**3GPP TSG- WG4 Meeting # 115 *R4-2505327***

**St Julian’s, Malta, 19th – 25th May 2025**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** | **2728** | **rev** | **-** | **Current version:** | **19.1.0** |  |
|  | | | | | | | | |
| *For* [***HELP***](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 38.101-3 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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | To align the specification treatment of simultaneous Rx-Tx capability for inter-band CA in TS 38.101-1 in R4-2420505 and R4-2505226 with inter-band EN-DC in TS 38.101-1 for FDD-TDD, TDD-SDL, FDD-FDD and FDD-SDL band combinations. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 1. In sub-clause 5.5B.1, update the mandatory simultaneous Rx-Tx requirements for TDD-SDL, FDD-FDD, FDD-SDL and FDD-TDD EN-DC band combinations. 2. Remove ‘NOTE 7: Applicable for UE supporting inter-band EN-DC with mandatory simultaneous Rx/Tx capability.’ for FR1+FR1 FDD-TDD EN-DC combinations in Table 5.5B.4.1-1 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | There is mis-alignment between TS38.101-1 and TS38.101-3 of simultaneous Rx-Tx capability for FDD-TDD, TDD-SDL, FDD-FDD and FDD-SDL band combination. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.5B.1, 5.5B.4.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 Changes <<

## 5.5B Configuration for DC

### 5.5B.1 General

The operating bands and bandwidth classes are specified for operation with EN-DC, NGEN-DC, NE-DC or NR-DC configured. The EN-DC, NGEN-DC or NE-DC band combinations include at least one E-UTRA operating band.

For EN-DC or NE-DC configurations indicated by column "Single Uplink allowed" (e.g., problematic band combinations as defined in TS 38.306 [11]) in tables in this clause the UE may indicate capability of not supporting simultaneous dual and triple uplink operation due to possible intermodulation interference to its own primary downlink channel bandwidth of PCell or PSCell if the intermodulation order is 2 or if the intermodulation order is 3 for the combinations when both operating bands are between 450 MHz – 960 MHz or between 1427 MHz – 2690 MHz. When LTE and NR transmissions collide, simultaneous dual transmissions may not be supported by UE for these EN-DC band combinations for which only single switched UL is supported.

In the case for EN-DC or NE-DC configurations listed in tables in this clause for which the intermodulation products caused by the dual and triple uplink operation fall into the receive band but do not interfere with its own primary downlink channel bandwidth of PCell or PSCell as defined in Annex I the UE is mandated to operate in dual and triple uplink mode. Single Uplink is also allowed for certain band combinations where intermodulation or reverse intermodulation products could create difficulty for meeting emission requirementsFor EN-DC combinations of order 3 or higher, "Single Uplink allowed" UL configurations captured in Table 5.5B.2-1, Table 5.5B.3-1, and Table 5.5B.4-1 apply.

If multiple UL DC configurations are listed for multiple DL DC configurations, valid uplink configurations are such that uplink does not have more carriers than downlink.

The configurations for operating bands for DC including Band n41 also apply for the corresponding operating bands for DC with Band n90 replacing Band n41 but with otherwise identical parameters. For brevity the said configuration for operating bands for DC with Band n90 are not listed in the tables below but are covered by this specification.

Non contiguous resource allocation and almost contiguous allocation are not applicable for E UTRA or NR carrier part of intra band EN DC configuration.

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

Unless stated otherwise, simultaneous Rx/Tx capability is mandatory for FDD-TDD EN-DC combinations. Simultaneous Rx/Tx capability is mandatory without signaling for FDD-FDD EN-DC combinations

For a higher order EN-DC band combination of which DC\_20\_n28/DC\_28\_n20/CA\_20-28/CA\_n20-n28 is a subset, the frequency range in band n28/28 is restricted for the higher order band combination to 703-733 MHz for the UL and 758-788 MHz for the DL.

For NR inter-band dual connectivity specified in 5.5B.7, the corresponding NR CA configurations in 5.5A.1, i.e., dual uplink inter-band carrier aggregation between FR1 and FR2 with uplink assigned to two NR bands, are applicable to Dual Connectivity.

