**3GPP TSG-RAN WG4 Meeting # 114 *R4-2501445***

**Athens, Greece, 17th – 21st February, 2025**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.101-1** | **CR** | **DraftCR** | **rev** | **-** | **Current version:** | **19.0.0** |  |
|  | | | | | | | | |
| *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:*** | Draft CR for TS 38.101-1 to introduce two SUL cells CA\_41C\_n95A-n98A | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, HiSilicon | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_CADC\_SUL\_R19-Core | | | | |  | ***Date:*** | | | 2025-01-24 |
|  |  | | | |  | |  | | |  |
| ***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 introduce CA\_41C\_n95A-n98A. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | To introduce CA\_41C\_n95A-n98A. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Spec can’t support CA\_41C\_n95A-n98A. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.2C, 5.5C, 6.2C.2, 7.3C.3.2.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | | **X** |  | Test specifications | | | | TS 38.521-1 | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

## **<<Start of Change for TS 38.101-1>>**

## 5.2C Operating band combination for SUL

NR operation is designed to operate in the operating band combination defined in Table 5.2C-1, Table 5.2C-2, Table 5.2C-3 and Table 5.2C-4, where all operating bands are within FR1.

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

Table 5.2C-1: Operating band combination for SUL in FR1

| NR Band combination for SUL | NR Band  (Table 5.2-1) |
| --- | --- |
| SUL\_n1-n802 | n1, n80 |
| SUL\_n1-n812 | n1, n81 |
| SUL\_n1-n892 | n1, n89 |
| SUL\_n3-n842 | n3, n84 |
| SUL\_n5-n842 | n5, n84 |
| SUL\_n8-n842 | n8, n84 |
| SUL\_n24-n992 | n24, n99 |
| SUL\_n41-n802 | n41, n80 |
| SUL\_n41-n812 | n41, n81 |
| SUL\_n41-n832 | n41, n83 |
| SUL\_n41-n952 | n41, n95 |
| SUL\_n41-n972 | n41, n97 |
| SUL\_n41-n982 | n41, n98 |
| SUL\_n41-n992 | n41, n99 |
| SUL\_n48-n992 | n48, n99 |
| SUL\_n77-n802 | n77, n80 |
| SUL\_n77-n842 | n77, n84 |
| SUL\_n77-n992 | n77, n99 |
| SUL\_n78-n802 | n78, n80 |
| SUL\_n78-n812 | n78, n81 |
| SUL\_n78-n822 | n78, n82 |
| SUL\_n78-n832 | n78, n83 |
| SUL\_n78-n842 | n78, n84 |
| SUL\_n78-n862 | n78, n86 |
| SUL\_n78-n892 | n78, n89 |
| SUL\_n79-n802 | n79, n80 |
| SUL\_n79-n812 | n79, n81 |
| SUL\_n79-n832 | n79, n83 |
| SUL\_n79-n842 | n79, n84 |
| SUL\_n79-n952 | n79, n95 |
| SUL\_n79-n972 | n79, n97 |
| SUL\_n79-n982 | n79, n98 |
| NOTE 1: If a UE is configured with both NR UL and NR SUL carriers in a cell, the switching time between NR UL carrier and NR SUL carrier is 0 us.  NOTE 2: For UE supporting SUL band combination simultaneous Rx/Tx capability is mandatory. | |

Table 5.2C-2: Operating SUL band combination with intra-band non-contiguous CA in FR1

| NR Band combination for SUL | NR Band  (Table 5.2-1) |
| --- | --- |
| CA\_n41(\*)-n992 | n41, n99 |
| CA\_n48(\*)-n992 | n48, n99 |
| CA\_n77(\*)-n992 | n77, n99 |
| CA\_n78(\*)-n862 | n78, n86 |
| NOTE 1: If a UE is configured with both NR UL and NR SUL carriers in a cell, the switching time between NR UL carrier and NR SUL carrier is 0 us.  NOTE 2: For UE supporting SUL band combination simultaneous Rx/Tx capability is mandatory.  NOTE 3: The notation CA\_nX(\*) in this table indicates intra-band non-contiguous CA for band nX. The configurations for each band are in table 5.5C-2. | |

Table 5.2C-3: Operating SUL band combination with intra-band contiguous CA in FR1

|  |  |
| --- | --- |
| NR Band combination for SUL | NR Band  (Table 5.2-1) |
| CA\_n41-n80 | n41, n80 |
| CA\_n41-n83 | n41, n83 |
| CA\_n41-n95 | n41, n95 |
| CA\_n41-n98 | n41, n98 |
| CA\_n78-n80 | n78, n80 |
| CA\_n78-n81 | n78, n81 |
| CA\_n78-n84 | n78, n84 |
| CA\_n78-n89 | n78, n89 |
| CA\_n79-n80 | n79, n80 |
| CA\_n79-n83 | n79, n83 |
| CA\_n79-n95 | n79, n95 |
| CA\_n79-n98 | n79, n98 |
| NOTE 1: If a UE is configured with both NR UL and NR SUL carriers in a cell, the switching time between NR UL carrier and NR SUL carrier is 0 us.  NOTE 2: For UE supporting SUL band combination simultaneous Rx/Tx capability is mandatory. | | |

