**3GPP TSG-RAN WG4 Meeting #109 R4-2320302**

**Chicago, USA, 13th November – 17th November 2023**

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| --- |
| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **38.101-2** | **CR** | **0687** | **rev** | **-** | **Current version:** | **18.3.0** |  |
|  |
| *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:***  | big CR for addition of NR CA Intra-band FR2 |
|  |  |
| ***Source to WG:*** | Ericsson |
| ***Source to TSG:*** | R4 |
|  |  |
| ***Work item code:*** | NR\_CA\_R18\_intra |  | ***Date:*** | 2023-11-21 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-18 |
|  | *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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
|  |  |
| ***Reason for change:*** | Inclusion of approved configurations at RAN4 109 |
|  |  |
| ***Summary of change:*** | Addition of:R4-2320322, draft CR 38.101-2 adding CA\_n257O, CA\_n257P, CA\_n257Q |
|  |  |
| ***Consequences if not approved:*** | Band configurations not included |
|  |  |
| ***Clauses affected:*** | 5.5A |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** | **X** |  |  Test specifications | TS 38.521 series |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

---Start of changes---

Table 5.5A.1-1: NR CA configurations, bandwidth combination sets, and fallback group defined for intra-band contiguous CA

| NR CA configuration / Bandwidth combination set / Fallback group |
| --- |
| NR CA configuration | Uplink CA configurations | BWchannel (MHz) | BWchannel (MHz) | BWchannel (MHz) | BWchannel (MHz) | BWchannel (MHz) | BWchannel (MHz) | BWchannel (MHz) | BWchannel (MHz) | BWchannel (MHz) | BWchannel (MHz) | BWchannel (MHz) | BWchannel (MHz) | Maximum aggregatedBW (MHz) | BCS | Fallback group |
| CA\_n257B | CA\_n257B | 50, 100, 200, 400 | 400 |  |  |  |  |  |  |  |  |  |  | 800 | 0 | 1 |
| CA\_n257C | CA\_n257B | 50, 100, 200, 400 | 400 | 400 |  |  |  |  |  |  |  |  |  | 1200 | 0 |  |
| CA\_n257D | CA\_n257D | 50, 100, 200 | 200 |  |  |  |  |  |  |  |  |  |  | 400 | 0 | 2 |
| CA\_n257E | CA\_n257D/E | 50, 100, 200 | 200 | 200 |  |  |  |  |  |  |  |  |  | 600 | 0 |  |
| CA\_n257F | CA\_n257D/E/F | 50, 100, 200 | 200 | 200 | 200 |  |  |  |  |  |  |  |  | 800 | 0 |  |
| CA\_n257G | CA\_n257G | 50, 100 | 100 |  |  |  |  |  |  |  |  |  |  | 200 | 0 | 3 |
| CA\_n257H | CA\_n257G/H | 50, 100 | 100 | 100 |  |  |  |  |  |  |  |  |  | 300 | 0 |  |
| CA\_n257I | CA\_n257G/H/I | 50, 100 | 100 | 100 | 100 |  |  |  |  |  |  |  |  | 400 | 0 |  |
| CA\_n257J | CA\_n257G/H/I/J | 50, 100 | 100 | 100 | 100 | 100 |  |  |  |  |  |  |  | 500 | 0 |  |
| CA\_n257K | CA\_n257G/H/I/J/K | 50, 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  |  |  | 600 | 0 |  |
| CA\_n257L | CA\_n257G/H/I/J/K/L | 50, 100 | 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  |  | 700 | 0 |  |
