**3GPP TSG-RAN WG4 Meeting #102-e  Rev. 2 of R4-2205571**

**Electronic Meeting, 21 Feb - 03 Mar, 2022**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.101-3** | **CR** | **draft** | **rev** | **-** | **Current version:** | **17.4.0** |  |
|  | | | | | | | | |
| *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 |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | draftCR to add DC\_12A\_n77C to 38.101-3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Nokia, US Cellular | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | DC\_R17\_1BLTE\_1BNR\_2DL2UL | | | | |  | ***Date:*** | | | 2022-02-21 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | Addition of DC\_12A\_n77C. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Added DC\_12A\_n77C | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Operator cannot use this bandcombination | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.5B.4, 6.2B.1.3, 7.3B.2.3.5.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **x** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | | **x** |  | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **x** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Start of changes \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

### 5.5B.4 Inter-band EN-DC within FR1

#### 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-1A\_n28A | | DC\_1A\_n28A | | No | |  | |
| DC\_1A\_n38A  DC\_1C\_n38A | | DC\_1A\_n38A | | No | |  | |
| DC\_1A\_n40A  DC\_1A\_n40B | | 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\_n77(3A)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-1A\_n78A | | 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\_n28A | | DC\_2A\_n28A | | No | |  | |
| DC\_2A\_n30A | | DC\_2A\_n30A | | No | |  | |
| DC\_2A-2A\_n30A | | DC\_2A\_n30A | | 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\_n41(2A) | | DC\_2A\_n41A | | No | |  | |
| DC\_2A-2A\_n41A | | 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\_n66(2A) | | 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\_n77A  DC\_2A\_n77C | | DC\_2A\_n77A | | DC\_2\_n77 | |  | |
| DC\_2A-2A\_n77A  DC\_2A-2A\_n77C | | DC\_2A\_n77A | | DC\_2\_n77 | |  | |
| 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-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\_n40B | | 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\_3C\_n77A7 | | DC\_3A\_n77A  DC\_3C\_n77A | | DC\_3\_n77 | | No | |
| DC\_3A\_n77(2A)7  DC\_3A\_n77(3A)7  DC\_3C\_n77(2A)7 | | DC\_3A\_n77A  DC\_3C\_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\_3C\_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\_n2A | | DC\_4A\_n2A | | No | |  | |
| DC\_4A\_n5A | | DC\_4A\_n5A | | DC\_4\_n5 | |  | |
| DC\_4A\_n7A | | DC\_4A\_n7A | | No | |  | |
| DC\_4A\_n28A | | DC\_4A\_n28A | | 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\_n30A | | DC\_5A\_n30A | | 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\_n77A  DC\_5A\_n77C | | DC\_5A\_n77A | | No | |  | |
| DC\_5A\_n77(2A) | | DC\_5A\_n77A | | No | |  | |
| DC\_5A\_n71A | | DC\_5A\_n71A | | No | |  | |
| DC\_5A\_n78A7  DC\_5A\_n78C7 | | 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\_n2A  DC\_7C\_n2A | | DC\_7A\_n2A | | 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\_n8A | | DC\_7A\_n8A | | No | |  | |
| DC\_7A-7A\_n78A7  DC\_7A-7A\_n78C7 | | DC\_7A\_n78A | | No | |  | |
| DC\_7A-7A\_n78(2A)7 | | DC\_7A\_n78A | | No | |  | |
| DC\_7A\_n20A | | DC\_7A\_n20A | | No | |  | |
| DC\_7A\_n25A  DC\_7C\_n25A | | DC\_7A\_n25A | | No | |  | |
| DC\_7A-7A\_n25A | | DC\_7A\_n25A | | 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\_7C\_n77A | | DC\_7A\_n77A | | No | |  | |
| DC\_7A\_n77(2A)  DC\_7C\_n77(2A) | | DC\_7A\_n77A | | No | |  | |
| DC\_7A-7A\_n77A7 | | DC\_7A\_n77A | | No | |  | |
| DC\_7A-7A\_n77(2A) | | DC\_7A\_n77A | | No | |  | |
| DC\_7A\_n78A7  DC\_7C\_n78A7  DC\_7A\_n78C7 | | 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\_7A\_n79A  DC\_7A\_n79C | | DC\_7A\_n79A | | No | |  | |
| DC\_8A\_n1A | | DC\_8A\_n1A | | No | |  | |
| DC\_8A\_n2A | | DC\_8A\_n2A | | DC\_8\_n2 | |  | |
| DC\_8A\_n3A | | DC\_8A\_n3A | | No | |  | |
| DC\_8A\_n7A | | DC\_8A\_n7A | | 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\_n77(3A)7 | | DC\_8A\_n77A | | No | | No | |
| DC\_8A\_n78A7 | | DC\_8A\_n78A | | No | | No | |
| DC\_8A\_n78(2A)7 | | 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\_n41A7 | | DC\_11A\_n41A | | No | |  | |
| DC\_11A\_n77A7 | | DC\_11A\_n77A | | No | | No | |
| DC\_11A\_n77(2A)7  DC\_11A\_n77(3A)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\_n7A | | No | |  | |
| DC\_12A\_n7(2A) | | DC\_12A\_n7A | | No | |  | |
| DC\_12A\_n25A | | DC\_12A\_n25A | | No | |  | |
| DC\_12A\_n30A | | DC\_12A\_n30A | | No | |  | |
| DC\_12A\_n38A | | DC\_12A\_n38A | | No | |  | |
| DC\_12A\_n41A | | DC\_12A\_n41A | | No | |  | |
| DC\_12A\_n66A | | DC\_12A\_n66A | | No | |  | |
| DC\_12A\_n66(2A) | | DC\_12A\_n66A | | No | |  | |
| DC\_12A\_n71A | | DC\_12A\_n71A18,19 | | DC\_12\_n71 | |  | |
| DC\_12A\_n77A20  DC\_12A\_n77C | | DC\_12A\_n77A20 | | DC\_12\_n77 | |  | |
| DC\_12A\_n78A | | DC\_12A\_n78A | | DC\_12\_n78 | |  | |
| 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\_n7A | | No | |  | |
| DC\_13A\_n7(2A) | | DC\_13A\_n7A | | No | |  | |
| DC\_13A\_n25A | | DC\_13A\_n25A | | 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\_n77A  DC\_13A\_n77C | | DC\_13A\_n77A | | No | |  | |
| DC\_13A\_n78A | | DC\_13A\_n78A | | No | |  | |
| DC\_13A\_n78(2A) | | DC\_13A\_n78A | | No | |  | |
| DC\_14A\_n2A | | DC\_14A\_n2A | | No | |  | |
| DC\_14A\_n5A | | DC\_14A\_n5A | | DC\_14\_n5 | |  | |
| DC\_14A\_n30A | | DC\_14A\_n30A | | No | |  | |
| DC\_14A\_n66A | | DC\_14A\_n66A | | No | |  | |
| DC\_14A\_n77A | | DC\_14A\_n77A | | No | |  | |
| DC\_18A\_n3A | | DC\_18A\_n3A | | No | |  | |
| DC\_18A\_n28A8 | | DC\_18A\_n28A | | No | |  | |
| DC\_18A\_n41A16 | | DC\_18A\_n41A | | No | |  | |
| DC\_18A\_n77A7  DC\_18A\_n77(2A)7 | | DC\_18A\_n77A | | No | | No | |
| DC\_18A\_n78A7 | | DC\_18A\_n78A | | No | | No | |
| DC\_18A\_n78(2A)7 | | 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\_n1A | | DC\_19A\_n1A | | No | |  | |
| DC\_19A\_n77A7  DC\_19A\_n77C7 | | DC\_19A\_n77A | | No | |  | |
| DC\_19A\_n77(2A)7 | | DC\_19A\_n77A | | No | |  | |
| DC\_19A\_n78A7  DC\_19A\_n78C7 | | DC\_19A\_n78A | | No | | No | |