Table 5.2C-4: Operating SUL band combination with inter-band CA in FR1

| NR Band combination for SUL | NR Band  (Table 5.2-1) |
| --- | --- |
| CA\_n1\_n78-n80 | n1, n78, n80 |
| CA\_n1\_n78-n81 | n1, n78, n81 |
| CA\_n1\_n78-n84 | n1, n78, n84 |
| CA\_n1\_n78-n89 | n1, n78, n89 |
| CA\_n3\_n41-n80 | n3, n41, n80 |
| CA\_n3\_n78-n80 | n3, n78, n80 |
| CA\_n3\_n78-n84 | n3, n78, n84 |
| CA\_n1-n3\_n78-n80 | n1, n3, n78, n80 |
| CA\_n1-n3\_n78-n84 | n1, n3, n78, n84 |
| CA\_n3\_n79-n80 | n3, n79, n80 |
| CA\_n5\_n78-n84 | n5, n78, n84 |
| CA\_n8\_n78-n81 | n8, n78, n81 |
| CA\_n8\_n78-n84 | n8, n78, n84 |
| CA\_n28\_n41-n83 | n28, n41, n83 |
| CA\_n28\_n79-n83 | n28, n79, n83 |
| CA\_n41\_n79-n80 | n41, n79, n80 |
| CA\_n41\_n79-n83 | n41, n79, n83 |
| CA\_n41\_n79-n95 | n41, n79, n95 |
| CA\_n41\_n79-n97 | n41, n79, n97 |
| CA\_n41\_n79-n98 | n41, n79, n98 |
| CA\_n78\_n1-n80 | n1, n78, n80 |
| CA\_n78\_n1-n81 | n1, n78, n81 |
| CA\_n78\_n1-n89 | n1, n78, n89 |
| CA\_n78\_n3-n84 | n3, n78, n84 |
| CA\_n78\_n5-n84 | n5, n78, n84 |
| CA\_n78\_n8-n84 | n8, n78, n84 |
| CA\_n79\_n41-n80 | n41, n79, n80 |
| CA\_n79\_n41-n83 | n41, n79, n83 |
| CA\_n79\_n41-n95 | n41, n79, n95 |
| CA\_n79\_n41-n97 | n41, n79, n97 |
| CA\_n79\_n41-n98 | n41, n79, n98 |
| CA\_n28-n79\_n41-n83 | n28, n41, n79, n83 |
| CA\_n28-n41\_n79-n83 | n28, n41, n79, n83 |
| CA\_n41A-n95A\_n79A-n98A | n41, n95, n79, n98 |
| CA\_n41A-n98A\_n79A-n95A | n41, n98, n79, n95 |
| CA\_n41A-n83A\_n79A-n98A | n41, n83, n79, n98 |
| CA\_n41A-n83A\_n79A-n95A | n41, n83, n79, n95 |
| CA\_n41C\_n95A-n98A | n41, n95, n98 |
| CA\_n78C\_n80A-n84A | n78, n80, n84 |
| CA\_n78C\_n81A-n84A | n78, n81, n84 |
| CA\_n78C\_n84A-n89A | n78, n84, n89 |
| NOTE 1: If a UE is configured with a single cell consisting of a NR UL carrier and a corresponding NR SUL carrier, the switching time between NR UL carrier and the corresponding NR SUL carrier is 0 us.  NOTE 2: For UE supporting SUL band combination simultaneous Rx/Tx capability is mandatory. | |

## **<<Next of Change>>**

## 5.5C Configurations for SUL

The configuration tables for SUL describe Bandwidth Combination Sets. Bandwidth Combination Set 4 and 5 contains all possible defined channel bandwidths for each band in the combination. The fact that BCS4 and BCS5 contains all channel bandwidths for each band does not alter if a bandwidth is mandatory or optional for a given band. Bandwidths that are identified as optional in Table 5.3.5-1 for a given release are still optional for UEs that support BCS4 or BCS5. , where the bandwidths the UE supports for each band, the maximum bandwidth and/or minimum bandwidth for the band in the band combination are indicated in the UE capabilities. The minimum bandwidth per CC and aggregated FDD, TDD and total bandwidth per band combination may be indicated only for BCS5 as described in 38.306 [15] and BCS5 shall not be indicated together with BCS4 for a SUL configuration. For SUL band combinations including FR1 intra-band CA and with BCS4 or BCS5, the Bandwidth Combination Sets for the FR1 intra-band CA are BCS4 or BCS5.

For the NR SUL band configurations with inter-band CA in sub-clause 5.5C, when the capability *supportedBandPairListNR-r18* is present, three or four bands can be configured in the uplink with simultaneous uplink transmission on up to two bands, and the corresponding requirements for SUL band configurations with inter-band CA and with uplink assigned to one or two bands shall apply. For each uplink band pair in the NR SUL band configurations with inter-band CA, according to the capability *uplinkTxSwitchingOptionForBandPair*,

– if *switchedUL* is supported, uplink transmission on any one band of the band pair in the band combination shall be supported according to the scheduling commands, and the corresponding requirements for SUL band configuration with inter-band CA and with uplink assigned to one band on band X or band Y apply;

– if *dualUL* is supported, simultaneous uplink transmission on the two NR UL bands from the band pair for which *dualUL* is declared in the band combination shall be supported according to the scheduling commands, and the corresponding requirements for SUL band configuration with inter-band CA and with uplink CA between the two uplink bands apply.

For SUL band configuration with inter-band CA, band pair(s) of two non-SUL bands with *switchedUL* or *dualUL* by the parameter *uplinkTxSwitchingOption* is supported, and any other band pair(s) including SUL with *switchedUL* is supported, in release 18.