| CA\_n257M | CA\_n257G/H/I/J/K/L/M | 50, 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  | 800 | 0 |  |
| CA\_n257O | CA\_n257O | 50, 100 | 50, 100 |  |  |  |  |  |  |  |  |  |  | 200 | 0 | 4 |
| CA\_n257P | CA\_n257O/P | 50, 100 | 50, 100 | 50, 100 |  |  |  |  |  |  |  |  |  | 300 | 0 |  |
| CA\_n257Q | CA\_n257O/P/Q | 50, 100 | 50, 100 | 50, 100 | 50, 100 |  |  |  |  |  |  |  |  | 400 | 0 |  |
| CA\_n258B | CA\_n258B | 50, 100, 200, 400 | 400 |  |  |  |  |  |  |  |  |  |  | 800 | 0 | 1 |
| CA\_n258C | CA\_n258B  | 50, 100, 200, 400 | 400 | 400 |  |  |  |  |  |  |  |  |  | 1200 | 0 |  |
| CA\_n258D | CA\_n258D | 50, 100, 200 | 200 |  |  |  |  |  |  |  |  |  |  | 400 | 0 | 2 |
| CA\_n258E | CA\_n258D/E | 50, 100, 200 | 200 | 200 |  |  |  |  |  |  |  |  |  | 600 | 0 |  |
| CA\_n258F | CA\_n258D/E/F | 50, 100, 200 | 200 | 200 | 200 |  |  |  |  |  |  |  |  | 800 | 0 |  |
| CA\_n258G | CA\_n258G | 50, 100 | 100 |  |  |  |  |  |  |  |  |  |  | 200 | 0 | 3 |
| CA\_n258H | CA\_n258G/H | 50, 100 | 100 | 100 |  |  |  |  |  |  |  |  |  | 300 | 0 |  |
| CA\_n258I | CA\_n258G/H/I | 50, 100 | 100 | 100 | 100 |  |  |  |  |  |  |  |  | 400 | 0 |  |
| CA\_n258J | CA\_n258G/H/I/J | 50, 100 | 100 | 100 | 100 | 100 |  |  |  |  |  |  |  | 500 | 0 |  |
| CA\_n258K | CA\_n258G/H/I/J/K | 50, 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  |  |  | 600 | 0 |  |
| CA\_n258L | CA\_n258G/H/I/J/K/L | 50, 100 | 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  |  | 700 | 0 |  |
| CA\_n258M | CA\_n258G/H/I/J/K/L/M | 50, 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  | 800 | 0 |  |
| CA\_n258O | CA\_n258O | 50, 100 | 50, 100 |  |  |  |  |  |  |  |  |  |  | 200 | 0 | 4 |
| CA\_n258P | CA\_n258O/P | 50, 100 | 50, 100 | 50, 100 |  |  |  |  |  |  |  |  |  | 300 | 0 |  |
| CA\_n258Q | CA\_n258O/P/Q | 50, 100 | 50, 100 | 50, 100 | 50, 100 |  |  |  |  |  |  |  |  | 400 | 0 |  |
| CA\_n258R2 | CA\_n258R2 | 100, 200 |  |  |  |  |  |  |  |  |  |  |  | 400 | 0 | 5 |
| CA\_n258R3 | CA\_n258R2/R3 | 100, 200 | 100, 200 |  |  |  |  |  |  |  |  |  |  | 600 | 0 |  |
| CA\_n258R4 | CA\_n258R2/R3/R4 | 100, 200 | 100, 200 | 100, 200 |  |  |  |  |  |  |  |  |  | 800 | 0 |  |
| CA\_n258R5 | CA\_n258R2/R3/R4/R55 | 100, 200 | 100, 200 | 100, 200 | 100, 200 |  |  |  |  |  |  |  |  | 1000 | 0 |  |
| CA\_n258R6 | CA\_n258R2/R3/R4/R55 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 |  |  |  |  |  |  |  | 1200 | 0 |  |
| CA\_n258R7 | CA\_n258R2/R3/R4/R55 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 |  |  |  |  |  |  | 1400 | 0 |  |
| CA\_n258R8 | CA\_n258R2/R3/R4/R55 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 |  |  |  |  |  | 16004 | 0 |  |
| CA\_n258R9 | CA\_n258R2/R3/R4/R55 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 |  |  |  |  | 18004 | 0 |  |