| DC\_19A\_n78(2A)7 | | 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\_n78C7 | | DC\_20A\_n78A | | No | |  | |
| DC\_20A\_n78(2A)7 | | DC\_20A\_n78A | | No | |  | |
| DC\_21A\_n1A | | DC\_21A\_n1A | | No | |  | |
| DC\_21A\_n28A17 | | DC\_21A\_n28A | | DC\_21\_n28 | |  | |
| DC\_21A\_n77A7  DC\_21A\_n77C7 | | DC\_21A\_n77A | | No | |  | |
| DC\_21A\_n77(2A)7 | | DC\_21A\_n77A | | No | |  | |
| DC\_21A\_n78A7  DC\_21A\_n78C7 | | DC\_21A\_n78A | | No | | No | |
| DC\_21A\_n78(2A)7 | | 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\_25A\_n77A | | DC\_25A\_n77A | | DC\_25\_n77 | |  | |
| DC\_25A-25A\_n77A | | DC\_25A\_n77A | | DC\_25\_n77 | |  | |
| DC\_25A\_n78A | | DC\_25A\_n78A | | DC\_25\_n78 | |  | |
| DC\_25A-25A\_n78A | | DC\_25A\_n78A | | DC\_25\_n78 | |  | |
| 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\_n1A | | DC\_28A\_n1A | | No | |  | |
| DC\_28A\_n2A | | DC\_28A\_n2A | | No | |  | |
| DC\_28A\_n3A | | DC\_28A\_n3A | | No | |  | |
| DC\_28A\_n5A8 | | 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\_n66A | | DC\_28A\_n66A | | 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\_30A\_n77A | | DC\_30A\_n77A | | No | |  | |
| DC\_38A\_n1A | | DC\_38A\_n1A | | No | |  | |
| DC\_38A\_n3A | | DC\_38A\_n3A | | No | |  | |
| DC\_38A\_n8A | | DC\_38A\_n8A | | No | |  | |
| DC\_38A\_n28A | | DC\_38A\_n28A | | No | |  | |
| DC\_38A\_n78A7 | | DC\_38A\_n78A | | No | |  | |
| DC\_38A\_n79A  DC\_38A\_n79C | | DC\_38A\_n79A | | 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\_40C\_n1A | | DC\_40A\_n1A | | No | |  | |
| DC\_40A\_n41A3  DC\_40A\_n41C3  DC\_40C\_n41A3 | | DC\_40A\_n41A | | No | |  | |
| DC\_40A\_n41(2A)3 | | 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\_n78(2A)  DC\_40C\_n78(2A) | | DC\_40A\_n78A  DC\_40C\_n78A | | No | |  | |
| DC\_40A\_n79A7,12  DC\_40A\_n79C7,12  DC\_40C\_n79A7,12 | | DC\_40A\_n79A | | No | | No | |
| DC\_41A\_n1A  DC\_41C\_n1A | | DC\_41A\_n1A  DC\_41C\_n1A | | No | | DC\_41A\_n1A  DC\_41C\_n1A | |
| 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\_n1A7  DC\_42C\_n1A7 | | DC\_42A\_n1A  DC\_42C\_n1A | | No | |  | |
| DC\_42A\_n3A7  DC\_42C\_n3A7 | | DC\_42A\_n3A  DC\_42C\_n3A | | DC\_42\_n3 | |  | |
| 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\_n77C  DC\_42E\_n77A3,4,9,11  DC\_42E\_n77C | | 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\_n78C  DC\_42E\_n78A3,4,9,11  DC\_42E\_n78C | | 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\_n77A2 | | N/A | | N/A | |  | |
| DC\_46A\_n78A2  DC\_46C\_n78A2  DC\_46D\_n78A2  DC\_46E\_n78A2 | | N/A | | N/A | |  | |
| DC\_48A\_n5A  DC\_48C\_n5A  DC\_48D\_n5A  DC\_48E\_n5A | | DC\_48A\_n5A | | No | |  | |
| DC\_48A\_n12A | | DC\_48A\_n12A | | No | |  | |
| DC\_48A\_n25A  DC\_48C\_n25A  DC\_48D\_n25A | | DC\_48A\_n25A | | 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\_48C\_n66A  DC\_48D\_n66A  DC\_48E\_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\_48A\_n77A3. 4. 9, 11  DC\_48C\_n77A3. 4. 9, 11  DC\_48A\_n77C3. 4. 9, 11  DC\_48C\_n77C3. 4. 9, 11  DC\_48D\_n77A3. 4. 9, 11  DC\_48D\_n77C3. 4. 9, 11  DC\_48E\_n77A3. 4. 9, 11 | | N/A | | N/A | |  | |
| DC\_66A\_n2A  DC\_66B\_n2A  DC\_66C\_n2A | | DC\_66A\_n2A | | DC\_66\_n2 | |  | |
| DC\_66A-66A\_n2A | | DC\_66A\_n2A | | DC\_66\_n2 | |  | |
| DC\_66A-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\_n5A | | DC\_66\_n5 | |  | |
| DC\_66A-66A-66A\_n5A | | DC\_66A\_n5A | | DC\_66\_n5 | |  | |
| DC\_66A\_n7A | | DC\_66A\_n7A | | No | |  | |
| DC\_66A\_n7(2A) | | DC\_66A\_n7A | | No | |  | |
| DC\_66A-66A\_n7A | | DC\_66A\_n7A | | No | |  | |
| 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\_n28A | | DC\_66A\_n28A | | No | |  | |
| DC\_66A\_n30A | | DC\_66A\_n30A | | No | |  | |
| DC\_66A\_n38A | | DC\_66A\_n38A | | No | |  | |
| DC\_66A-66A\_n30A | | 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\_n77A  DC\_66A\_n77C | | DC\_66A\_n77A | | DC\_66\_n77 | |  | |
| DC\_66A-66A\_n77A  DC\_66A-66A\_n77C  DC\_66A-66A-66A\_n77C | | DC\_66A\_n77A | | DC\_66\_n77 | |  | |
| DC\_66A-66A-66A\_n77A | | DC\_66A\_n77A | | DC\_66\_n77 | |  | |
| 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\_n2A | | DC\_71A\_n2A | | No | |  | |
| DC\_71A\_n5A | | DC\_71A\_n5A | | No | |  | |
| DC\_71A\_n38A | | DC\_71A\_n38A | | No | |  | |
| DC\_71A\_n41A | | DC\_71A\_n41A | | 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: The minimum requirements for intra-band non-contiguous EN-DC apply. 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*.* The 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 is restricted for this band combination to 703 - 733 MHz for the UL and 758-788 MHz for the DL.  NOTE 9: The combination is not used alone as fall back mode of other band combinations in which UL in Band 42 or Band 48 is not used.  NOTE 10: Void.  NOTE 11: The minimum requirements for inter-band EN-DC apply when the maximum power spectral density imbalance between downlink carriers is within 6 dB. 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: 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.  NOTE 16: The frequency range in band n41 is restricted for this band combination to 2595 – 2645 MHz.  NOTE 17: The frequency range in band n28 is restricted for this band combination to 728 - 738 MHz for the UL and 783 - 793 MHz for the DL. This restriction applies also for these band combinations when applicable EN-DC configuration is part of a higher order EN-DC configuration.  NOTE 18: Only single switched UL is supported.  NOTE 19: The implementation with 4 antennas is targeted for FWA form factor for this band combination.  NOTE 20: PC3 or PC2 Uplink EN-DC configuration is applicable to EN-DC configurations | | | | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Unchanged clauses skiped \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### 6.2B.1.3 Inter-band EN-DC within FR1

For inter-band EN-DC of E-UTRA and NR in FR1, the following UE Power Classes define the maximum output power for any transmission bandwidth within the aggregated channel bandwidth. The maximum output power is measured as the sum of the maximum output power at each UE antenna connector. The period of measurement shall be at least one sub frame (1ms). UE maximum output power shall be measured over all component carriers from different bands. If each band has separate antenna connectors, maximum output power is measured as the sum of maximum output power at each UE antenna connector.