Table 5.5C-1: Supported channel bandwidths per SUL band combination

| SUL configuration | NR Band | Channel bandwidth (MHz) (NOTE 1) | Bandwidth combination set |
| --- | --- | --- | --- |
| SUL\_n1A-n80A | n1 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
|  | n80 | 5, 10, 15, 20, 25, 30 |  |
|  | n1 | See n1 channel bandwidths in Table 5.3.5-1 for each carrier | 4 and 5 |
|  | n80 | See n80 channel bandwidths in Table 5.3.5-1 for each carrier |  |
| SUL\_n1A-n81A | n1 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
|  | n81 | 5, 10, 15, 20 |  |
| SUL\_n1A-n89A | n1 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
|  | n89 | 5, 10, 15, 20 |  |
| SUL\_n3A-n84A | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
|  | n84 | 5, 10, 15, 20 |  |
|  | n3 | See n3 channel bandwidths in Table 5.3.5-1 for each carrier | 4 and 5 |
|  | n84 | See n84 channel bandwidths in Table 5.3.5-1 for each carrier |  |
| SUL\_n5A-n84A | n5 | 5, 10, 15, 20 | 0 |
|  | n84 | 5, 10, 15, 20 |  |
| SUL\_n8A-n84A | n8 | 5, 10, 15, 20 | 0 |
|  | n84 | 5, 10, 15, 20 |  |
| SUL\_n24A-n99A | n24 | 5, 10 | 0 |
|  | n99 | 5, 10 |  |
| SUL\_n41A-n80A | n41 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | n80 | 5, 10, 15, 20, 25, 30 |  |
|  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 1 |
|  | n80 | 5, 10, 15, 20, 25, 30, 40 |  |
| SUL\_n41A-n81A | n41 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | n81 | 5, 10, 15, 20 |  |
| SUL\_n41A-n83A | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 0 |
|  | n83 | 5, 10, 15, 20, 30 |  |
| SUL\_n41A-n95A | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 0 |
|  | n95 | 5, 10, 15 |  |
| SUL\_n41A-n97A | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 0 |
|  | n97 | 5, 10, 15, 20, 25, 30, 40, 50, 60, 80 |  |
|  | n41 | 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 | 1 |
|  | n97 | 5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
| SUL\_n41A-n98A | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 0 |
|  | n98 | 5, 10, 15, 20, 25, 30, 40 |  |
| SUL\_n41A-n99A | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 0 |
|  | n99 | 5, 10 |  |
| SUL\_n48A-n99A | n48 | 5, 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | n99 | 5, 10 |  |
| SUL\_n77A-n80A | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | n80 | 5, 10, 15, 20, 25, 30 |  |
| SUL\_n77A-n84A | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | n84 | 5, 10, 15, 20 |  |
| SUL\_n77A-n99A | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | n99 | 5, 10 |  |
| SUL\_n78A-n80A | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | n80 | 5, 10, 15, 20, 25, 30 |  |
|  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 | 1 |
|  | n80 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | n78 | See n78 channel bandwidths in Table 5.3.5-1 for each carrier | 4 and 5 |
|  | n80 | See n80 channel bandwidths in Table 5.3.5-1 for each carrier |  |
| SUL\_n78A-n81A | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | n81 | 5, 10, 15, 20 |  |
|  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 | 1 |
|  | n81 | 5, 10, 15, 20 |  |
| SUL\_n78A-n82A | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | n82 | 5, 10, 15, 20 |  |
| SUL\_n78A-n83A | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | n83 | 5, 10, 15, 20 |  |
|  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 | 1 |
|  | n83 | 5, 10, 15, 20, 30 |  |
| SUL\_n78A-n84A | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | n84 | 5, 10, 15, 20 |  |
|  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 | 1 |
|  | n84 | 5, 10, 15, 20, 25, 30, 40, 50 |  |
|  | n78 | See n78 channel bandwidths in Table 5.3.5-1 for each carrier | 4 and 5 |
|  | n84 | See n84 channel bandwidths in Table 5.3.5-1 for each carrier |  |
| SUL\_n78A-n86A | n78 | 10, 15, 20, 40, 50, 60, 70, 80, 90, 100 | 0 |
|  | n86 | 5, 10, 15, 20 |  |
| SUL\_n78A-n89A | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 | 0 |
|  | n89 | 5, 10, 15, 20 |  |
| SUL\_n79A-n80A | n79 | 40, 50, 60, 80, 100 | 0 |
|  | n80 | 5, 10, 15, 20, 25, 30 |  |
|  | n79 | 40, 50, 60, 80, 100 | 1 |
|  | n80 | 5, 10, 15, 20, 25, 30, 40 |  |
| SUL\_n79A-n81A | n79 | 40, 50, 60, 80, 100 | 0 |
|  | n81 | 5, 10, 15, 20 |  |
| SUL\_n79A-n83A | n79 | 40, 50, 60, 80, 100 | 0 |
|  | n83 | 5, 10, 15, 20, 30 |  |
|  | n79 | See n79 channel bandwidths in Table 5.3.5-1 for each carrier | 4 and 5 |
|  | n83 | See n83 channel bandwidths in Table 5.3.5-1 for each carrier |  |
| SUL\_n79A-n84A | n79 | 40, 50, 60, 80, 100 | 0 |
|  | n84 | 5, 10, 15, 20 |  |
| SUL\_n79A-n95A | n79 | 40, 50, 60, 80, 100 | 0 |
|  | n95 | 5, 10, 15 |  |
| SUL\_n79A-n97A | n79 | 40, 50, 60, 80, 100 | 0 |
|  | n97 | 5, 10, 15, 20, 25, 30, 40, 50, 60, 80 |  |
|  | n79 | 40, 50, 60, 80, 100 | 1 |
|  | n97 | 5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | n79 | See n79 channel bandwidths in Table 5.3.5-1 for each carrier | 4 and 5 |
|  | n97 | See n97 channel bandwidths in Table 5.3.5-1 for each carrier |  |
| SUL\_n79A-n98A | n79 | 40, 50, 60, 80, 100 | 0 |
|  | n98 | 5, 10, 15, 20, 25, 30, 40 |  |
| NOTE 1: The SCS of each channel bandwidth for NR band refers to Table 5.3.5-1. | | | |

Table 5.5C-2: Supported channel bandwidths per SUL band combination with intra-band non-contiguous CA

| SUL band combination with intra-band non-contiguous CA | SUL configuration | NR Band | Channel bandwidth (MHz) (NOTE 1) | Bandwidth combination set |
| --- | --- | --- | --- | --- |
| CA\_n41(2A)-n99A | SUL\_n41A-n99A | n41 | CA\_n41(2A)\_BCS0 | 0 |
|  |  | n99 | 5, 10 |  |
| CA\_n48(2A)-n99A | SUL\_n48A-n99A | n48 | CA\_n48(2A)\_BCS0 | 0 |
|  |  | n99 | 5, 10 |  |
| CA\_n77(2A)-n99A | SUL\_n77A-n99A | n77 | CA\_n77(2A)\_BCS0 | 0 |
|  |  | n99 | 5, 10 |  |
| CA\_n78(2A)-n86A | SUL\_n78A-n86A | n78 | CA\_n78(2A)\_BCS0 | 0 |
|  |  | n86 | 5, 10, 15, 20 |  |
| NOTE 1: The SCS of each channel bandwidth for NR band refers to Table 5.3.5-1. | | | | |

Table 5.5C-3: Supported channel bandwidths per SUL band combination  
with intra-band contiguous CA