NOTE 1: Requirements for the dual connectivity configurations are defined in the clause corresponding NR uplink CA between FR1 and FR2 configurations, unless otherwise specified.

## >> Next Changes <<

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

5.5B.4.0 General

By default, power class 3 is applicable for the EN-DC configurations listed in the following sub-clauses. The applicability of higher power class(es) is described in the EN-DC configuration tables. For higher order EN-DC band combinations, the applicability of higher power class(es) is extended based on the following conditions:

* For an inter-band EN-DC combination with intra-band CA, UE may support the same higher power class(es) that are defined for the inter-band EN-DC combination composed of the same band without intra-band CA.
* For an inter-band EN-DC combination with 4 or more DL bands without intra-band CA, the higher power class(es) may be supported when the same higher power class(es) are specified for all its fallback combinations.

#### 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  DC\_1A\_n7B | 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\_n26A | DC\_1A\_n26A | 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\_n41A | 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\_n77A  DC\_1A\_n77C | DC\_1A\_n77A | DC\_1\_n77 | No |
| DC\_1A\_n77(2A)21  DC\_1A\_n77(3A) | DC\_1A\_n77A21 | DC\_1\_n77 | No |
| DC\_1A\_n78A 23  DC\_1A\_n78C 21 | DC\_1A\_n78A21, 23 | No | No |
| DC\_1A\_n78(2A)21  DC\_1A\_n78(A-C) | DC\_1A\_n78A21 | No | No |
| DC\_1A-1A\_n78A | DC\_1A\_n78A | No | No |
| DC\_1A\_n79A  DC\_1A\_n79C | DC\_1A\_n79A | No | No |
| DC\_1A\_n105A | DC\_1A\_n105A | No |  |
| DC\_2A\_n5A | DC\_2A\_n5A | No |  |
| DC\_2A-2A\_n5A | DC\_2A\_n5A | No |  |
| DC\_2A\_n7A  DC\_2C\_n7A | DC\_2A\_n7A | No |  |
| DC\_2A\_n7(2A) | DC\_2A\_n7A | No |  |
| DC\_2A-2A\_n7A | DC\_2A\_n7A | No |  |
| DC\_2A\_n12A | DC\_2A\_n12A | No |  |
| DC\_2A-2A\_n12A | DC\_2A\_n12A | No |  |
| DC\_2A\_n25A11, 13, 20 | N/A | N/A |  |
| DC\_2A\_n28A  DC\_2C\_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 | No |  |
| DC\_2A-2A\_n71A | DC\_2A\_n71A | No |  |
| DC\_2A\_n77A  DC\_2A\_n77C21 | DC\_2A\_n77A21 | DC\_2\_n77 |  |
| DC\_2A\_n77(2A)21 | DC\_2A\_n77A21 | DC\_2\_n77 |  |
| DC\_2A-2A\_n77A21  DC\_2A-2A\_n77C21 | DC\_2A\_n77A21 | DC\_2\_n77 |  |
| DC\_2A-2A\_n77(2A)21 | DC\_2A\_n77A21 | DC\_2\_n77 |  |
| DC\_2A\_n78A | DC\_2A\_n78A | DC\_2\_n78 |  |
| DC\_2A-2A\_n78(2A) | DC\_2A\_n78A | DC\_2\_n78 |  |
| DC\_2A\_n78(2A)21 | DC\_2A\_n78A21 | 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\_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\_3C\_n20A | DC\_3A\_n20A | No |  |
| DC\_3A\_n26A  DC\_3C\_n26A | DC\_3A\_n26A  DC\_3C\_n26A | Yes |  |