Table 6.2B.1.3-1: Maximum output power for inter-band EN-DC (two bands)

| EN-DC configuration | Power class 2  (dBm) | Tolerance  (dB) | Power class 3  (dBm) | Tolerance  (dB) |
| --- | --- | --- | --- | --- |
| DC\_1A\_n3A |  |  | 23 | +2/-3 |
| DC\_1A\_n5A |  |  | 23 | +2/-3 |
| DC\_1A\_n7A |  |  | 23 | +2/-3 |
| DC\_1A\_n8A |  |  | 23 | +2/-3 |
| DC\_1A\_n20A |  |  | 23 | +2/-3 |
| DC\_1A\_n28A |  |  | 23 | +2/-3 |
| DC\_1A\_n38A |  |  | 23 | +2/-3 |
| DC\_1A\_n40A |  |  | 23 | +2/-3 |
| DC\_1A\_n41A |  |  | 23 | +2/-3 |
| DC\_1A\_n50A |  |  | 23 | +2/-3 |
| DC\_1A\_n51A |  |  | 23 | +2/-3 |
| DC\_1A\_n71A |  |  | 23 | +2/-3 |
| DC\_1A\_n77A  DC\_1A\_n84A\_ULSUP-TDM\_n77A |  |  | 23 | +2/-3 |
| DC\_1A\_n78A  DC\_1A\_n84A\_ULSUP-TDM\_n78A | 266 | +2/-3 | 23 | +2/-3 |
| DC\_1A\_n79A  DC\_1A\_n84A\_ULSUP-TDM\_n79A |  |  | 23 | +2/-3 |
| DC\_1A\_n80A |  |  | 23 | +2/-3 |
| DC\_2A\_n5A |  |  | 23 | +2/-3 |
| DC\_2A\_n7A |  |  | 23 | +2/-3 |
| DC\_2A\_n12A |  |  | 23 | +2/-3 |
| DC\_2A\_n28A |  |  | 23 | +2/-3 |
| DC\_2A\_n30A |  |  | 23 | +2/-3 |
| DC\_2A\_n38A |  |  | 23 | +2/-3 |
| DC\_2A\_n41A | 266 | +2/-3 | 23 | +2/-3 |
| DC\_2A\_n46A |  |  | 23 | +2/-3 |
| DC\_2A\_n48A |  |  | 23 | +2/-3 |
| DC\_2A\_n66A |  |  | 23 | +2/-3 |
| DC\_2A\_n71A |  |  | 23 | +2/-3 |
| DC\_2A\_n77A | 266 | +2/-3 | 23 | +2/-3 |
| DC\_2A\_n78A |  |  | 23 | +2/-3 |
| DC\_3A\_n1A |  |  | 23 | +2/-3 |
| DC\_3A\_n5A  DC\_3C\_n5A |  |  | 23 | +2/-3 |
| DC\_3A\_n7A |  |  | 23 | +2/-3 |
| DC\_3A\_n8A |  |  | 23 | +2/-3 |
| DC\_3A\_n20A |  |  | 23 | +2/-3 |
| DC\_3A\_n28A |  |  | 23 | +2/-3 |
| DC\_3A\_n34A |  |  | 23 | +2/-3 |
| DC\_3A\_n38A |  |  | 23 | +2/-3 |
| DC\_3A\_n40A |  |  | 23 | +2/-3 |
| DC\_3A\_n41A,  DC\_3C\_n41A,  DC\_3C\_n41A, | 266 | +2/-3 | 23 | +2/-3 |
| DC\_3A\_n50A |  |  | 23 | +2/-3 |
| DC\_3A\_n51A |  |  | 23 | +2/-3 |
| DC\_3A\_n71A |  |  | 23 | +2/-3 |
| DC\_3A\_n77A  DC\_3C\_n77A |  |  | 23 | +2/-3 |
| DC\_3A\_n78A  DC\_3C\_n78A | 266 | +2/-3 | 23 | +2/-3 |
| DC\_3A\_n79A  DC\_3C\_n79A |  |  | 23 | +2/-3 |
| DC\_3A\_n80A\_ULSUP-TDM\_n41  DC\_3C\_n80A\_ULSUP-TDM\_n41 |  |  | 23 | +2/-3 |
| DC\_3A\_n80A\_ULSUP-TDM\_n77A |  |  | 23 | +2/-3 |
| DC\_3A\_n80A\_ULSUP-TDM\_n78A |  |  | 23 | +2/-3 |
| DC\_3A\_n80A\_ULSUP-TDM\_n79A |  |  | 23 | +2/-3 |
| DC\_3A\_n82A |  |  | 23 | +2/-3 |
| DC\_3A\_n84A |  |  | 23 | +2/-3 |
| DC\_4A\_n2A |  |  | 23 | +2/-3 |
| DC\_4A\_n5A |  |  | 23 | +2/-3 |
| DC\_4A\_n7A |  |  | 23 | +2/-3 |
| DC\_4A\_n28A |  |  | 23 | +2/-3 |
| DC\_4A\_n38A |  |  | 23 | +2/-3 |
| DC\_4A\_n41A |  |  | 23 | +2/-3 |
| DC\_4A\_n78A |  |  | 23 | +2/-3 |
| DC\_5A\_n2A |  |  | 23 | +2/-3 |
| DC\_5A\_n7A |  |  | 23 | +2/-3 |
| DC\_5A\_n12A |  |  | 23 | +2/-3 |
| DC\_5A\_n30A |  |  | 23 | +2/-3 |
| DC\_5A\_n38A |  |  | 23 | +2/-3 |
| DC\_5A\_n40A |  |  | 23 | +2/-3 |
| DC\_5A\_n48A |  |  | 23 | +2/-3 |
| DC\_5A\_n66A |  |  | 23 | +2/-3 |
| DC\_5A\_n71A |  |  | 23 | +2/-3 |
| DC\_5A\_n77A | 266 | +2/-3 | 23 | +2/-3 |
| DC\_5A\_n78A | 266 | +2/-3 | 23 | +2/-3 |
| DC\_5A\_n79A |  |  | 23 | +2/-3 |
| DC\_7A\_n1A |  |  | 23 | +2/-3 |
| DC\_7A\_n2A |  |  | 23 | +2/-3 |
| DC\_7A\_n3A |  |  | 23 | +2/-3 |
| DC\_7A\_n5A  DC\_7C\_n5A |  |  | 23 | +2/-3 |
| DC\_7A\_n8A |  |  | 23 | +2/-3 |
| DC\_7A\_n20A |  |  | 23 | +2/-3 |
| DC\_7A\_n25A |  |  | 23 | +2/-3 |
| DC\_7A\_n28A |  |  | 23 | +2/-3 |
| DC\_7A\_n40A |  |  | 23 | +2/-3 |
| DC\_7A\_n51A |  |  | 23 | +2/-3 |
| DC\_7A\_n66A |  |  | 23 | +2/-3 |
| DC\_7A\_n71A |  |  | 23 | +2/-3 |
| DC\_7A\_n77A |  |  | 23 | +2/-3 |
| DC\_7A\_n78A  DC\_7C\_n78A | 266 | +2/-3 | 23 | +2/-3 |
| DC\_7A\_n79A |  |  | 23 | +2/-3 |
| DC\_7A\_n80A |  |  | 23 | +2/-3 |
| DC\_8A\_n1A |  |  | 23 | +2/-3 |
| DC\_8A\_n2A |  |  | 23 | +2/-3 |
| DC\_8A\_n3A |  |  | 23 | +2/-3 |
| DC\_8A\_n7A |  |  | 23 | +2/-3 |
| DC\_8A\_n20A |  |  | 23 | +2/-3 |
| DC\_8A\_n28A |  |  | 23 | +2/-3 |
| DC\_8A\_n34A |  |  | 23 | +2/-3 |
| DC\_8A\_n39A |  |  | 23 | +2/-3 |
| DC\_8A\_n40A |  |  | 23 | +2/-3 |
| DC\_8A\_n41A, |  |  | 23 | +2/-3 |
| DC\_8A\_n77A |  |  | 23 | +2/-3 |
| DC\_8A\_n78A | 266 | +2/-3 | 23 | +2/-3 |
| DC\_8A\_n79A  DC\_8A\_n79C |  |  | 23 | +2/-3 |
| DC\_8A\_n80A |  |  | 23 | +2/-3 |
| DC\_8A\_n81A\_ULSUP-TDM\_n41 |  |  | 23 | +2/-3 |
| DC\_8A\_n81A\_ULSUP-TDM\_n78A |  |  | 23 | +2/-3 |
| DC\_8A\_n81A\_ULSUP-TDM\_n79A |  |  | 23 | +2/-3 |
| DC\_11A\_n3A |  |  | 23 | +2/-3 |
| DC\_11A\_n28A |  |  | 23 | +2/-3 |
| DC\_11A\_n41A |  |  | 23 | +2/-3 |
| DC\_11A\_n77A |  |  | 23 | +2/-3 |
| DC\_11A\_n78A |  |  | 23 | +2/-3 |
| DC\_11A\_n79A |  |  | 23 | +2/-3 |
| DC\_12A\_n2A |  |  | 23 | +2/-3 |
| DC\_12A\_n5A |  |  | 23 | +2/-3 |
| DC\_12A\_n7A |  |  | 23 | +2/-3 |
| DC\_12A\_n25A |  |  | 23 | +2/-3 |
| DC\_12A\_n30A |  |  | 23 | +2/-3 |
| DC\_12A\_n38A |  |  | 23 | +2/-3 |
| DC\_12A\_n41A |  |  | 23 | +2/-3 |