| SUL band combination with CA | SUL configuration | NR Band | Channel bandwidth (MHz) (NOTE 1) | Bandwidth combination set |
| --- | --- | --- | --- | --- |
| CA\_n41C-n80A | SUL\_n41A-n80A  CA\_n41C-n80A | n41 | CA\_n41C\_BCS1 | 0 |
|  |  | n80 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n41C-n81A | SUL\_n41A-n81A  CA\_n41C-n81A | n41 | CA\_n41C\_BCS4 and 5 | 4 and 5 |
|  |  | n81 | See n81 channel bandwidths in Table 5.3.5-1 for each carrier |  |
| CA\_n41C-n83A | SUL\_n41A-n83A  CA\_n41C-n83A | n41 | CA\_n41C\_BCS1 | 0 |
|  |  | n83 | 5, 10, 15, 20, 30 |  |
| CA\_n41C-n95A | SUL\_n41A-n95A  CA\_n41C-n95A | n41 | CA\_n41C\_BCS1 | 0 |
|  |  | n95 | 5, 10, 15 |  |
| CA\_n41C-n97A | SUL\_n41A-n97A  CA\_n41C-n97A | n41 | CA\_n41C\_BCS4 and 5 | 4 and 5 |
|  |  | n97 | See n97 channel bandwidths in Table 5.3.5-1 for each carrier |  |
| CA\_n41C-n98A | SUL\_n41A-n98A  CA\_n41C-n98A | n41 | CA\_n41C\_BCS1 | 0 |
|  |  | n98 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n78C-n80A | SUL\_n78A-n80A  CA\_n78C-n80A | n78 | CA\_n78C\_BCS1 | 0 |
|  |  | n80 | 5, 10, 15, 20, 25, 30, 40 |  |
|  |  | n78 | CA\_n78C\_BCS4 and 5 | 4 and 5 |
|  |  | n80 | See n80 channel bandwidths in Table 5.3.5-1 for each carrier |  |
| CA\_n78C-n81A | SUL\_n78A-n81A  CA\_n78C-n81A | n78 | CA\_n78C\_BCS1 | 0 |
|  |  | n81 | 5, 10, 15, 20 |  |
| CA\_n78C-n84A | SUL\_n78A-n84A  CA\_n78C-n84A | n78 | CA\_n78C\_BCS1 | 0 |
|  |  | n84 | 5, 10, 15, 20, 25, 30, 40, 50 |  |
|  |  | n78 | CA\_n78C\_BCS4 and 5 | 4 and 5 |
|  |  | n84 | See n84 channel bandwidths in Table 5.3.5-1 for each carrier |  |
| CA\_n78C-n89A | SUL\_n78A-n89A  CA\_n78C-n89A | n78 | CA\_n78C\_BCS1 | 0 |
|  |  | n89 | 5, 10, 15, 20 |  |
| CA\_n79C-n80A | SUL\_n79A-n80A  CA\_n79C-n80A | n79 | CA\_n79C\_BCS0 | 0 |
|  |  | n80 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n79C-n83A | SUL\_n79A-n83A  CA\_n79C-n83A | n79 | CA\_n79C\_BCS0 | 0 |
|  |  | n83 | 5, 10, 15, 20, 30 |  |
| CA\_n79C-n95A | SUL\_n79A-n95A  CA\_n79C-n95A | n79 | CA\_n79C\_BCS0 | 0 |
|  |  | n95 | 5, 10, 15 |  |
| CA\_n79C-n97A | SUL\_n79A-n97A  CA\_n79C-n97A | n79 | CA\_n79C\_BCS4 and 5 | 4 and 5 |
|  |  | n97 | See n97 channel bandwidths in Table 5.3.5-1 for each carrier |  |
| CA\_n79C-n98A | SUL\_n79A-n98A  CA\_n79C-n98A | n79 | CA\_n79C\_BCS0 | 0 |
|  |  | n98 | 5, 10, 15, 20, 25, 30, 40 |  |
| NOTE 1: The SCS of each channel bandwidth for NR band refers to Table 5.3.5-1. | | | | |

Table 5.5C-4: Supported channel bandwidths per SUL band combination with inter-band CA

