**3GPP TSG-RAN WG4 Meeting # 112 *R4-241***

**Maastricht, Netherland, August 19 – 23, 2024**

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| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
|  |
|  | **38.101-1** | **CR** | **DraftCR** | **rev** | **-** | **Current version:** | **18.6.0** |  |
|  |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network |  |

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| --- |
|  |
| ***Title:***  | Draft CR for TS 38.101-1 to introduce two-band inter-band CA with BCS4 and 5 |
|  |  |
| ***Source to WG:*** | Huawei, HiSilicon, Softbank |
| ***Source to TSG:*** | R4 |
|  |  |
| ***Work item code:*** | NR\_CADC\_SUL\_R19-Core |  | ***Date:*** | 2024-07-28 |
|  |  |  |  |  |
| ***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 canbe 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\_n3A-n77(3A)\_BCS4/5 with CA\_n3A-n77A. |
|  |  |
| ***Summary of change:*** | To introduce CA\_n3A-n77(3A)\_BCS4/5 with CA\_n3A-n77A. |
|  |  |
| ***Consequences if not approved:*** | Spec can’t support CA\_n3A-n77(3A)\_BCS4/5 with CA\_n3A-n77A. |
|  |  |
| ***Clauses affected:*** | 5.5A.3 |
|  |  |
|  | **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>>**

Table 5.5A.3.1-1c: NR CA configurations and bandwidth combinations sets defined for inter-band CA (two bands)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| NR CA configuration | Uplink CA configuration or single uplink carrier10 | NR Band | Channel bandwidth (MHz) (NOTE 3) | Bandwidth combination set |
| CA\_n3A-n5A | CA\_n3A-n5A | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
|  |  | n5 | 5, 10, 15, 20 |  |
| CA\_n3(2A)-n5A | - | n3 | CA\_n3(2A)\_BCS0 | 0 |
|  |  | n5 | 5, 10, 15, 20 |  |
| CA\_n3A-n7A | n38n78CA\_n3A-n7A | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n7 | 5, 10, 15, 20, 25, 30, 40, 50 |  |
|  |  | n3 | 5, 10, 15, 20, 25, 30, 40 | 1 |
|  |  | n7 | 5, 10, 15, 20, 25, 30, 40, 50 |  |
|  |  | n3 | n3 channel bandwidths in Table 5.3.5-1 | 4 and 5 |
|  |  | n7 | n7 channel bandwidths in Table 5.3.5-1 |  |
| CA\_n3A-n7B | CA\_n3A-n7ACA\_n7B | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n7 | CA\_n7B\_BCS0 |  |
|  |  | n3 | 5, 10, 15, 20, 25, 30, 40 | 1 |
|  |  | n7 | CA\_n7B\_BCS0 |  |
| CA\_n3A-n7(2A) | CA\_n3A-n7A | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n7 | CA\_n7(2A)\_BCS0 |  |
| CA\_n3(2A)-n7A | CA\_n3A-n7A | n3 | CA\_n3(2A)\_BCS0 | 0 |
|  |  | n7 | 5, 10, 15, 20, 25, 30, 40, 50 |  |
|  |  | n3 | CA\_n3(2A)\_BCS1 | 1 |
|  |  | n7 | 5, 10, 15, 20, 25, 30, 40, 50 |  |
| CA\_n3(2A)-n7(2A) | CA\_n3A-n7A | n3 | CA\_n3(2A)\_BCS0 | 0 |
|  |  | n7 | CA\_n7(2A)\_BCS0 |  |
| CA\_n3B-n7A | CA\_n3A-n7A | n3 | CA\_n3B\_BCS0 | 0 |
|  |  | n7 | 5, 10, 15, 20, 25, 30, 40, 50 |  |
| CA\_n3B-n7B | CA\_n3A-n7ACA\_n7B | n3 | CA\_n3B\_BCS0 | 0 |
|  |  | n7 | CA\_n7B\_BCS0 |  |
|  |  | n3 | CA\_n3B\_BCS 4 and 5 | 4 and 5 |
|  |  | n7 | CA\_n7B\_BCS 4 and 5 |  |
| CA\_n3A-n8A | CA\_n3A-n8A | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n8 | 5, 10, 15, 20 |  |
|  |  | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 1 |
|  |  | n8 | 5, 10, 15, 20 |  |
