | 50 | 50 | 50 | 50 |  | 50 | 50 | 50 |
| 3 | n51 | 15 | 25 |  |  |  |  |  |  |  |  |  |  |  |  |
| 30 | n66 | 15 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |  |  |  |  |  |  |
| n3 | 41 | 15 | 25 | 502 | 502 | 502 |  |  |  |  |  |  |  |  |  |
| n5 | 28 | 15 | 20 | 20 | 20 | 20 |  |  |  |  |  |  |  |  |  |
| 7 | n40 | 15 | 25 | 50 | 75 | 75 | 75 | 100 | 100 | 100 | 100 |  | 100 |  |  |
| n34 | 3 | 15 | 25 | 25 | 25 | 25 |  |  |  |  |  |  |  |  |  |
| n38 | 1 | 15 | 100 | 100 | 100 | 100 |  |  |  |  |  |  |  |  |  |
| n38 | 2 | 15 | 100 | 100 | 100 | 100 |  |  |  |  |  |  |  |  |  |
| n38 | 4 | 15 | 100 | 100 | 100 | 100 |  |  |  |  |  |  |  |  |  |
| n38 | 66 | 15 | 100 | 100 | 100 | 100 |  |  |  |  |  |  |  |  |  |
| n40 | 1 | 15 | 25 | 50 | 75 | 100 |  |  |  |  |  |  |  |  |  |
| n41 | 4 | 30 | 128 | 128 | 128 | 128 |  |  |  |  |  |  |  |  |  |
| 40 | n1 | 15 | 25 | 50 | 75 | 100 |  |  |  |  |  |  |  |  |  |
| n40 | 7 | 30 | 216 | 216 | 216 | 216 |  |  |  |  |  |  |  |  |  |
| n41 | 1 | 30 | 128 | 128 | 128 | 128 |  |  |  |  |  |  |  |  |  |
| n41 | 2 | 30 | 160 | 160 | 160 | 160 |  |  |  |  |  |  |  |  |  |
| n41 | 3 | 30 | 160 | 160 | 160 | 160 |  |  |  |  |  |  |  |  |  |
| 41 | n3 | 15 | 25 | 50 | 75 | 100 | 100 | 100 | 100 |  |  |  |  |  |  |
| n41 | 66 | 30 | 128 | 128 | 128 | 128 |  |  |  |  |  |  |  |  |  |
| n41 | 25 | 30 | 160 | 160 | 160 | 160 |  |  |  |  |  |  |  |  |  |
| n50 | 3 | 30 | 160 | 160 | 160 | 160 |  |  |  |  |  |  |  |  |  |
| n77 | 7 | 30 | 270 | 270 | 270 | 270 |  |  |  |  |  |  |  |  |  |
| n77 | 41 | 30 | 270 | 270 | 270 | 270 |  |  |  |  |  |  |  |  |  |
| 41 | n77 | 15 |  | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| n78 | 7 | 30 | 270 | 270 | 270 | 270 |  |  |  |  |  |  |  |  |  |
| n78 | 38 | 30 | 270 | 270 | 270 | 270 |  |  |  |  |  |  |  |  |  |
| n78 | 40 | 30 | 270 | 270 | 270 | 270 |  |  |  |  |  |  |  |  |  |
| n78 | 41 | 30 | 270 | 270 | 270 | 270 |  |  |  |  |  |  |  |  |  |
| n78 | 46 | 30 |  |  |  | 270 |  |  |  |  |  |  |  |  |  |
| 41 | n78 | 15 |  | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| n79 | 42 | 30 | 2705 | 2705 | 2705 | 2705 |  |  |  |  |  |  |  |  |  |
| n84 | 3 | 15 | 25 | 25 | 25 | 25 |  |  |  |  |  |  |  |  |  |
| 48 | n46 | 15 |  |  |  | 216 |  |  | 216 |  | 216 |  | 216 |  |  |
| n46 | 48 | 30 | 216 | 216 | 216 | 216 |  |  | 216 | 216 | 216 |  | 216 | 216 | 216 |
| NOTE 1: The UL configuration applies regardless of the channel bandwidth of the UL band. UL resource blocks allocation in the table shall be further limited to that specified in Table 7.3.1-2 in TS 36.101 [4] or Table 7.3.2-3 in TS 38.101-1 [2].  NOTE 2: The UL resource blocks shall be located as close as possible to the downlink operating band but confined within the transmission bandwidth configuration for the channel bandwidth.  NOTE 3: When the maximum UL RB allocation “LCRB” value is less than the maximum transmission bandwidth configuration “NRB” defined in Table 5.3.2-1 in 38.101-1 [2] for the specified UL band SCS, the UL band should be configured using the lowest CBW that is compatible with the maximum specified LCRB value.  NOTE 4: If the aggressor band is NR band, the test SCS and UL RB can be adjusted according to supported BW and lowest SCS supported by the UE.  NOTE 5: The requirements only apply for UEs supporting inter-band ENDC with simultaneous Rx/Tx capability. Simultaneous Rx/Tx capability does not apply for UEs supporting band 42 with a n77 implementation only. These restrictions are applicable to related higher order configurations. | | | | | | | | | | | | | | | |

## **<<End of Change>>**