| SUL band combination with CA | UL configuration | NR Band | Channel bandwidth (MHz) (NOTE 1) | Bandwidth combination set |
| --- | --- | --- | --- | --- |
| CA\_n1A\_n78A-n80A | SUL\_n78A-n80A | n1 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
|  |  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n80 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n1A\_n78C-n80A | SUL\_n78A-n80A  CA\_n78C  CA\_n1A-n78A  CA\_n78C-n80A | n1 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
|  |  | n78 | CA\_n78C\_BCS1 |  |
|  |  | n80 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n1A\_n78A-n81A | SUL\_n78A-n81A | n1 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
|  |  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n81 | 5, 10, 15, 20 |  |
| CA\_n1A\_n78C-n81A | SUL\_n78A-n81A  CA\_n78C-n81A  CA\_n78C  CA\_n1A-n78A | n1 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
|  |  | n78 | CA\_n78C\_BCS1 |  |
|  |  | n81 | 5, 10, 15, 20 |  |
| CA\_n1A\_n78A-n84A | SUL\_n78A-n84A | n1 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
|  |  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n84 | 5, 10, 15, 20, 25, 30, 40, 50 |  |
| CA\_n1A\_n78C-n84A | SUL\_n78A-n84A  CA\_n78C-n84A | n1 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
|  |  | n78 | CA\_n78C\_BCS1 |  |
|  |  | n84 | 5, 10, 15, 20, 25, 30, 40, 50 |  |
| CA\_n1A\_n78A-n89A | SUL\_n78A-n89A  CA\_n1A-n78A | n1 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
|  |  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n89 | 5, 10, 15, 20 |  |
| CA\_n1A\_n78C-n89A | SUL\_n78A-n89A  CA\_n78C  CA\_n1A-n78A  CA\_n78C-n89A | n1 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
|  |  | n78 | See CA\_n78C Bandwidth Combination Set 1 in Table 5.5A.1-1 |  |
|  |  | n89 | 5, 10, 15, 20 |  |
| CA\_n3A\_n41A-n80A | SUL\_n41A-n80A | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | n80 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n3A\_n41C-n80A | SUL\_n41A-n80A  CA\_n41C-n80A | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
|  |  | n41 | CA\_n41C\_BCS1 |  |
|  |  | n80 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n3A\_n78A-n80A | SUL\_n78A-n80A | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
|  |  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n80 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n3A\_n78C-n80A | SUL\_n78A-n80A  CA\_n78C-n80A | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
|  |  | n78 | CA\_n78C\_BCS1 |  |
|  |  | n80 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n3A\_n78A-n84A | SUL\_n78A-n84A  CA\_n3A-n78A | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
|  |  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n84 | 5, 10, 15, 20 |  |
| CA\_n3A\_n78C-n84A | SUL\_n78A-n84A  CA\_n3A-n78A  CA\_n78C  CA\_n78C-n84A | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
|  |  | n78 | See CA\_n78C Bandwidth Combination Set 1 in Table 5.5A.1-1 |  |
|  |  | n84 | 5, 10, 15, 20 |  |
| CA\_n3A\_n79A-n80A | SUL\_n79A-n80A | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n80 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n3A\_n79C-n80A | SUL\_n79A-n80A  CA\_n79C-n80A | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
|  |  | n79 | CA\_n79C\_BCS0 |  |
|  |  | n80 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n5A\_n78A-n84A | SUL\_n78A-n84A  CA\_n5A-n78A | n5 | 5, 10, 15, 20 | 0 |
|  |  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n84 | 5, 10, 15, 20 |  |
| CA\_n5A\_n78C-n84A | SUL\_n78A-n84A  CA\_n5A-n78A  CA\_n78C  CA\_n78C-n84A | n5 | 5, 10, 15, 20 | 0 |
|  |  | n78 | See CA\_n78C Bandwidth Combination Set 1 in Table 5.5A.1-1 |  |
|  |  | n84 | 5, 10, 15, 20 |  |
| CA\_n8A\_n78A-n81A | SUL\_n78A-n81A | n8 | 5, 10, 15, 20 | 0 |
|  |  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n81 | 5, 10, 15, 20 |  |
| CA\_n8A\_n78A-n84A | SUL\_n78A-n84A  CA\_n8A-n78A | n8 | 5, 10, 15, 20 | 0 |
|  |  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n84 | 5, 10, 15, 20 |  |
| CA\_n8A\_n78C-n84A | SUL\_n78A-n84A  CA\_n78C  CA\_n8A-n78A  CA\_n78C-n84A | n8 | 5, 10, 15, 20 | 0 |
|  |  | n78 | See CA\_n78C Bandwidth Combination Set 1 in Table 5.5A.1-1 |  |
|  |  | n84 | 5, 10, 15, 20 |  |
| CA\_n28A\_n41A-n83A | SUL\_n41A-n83A | n28 | 5, 10, 15, 20, 30 | 0 |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | n83 | 5, 10, 15, 20, 30 |  |
| CA\_n28A\_n41C-n83A | SUL\_n41A-n83A  CA\_n41C-n83A | n28 | 5, 10, 15, 20, 30 | 0 |
|  |  | n41 | CA\_n41C\_BCS1 |  |
|  |  | n83 | 5, 10, 15, 20, 30 |  |
| CA\_n28A\_n79A-n83A | SUL\_n79A-n83A | n28 | 5, 10, 15, 20, 30 | 0 |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n83 | 5, 10, 15, 20, 30 |  |
| CA\_n28A\_n79C-n83A | SUL\_n79A-n83A  CA\_n79C-n83A | n28 | 5, 10, 15, 20, 30 | 0 |
|  |  | n79 | CA\_n79C\_BCS0 |  |
|  |  | n83 | 5, 10, 15, 20, 30 |  |
| CA\_n41A\_n79A-n80A | SUL\_n79A-n80A | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 0 |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n80 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n41A\_n79A-n83A | SUL\_n79A-n83A | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 0 |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n83 | 5, 10, 15, 20, 30 |  |
| CA\_n41A\_n79C-n83A | SUL\_n79A-n83A  CA\_n79C-n83A  CA\_n41A-n79A  CA\_n79C | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 0 |
|  |  | n79 | CA\_n79C\_BCS0 |  |
|  |  | n83 | 5, 10, 15, 20, 30 |  |
| CA\_n41C\_n79A-n83A | SUL\_n79A-n83A  CA\_n41C  CA\_n41A-n79A | n41 | CA\_n41C\_BCS1 | 0 |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n83 | 5, 10, 15, 20, 30 |  |
| CA\_n41C\_n79C-n83A | CA\_n41C  CA\_n79C  SUL\_n79A-n83A  CA\_n79C-n83A  CA\_n41A-n79A | n41 | CA\_n41C\_BCS1 | 0 |
|  |  | n79 | CA\_n79C\_BCS0 |  |
|  |  | n83 | 5, 10, 15, 20, 30 |  |
| CA\_n41A\_n79A-n95A | SUL\_n79A-n95A | n41 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 | 0 |
|  |  | n79 | 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n95 | 5, 10, 15 |  |
| CA\_n41A\_n79C-n95A | SUL\_n79A-n95A  CA\_n79C-n95A  CA\_n41A-n79A  CA\_n79C | n41 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 | 0 |
|  |  | n79 | CA\_n79C\_BCS0 |  |
|  |  | n95 | 5, 10, 15 |  |
| CA\_n41C\_n79A-n95A | SUL\_n79A-n95A  CA\_n41C  CA\_n41A-n79A | n41 | CA\_n41C\_BCS1 | 0 |
|  |  | n79 | 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n95 | 5, 10, 15 |  |
| CA\_n41C\_n79C-n95A | CA\_n41C  CA\_n79C  SUL\_n79A-n95A  CA\_n79C-n95A  CA\_n41A-n79A | n41 | CA\_n41C\_BCS1 | 0 |
|  |  | n79 | CA\_n79C\_BCS0 |  |
|  |  | n98 | 5, 10, 15 |  |
| CA\_n41A\_n79A-n97A | SUL\_n79A-n97A | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 0 |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n97 | 5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
| CA\_n41A\_n79A-n98A | SUL\_n79A-n98A | n41 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 | 0 |