| 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\_3C\_n40A | DC\_3A\_n40A | No |  |
| DC\_3A\_n41A  DC\_3A\_n41C  DC\_3C\_n41A | DC\_3A\_n41A  DC\_3C\_n41A | DC\_3\_n41 | No |
| DC\_3A-3A\_n41A | DC\_3A\_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\_n77A  DC\_3A\_n77C  DC\_3C\_n77A21 | DC\_3A\_n77A21  DC\_3C\_n77A | DC\_3\_n77 | No |
| DC\_3A\_n77(2A)21  DC\_3A\_n77(3A)  DC\_3C\_n77(2A)1 | DC\_3A\_n77A,21  DC\_3C\_n77A | DC\_3\_n77 | No |
| DC\_3A-3A\_n77A | DC\_3A\_n77A | DC\_3\_n77 | No |
| DC\_3A\_n78A23  DC\_3A\_n78C  DC\_3C\_n78A21 | DC\_3A\_n78A,21,23  DC\_3C\_n78A | DC\_3\_n78 | No |
| DC\_3A\_n78(2A)21  DC\_3A\_n78(A-C)  DC\_3C\_n78(2A)21 | DC\_3A\_n78A,21  DC\_3C\_n78A | DC\_3\_n78 | No |
| DC\_3A-3A\_n78A 21 | DC\_3A\_n78A21 | DC\_3\_n78 | No |
| DC\_3A\_n79A  DC\_3A\_n79C  DC\_3C\_n79A | DC\_3A\_n79A  DC\_3C\_n79A | No | No |
| DC\_3A-3A\_n79A | DC\_3A\_n79A | No |  |
| DC\_3A\_n105A | DC\_3A\_n105A | 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\_n1A | DC\_5A\_n1A | No |  |
| DC\_5A\_n2A  DC\_5B\_n2A | DC\_5A\_n2A | No |  |
| DC\_5A\_n2(2A) | DC\_5A\_n2A | No |  |
| DC\_5A-5A\_n2A | DC\_5A\_n2A | No |  |
| DC\_5A\_n3A | DC\_5A\_n3A | DC\_5\_n3 |  |
| 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\_n25A | DC\_5A\_n25A | No |  |
| DC\_5A\_n28A | DC\_5A\_n28A | 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\_n41A | DC\_5A\_n41A | 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\_n77C21 | DC\_5A\_n77A21 | No |  |
| DC\_5A\_n77(2A)21  DC\_5A\_n77(3A) | DC\_5A\_n77A21 | No |  |
| DC\_5A\_n71A | DC\_5A\_n71A | No |  |
| DC\_5A\_n78A 23  DC\_5A\_n78C | DC\_5A\_n78A23 | No | No |
| DC\_5A\_n78(2A)21  DC\_5A\_n78(A-C) | DC\_5A\_n78A21 | 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\_n2(2A) | 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\_n12A | DC\_7A\_n12A | No |  |
| DC\_7A-7A\_n78(2A)21 | DC\_7A\_n78A21 | No |  |
| DC\_7A\_n20A | DC\_7A\_n20A | No |  |
| DC\_7A\_n25A  DC\_7C\_n25A | DC\_7A\_n25A | No |  |
| DC\_7A\_n26A  DC\_7C\_n26A | DC\_7A\_n26A  DC\_7C\_n26A | Yes |  |
| 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-7A\_n40A | DC\_7A\_n40A | Yes |  |
| DC\_7A-7A\_n28A | DC\_7A\_n28A | No |  |
| 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\_n77A  DC\_7C\_n77A | DC\_7A\_n77A | No |  |
| DC\_7A\_n77(2A)  DC\_7A\_n77(3A)  DC\_7C\_n77(2A) | DC\_7A\_n77A | No |  |
| DC\_7A-7A\_n77A7 | DC\_7A\_n77A | No |  |
| DC\_7A-7A\_n77(2A)  DC\_7A-7A\_n77(3A) | DC\_7A\_n77A | No |  |
| DC\_7A\_n78A23  DC\_7C\_n78A21  DC\_7A\_n78C | DC\_7A\_n78A21,23  DC\_7C\_n78A | No |  |
| DC\_7A\_n78(2A)21  DC\_7A\_n78(A-C)  DC\_7C\_n78(2A) 21 | DC\_7A\_n78A21  DC\_7C\_n78A | No |  |