|  |  | n3 | See n3 channel bandwidths in Table 5.3.5-1 | 4 and 5 |
|  |  | n8 | See n8 channel bandwidths in Table 5.3.5-1 |  |
| CA\_n3(2A)-n8A | CA\_n3A-n8A | n3 | CA\_n3(2A)\_BCS0 | 0 |
|  |  | n8 | 5, 10, 15, 20 |  |
| CA\_n3A-n18A | CA\_n3A-n18A | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
|  |  | n18 | 5, 10, 15 |  |
| CA\_n3A-n20A | CA\_n3A-n20A | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
|  |  | n20 | 5, 10, 15, 20 |  |
|  |  | n3 | n3 channel bandwidths in Table 5.3.5-1 | 4 and 5 |
|  |  | n20 | n20 channel bandwidths in Table 5.3.5-1 |  |
| CA\_n3A-n26A | CA\_n3A-n26A | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
|  |  | n26 | 5, 10, 15, 20 |  |
| CA\_n3A-n26(2A) | CA\_n26(2A)CA\_n3A-n26A | n3 | 5, 10, 15, 20, 25, 30, 35, 40, 45, 50 | 0 |
|  |  | n26 | CA\_n26(2A)\_BCS0 |  |
| CA\_n3B-n26A | CA\_n3A-n26A | n3 | CA\_n3B\_BCS0 | 0 |
|  |  | n26 | 5, 10, 15, 20, 25, 30 |  |
| CA\_n3B-n26(2A) | CA\_n26(2A)CA\_n3A-n26A | n3 | CA\_n3B\_BCS0 | 0 |
|  |  | n26 | CA\_n26(2A)\_BCS0 |  |
| CA\_n3A-n28A | n38CA\_n3A-n28A | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n28 | 5, 10, 15, 20 |  |
|  |  | n3 | 5, 10, 15, 20, 25, 30, 40 | 1 |
|  |  | n28 | 5, 10, 15, 20 |  |
|  |  | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 2 |
|  |  | n28 | 5, 10, 15, 20, 30 |  |
|  |  | n3 | 5, 10, 15, 20, 25, 30, 35, 40 | 3 |
|  |  | n28 | 5, 10, 15, 20, 25, 30 |  |
|  |  | n3 | n3 channel bandwidths in Table 5.3.5-1 | 4 and 5 |
|  |  | n28 | n28 channel bandwidths in Table 5.3.5-1 |  |
| CA\_n3B-n28A | CA\_n3A-n28A | n3 | CA\_n3B\_BCS0 | 0 |
|  |  | n28 | 5, 10, 15, 20 |  |
| CA\_n3(2A)-n28A | - | n3 | CA\_n3(2A)\_BCS0 | 0 |
|  |  | n28 | 5, 10, 15, 20 |  |
| CA\_n3A-n34A | CA\_n3A-n34A | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n34 | 5, 10, 15 |  |
|  |  | n3 | See n3 channel bandwidths in Table 5.3.5-1 | 4 and 5 |
|  |  | n34 | See n34 channel bandwidths in Table 5.3.5-1 |  |
| CA\_n3A-n38A | CA\_n3A-n38A | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n38 | 5, 10, 15, 20, 40 |  |
| CA\_n3B-n38A | - | n3 | CA\_n3B\_BCS0 | 0 |
|  |  | n38 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n3(2A)-n38A | - | n3 | CA\_n3(2A)\_BCS1 | 0 |
|  |  | n38 | 5, 10, 15, 20, 25, 30, 40 |  |
| CA\_n3A-n39A | n3 | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n39 | 5, 10, 15, 20, 25, 30, 35, 40 |  |
| CA\_n3A-n40A | n408,9CA\_n3A-n40A8 | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n40 | 5, 10, 15, 20, 25, 30, 40, 50, 60, 80 |  |
|  |  | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 1 |
|  |  | n40 | 5, 10, 15, 20, 25, 30, 40, 50, 60, 80 |  |
|  |  | n3 | 5, 10, 15, 20, 25, 30, 35,40 | 2 |
|  |  | n40 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n3 | See n3 channel bandwidths in Table 5.3.5-1 | 4 and 5 |
|  |  | n40 | See n40 channel bandwidths in Table 5.3.5-1 |  |
| CA\_n3A-n41A | n418,9CA\_n3A-n41A8 | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n41 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | n3 | 5, 10, 15, 20, 25, 30 | 1 |
|  |  | n41 | 10, 15, 20, 40, 50, 60 |  |