| CA\_n258R10 | CA\_n258R2/R3/R4/R55 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 |  |  |  | 20004 | 0 |  |
| CA\_n258R11 | CA\_n258R2/R3/R4/R55 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 |  |  | 22004 | 0 |  |
| CA\_n258R12 | CA\_n258R2/R3/R4/R55 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 24004 | 0 |  |
| CA\_n259B | CA\_n259B | 50, 100, 200, 400 | 400 |  |  |  |  |  |  |  |  |  |  | 800 | 0 | 1 |
| CA\_n259C | CA\_n259B | 50, 100, 200, 400 | 400 | 400 |  |  |  |  |  |  |  |  |  | 1200 | 0 |  |
| CA\_n259G | CA\_n259G | 50, 100 | 100 |  |  |  |  |  |  |  |  |  |  | 200 | 0 | 3 |
| CA\_n259H | CA\_n259G/H | 50, 100 | 100 | 100 |  |  |  |  |  |  |  |  |  | 300 | 0 |  |
| CA\_n259I | CA\_n259G/H/I | 50, 100 | 100 | 100 | 100 |  |  |  |  |  |  |  |  | 400 | 0 |  |
| CA\_n259J | CA\_n259G/H/I/J | 50, 100 | 100 | 100 | 100 | 100 |  |  |  |  |  |  |  | 500 | 0 |  |
| CA\_n259K | CA\_n259G/H/I/J/K | 50, 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  |  |  | 600 | 0 |  |
| CA\_n259L | CA\_n259G/H/I/J/K/L | 50, 100 | 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  |  | 700 | 0 |  |
| CA\_n259M | CA\_n259G/H/I/J/K/L/M | 50, 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  | 800 | 0 |  |
| CA\_n260B | CA\_n260B | 50, 100, 200, 400 | 400 |  |  |  |  |  |  |  |  |  |  | 800 | 0 | 1 |
| CA\_n260C | CA\_n260B | 50, 100, 200, 400 | 400 | 400 |  |  |  |  |  |  |  |  |  | 1200 | 0 |  |
| CA\_n260D | CA\_n260D | 50, 100, 200 | 200 |  |  |  |  |  |  |  |  |  |  | 400 | 0 | 2 |
| CA\_n260E | CA\_n260D/E | 50, 100, 200 | 200 | 200 |  |  |  |  |  |  |  |  |  | 600 | 0 |  |
| CA\_n260F | CA\_n260D/E/F | 50, 100, 200 | 200 | 200 | 200 |  |  |  |  |  |  |  |  | 800 | 0 |  |
| CA\_n260G | CA\_n260G | 50, 100 | 100 |  |  |  |  |  |  |  |  |  |  | 200 | 0 | 3 |
| CA\_n260H | CA\_n260G/H | 50, 100 | 100 | 100 |  |  |  |  |  |  |  |  |  | 300 | 0 |  |
| CA\_n260I | CA\_n260G/H/I | 50, 100 | 100 | 100 | 100 |  |  |  |  |  |  |  |  | 400 | 0 |  |
| CA\_n260J | CA\_n260G/H/I/J | 50, 100 | 100 | 100 | 100 | 100 |  |  |  |  |  |  |  | 500 | 0 |  |
| CA\_n260K | CA\_n260G/H/I/J/K | 50, 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  |  |  | 600 | 0 |  |
| CA\_n260L | CA\_n260G/H/I/J/K/L | 50, 100 | 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  |  | 700 | 0 |  |
| CA\_n260M | CA\_n260G/H/I/J/K/L/M | 50, 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  | 800 | 0 |  |
| CA\_n260O | CA\_n260O | 50, 100 | 50, 100 |  |  |  |  |  |  |  |  |  |  | 200 | 0 | 4 |
| CA\_n260P | CA\_n260O/P | 50, 100 | 50, 100 | 50, 100 |  |  |  |  |  |  |  |  |  | 300 | 0 |  |
| CA\_n260Q | CA\_n260O/P/Q | 50, 100 | 50, 100 | 50, 100 | 50, 100 |  |  |  |  |  |  |  |  | 400 | 0 |  |
| CA\_n260R2 | CA\_n260R2 | 100, 200 | 100, 200 |  |  |  |  |  |  |  |  |  |  | 400 | 0 | 5 |