| DC\_7A-7A\_n78A 21  DC\_7A-7A\_n78C | DC\_7A\_n78A21 | No |  |
| DC\_7A-7A\_n78(A-C) | DC\_7A\_n78A | No |  |
| DC\_7A\_n79A  DC\_7A\_n79C | DC\_7A\_n79A | No |  |
| DC\_7A-7A\_n79A | DC\_7A\_n79A | No |  |
| DC\_7A\_n105A | DC\_7A\_n105A | No |  |
| DC\_8A\_n1A  DC\_8B\_n1A | DC\_8A\_n1A  DC\_8B\_n1A | No |  |
| DC\_8A\_n2A | DC\_8A\_n2A | DC\_8\_n2 |  |
| DC\_8A\_n3A  DC\_8B\_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\_n38A | DC\_8A\_n38A | No |  |
| DC\_8A\_n39A | DC\_8A\_n39A | No |  |
| DC\_8A\_n40A | DC\_8A\_n40A | No |  |
| DC\_8A\_n41A  DC\_8A\_n41C | DC\_8A\_n41A | No | No |
| DC\_8A\_n41(2A) | DC\_8A\_n41A | No | No |
| DC\_8A\_n77A  DC\_8B\_n77A | DC\_8A\_n77A | No | No |
| DC\_8A\_n77(2A)21  DC\_8B\_n77(2A)  DC\_8A\_n77(3A) | DC\_8A\_n77A21 | No | No |
| DC\_8A\_n78A23  DC\_8B\_n78A 21 | DC\_8A\_n78A21,23  DC\_8B\_n78A | No | No |
| DC\_8A\_n78(2A) 21 | DC\_8A\_n78A21 | No | No |
| DC\_8A\_n79A  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\_n1A | DC\_11A\_n1A | No |  |
| DC\_11A\_n3A | DC\_11A\_n3A | No |  |
| DC\_11A\_n28A | DC\_11A\_n28A | No |  |
| DC\_11A\_n41A | DC\_11A\_n41A | No |  |
| DC\_11A\_n77A | DC\_11A\_n77A | No | No |
| DC\_11A\_n77(2A)  DC\_11A\_n77(3A) | DC\_11A\_n77A | No | No |
| DC\_11A\_n78A | DC\_11A\_n78A | No | No |
| DC\_11A\_n78(2A) | DC\_11A\_n78A | No | No |
| DC\_11A\_n79A | DC\_11A\_n79A | No |  |
| DC\_12A\_n2A | DC\_12A\_n2A | No |  |
| DC\_12A\_n2(2A) | 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\_n77A | DC\_12A\_n77A | DC\_12\_n77 |  |
| DC\_12A\_n77(2A)21 | DC\_12A\_n77A21 | 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\_n77C21 | DC\_13A\_n77A21 | No |  |
| DC\_13A\_n78A | DC\_13A\_n78A | No |  |
| DC\_13A\_n78(2A)21 | DC\_13A\_n78A21 | 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\_n41A | DC\_14A\_n41A | No |  |
| DC\_14A\_n66A | DC\_14A\_n66A | No |  |
| DC\_14A\_n77A | DC\_14A\_n77A | No |  |
| DC\_14A\_n77(2A)21 | DC\_14A\_n77A21 | No |  |
| DC\_18A\_n3A | DC\_18A\_n3A | No |  |
| DC\_18A\_n28A | DC\_18A\_n28A | No |  |
| DC\_18A\_n41A16 | DC\_18A\_n41A | No |  |
| DC\_18A\_n77A  DC\_18A\_n77(2A) | DC\_18A\_n77A | No | No |
| DC\_18A\_n78A | DC\_18A\_n78A | No | No |
| DC\_18A\_n78(2A) | 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\_n79A | DC\_18A\_n79A | No |  |
| DC\_19A\_n1A | DC\_19A\_n1A | No |  |
| DC\_19A\_n77A  DC\_19A\_n77C | DC\_19A\_n77A | No |  |
| DC\_19A\_n77(2A)7, 21 | DC\_19A\_n77A21 | No |  |
| DC\_19A\_n78A  DC\_19A\_n78C | DC\_19A\_n78A | No | No |
| DC\_19A\_n78(2A) 21 | DC\_19A\_n78A21 | No | No |
| DC\_19A\_n79A  DC\_19A\_n79C | 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\_n40A | DC\_20A\_n40A | 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\_n77A | DC\_20A\_n77A | No |  |