| DC\_12A\_n66A |  |  | 23 | +2/-3 |
| DC\_12A\_n71A7 |  |  | 23 | +2/-3 |
| DC\_12A\_n77A  DC\_12A\_n77C | 266 | +2/-3 | 23 | +2/-3 |
| DC\_12A\_n78A |  |  | 23 | +2/-3 |
| DC\_13A\_n2A |  |  | 23 | +2/-3 |
| DC\_13A\_n5A |  |  | 23 | +2/-3 |
| DC\_13A\_n7A |  |  | 23 | +2/-3 |
| DC\_13A\_n25A |  |  | 23 | +2/-3 |
| DC\_13A\_n48A |  |  | 23 | +2/-3 |
| DC\_13A\_n66A |  |  | 23 | +2/-3 |
| DC\_13A\_n71A |  |  | 23 | +2/-3 |
| DC\_13A\_n77A | 266 | +2/-3 | 23 | +2/-3 |
| DC\_13A\_n78A |  |  | 23 | +2/-3 |
| DC\_14A\_n2A |  |  | 23 | +2/-3 |
| DC\_14A\_n5A |  |  | 23 | +2/-3 |
| DC\_14A\_n30A |  |  | 23 | +2/-3 |
| DC\_14A\_n66A |  |  | 23 | +2/-3 |
| DC\_14A\_n77A | 266 | +2/-3 | 23 | +2/-3 |
| DC\_18A\_n3A |  |  | 23 | +2/-3 |
| DC\_18A\_n28A |  |  | 23 | +2/-3 |
| DC\_18A\_n41A |  |  | 23 | +2/-3 |
| DC\_18A\_n77A |  |  | 23 | +2/-3 |
| DC\_18A\_n78A |  |  | 23 | +2/-3 |
| DC\_18A\_n79A |  |  | 23 | +2/-3 |
| DC\_19A\_n1A |  |  | 23 | +2/-3 |
| DC\_19A\_n77A |  |  | 23 | +2/-3 |
| DC\_19A\_n78A |  |  | 23 | +2/-3 |
| DC\_19A\_n79A |  |  | 23 | +2/-3 |
| DC\_20A\_n1A |  |  | 23 | +2/-3 |
| DC\_20A\_n3A |  |  | 23 | +2/-3 |
| DC\_20A\_n7A |  |  | 23 | +2/-3 |
| DC\_20A\_n8A |  |  | 23 | +2/-3 |
| DC\_20A\_n38A |  |  | 23 | +2/-3 |
| DC\_20A\_n28A |  |  | 23 | +2/-3 |
| DC\_20A\_n41A |  |  | 23 | +2/-3 |
| DC\_20A\_n50A |  |  | 23 | +2/-3 |
| DC\_20A\_n51A |  |  | 23 | +2/-3 |
| DC\_20A\_n77A |  |  | 23 | +2/-3 |
| DC\_20A\_n80A |  |  | 23 | +2/-3 |
| DC\_20A\_n78A |  |  | 23 | +2/-3 |
| DC\_20A\_n82A\_ULSUP-TDM\_n78A |  |  | 23 | +2/-3 |
| DC\_20A\_n83A |  |  | 23 | +2/-3 |
| DC\_21A\_n1A |  |  | 23 | +2/-3 |
| DC\_21A\_n28A |  |  | 23 | +2/-3 |
| DC\_21A\_n77A |  |  | 23 | +2/-3 |
| DC\_21A\_n78A |  |  | 23 | +2/-3 |
| DC\_21A\_n79A |  |  | 23 | +2/-3 |
| DC\_25A\_n41A |  |  | 23 | +2/-3 |
| DC\_25A\_n77A |  |  | 23 | +2/-3 |
| DC\_25A\_n78A |  |  | 23 | +2/-3 |
| DC\_26A\_n25A |  |  | 23 | +2/-3 |
| DC\_26A\_n41A |  |  | 23 | +2/-3 |
| DC\_26A\_n77A |  |  | 23 | +2/-3 |
| DC\_26A\_n78A |  |  | 23 | +2/-3 |
| DC\_26A\_n79A |  |  | 23 | +2/-3 |
| DC\_28A\_n1A |  |  | 23 | +2/-3 |
| DC\_28A\_n2A |  |  | 23 | +2/-3 |
| DC\_28A\_n3A |  |  | 23 | +2/-3 |
| DC\_28A\_n5A |  |  | 23 | +2/-3 |
| DC\_28A\_n7A  DC\_28A\_n7B |  |  | 23 | +2/-3 |
| DC\_28A\_n8A |  |  | 23 | +2/-3 |
| DC\_28A\_n40A |  |  | 23 | +2/-3 |
| DC\_28A\_n41A |  |  | 23 | +2/-3 |
| DC\_28A\_n50A |  |  | 23 | +2/-3 |
| DC\_28A\_n51A |  |  | 23 | +2/-3 |
| DC\_28A\_n66A |  |  | 23 | +2/-3 |
| DC\_28A\_n77A |  |  | 23 | +2/-3 |
| DC\_28A\_n78A |  |  | 23 | +2/-3 |
| DC\_28A\_n79A |  |  | 23 | +2/-3 |
| DC\_28A\_n83A\_ULSUP-TDM\_n41A |  |  | 23 | +2/-3 |
| DC\_28A\_n83A\_ULSUP-TDM\_n78A |  |  | 23 | +2/-3 |
| DC\_30A\_n2A |  |  | 23 | +2/-3 |
| DC\_30A\_n5A |  |  | 23 | +2/-3 |
| DC\_30A\_n66A |  |  | 23 | +2/-3 |
| DC\_30A\_n77A | 266 | +2/-3 | 23 | +2/-3 |
| DC\_38A\_n1A |  |  | 23 | +2/-3 |
| DC\_38A\_n3A |  |  | 23 | +2/-3 |
| DC\_38A\_n8A |  |  | 23 | +2/-3 |
| DC\_38A\_n28A |  |  | 23 | +2/-3 |
| DC\_38A\_n78A |  |  | N/A | N/A |
| DC\_38A\_n79A |  |  | 23 | +2/-3 |
| DC\_39A\_n40A |  |  | 23 | +2/-3 |
| DC\_39A\_n41A  DC\_39C\_n41A | 265 | +2/-3 | 23 | +2/-3 |
| DC\_39A\_n78A |  |  | 23 | +2/-3 |
| DC\_39A\_n79A | 265 | +2/-3 | 23 | +2/-3 |
| DC\_40A\_n1A |  |  | 23 | +2/-3 |
| DC\_40A\_n41A  DC\_40C\_n41A |  |  | 23 | +2/-3 |
| DC\_40A\_n77A |  |  | N/A | N/A |
| DC\_40A\_n78A |  |  | 23 | +2/-3 |
| DC\_40C\_n78A |  |  | 23 | +2/-3 |
| DC\_40A\_n79A |  |  | 23 | +2/-3 |
| DC\_41A\_n1A  DC\_41C\_n1A |  |  | 23 | +2/-3 |
| DC\_41A\_n3A  DC\_41C\_n3A |  |  | 23 | +2/-3 |
| DC\_41A\_n28A  DC\_41C\_n28A |  |  | 23 | +2/-3 |
| DC\_41A\_n77A  DC\_41C\_n77A |  |  | 23 | +2/-3 |
| DC\_41A\_n78A  DC\_41C\_n78A |  |  | 23 | +2/-3 |
| DC\_41A\_n79A  DC\_41C\_n79A | 265 | +2/-3 | 23 | +2/-3 |
| DC\_42A\_n1A |  |  | 23 | +2/-3 |
| DC\_42A\_n3A  DC\_42C\_n3A |  |  | 23 | +2/-3 |
| DC\_42A\_n28A  DC\_42C\_n28A |  |  | 23 | +2/-3 |
| DC\_42A\_n51A |  |  | 23 | +2/-3 |
| DC\_42A\_n77A |  |  | N/A | N/A |
| DC\_42A\_n78A |  |  | N/A | N/A |
| DC\_42A\_n79A |  |  | N/A | N/A |
| DC\_48A\_n5A |  |  | 23 | +2/-3 |
| DC\_48A\_n12A |  |  | 23 | +2/-3 |
| DC\_48A\_n25A |  |  | 23 | +2/-3 |
| DC\_2A\_n46A |  |  | 23 | +2/-3 |
| DC\_48A\_n66A |  |  | 23 | +2/-3 |
| DC\_48A\_n71A |  |  | 23 | +2/-3 |
| DC\_66A\_n2A |  |  | 23 | +2/-3 |
| DC\_66A\_n5A |  |  | 23 | +2/-3 |
| DC\_66A\_n7A |  |  | 23 | +2/-3 |
| DC\_66A\_n12A |  |  | 23 | +2/-3 |
| DC\_66A\_n25A |  |  | 23 | +2/-3 |
| DC\_66A\_n28A |  |  | 23 | +2/-3 |
| DC\_66A\_n30A |  |  | 23 | +2/-3 |
| DC\_66A\_n38A |  |  | 23 | +2/-3 |
| DC\_66A\_n41A | 266 | +2/-3 | 23 | +2/-3 |
| DC\_66A\_n46A |  |  | 23 | +2/-3 |
| DC\_66A\_n48A |  |  | 23 | +2/-3 |
| DC\_66A\_n71A |  |  | 23 | +2/-3 |
| DC\_66A\_n77A | 266 | +2/-3 | 23 | +2/-3 |