|  |  | n79 | 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n98 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n41A\_n79C-n98A | SUL\_n79A-n98A  CA\_n79C-n98A  CA\_n41A-n79A  CA\_n79C | n41 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 | 0 |
|  |  | n79 | CA\_n79C\_BCS0 |  |
|  |  | n98 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n41C\_n79A-n98A | SUL\_n79A-n98A  CA\_n41C  CA\_n41A-n79A | n41 | CA\_n41C\_BCS1 | 0 |
|  |  | n79 | 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n98 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n41C\_n79C-n98A | CA\_n41C  CA\_n79C  SUL\_n79A-n98A  CA\_n79C-n98A  CA\_n41A-n79A | n41 | CA\_n41C\_BCS1 | 0 |
|  |  | n79 | CA\_n79C\_BCS0 |  |
|  |  | n98 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n78A\_n1A-n80A | SUL\_n1A-n80A | n1 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
|  |  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n80 | 5, 10, 15, 20, 25, 30 |  |
| CA\_n78C\_n1A-n80A | SUL\_n1A-n80A  CA\_n78C  CA\_n1A-n78A | n1 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
|  |  | n78 | CA\_n78C\_BCS1 |  |
|  |  | n80 | 5, 10, 15, 20, 25, 30 |  |
| CA\_n78A\_n1A-n81A | SUL\_n1A-n81A | n1 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
|  |  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n81 | 5, 10, 15, 20 |  |
| CA\_n78C\_n1A-n81A | SUL\_n1A-n81A  CA\_n78C  CA\_n1-n78A | n1 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
|  |  | n78 | CA\_n78C\_BCS1 |  |
|  |  | n81 | 5, 10, 15, 20 |  |
| CA\_n78A\_n1A-n89A | SUL\_n1A-n89A | n1 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
|  |  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n89 | 5, 10, 15, 20 |  |
| CA\_n78C\_n1A-n89A | SUL\_n1A-n89A  CA\_n78C  CA\_n1A-n78A | n1 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
|  |  | n78 | CA\_n78C\_BCS1 |  |
|  |  | n89 | 5, 10, 15, 20 |  |
| CA\_n78A\_n3A-n84A | SUL\_n3A-n84A | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
|  |  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n84 | 5, 10, 15, 20 |  |
| CA\_n78C\_n3A-n84A | SUL\_n3A-n84A  CA\_n78C  CA\_n3A-n78A | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
|  |  | n78 | CA\_n78C\_BCS1 |  |
|  |  | n84 | 5, 10, 15, 20 |  |
| CA\_n78A\_n5A-n84A | SUL\_n5A-n84A  CA\_n5A-n78A | n5 | 5, 10, 15, 20 | 0 |
|  |  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n84 | 5, 10, 15, 20 |  |
| CA\_n78C\_n5A-n84A | SUL\_n5A-n84A  CA\_n78C  CA\_n5A-n78A | n5 | 5, 10, 15, 20 | 0 |
|  |  | n78 | See CA\_n78C Bandwidth Combination Set 1 in Table 5.5A.1-1 |  |
|  |  | n84 | 5, 10, 15, 20 |  |
| CA\_n78A\_n8A-n84A | SUL\_n8A-n84A  CA\_n8A-n78A | n8 | 5, 10, 15, 20 | 0 |
|  |  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n84 | 5, 10, 15, 20 |  |
| CA\_n78C\_n8A-n84A | SUL\_n8A-n84A  CA\_n78C  CA\_n8A-n78A | n8 | 5, 10, 15, 20 | 0 |
|  |  | n78 | See CA\_n78C Bandwidth Combination Set 1 in Table 5.5A.1-1 |  |
|  |  | n84 | 5, 10, 15, 20 |  |
| CA\_n79A\_n41A-n80A | SUL\_n41A-n80A | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 0 |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n80 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n79A\_n41A-n83A | SUL\_n41A-n83A | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 0 |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n83 | 5, 10, 15, 20, 30 |  |
| CA\_n79A\_n41C-n83A | SUL\_n41A-n83A  CA\_n41C-n83A  CA\_n41A-n79A  CA\_n41C | n41 | CA\_n41C\_BCS1 | 0 |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n83 | 5, 10, 15, 20, 30 |  |
| CA\_n79C\_n41A-n83A | SUL\_n41A-n83A  CA\_n41A-n79A  CA\_n79C | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 0 |
|  |  | n79 | CA\_n79C\_BCS0 |  |
|  |  | n83 | 5, 10, 15, 20, 30 |  |
| CA\_n79C\_n41C-n83A | CA\_n41C  CA\_n79C  SUL\_n41A-n83A  CA\_n41C-n83A  CA\_n41A-n79A | n41 | CA\_n41C\_BCS1 | 0 |
|  |  | n79 | CA\_n79C\_BCS0 |  |
|  |  | n83 | 5, 10, 15, 20, 30 |  |
| CA\_n79A\_n41A-n95A | SUL\_n41A-n95A | n41 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 | 0 |
|  |  | n79 | 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n95 | 5, 10, 15 |  |
| CA\_n79C\_n41A-n95A | SUL\_n41A-n95A  CA\_n41A-n79A  CA\_n79C | n41 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 | 0 |
|  |  | n79 | CA\_n79C\_BCS0 |  |
|  |  | n95 | 5, 10, 15 |  |
| CA\_n79A\_n41C-n95A | SUL\_n41A-n95A  CA\_n41C-n95A  CA\_n41A-n79A  CA\_n41C | n41 | CA\_n41C\_BCS1 | 0 |
|  |  | n79 | 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n95 | 5, 10, 15 |  |
| CA\_n79C\_n41C-n95A | CA\_n41C  CA\_n79C  SUL\_n41A-n95A  CA\_n41C-n95A  CA\_n41A-n79A | n41 | CA\_n41C\_BCS1 | 0 |
|  |  | n79 | CA\_n79C\_BCS0 |  |
|  |  | n95 | 5, 10, 15 |  |
| CA\_n79A\_n41A-n97A | SUL\_n41A-n97A | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 0 |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n97 | 5, 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
| CA\_n79A\_n41A-n98A | SUL\_n41A-n98A | n41 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 | 0 |
|  |  | n79 | 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n98 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n79C\_n41A-n98A | SUL\_n41A-n98A  CA\_n41A-n79A  CA\_n79C | n41 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 | 0 |
|  |  | n79 | CA\_n79C\_BCS0 |  |
|  |  | n98 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n79A\_n41C-n98A | SUL\_n41A-n98A  CA\_n41C-n98A  CA\_n41A-n79A  CA\_n41C | n41 | CA\_n41C\_BCS1 | 0 |
|  |  | n79 | 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n98 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n79C\_n41C-n98A | CA\_n41C  CA\_n79C  SUL\_n41A-n98A  CA\_n41C-n98A  CA\_n41A-n79A | n41 | CA\_n41C\_BCS1 | 0 |
|  |  | n79 | CA\_n79C\_BCS0 |  |
|  |  | n98 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n1A-n3A\_n78A-n80A | SUL\_n78A-n80A | n1 | See n1 channel bandwidths in Table 5.3.5-1 for each carrier | 4 and 5 |
|  |  | n3 | See n3 channel bandwidths in Table 5.3.5-1 for each carrier |  |
|  |  | n78 | See n78 channel bandwidths in Table 5.3.5-1 for each carrier |  |
|  |  | n80 | See n80 channel bandwidths in Table 5.3.5-1 for each carrier |  |
| CA\_n1A-n3A\_n78A-n84A | SUL\_n78A-n84A | n1 | See n1 channel bandwidths in Table 5.3.5-1 for each carrier | 4 and 5 |
|  |  | n3 | See n3 channel bandwidths in Table 5.3.5-1 for each carrier |  |
|  |  | n78 | See n78 channel bandwidths in Table 5.3.5-1 for each carrier |  |
|  |  | n84 | See n84 channel bandwidths in Table 5.3.5-1 for each carrier |  |
| CA\_n28A-n79A\_n41A-n83A | SUL\_n41A-n83A | n28 | 5, 10, 15, 20, 30 | 0 |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n83 | 5, 10, 15, 20, 30 |  |
| CA\_n28A-n41A\_n79A-n83A | SUL\_n79A-n83A | n28 | 5, 10, 15, 20, 30 | 0 |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n83 | 5, 10, 15, 20, 30 |  |
| NOTE 1: The SCS of each channel bandwidth for NR band refers to Table 5.3.5-1. | | | | |