| DC\_20A\_n78A23  DC\_20A\_n78C | DC\_20A\_n78A23 | No |  |
| DC\_20A\_n78(2A) | DC\_20A\_n78A | No |  |
| DC\_21A\_n1A | DC\_21A\_n1A | No |  |
| DC\_21A\_n28A17 | DC\_21A\_n28A | DC\_21\_n28 |  |
| DC\_21A\_n77A  DC\_21A\_n77C | DC\_21A\_n77A | No |  |
| DC\_21A\_n77(2A)21 | DC\_21A\_n77A21 | No |  |
| DC\_21A\_n78A  DC\_21A\_n78C | DC\_21A\_n78A | No | No |
| DC\_21A\_n78(2A)21 | DC\_21A\_n78A21 | 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\_n77A | DC\_26A\_n77A | No |  |
| DC\_26A\_n78A | DC\_26A\_n78A | No |  |
| DC\_26A\_n78(2A) | DC\_26A\_n78A | No |  |
| DC\_26A\_n79A | 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\_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\_n20A8,11,13 | DC\_28A\_n20A | No |  |
| DC\_28A\_n38A | DC\_28A\_n38A | No |  |
| DC\_28A\_n40A  DC\_28C\_n40A | DC\_28A\_n40A | No |  |
| DC\_28A\_n41A | DC\_28A\_n41A | No |  |
| DC\_28A\_n50A | DC\_28A\_n50A | No |  |
| DC\_28A\_n66A | DC\_28A\_n66A | No |  |
| DC\_28A\_n77A  DC\_28A\_n77C  DC\_28C\_n77A | DC\_28A\_n77A | No | No |
| DC\_28A\_n77(2A)  DC\_28C\_n77(2A) | DC\_28A\_n77A | No | No |
| DC\_28A\_n78A23  DC\_28A\_n78C | DC\_28A\_n78A23 | No | No |
| DC\_28A\_n78(2A) | DC\_28A\_n78A | No | No |
| DC\_28A\_n79A  DC\_28A\_n79C | DC\_28A\_n79A | No |  |
| DC\_28A\_n105A | DC\_28A\_n105A18 | DC\_28\_n105 |  |
| 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\_30A\_n77(2A)21 | DC\_30A\_n77A21 | 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\_n41A  DC\_39C\_n41A  DC\_39A\_n41C | 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\_n3A | DC\_40A\_n3A | No |  |
| DC\_40A\_n7A | DC\_40A\_n7A | No |  |
| DC\_40A\_n41A  DC\_40A\_n41C  DC\_40C\_n41A | DC\_40A\_n41A | No |  |
| DC\_40A\_n41(2A) | DC\_40A\_n41A | No |  |
| DC\_40A\_n77A  DC\_40A\_n77C  DC\_40C\_n77A21  DC\_40C\_n77C  DC\_40D\_n77A21 | DC\_40A\_n77A21 | No |  |
| DC\_40A\_n78A  DC\_40A\_n78C  DC\_40C\_n78A21  DC\_40C\_n78C  DC\_40D\_n78A21 | DC\_40A\_n78A21, 23  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\_n3A  DC\_41C\_n3A | DC\_41A\_n3A  DC\_41C\_n3A | No |  |
| DC\_41A\_n28A  DC\_41C\_n28A | DC\_41A\_n28A  DC\_41C\_n28A | No |  |
| DC\_41A\_n77A  DC\_41C\_n77A21 | DC\_41A\_n77A21  DC\_41C\_n77A | No |  |
| DC\_41A\_n77(2A)  DC\_41C\_n77(2A) | DC\_41A\_n77A  DC\_41C\_n77A | No |  |
| DC\_41A\_n78A23  DC\_41C\_n78A  DC\_41D\_n78A | DC\_41A\_n78A23  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\_41A\_n79C  DC\_41C\_n79A | No | No |
| DC\_42A\_n1A  DC\_42C\_n1A | DC\_42A\_n1A  DC\_42C\_n1A | No |  |
| DC\_42A\_n3A  DC\_42C\_n3A | DC\_42A\_n3A  DC\_42C\_n3A | DC\_42\_n3 |  |
| DC\_42A\_n28A  DC\_42C\_n28A | DC\_42A\_n28A  DC\_42C\_n28A | No |  |
| DC\_42A\_n51A | DC\_42A\_n51A | No |  |