| DC\_66A\_n78A  DC\_66A-66A\_n78A |  |  | 23 | +2/-3 |
| DC\_66A\_n86A\_ULSUP-TDM\_n78A |  |  | 23 | +2/-3 |
| DC\_71A\_n2A |  |  | 23 | +2/-3 |
| DC\_71A\_n5A |  |  | 23 | +2/-3 |
| DC\_71A\_n38A |  |  | 23 | +2/-3 |
| DC\_71A\_n41A |  |  | 23 | +2/-3 |
| DC\_71A\_n48A |  |  | 23 | +2/-3 |
| DC\_71A\_n66A |  |  | 23 | +2/-3 |
| DC\_71A\_n78A |  |  | 23 | +2/-3 |
| NOTE 1: An uplink DC configuration in which at least one of the bands has NOTE 3 in Table 6.2.1-1 in TS 38.101-1 or NOTE 2 in Table 6.2.2-1 in TS 36.101 is allowed to reduce the lower tolerance limit by 1.5 dB when the transmission bandwidths of at least one of the bands is confined within FUL\_low and FUL\_low + 4 MHz or FUL\_high - 4 MHz and FUL\_high.  NOTE 2: PPowerClass, EN-DC is the maximum UE power specified without taking into account the tolerance  NOTE 3: For inter-band EN-DC the maximum power requirement should apply to the total transmitted power over all component carriers (per UE).  NOTE 4: Power Class 3 is the default power class unless otherwise stated.  NOTE 5: The UE is not required to support PC2 within each individual cell group. Power class support within each individual cell group is signaled separately by the UE.  NOTE 6: The UE supports PC3 within E-UTRA cell group, and supports either PC3 or PC2 within NR cell group. Power class support within each individual cell group is signaled separately by the UE.  NOTE 7: Only single switched UL is supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Unchanged clauses skiped \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 7.3B.2.3.5.1 MSD test points for intermodulation interference due to dual uplink operation for PC3 EN-DC in NR FR1 involving two bands

Table 7.3B.2.3.5.1-1: MSD test points for PCell due to dual uplink operation for EN-DC in NR FR1 (two bands)

| NR or E-UTRA Band / Channel bandwidth / NRB / MSD | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| EN-DC  Configuration | EUTRA or NR band | UL Fc  (MHz) | UL/DL BW  (MHz) | UL  LCRB | DL Fc (MHz) | MSD  (dB) | IMD order |
| DC\_1\_n3 | 1 | 1950 | 5 | 25 | 2140 | 23 | IMD3 |
|  | n3 | 1760 | 5 | 25 | 1855 | N/A | N/A |
| DC\_1A-n5A | 1 | 1965 | 5 | 25 | 2155 | 6 | IMD4 |
|  | n5 | 836.5 | 5 | 25 | 876.5 | N/A | N/A |
| DC\_1A\_n8A | 1 | 1965 | 5 | 25 | 2155 | 6.0 | IMD4 |
|  | n8 | 887.5 | 5 | 25 | 932.5 | N/A | N/A |
| DC\_1A\_n71A  DC\_1A\_n71B | 1 | 1958 | 5 | 25 | 2148 | N/A | N/A |
|  | n71 | 668 | 5 | 25 | 622 | 15.1 | IMD3 |
| DC\_1A\_n77A,  DC\_1A\_SUL\_n77A-n84A,  DC\_1A\_n77(2A), | 1 | 1950 | 5 | 25 | 2140 | 29.8 | IMD23 |
|  |  |  |  |  |  | 32.54 |  |
|  | n77 | 4090 | 10 | 50 | 4090 | N/A | N/A |
| DC\_1A\_n77A,  DC\_1A\_SUL\_n77A-n84A,  DC\_1A\_n77(2A),  DC\_1A\_n77(3A),  DC\_1A\_n78A,  DC\_1A\_SUL\_n78A-n84A,  DC\_1A\_n78(2A) | 1 | 1950 | 5 | 25 | 2140 | 8.0 | IMD43 |
|  |  |  |  |  |  | 10.74 |  |
|  | n77, n78 | 3710 | 10 | 50 | 3710 | N/A | N/A |
| DC\_2A\_n46A | 2 | 1880 | 5 | 25 | 1960 | 12.0 | IMD3 |
|  | n46 | 5720 | 20 | 100 | 5720 | N/A | N/A |
| DC\_2A\_n48A | 2 | 1852.5 | 5 | 25 | 1932.5 | 12 | IMD4 |
|  | n48 | 3625 | 20 | 100 | 3625 | N/A | N/A |
| DC\_2A\_n66A, DC\_2A-2A\_n66A  DC\_2A\_n66(2A) | 2 | 1855 | 5 | 25 | 1935 | 20 | IMD3 |
|  | n66 | 1775 | 5 | 25 | 2175 | N/A | N/A |
| DC\_2A\_n66A, DC\_2A-2A\_n66A  DC\_2A\_n66(2A) | 2 | 1883.3 | 5 | 25 | 1963.3 | N/A | N/A |
|  | n66 | 1750 | 5 | 25 | 2150 | 4 | IMD5 |
| DC\_2A\_n77A  DC\_2A-2A\_n77A | 2 | 1855 | 5 | 25 | 1935 | 26 | IMD2 |
|  |  |  |  |  |  | 28.74 |  |
|  | n77 | 3790 | 10 | 50 | 3790 | N/A | N/A |
|  | 2 | 1900 | 5 | 25 | 1980 | 8.0 | IMD4 |
|  |  |  |  |  |  | 10.74 |  |
|  | n77 | 3720 | 10 | 50 | 3720 | N/A | N/A |
|  | 2 | 1885 | 5 | 25 | 1965 | 5 | IMD5 |
|  |  |  |  |  |  | 7.74 |  |
|  | n77 | 3810 | 10 | 50 | 3810 | N/A | N/A |
| DC\_2A\_n78A  DC\_2A\_n78(2A) | 2 | 1855 | 5 | 25 | 1935 | 26 | IMD23 |
|  |  |  |  |  |  | 28.74 |  |
|  | n78 | 3790 | 10 | 50 | 3790 | N/A | N/A |
| DC\_2A\_n78A  DC\_2A\_n78(2A) | 2 | 1885 | 5 | 25 | 1965 | 8.0 | IMD43 |
|  |  |  |  |  |  | 10.74 |  |
|  | n78 | 3690 | 10 | 50 | 3690 | N/A | N/A |
| DC\_3\_n1 | 3 | 1760 | 5 | 25 | 1855 | N/A | N/A |
|  | n1 | 1950 | 5 | 25 | 2140 | 23 | IMD3 |
| DC\_3\_n5 | 3 | 1771 | 10 | 50 | 1866 | 4 | IMD4 |
|  | n5 | 838 | 5 | 25 | 883 | N/A | N/A |
|  | 3 | 1721 | 10 | 50 | 1816 | N/A | N/A |
|  | n5 | 838 | 5 | 25 | 883 | 24 | IMD23 |
| DC\_3A\_n7A  DC\_3C\_n7A | 3 | 1730 | 5 | 25 | 1825 | N/A | N/A |
|  | n7 | 2535 | 10 | 50 | 2655 | 10.2 | IMD4 |
| DC\_3\_n8 | n8 | 900 | 5 | 25 | 945 | 8 | IMD43 |
|  | 3 | 1755 | 10 | 50 | 1850 | N/A | N/A |
|  | n8 | 897.5 | 5 | 25 | 942.5 | N/A | N/A |
|  | 3 | 1747.5 | 10 | 50 | 1842.5 | 6.4 | IMD5 |
| DC\_3A-n20A | 3 | 1775 | 5 | 25 | 1870 | 4 | IMD4 |
|  | n20 | 840 | 5 | 25 | 799 | N/A | N/A |