Table 5.5C-5: Supported channel bandwidths per SUL band combination  
with inter-band CA (two SUL cells)

| SUL band combination with CA | Uplink CA  configuration or SUL configuration | NR Band | Channel bandwidth (MHz) (NOTE 1) | Bandwidth combination set |
| --- | --- | --- | --- | --- |
| CA\_n41A-n95A\_n79A-n98A | SUL\_n41A-n95A  SUL\_n79A-n98A  CA\_n41A-n79A | n41 | 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100 | 0 |
| n79 | 10, 20, 30,40, 50, 60, 70, 80, 90, 100 |
| n95 | 5, 10, 15 |
| n98 | 5, 10, 15, 20, 25, 30, 40 |
| CA\_n41A-n98A\_n79A-n95A | SUL\_n41A-n98A  SUL\_n79A-n95A  CA\_n41A-n79A | n41 | 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100 | 0 |
| n79 | 10, 20, 30,40, 50, 60, 70, 80, 90, 100 |
| n95 | 5, 10, 15 |
| n98 | 5, 10, 15, 20, 25, 30, 40 |
| CA\_n41A-n83A\_n79A-n98A | SUL\_n41A-n83A  SUL\_n79A-n98A  CA\_n41A-n79A | n41 | 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100 | 0 |
| n79 | 10, 20, 30,40, 50, 60, 70, 80, 90, 100 |
| n83 | 5, 10, 15, 20,30 |
| n98 | 5, 10, 15, 20, 25, 30, 40 |
| CA\_n41A-n83A\_n79A-n95A | SUL\_n41A-n83A  SUL\_n79A-n95A  CA\_n41A-n79A | n41 | 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100 | 0 |
| n79 | 10, 20, 30,40, 50, 60, 70, 80, 90, 100 |
| n83 | 5, 10, 15, 20,30 |
| n95 | 5, 10, 15 |
| CA\_n41C\_n95A-n98A | SUL\_n41A-n95A  SUL\_n41A-n98A  CA\_n41C | n41 | CA\_n41C\_BCS4 and 5 | 4 and 5 |
|  |  | n95 | See n95 channel bandwidths in Table 5.3.5-1 for each carrier |  |
|  |  | n98 | See n98 channel bandwidths in Table 5.3.5-1 for each carrier |  |
| CA\_n78C\_n80A-n84A | SUL\_n78A-n80A  SUL\_n78A-n84A  CA\_n78C3 | n78 | CA\_n78C\_BCS1 | 0 |
| n80 | 5, 10, 15, 20, 25, 30, 40 |
| n84 | 5, 10, 15, 20, 25, 30, 40, 50 |
| CA\_n78C\_n81A-n84A | SUL\_n78A-n81A  SUL\_n78A-n84A  CA\_n78C3 | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 CA\_n78C\_BCS1 | 0 |
| n81 | 5, 10, 15, 20 |  |
| n84 | 5, 10, 15, 20, 25, 30, 40, 50 |  |
| CA\_n78C\_n84A-n89A | SUL\_n78A-n84A  SUL\_n78A-n89A  CA\_n78C | n78 | CA\_n78C\_BCS1 | 0 |
|  |  | n84 | 5, 10, 15, 20, 25, 30, 40, 50 |  |
|  |  | n89 | 5, 10, 15, 20 |  |
| NOTE 1: The SCS of each channel bandwidth for NR band refers to Table 5.3.5-1.  NOTE 2: Void.  NOTE 3: Minimum requirements for Power Class 2 are applicable for this uplink combination with up to 2Tx antenna connectors in this downlink/uplink combination. | | | | |

## **<<Next of Change>>**

### 6.2C.2 ΔTIB,c

For the UE which supports SUL band combination, ΔTIB,c in Tables below applies. Unless otherwise stated, ΔTIB,c is set to zero.

Table 6.2C.2-1: ΔTIB,c due to SUL

| Band combination for SUL | ΔTIB,c for NR bands (dB)3 | |
| --- | --- | --- |
| Component band in order of bands in configuration4 | |
| SUL\_n1-n80 | 0.3 | 0.3 |
| SUL\_n1-n81 | 0.3 | 0.3 |
| SUL\_n1-n89 | 0.3 | 0.3 |
| SUL\_n3-n84 | 0.3 | 0.3 |
| SUL\_n5-n84 | 0.3 | 0.3 |
| SUL\_n8-n84 | 0.3 | 0.3 |
| SUL\_n41-n80 | 0.31 / 0.82 | 0.5 |
| SUL\_n41-n81 | 0.3 | 0.3 |
| SUL\_n41-n83 | 0.3 | 0.3 |
| SUL\_n41-n97 | 0.5 | 0.5 |
| SUL\_n41-n98 | 0.5 | 0.5 |
| SUL\_n41-n99 | 0.41 / 0.92 | 0.3 |
| SUL\_n48-n99 | 0.6 | 0.8 |
| SUL\_n77-n80 | 0.8 | 0.6 |
| SUL\_n77-n84 | 0.8 | 0.6 |
| SUL\_n77-n99 | 0.6 | 0.8 |
| SUL\_n78-n80 | 0.8 | 0.6 |
| SUL\_n78-n81 | 0.8 | 0.6 |
| SUL\_n78-n82 | 0.8 | 0.6 |
| SUL\_n78-n83 | 0.8 | 0.5 |
| SUL\_n78-n84 | 0.8 | 0.3 |
| SUL\_n78-n86 | 0.8 | 0.6 |
| SUL\_n78-n89 | 0.8 | 0.6 |
| SUL\_n79-n83 | 0.8 | 0.5 |
| SUL\_n79-n97 | 0.8 | 0.3 |
| SUL\_n79-n98 | 0.8 | 0.3 |
| NOTE 1: The requirement is applied for UE transmitting on the frequency range of 2515 – 2690MHz.  NOTE 2: The requirement is applied for UE transmitting on the frequency range of 2496 - 2515MHz.  NOTE 3: “-” denotes ΔTIB,c = 0.  NOTE 4: The component band order in the configuration should be listed by the order of NR bands such as for SUL\_n41-n81 the order of band is n41 and n81. | | |

Table 6.2C.2-2: ΔTIB,c for SUL band combination (Three bands)