|  |  | n3 | 5, 10, 15, 20, 25, 30, 40 | 2 |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 3 |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | n3 | See n3 channel bandwidths in Table 5.3.5-1 | 4 and 5 |
|  |  | n41 | See n41 channel bandwidths in Table 5.3.5-1 |  |
| CA\_n3A-n41B | CA\_n3A-n41A | n3 | 5, 10, 15, 20 | 0 |
|  |  | n41 | CA\_n41B\_BCS0 |  |
| CA\_n3A-n41C | n418CA\_n41C8CA\_n3A-n41A8CA\_n3A-n41C8 | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n41 | CA\_n41C\_BCS0 |  |
|  |  | n3 | See n3 channel bandwidths in Table 5.3.5-1 | 4 and 5 |
|  |  | n41 | CA\_n41C\_BCS4 and 5 |  |
| CA\_n3A-n41(2A) | CA\_n3A-n41A | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n41 | CA\_n41(2A)\_BCS0 |  |
|  |  | n3 | See n3 channel bandwidths in Table 5.3.5-1 | 4 and 5 |
|  |  | n41 | CA\_n41(2A)\_BCS4 and 5 |  |
| CA\_n3A-n67A | - | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
|  |  | n67 | 5, 10, 15, 20 |  |
|  |  | n3 | n3 channel bandwidths in Table 5.3.5-1 | 4 and 5 |
|  |  | n67 | n67 channel bandwidths in Table 5.3.5-1 |  |
| CA\_n3A-n74A | CA\_n3A-n74A | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
|  |  | n74 | 5, 10, 15, 20 |  |
| CA\_n3A-n75A | - | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
|  |  | n75 | 5, 10, 15, 20, 25, 30, 40, 50 |  |
|  |  | n3 | n3 channel bandwidths in Table 5.3.5-1 | 4 and 5 |
|  |  | n75 | n75 channel bandwidths in Table 5.3.5-1 |  |
| CA\_n3A-n77A | n778,9CA\_n3A-n77A8 | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | n3 | 5, 10, 15, 20, 25, 30, 35,40 | 1 |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n3 | See n3 channel bandwidths in Table 5.3.5-1 | 4 and 5 |
|  |  | n77 | See n77 channel bandwidths in Table 5.3.5-1 |  |
| CA\_n3A-n77(2A) | n778,9CA\_n77(2A)8CA\_n3A-n77A8 | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n77 | CA\_n77(2A)\_BCS0 |  |
|  |  | n3 | 5, 10, 15, 20, 25, 30, 35,40 | 1 |
|  |  | n77 | CA\_n77(2A)\_BCS1 |  |
|  |  | n3 | See n3 channel bandwidths in Table 5.3.5-1 | 4 and 5 |
|  |  | n77 | CA\_n77(2A)\_BCS4 and 5 |  |
| CA\_n3A-n77(3A) | n778,9CA\_n77(2A)8CA\_n3A-n77A8 | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
|  |  | n77 | CA\_n77(3A)\_BCS0 |  |
|  | CA\_n3A-n77A | n3 | n3 channel bandwidths in Table 5.3.5-1 | 4 and 5 |
|  |  | n77 | CA\_n77(3A)\_BCS4 and 5 |  |
| CA\_n3A-n78A | n38n788,9CA\_n3A-n78A8 | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | n3 | 5, 10, 15, 20, 25, 30, 40, | 1 |
|  |  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n3 | n3 channel bandwidths in Table 5.3.5-1 | 4 and 5 |
|  |  | n78 | n78 channel bandwidths in Table 5.3.5-1 |  |
| CA\_n3A-n78C | CA\_n78CCA\_n3A-n78A | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n78 | CA\_n78C\_BCS0 |  |
|  | CA\_n3A-n78A | n3 | 5, 10, 15, 20, 25, 30, 40 | 1 |
|  |  | n78 | CA\_n78C\_BCS0 |  |
|  |  | n3 | 5, 10, 15, 20, 25, 30, 40 | 2 |
|  |  | n78 | CA\_n78C\_BCS1 |  |
|  | CA\_n78CCA\_n3A-n78ACA\_n3A-n78C | n3 | See n3 channel bandwidths in Table 5.3.5-1 | 4 and 5 |
|  |  | n78 | CA\_n78C\_BCS4 and 5 |  |
| CA\_n3A-n78(2A) | n38n788,9CA\_n3A-n78ACA\_n78(2A) | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n78 | CA\_n78(2A)\_BCS0 |  |