|  | 3 | 1735 | 5 | 25 | 1830 | N/A | N/A |
|  | n20 | 847 | 5 | 25 | 806 | 9 | IMD4 |
| DC\_3A\_n38A | 3 | 1713 | 5 | 25 | 1808 | 8.2 | IMD4 |
|  | n38 | 2617 | 5 | 25 | 2617 | N/A | N/A |
| DC\_3A\_n41A  DC\_3C\_n41A  DC\_3A\_SUL\_n41A-n80A, DC\_3C\_SUL\_n41A-n80A | 3 | 1740 | 5 | 25 | 1835 | 8.2 | IMD4 |
|  | n41 | 2657.5 | 10 | 50 | 2657.5 | N/A | N/A |
| DC\_3A\_n77A,  DC\_3A\_n77(2A),  DC\_3A\_n77(3A),  DC\_3A\_SUL\_n77A-n80A,  DC\_3A\_n78A,  DC\_3A\_SUL\_n78A-n80A,  DC\_3A\_n78(2A),  DC\_3C\_n78A  DC\_3C\_n78(2A) | 3 | 1740 | 5 | 25 | 1835 | 26 | IMD23 |
|  |  |  |  |  |  | 28.74 |  |
|  | n77, n78 | 3575 | 10 | 50 | 3575 | N/A | N/A |
| DC\_3A\_n77A,  DC\_3A\_n77(2A),  DC\_3C\_n77A,  DC\_3C\_n77(2A),  DC\_3A\_SUL\_n77A-n80A,  DC\_3A\_n78A, DC\_3A\_SUL\_n78A-n80A,  DC\_3A\_n78(2A),  DC\_3C\_n78A  DC\_3C\_n78(2A) | 3 | 1765 | 5 | 25 | 1860 | 8.0 | IMD43 |
|  |  |  |  |  |  | 10.74 |  |
|  | n77, n78 | 3435 | 10 | 50 | 3435 | N/A | N/A |
| DC\_4A\_n2A | 2 | 1860 | 20 | 502 | 1940 | 5 | IMD3 |
|  | 4 | 1752.5 | 5 | 25 | 2152.5 | N/A | N/A |
|  | 2 | 1868.3 | 5 | 25 | 1948.3 | N/A | N/A |
|  | 4 | 1735 | 5 | 25 | 2135 | 5 | IMD5 |
| DC\_4A\_n5A | n5 | 838 | 5 | 25 | 883 | 30 | IMD23 |
|  | 4 | 1721 | 5 | 25 | 2121 | N/A | N/A |
| DC\_4A\_n7A | 4 | 1730 | 5 | 25 | 2130 | N/A | N/A |
|  | n7 | 2535 | 10 | 50 | 2655 | 15 | IMD4 |
| DC\_5\_n7 | n7 | 2547 | 10 | 50 | 2667 | N/A | N/A |
|  | 5 | 834 | 5 | 25 | 879 | 12 | IMD33 |
| DC\_5\_n38 | 5 | 844 | 5 | 25 | 889 | 12 | IMD33 |
|  | n38 | 2577 | 10 | 50 | 2577 | N/A | N/A |
| DC\_5A\_n66A | 5 | 838 | 5 | 25 | 883 | 30 | IMD23 |
|  | n66 | 1721 | 5 | 25 | 2121 | N/A | N/A |
| DC\_5A\_n77A8 | 5 | 844 | 5 | 25 | 889 | 8.3 | IMD4 |
|  | n77 | 3421 | 10 | 50 | 3421 | N/A | N/A |
|  | 5 | 826.5 | 5 | 25 | 871.5 | 5.5 | IMD5 |
|  | n77 | 4177.5 | 10 | 50 | 4177.5 | N/A | N/A |
| DC\_5A\_n78A  DC\_5A\_n78(2A)  DC\_5A\_n78C | 5 | 844 | 5 | 25 | 889 | 8.3 | IMD4 |
|  | n78 | 3421 | 10 | 50 | 3421 | N/A | N/A |
| DC\_7\_n3 | 7 | 2535 | 10 | 50 | 2655 | 13 | IMD4 |
|  | n3 | 1730 | 5 | 25 | 1825 | N/A | N/A |
| DC\_7\_n5 | 7 | 2547 | 10 | 50 | 2667 | N/A | N/A |
|  | n5 | 834 | 5 | 25 | 879 | 12 | IMD33 |
| DC\_7A\_n20A | 7 | 2512 | 10 | 50 | 2632 | N/A | N/A |
|  | n20 | 851 | 5 | 25 | 810 | 12 | IMD33 |
| DC\_7\_n40 | 7 | 2510 | 5 | 25 | 2630 | 23 | IMD3 |
|  | n40 | 2390 | 5 | 25 | 2390 | N/A | N/A |
| DC\_7A\_n66A  DC\_7A-7A\_n66A  DC\_7C\_n66A | 7 | 2535 | 10 | 50 | 2655 | 15 | 4th IMD |
|  | n66 | 1730 | 5 | 25 | 2130 | N/A | N/A |
| DC\_7A\_n77A  DC\_7A-7A\_n77(2A)  DC\_7A\_n77(2A)  DC\_7C\_n77A  DC\_7C\_n77(2A) | 7 | 2540 | 5 | 25 | 2660 | 7.1 | IMD4 |
|  | n77 | 3870 | 10 | 50 | 3870 | N/A | N/A |
| DC\_7\_n79 | 7 | 2510 | 5 | 25 | 2630 | [8] | IMD4 |
| n79 | 4900 | 40 | 216 | 4900 | N/A | N/A |
| DC\_8A\_n1A | 8 | 887.5 | 5 | 25 | 932.5 | N/A | N/A |
|  | n1 | 1965 | 5 | 25 | 2155 | 6 | IMD4 |
| DC\_8A\_n3A | 8 | 900 | 5 | 25 | 945 | 8 | IMD43 |
|  | n3 | 1755 | 10 | 50 | 1850 | N/A | N/A |
|  | 8 | 897.5 | 5 | 25 | 942.5 | N/A | N/A |
|  | n3 | 1747.5 | 10 | 50 | 1842.5 | 6.4 | IMD5 |
| DC\_8A\_n20A | n20 | 849.5 | 5 | 25 | 808.5 | 25 | IMD33 |
|  | 8 | 890.5 | 5 | 25 | 935.5 | N/A | N/A |
|  | n20 | 847.5 | 5 | 25 | 806.5 | N/A | N/A |
|  | 8 | 892.5 | 5 | 25 | 937.5 | 25 | IMD33 |
| DC\_8A\_n41A  DC\_8A\_SUL\_n41A-n81A | 8 | 882.5 | 5 | 25 | 927.5 | 12.1 | IMD33 |
|  | n41 | 2685 | 10 | 50 | 2685 | N/A | N/A |
| DC\_8A\_n77A,  DC\_8A\_n78A,  DC\_8A\_n78(2A),  DC\_8A\_n77(3A),  DC\_8A\_SUL\_n78A-n81A | 8 | 897.5 | 5 | 25 | 942.5 | 8.3 | IMD4 |
|  | n77, n78 | 3635 | 10 | 50 | 3635 | N/A | N/A |
| DC\_8A\_n79A,  DC\_8A-n79C,  DC\_8A\_SUL\_n79A-n81A | 8 | 897.5 | 5 | 25 | 942.5 | 4.8 | IMD5 |
|  | n79 | 4532.5 | 40 | 216 | 4532.5 | N/A | N/A |
| DC\_11A\_n28A | 11 | 1430.5 | 5 | 25 | 1478.5 | N/A | N/A |
|  | n28 | 743 | 5 | 25 | 798 | 10.4 | IMD4 |
| DC\_12A\_n77A  DC\_12A\_n77C | 12 | 702 | 5 | 20 | 732 | 5.5 | IMD5 |
|  | n77 | 3540 | 10 | 50 | 3540 | N/A | N/A |
| DC\_12\_n78 | 12 | 710 | 5 | 25 | 740 | 5.5 | IMD5 |
|  | n78 | 3580 | 10 | 50 | 3580 | N/A | N/A |
| DC\_13\_n5 | 13 | 783 | 5 | 25 | 752 | N/A | N/A |
|  | n5 | 828 | 5 | 25 | 873 | 25 | IMD3 |
| DC\_13A\_n7A  DC\_13A\_n7(2A) | 13 | 784.5 | 5 | 25 | 753.5 | N/A | N/A |
|  | n7 | 2520 | 40 | 216 | 2640 | 2.5 | IMD5 |
| DC\_13A\_n77A | 13 | 784.5 | 5 | 20 | 753.5 | 5.5 | IMD5 |
|  | n77 | 3891.5 | 10 | 50 | 3891.5 | N/A | N/A |
| DC\_14A\_n5A | 14 | 791 | 5 | 25 | 761 | N/A | N/A |
|  | n5 | 836 | 5 | 25 | 881 | 25 | IMD3 |
|  | 14 | 795.5 | 5 | 25 | 765.5 | 25 | IMD3 |
|  | n5 | 826.5 | 5 | 25 | 871.5 | N/A | N/A |
| DC\_14A\_n77A | 14 | 795.5 | 5 | 15 | 765.5 | 5.5 | IMD5 |
|  | n77 | 3947.5 | 10 | 50 | 3947.5 | N/A | N/A |
| DC\_18A\_n3A | 18 | 823 | 5 | 25 | 868 | N/A | N/A |