| DC\_42A\_n77A3,4,9,11,13 DC\_42A\_n77C3,4,9  DC\_42C\_n77A3,4,9,11  DC\_42C\_n77C3,4,9  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  DC\_42C\_n77(2A)3,4,9 | N/A | N/A |  |
| DC\_42A\_n78A3,4,9,11,13  DC\_42A\_n78C3,4,9  DC\_42C\_n78A3,4,9,11  DC\_42C\_n78C3,4,9  DC\_42D\_n78A3,4,9,11  DC\_42D\_n78C3,4,9  DC\_42E\_n78A3,4,9,11  DC\_42E\_n78C3,4,9 | 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\_n2A  DC\_48C\_n2A  DC\_48D\_n2A  DC\_48E\_n2A | DC\_48A\_n2A | No |  |
| DC\_48A\_n5A  DC\_48B\_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\_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\_48A-48A\_n77A | N/A | N/A |  |
| DC\_48A-48A-48A\_n77A | N/A | N/A |  |
| DC\_66A\_n2A  DC\_66B\_n2A  DC\_66C\_n2A | DC\_66A\_n2A | DC\_66\_n2 |  |
| DC\_66A\_n2(2A) | 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-66A\_n30A | DC\_66A\_n30A | No |  |
| 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\_n77A  DC\_66A\_n77C21 | DC\_66A\_n77A21 | DC\_66\_n77 |  |
| DC\_66A\_n77(2A)21 | DC\_66A\_n77A21 | DC\_66\_n77 |  |
| DC\_66A-66A\_n77A21  DC\_66A-66A\_n77C21 | DC\_66A\_n77A21 | DC\_66\_n77 |  |
| DC\_66A-66A\_n77(2A)21 | DC\_66A\_n77A21 | DC\_66\_n77 |  |
| DC\_66A-66A-66A\_n77A21  DC\_66A-66A-66A\_n77C21 | DC\_66A\_n77A21 | DC\_66\_n77 |  |
| DC\_66A-66A-66A\_n77(2A)21 | DC\_66A\_n77A21 | DC\_66\_n77 |  |
| DC\_66A\_n78A | DC\_66A\_n78A | No |  |
| DC\_66A\_n78(2A) 21 | DC\_66A\_n78A21 | No |  |
| DC\_66A-66A\_n78A21 | DC\_66A\_n78A21 | No |  |
| DC\_66A-66A\_n78(2A)21 | DC\_66A\_n78A21 | No |  |
| DC\_68A\_n1A | DC\_68A\_n1A | No |  |
| DC\_68A\_n3A | DC\_68A\_n3A | No |  |
| DC\_68A\_n7A | DC\_68A\_n7A | No |  |
| DC\_68A\_n8A | DC\_68A\_n8A | No |  |
| DC\_68A\_n20A | DC\_68A\_n20A | No |  |
| DC\_68A\_n38A | DC\_68A\_n38A | No |  |
| DC\_68A\_n40A | DC\_68A\_n40A | No |  |
| DC\_68A\_n41A | DC\_68A\_n41A | No |  |
| DC\_68A\_n77A | DC\_68A\_n77A | No |  |
| DC\_68A\_n78A | DC\_68A\_n78A | No |  |
| DC\_68A\_n79A | DC\_68A\_n79A | No |  |
| DC\_71A\_n2A | DC\_71A\_n2A | No |  |
| DC\_71A\_n2(2A) | DC\_71A\_n2A | No |  |
| DC\_71A\_n5A | DC\_71A\_n5A | No |  |
| DC\_71A\_n12A | DC\_71A\_n12A18,19 | Yes |  |
| DC\_71A\_n38A | DC\_71A\_n38A | No |  |
| DC\_71A\_n7A | DC\_71A\_n7A | No |  |
| DC\_71A\_n25A | DC\_71A\_n7A | No |  |
| DC\_71A\_n41A | DC\_71A\_n41A | No |  |
| DC\_71A\_n48A | DC\_71A\_n48A | No |  |
| DC\_71A\_n66A | DC\_71A\_n66A | No |  |
| DC\_71A\_n77A  DC\_71A\_n77C | DC\_71A\_n77A | No |  |
| DC\_71A\_n77(2A) | DC\_71A\_n77A | No |  |
| DC\_71A\_n78A | DC\_71A\_n78A | No |  |
| DC\_71A\_n78(2A)21 | DC\_71A\_n78A21 | No |  |
| DC\_106A\_n41A  DC\_106A\_n41C | DC\_106A\_n41A | No |  |
| DC\_106A\_n41(2A) | DC\_106A\_n41A | No |  |
| DC\_106A\_n48A  DC\_106A\_n48C | DC\_106A\_n48A | No |  |