|  |  | n3 | 5, 10, 15, 20, 25, 30, 40 | 1 |
|  |  | n78 | CA\_n78(2A)\_BCS2 |  |
|  |  | n3 | See n3 channel bandwidths in Table 5.3.5-1 | 4 and 5 |
|  |  | n78 | CA\_n78(2A)\_BCS4 and 5 |  |
| CA\_n3(2A)-n78A | CA\_n3A-n78A | n3 | CA\_n3(2A)\_BCS0 | 0 |
|  |  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n3 | CA\_n3(2A)\_BCS1 | 1 |
|  |  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
| CA\_n3B-n78A | CA\_n3A-n78A | n3 | CA\_n3B\_BCS0 | 0 |
|  |  | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n3 | CA\_n3B\_BCS4 and 5 | 4 and 5 |
|  |  | n78 | n78 channel bandwidths in Table 5.3.5-1 |  |
| CA\_n3B-n78C | CA\_n78C CA\_n3A-n78A | n3 | CA\_n3B\_BCS0 | 0 |
|  |  | n78 | CA\_n78C\_BCS0 |  |
| CA\_n3B-n78(2A) | CA\_n3A-n78A | n3 | CA\_n3B\_BCS0 | 0 |
|  |  | n78 | CA\_n78(2A)\_BCS0 |  |
|  |  | n3 | CA\_n3B\_BCS4 and 5 | 4 and 5 |
|  |  | n78 | CA\_n78(2A)\_BCS4 and 5 |  |
| CA\_n3A-n79A | n38n798,9CA\_n3A-n79A8 | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 1 |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n3 | See n3 channel bandwidths in Table 5.3.5-1 | 4 and 5 |
|  |  | n79 | See n79 channel bandwidths in Table 5.3.5-1 |  |
| CA\_n3(2A)-n79A | CA\_n3A-n79A | n3 | CA\_n3(2A)\_BCS1 | 0 |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n3 | CA\_n3(2A)\_BCS4 and 5 | 4 and 5 |
|  |  | n79 | See n79 channel bandwidths in Table 5.3.5-1 |  |
| CA\_n3A-n79C | n38n798,9CA\_n79C8CA\_n3A-n79A8 | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n79 | CA\_n79C\_BCS0 |  |
|  | CA\_n79CCA\_n3A-n79ACA\_n3A-n79C | n3 | See n3 channel bandwidths in Table 5.3.5-1 | 4 and 5 |
|  |  | n79 | CA\_n79C\_BCS4 and 5 |  |
| CA\_n3(2A)-n79C | CA\_n3A-n79A | n3 | CA\_n3(2A)\_BCS1 | 0 |
|  |  | n79 | CA\_n79C\_BCS0 |  |
|  |  | n3 | CA\_n3(2A)\_BCS4 and 5 | 4 and 5 |
|  |  | n79 | CA\_n79C\_BCS4 and 5 |  |
| CA\_n3B-n79A | - | n3 | CA\_n3B\_BCS0 | 0 |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n3 | CA\_n3B\_BCS4 and 5 | 4 and 5 |
|  |  | n79 | See n79 channel bandwidths in Table 5.3.5-1 |  |
| CA\_n3B-n79C | - | n3 | CA\_n3B\_BCS0 | 0 |
|  |  | n79 | CA\_n79C\_BCS0 |  |
|  |  | n3 | CA\_n3B\_BCS4 and 5 | 4 and 5 |
|  |  | n79 | CA\_n79C\_BCS4 and 5 |  |
| CA\_n3A-n102A | CA\_n3A-n102A | n3 | 5, 10, 15, 20, 25, 30, 40, 45, 50 | 0 |
|  |  | n102 | 20, 40, 60, 80, 100 |  |
| CA\_n3A-n102(2A) | CA\_n3A-n102A | n3 | 5, 10, 15, 20, 25, 30, 40, 45, 50 | 0 |
|  |  | n102 | CA\_n102(2A)\_BCS0 |  |
| CA\_n3A-n102B | CA\_n3A-n102ACA\_n3A-n102B | n3 | 5, 10, 15, 20, 25, 30, 40, 45, 50 | 0 |
|  |  | n102 | CA\_n102B\_BCS0 |  |
| CA\_n3A-n102C | CA\_n3A-n102ACA\_n3A-n102C | n3 | 5, 10, 15, 20, 25, 30, 40, 45, 50 | 0 |
|  |  | n102 | CA\_n102C\_BCS0 |  |
| CA\_n3A-n102D | CA\_n3A-n102A | n3 | 5, 10, 15, 20, 25, 30, 40, 45, 50 | 0 |
|  |  | n102 | CA\_n102D\_BCS0 |  |
| CA\_n3A-n102E | CA\_n3A-n102A | n3 | 5, 10, 15, 20, 25, 30, 40, 45, 50 | 0 |
|  |  | n102 | CA\_n102E\_BCS0 |  |
| CA\_n3A-n105A | CA\_n3A-n105A | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
|  |  | n105 | 5, 10, 15, 20, 25, 30, 35 |  |

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