|  | n3 | 1721 | 5 | 25 | 1816 | 4 | IMD4 |
| DC\_18A\_n77A  DC\_18A\_n78A | 18 | N/A | N/A | N/A | N/A | N/A | IMD4 |
|  | n77, n78 | N/A | N/A | N/A | N/A | N/A | N/A |
| DC\_19A\_n78A | 19 | N/A | N/A | N/A | N/A | N/A | IMD4 |
|  | n78 | N/A | N/A | N/A | N/A | N/A | N/A |
| DC\_20A\_n3A | 20 | 840 | 5 | 25 | 799 | N/A | N/A |
|  | n3 | 1775 | 5 | 25 | 1870 | 4 | IMD4 |
|  | 20 | 847 | 5 | 25 | 806 | 9 | IMD4 |
|  | n3 | 1735 | 5 | 25 | 1830 | N/A | N/A |
| DC\_20A\_n38A | 20 | N/A | N/A | N/A | N/A | N/A | IMD5 |
|  | n38 | N/A | N/A | N/A | N/A | N/A | N/A |
| DC\_20\_n7 | 20 | 851 | 5 | 25 | 810 | 12 | IMD33 |
|  | n7 | 2512 | 10 | 50 | 2632 | N/A | N/A |
| DC\_20A\_n8A | 20 | 849.5 | 5 | 25 | 808.5 | 25 | IMD3 |
|  | n8 | 892.5 | 5 | 25 | 937.5 | 25 | IMD3 |
| DC\_20\_n41 | 20 | 851 | 5 | 25 | 810 | 12.1 | IMD3 |
|  | n41 | 2512 | 10 | 50 | 2512 | N/A | N/A |
| DC\_20\_n41 | 20 | 841 | 5 | 25 | 800 | 8.1 | IMD5 |
|  | n41 | 2564 | 10 | 50 | 2564 | N/A | N/A |
| DC\_20A\_n77A,  DC\_20A\_n78A  DC\_20A\_n78C7,  DC\_20A\_n78(2A),  DC\_20A\_SUL\_n78A-n82A | 20 | 850 | 5 | 25 | 809 | 11 | IMD4 |
|  | n77, n78 | 3359 | 10 | 50 | 3359 | N/A | N/A |
| DC\_20A\_n77A | 20 | 840 | 5 | 25 | 799 | 6.5 | IMD5 |
|  | n77 | 4159 | 10 | 50 | 4159 | N/A | N/A |
| DC\_21A\_n28A7 | 21 | 1450.4 | 5 | 25 | 1498.4 | 2.5 | IMD5 |
| n28 | 735.5 | 5 | 25 | 790.5 | N/A | N/A |
| DC\_21A\_n79A | 21 | 1457.5 | 5 | 25 | 1505.5 | 18.4 | IMD3 |
|  | n79 | 4420.5 | 40 | 216 | 4420.5 | N/A | N/A |
| DC\_25A\_n77A  DC\_25A-25A\_n77A | 25 | 1855 | 5 | 25 | 1935 | 26 | IMD2 |
| n77 | 3790 | 10 | 50 | 3790 | N/A | N/A |
| 25 | 1900 | 5 | 25 | 1980 | 8 | IMD4 |
| n77 | 3720 | 10 | 50 | 3720 | N/A | N/A |
| 25 | 1885 | 5 | 25 | 1965 | 5 | IMD5 |
| n77 | 3810 | 10 | 50 | 3810 | N/A | N/A |
| DC\_25A\_n78A  DC\_25A-25A\_n78A | 25 | 1855 | 5 | 25 | 1935 | 26 | IMD2 |
| n78 | 3790 | 10 | 50 | 3790 | N/A | N/A |
| 25 | 1885 | 5 | 25 | 1965 | 8 | IMD4 |
| n78 | 3690 | 10 | 50 | 3690 | N/A | N/A |
| 25 | 1875 | 5 | 25 | 1955 | 5 | IMD5 |
| n78 | 3790 | 10 | 50 | 3790 | N/A | N/A |
| DC\_26A\_n41A | 26 | 839 | 5 | 25 | 884 | 15.6 | IMD33 |
|  | n41 | 2562 | 10 | 50 | 2562 | N/A | N/A |
| DC\_28\_n50 | 28 | 730 | 10 | 50 | 775 | 15.3 | IMD 2 |
|  | n50 | 1500 | 10 | 50 | 1500 | N/A | N/A |
|  | 28 | 740 | 10 | 50 | 785 | 6 | IMD 4 |
|  | n50 | 1500 | 10 | 50 | 1500 | N/A | N/A |
|  | 28 | 740 | 10 | 50 | 785 | 0.5 | IMD 5 |
|  | n50 | 1500 | 10 | 50 | 1500 | N/A | N/A |
| DC\_28A\_n51A | 28 | 742.3 | 5 | 25 | 797.3 | 5 | IMD4 |
|  | n51 | 1429.5 | 5 | 25 | 1429.5 | N/A | N/A |
| DC\_26A\_n77A,  DC\_26A\_n78A | 26 | 836.5 | 5 | 25 | 881.5 | 11.1 | IMD4 |
|  | n77, n78 | 3391 | 10 | 50 | 3391 | N/A | N/A |
| DC\_28A\_n77A,  DC\_28A\_n78A,  DC\_28A\_n78(2A),  DC\_28A\_SUL\_n78A-n83A | 28 | 705.5 | 5 | 25 | 760.5 | 5.5 | IMD5 |
|  | n77, n78 | 3582.5 | 10 | 50 | 3582.5 | N/A | N/A |
| DC\_30A\_n77A | 30 | 2310 | 5 | 25 | 2355 | 8.0 | IMD4 |
|  | n77 | 3487.5 | 10 | 50 | 3487.5 | N/A | N/A |
| DC\_38A\_n3A | n3 | 1713 | 5 | 25 | 1808 | 8.2 | IMD4 |
| 38 | 2617 | 5 | 25 | 2617 | N/A | N/A |
| DC\_38A\_n8A | 38 | 2617.5 | 5 | 25 | 2617.5 | N/A | N/A |
| n8 | 887.5 | 5 | 25 | 932.5 | 8.1 | IMD5 |
| DC\_41A\_n3A  DC\_41C\_n3A | n3 | 1740 | 5 | 25 | 1835 | 8.2 | IMD4 |
|  | 41 | 2657.5 | 5 | 25 | 2657.5 | N/A | N/A |
| DC\_42\_n3 | 42 | 3575 | 10 | 50 | 3575 | N/A | N/A |
|  | n3 | 1740 | 5 | 25 | 1835 | 26 | 2nd3 |
|  |  |  |  |  |  | 28.74 |  |
|  | 42 | 3435 | 10 | 50 | 3435 | N/A | N/A |
|  | n3 | 1765 | 5 | 25 | 1860 | 8.0 | 4th3 |
|  |  |  |  |  |  | 10.74 |  |
| DC\_42\_n28 | 42 | 3582.5 | 10 | 50 | 3582.5 | N/A | N/A |
|  | n28 | 705.5 | 5 | 25 | 760.5 | 5.5 | IMD5 |
| DC\_48A\_n12A | 48 | 3557.5 | 10 | 50 | 3557.5 | N/A | N/A |
|  | n12 | 705.5 | 5 | 25 | 735.5 | 5.5 | IMD5 |
| DC\_48A\_n25A  DC\_48C\_n25A  DC\_48D\_n25A | 48 | 3625 | 20 | 100 | 3625 | N/A | N/A |
|  | n25 | 1852.5 | 5 | 25 | 1932.5 | 12 | IMD4 |
| DC\_48A\_n66A  DC\_48C\_n66A  DC\_48D\_n66A | 48 | 3630 | 20 | 100 | 3630 | N/A | N/A |
|  | n66 | 1715 | 5 | 25 | 2115 | 4 | IMD5 |
| DC\_66A\_n2A, DC\_66A-66A\_n2A | 66 | 1775 | 5 | 25 | 2175 | N/A | N/A |
|  | n2 | 1855 | 5 | 25 | 1935 | 20 | IMD3 |
|  | 66 | 1750 | 5 | 25 | 2150 | 4 | IMD5 |
|  | n2 | 1883.3 | 5 | 25 | 1963.3 | N/A | N/A |
| DC\_66A\_n5A | n5 | 838 | 5 | 25 | 883 | 30 | IMD23 |
|  | 66 | 1721 | 5 | 25 | 2121 | N/A | N/A |
| DC\_66A\_n7A  DC\_66A-66A\_n7A  DC\_66A\_n7(2A)  DC\_66A-66A\_n7(2A) | 66 | 1730 | 5 | 25 | 2130 | N/A | N/A |
|  | n7 | 2535 | 10 | 50 | 2655 | 15 | IMD4 |
| DC\_66A\_n25A | 66 | 1775 | 5 | 25 | 2175 | N/A | N/A |
|  | n25 | 1855 | 5 | 25 | 1935 | 20 | IMD3 |
|  | 66 | 1712.5 | 5 | 25 | 2112.5 | 23 | IMD3 |
|  | n25 | 1912.5 | 5 | 25 | 1992.5 | N/A | N/A |
|  | 66 | 1750 | 5 | 25 | 2150 | 4 | IMD5 |