| DC\_106A\_n48(2A) | DC\_106A\_n48A | 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 Rx/Tx 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: If a UE does not indicate *interBandMRDC-WithOverlapDL-Bands-r16* or a UE indicates both *interBandMRDC-WithOverlapDL-Bands-r16* and *requirementTypeIndication-r18* and IE *nonCollocatedTypeMRDC-r18* is provided, the minimum requirements for intra-band non-contiguous EN-DC apply for the Band 42/48 and Band n77/n78 combination. If a UE does not indicate *interBandMRDC-WithOverlapDL-Bands-r16* or a UE indicates both *interBandMRDC-WithOverlapDL-Bands-r16* and *requirementTypeIndication-r18* and IE *nonCollocatedTypeMRDC-r18* is provided and UE indicates *interBandContiguousMRDC*, the minimum requirements for intra-band contiguous EN-DC also apply 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 /28 is restricted for this band combination to 703 - 733 MHz for the UL and 758-788 MHz for the DL. This restriction also applies 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 or Band 48 is not used.  NOTE 10: Void.  NOTE 11: Maximum 6 dB power spectral density imbalance between downlink carriers is assumed when UE does not indicate *interBandMRDC-WithOverlapDL-Bands-r16* or if a UE indicates both *interBandMRDC-WithOverlapDL-Bands-r16* and *requirementTypeIndication-r18* and IE *nonCollocatedTypeMRDC-r18* is provided. Clause 7.10B.3 power imbalance requirement apply if the UE indicates *interBandMRDC-WithOverlapDL-Bands-r16* but does not indicate *requirementTypeIndication-r18* or a UE indicates both *interBandMRDC-WithOverlapDL-Bands-r16* and *requirementTypeIndication-r18* and IE *nonCollocatedTypeMRDC-r18* is not provided when *maxMIMO-Layers* with value less than or equal to 2.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: If a UE does not indicated *interBandMRDC-WithOverlapDL-Bands-r16* or a UE indicates both *interBandMRDC-WithOverlapDL-Bands-r16* and *requirementTypeIndication-r18* and IE *nonCollocatedTypeMRDC-r18* is provided, 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: The combination is not used alone as fallback mode of other band combinations in which UL in Band 2 is not used.  NOTE 21: Minimum requirements for PC2 are applicable for this uplink EN-DC configuration in this downlink/uplink EN-DC configuration with 1Tx antenna connector in each band.  NOTE 22: The PC2 Uplink EN-DC configuration supported in Table 6.2B.1.3-1 is applicable to the same EN-DC configuration without additional indication of NOTE 21.  NOTE 23: Minimum requirements for Power Class 2 are applicable for this EN-DC configuration with 1Tx antenna connector in one band and 2Tx antenna connectors in the other band. | | | |

## >> End of Changes <<