|  |  |  |  |
| --- | --- | --- | --- |
| Band combination for SUL | ΔTIB,c for NR bands (dB)3 | | |
| Component band in order of bands in configuration4 | | |
| CA\_n1\_n78-n80 | 0.6 | 0.8 | 0.6 |
| CA\_n1\_n78-n81 | 0.3 | 0.8 | 0.6 |
| CA\_n1\_n78-n84 | 0.6 | 0.8 | 0.6 |
| CA\_n1\_n78-n89 | 0.6 | 0.8 | 0.6 |
| CA\_n3\_n41-n80 | 0.5 | 0.31 / 0.82 | 0.5 |
| CA\_n3\_n78-n80 | 0.6 | 0.8 | 0.6 |
| CA\_n3\_n78-n84 | 0.6 | 0.8 | 0.6 |
| CA\_n3\_n79-n80 | 0.3 | 0.8 | 0.3 |
| CA\_n5\_n78-n84 | 0.6 | 0.8 | 0.6 |
| CA\_n8\_n78-n81 | 0.6 | 0.8 | 0.6 |
| CA\_n8\_n78-n84 | 0.6 | 0.8 | 0.3 |
| CA\_n28\_n41-n83 | 0.3 | 0.3 | 0.3 |
| CA\_n28\_n79-n83 | 0.5 | 0.8 | 0.5 |
| CA\_n41\_n79-n80 | 0.31 / 0.82 | 0.8 | 0.3 |
| CA\_n41\_n79-n83 | 0.3 | 0.8 | 0.5 |
| CA\_n41\_n79-n95 | 0.3 | 0.8 | 0.3 |
| CA\_n41\_n79-n97 | 0.5 | 0.5 | 0.5 |
| CA\_n41\_n79-n98 | 0.3 | 0.8 | 0.3 |
| CA\_n41\_n95-n98 | 0.5 | 0.3 | 0.5 |
| CA\_n78\_n1-n80 | 0.8 | 0.6 | 0.6 |
| CA\_n78\_n1-n81 | 0.8 | 0.3 | 0.6 |
| CA\_n78\_n1-n89 | 0.8 | 0.6 | 0.6 |
| CA\_n78\_n3-n84 | 0.8 | 0.6 | 0.6 |
| CA\_n78\_n5-n84 | 0.8 | 0.6 | 0.6 |
| CA\_n78\_n8-n84 | 0.8 | 0.6 | 0.3 |
| CA\_n78\_n80-n84 | 0.8 | 0.6 | 0.6 |
| CA\_n78\_n81-n84 | 0.8 | 0.6 | 0.3 |
| CA\_n78\_n84-n89 | 0.8 | 0.6 | 0.6 |
| CA\_n79\_n41-n80 | 0.31 / 0.82 | 0.8 | 0.3 |
| CA\_n79\_n41-n83 | 0.3 | 0.8 | 0.5 |
| CA\_n79\_n41-n95 | 0.3 | 0.8 | 0.3 |
| CA\_n79\_n41-n97 | 0.5 | 0.5 | 0.5 |
| CA\_n79\_n41-n98 | 0.3 | 0.8 | 0.3 |
| NOTE 1: The requirement is applied for UE transmitting on the frequency range of 2515-2690MHz.  NOTE 2: The requirement is applied for UE transmitting on the frequency range of 2496-2515MHz.  NOTE 3: “-” denotes ΔTIB,c = 0.  NOTE 4: The component band order in the configuration should be listed by the order of NR bands, such as for CA\_n1\_n78-n80 the band order from left to right is n1, n78 and n80. | | | |

Table 6.2C.2-3: ΔTIB,c for SUL band combination (Four bands)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Band combination for SUL | ΔTIB,c for NR bands (dB)1 | | | |
| Component band in order of bands in configuration2 | | | |
| CA\_n1-n3\_n78-n80 | 0.6 | 0.6 | 0.8 | 0.6 |
| CA\_n1-n3\_n78-n84 | 0.6 | 0.6 | 0.8 | 0.6 |
| CA\_n28-n79\_n41-n83 | 0.3 | 0.3 | 0.5 | 0.3 |
| CA\_n28-n41\_n79-n83 | 0.3 | 0.3 | 0.5 | 0.3 |
| CA\_n41A-n95A\_n79A-n98A | 0.3 | 0.8 | - | 0.3 |
| CA\_n41A-n98A\_n79A-n95A | 0.5 | 0.8 | 0.5 | - |
| CA\_n41A-n83A\_n79A-n98A | 0.3 | 0.8 | 0.3 | 0.3 |
| CA\_n41A-n83A\_n79A-n95A | 0.3 | 0.8 | 0.3 | - |
| NOTE 1: “-” denotes ΔTIB,c = 0.  NOTE 2: The component band order in the configuration should be listed by the order of NR bands and SUL band, such as for CA\_n28-n79\_n41-n83 the band order from left to right is n28, n41, n79 and n83. | | | | |

## **<<Next of Change>>**

##### 7.3C.3.2.2 ΔRIB,c for three bands

Table 7.3C.3.2.2-1: ΔRIB,c due to SUL (three bands)

|  |  |  |  |
| --- | --- | --- | --- |
| Band combination for SUL | ΔRIB,c for NR bands (dB)2 | | |
| Component band in order of bands in configuration3 | | |
| CA\_n1\_n78-n80 | 0.2 | 0.5 | N/A |
| CA\_n1\_n78-n81 | - | 0.5 | N/A |
| CA\_n1\_n78-n84 | 0.2 | 0.5 | N/A |
| CA\_n1\_n78-n89 | 0.2 | 0.5 | N/A |
| CA\_n3\_n41-n80 | - | 0.51 | N/A |
| CA\_n3\_n78-n80 | 0.2 | 0.5 | N/A |
| CA\_n3\_n78-n84 | 0.2 | 0.5 | N/A |
| CA\_n3\_n79-n80 | - | 0.5 | N/A |
| CA\_n5\_n78-n84 | 0.2 | 0.5 | N/A |
| CA\_n28\_n41-n83 | 0.2 | - | N/A |
| CA\_n8\_n78-n81 | 0.2 | 0.5 | N/A |
| CA\_n8\_n78-n84 | 0.2 | 0.5 | N/A |
| CA\_n28\_n79-n83 | 0.2 | 0.5 | N/A |
| CA\_n41\_n79-n80 | 0.5 | 0.5 | N/A |
| CA\_n41\_n79-n83 | 0.5 | 0.5 | N/A |
| CA\_n41\_n79-n95 | - | 0.5 | N/A |
| CA\_n41\_n79-n97 | - | 0.8 | N/A |
| CA\_n41\_n79-n98 | - | 0.5 | N/A |
| CA\_n41\_n95-n98 | - | N/A | N/A |
| CA\_n78\_n1-n80 | 0.5 | 0.2 | N/A |
| CA\_n78\_n1-n81 | 0.5 | - | N/A |
| CA\_n78\_n1-n89 | 0.5 | 0.2 | N/A |
| CA\_n78\_n3-n84 | 0.5 | 0.2 | N/A |
| CA\_n78\_n5-n84 | 0.5 | 0.2 | N/A |
| CA\_n78\_n8-n84 | 0.5 | 0.2 | N/A |
| CA\_n79\_n41-n80 | 0.5 | 0.5 | N/A |
| CA\_n78\_n80-n84 | 0.5 | N/A | N/A |
| CA\_n78\_n81-n84 | 0.5 | N/A | N/A |
| CA\_n78\_n84-n89 | 0.5 | N/A | N/A |
| CA\_n79\_n41-n83 | 0.5 | 0.5 | N/A |
| CA\_n79\_n41-n95 | - | 0.5 | N/A |
| CA\_n79\_n41-n97 | - | 0.8 | N/A |
| CA\_n79\_n41-n98 | - | 0.5 | N/A |
| NOTE 1: The requirement is applied for UE transmitting on the frequency range of 2496 – 2515 MHz.  NOTE 2: “-” denotes ΔRIB,c = 0 and ΔRIB,c is not applicable to SUL band(s).  NOTE 3: The component band order in the configuration should be listed by the order of NR bands, such as for CA\_n1\_n78-n80 the order of band is n1, n78 and n80. | | | |

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