|  | n25 | 1883.3 | 5 | 25 | 1963.3 | N/A | N/A |
| DC\_66A\_n46A | 66 | 1735 | 5 | 25 | 2135 | 12.0 | IMD3 |
|  | n46 | 5605 | 20 | 100 | 5605 | N/A | N/A |
| DC\_66A\_n48A | 66 | 1715 | 5 | 25 | 2115 | 4 | IMD5 |
|  | n48 | 3630 | 20 | 100 | 3630 | N/A | N/A |
| DC\_66A\_n71A | 66 | 1750 | 5 | 25 | 2150 | 5 | IMD4 |
|  | n71 | 675 | 5 | 25 | 629 | N/A | N/A |
| DC\_66A\_n77A  DC\_66-66\_n77A  DC\_66-66-66\_n77A | 66 | 1775 | 5 | 25 | 2175 | 31.0 | IMD2 |
|  | n77 | 3950 | 10 | 50 | 3950 | N/A | N/A |
|  | 66 | 1760 | 5 | 25 | 2160 | 5.0 | IMD5 |
|  | n77 | 3720 | 10 | 50 | 3720 | N/A | N/A |
| DC\_66A\_n78A | 66 | 1730 | 5 | 25 | 2150 | 5.0 | IMD5 |
|  | n78 | 3660 | 10 | 50 | 3660 | N/A | N/A |
| DC\_71A\_n38A | 71 | 665 | 5 | 25 | 619 | 11 | IMD4 |
|  | n38 | 2614 | 5 | 25 | 2614 | N/A | N/A |
| DC\_71A\_n41A | 71 | 666 | 5 | 25 | 620 | 11 | IMD4 |
| n41 | 2618 | 5 | 25 | 2618 | N/A | N/A |
| DC\_71A\_n66A | 71 | 675 | 5 | 25 | 629 | N/A | N/A |
|  | n66 | 1750 | 5 | 25 | 2150 | 5 | IMD4 |
| DC\_71A\_n78A | 71 | 681.5 | 5 | 25 | 635.5 | 5.5 | IMD5 |
|  | n78 | 3361.5 | 10 | 50 | 3361.5 | N/A | N/A |
| NOTE 1: Both of the transmitters shall be set min(+20 dBm, PCMAX\_L,c) as defined in clause 6.2.5A.  NOTE 2: RBstart = 0  NOTE 3: This band is subject to IMD5 also which MSD is not specified.  NOTE 4: Applicable only if operation with 4 antenna ports is supported in the band with EN-DC configured.  NOTE 5: Void  NOTE 6: For NR band, UL/DL BW and UL LCRB can be adjusted according to the supported BW and lowest SCS supported by the UE.  NOTE 7: The frequency range in band n28 is restricted for this band combination to 728 - 738 MHz for the UL and 783 - 793 MHz for the DL. This band is subject to IMD2, IMD4 and IMD5 fall in n28 also which MSD is not specified. In addition, this band is subject to IMD4 fall in B21 also which MSD is not specified.  NOTE 8: For a UE which supports this band combination only when the Band n77 frequency range restriction defined in NOTE 12 of Table 5.2-1 from TS 38.101-1 applies, the MSD test point(s) cannot be verified for the band combination and the test point(s) can be skipped. | | | | | | | |

Table 7.3B.2.3.5.1-1a: MSD test points for PCell due to dual uplink operation for PC2 EN-DC in NR FR1 (two bands)

| NR or E-UTRA Band / Channel bandwidth / NRB / MSD | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| EN-DC  Configuration | EUTRA or NR band | UL Fc  (MHz) | UL/DL BW  (MHz) | UL  LCRB | DL Fc (MHz) | MSD  (dB) | IMD order |
| DC\_3A\_n41A | 3 | 1740 | 5 | 25 | 1835 | 18.4 | IMD4 |
|  | n41 | 2657.5 | 10 | 50 | 2657.5 | N/A | N/A |
| DC\_3A\_n78A | 3 | 1740 | 5 | 25 | 1835 | 31.9 | IMD2 |
|  | n78 | 3575 | 10 | 50 | 3575 | N/A | N/A |
| DC\_3A\_n78A | 3 | 1765 | 5 | 25 | 1860 | 18.5 | IMD4 |
|  | n78 | 3435 | 10 | 50 | 3435 | N/A | N/A |
| DC\_1A\_n78A | 1 | 1950 | 5 | 25 | 2140 | 17.8 | IMD4 |
| n78 | 3710 | 10 | 50 | 3710 | N/A | N/A |
| DC\_8A\_n78A | 8 | 897.5 | 5 | 25 | 942.5 | 15.5 | IMD4 |
| n78 | 3635 | 10 | 50 | 3635 | N/A | N/A |
| DC\_2A\_n77A  DC\_2A-2A\_n77A  DC\_2A\_n77C  DC\_2A-2A\_n77C | 2 | 1855 | 5 | 25 | 1935 | 32.10 | IMD2 |
| 34.852 |
| n77 | 3790 | 10 | 50 | 3790 | N/A | N/A |
| 2 | 1900 | 5 | 25 | 1980 | 19.10 | IMD41 |
| 21.852 |
| n77 | 3720 | 10 | 50 | 3720 | N/A | N/A |
| DC\_5A\_n77A3  DC\_5A\_n77C3 | 5 | 844 | 5 | 25 | 889 | 18.60 | IMD41 |
| n77 | 3421 | 10 | 50 | 3421 | N/A | N/A |
| DC\_13A\_n77A  DC\_13A\_n77C | 13 | 782 | 5 | 20 | 751 | 15.37 | IMD5 |
| n77 | 3879 | 10 | 50 | 3879 | N/A | N/A |
| DC\_66A\_n77A  DC\_66A-66A\_n77A  DC\_66A-66A-66A\_n77A  DC\_66A\_n77C  DC\_66A-66A\_n77C  DC\_66A-66A-66A\_n77C | 66 | 1775 | 5 | 25 | 2175 | 34.33 | IMD2 |
| n77 | 3950 | 10 | 50 | 3950 | N/A | N/A |
| 66 | 1760 | 5 | 25 | 2160 | 11.27 | IMD5 |
| n77 | 3720 | 10 | 50 | 3720 | N/A | N/A |
| DC\_5A\_n78A | 5 | 844 | 5 | 25 | 889 | 17.5 | IMD4 |
|  | n78 | 3421 | 10 | 52 | 3421 | N/A | N/A |
| DC\_12A\_n77A | 12 | 702 | 5 | 20 | 732 | 11.7 | IMD5 |
| n77 | 3540 | 10 | 50 | 3540 | N/A | N/A |
| DC\_14A\_n77A | 14 | 795.5 | 5 | 15 | 765.5 | 11.7 | IMD5 |
| n77 | 3947.5 | 10 | 50 | 3947.5 | N/A | N/A |
| DC\_30A\_n77A | 30 | 2310 | 5 | 25 | 2355 | 17.6 | IMD4 |
| n77 | 3487.5 | 10 | 50 | 3487.5 | N/A | N/A |
| NOTE 1: This band is subject to IMD5 also which MSD is not specified.  NOTE 2: Applicable only if operation with 4 antenna ports is supported in the band with EN-DC configured.  NOTE 3: For a UE which supports this band combination only when the Band n77 frequency range restriction defined in NOTE 12 of Table 5.2-1 from TS 38.101-1 applies, the MSD test point(s) cannot be verified for the band combination and the test point(s) can be skipped. | | | | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* End of changes \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*