| CA\_n260R3 | CA\_n260R2/R3 | 100, 200 | 100, 200 | 100, 200 |  |  |  |  |  |  |  |  |  | 600 | 0 |  |
| CA\_n260R4 | CA\_n260R2/R3/R4 | 100, 200 | 100, 200 | 100, 200 | 100, 200 |  |  |  |  |  |  |  |  | 800 | 0 |  |
| CA\_n260R5 | CA\_n260R2/R3/R4/R55 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 |  |  |  |  |  |  |  | 1000 | 0 |  |
| CA\_n260R6 | CA\_n260R2/R3/R4/R55 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 |  |  |  |  |  |  | 1200 | 0 |  |
| CA\_n260R7 | CA\_n260R2/R3/R4/R55 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 |  |  |  |  |  | 1400 | 0 |  |
| CA\_n260R8 | CA\_n260R2/R3/R4/R55 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 |  |  |  |  | 16004 | 0 |  |
| CA\_n260R9 | CA\_n260R2/R3/R4/R55 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 |  |  |  | 18004 | 0 |  |
| CA\_n260R10 | CA\_n260R2/R3/R4/R55 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 |  |  | 20004 | 0 |  |
| CA\_n260R11 | CA\_n260R2/R3/R4/R55 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 |  | 22004 | 0 |  |
| CA\_n260R12 | CA\_n260R2/R3/R4/R55 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 100, 200 | 24004 | 0 |  |
| CA\_n261B | CA\_n261B | 50, 100, 200, 400 | 400 |  |  |  |  |  |  |  |  |  |  | 800 | 0 | 1 |
| CA\_n261C | CA\_n261B | 50 | 400 | 400 |  |  |  |  |  |  |  |  |  | 850 | 0 |  |
| CA\_n261D | CA\_n261D | 50, 100, 200 | 200 |  |  |  |  |  |  |  |  |  |  | 400 | 0 | 2 |
| CA\_n261E | CA\_n261D/E | 50, 100, 200 | 200 | 200 |  |  |  |  |  |  |  |  |  | 600 | 0 |  |
| CA\_n261F | CA\_n261D/E/F | 50, 100, 200 | 200 | 200 | 200 |  |  |  |  |  |  |  |  | 800 | 0 |  |
| CA\_n261G | CA\_n261G | 50, 100 | 100 |  |  |  |  |  |  |  |  |  |  | 200 | 0 | 3 |
| CA\_n261H | CA\_n261G/H | 50, 100 | 100 | 100 |  |  |  |  |  |  |  |  |  | 300 | 0 |  |
| CA\_n261I | CA\_n261G/H/I | 50, 100 | 100 | 100 | 100 |  |  |  |  |  |  |  |  | 400 | 0 |  |
| CA\_n261J | CA\_n261G/H/I/J | 50, 100 | 100 | 100 | 100 | 100 |  |  |  |  |  |  |  | 500 | 0 |  |
| CA\_n261K | CA\_n261G/H/I/J/K | 50, 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  |  |  | 600 | 0 |  |
| CA\_n261L | CA\_n261G/H/I/J/K/L | 50, 100 | 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  |  | 700 | 0 |  |
| CA\_n261M | CA\_n261G/H/I/J/K/L/M | 50, 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  | 800 | 0 |  |
| CA\_n261O | CA\_n261O | 50, 100 | 50, 100 |  |  |  |  |  |  |  |  |  |  | 200 | 0 | 4 |
| CA\_n261P | CA\_n261O/P | 50, 100 | 50, 100 | 50, 100 |  |  |  |  |  |  |  |  |  | 300 | 0 |  |
| CA\_n261Q | CA\_n261O/P/Q | 50, 100 | 50, 100 | 50, 100 | 50, 100 |  |  |  |  |  |  |  |  | 400 | 0 |  |
| CA\_n262G | CA\_n262G | 50, 100 | 100 |  |  |  |  |  |  |  |  |  |  | 200 | 0 | 3 |
| CA\_n262H | CA\_n262G/H | 50, 100 | 100 | 100 |  |  |  |  |  |  |  |  |  | 300 | 0 |  |
| CA\_n262I | CA\_n262G/H/I | 50, 100 | 100 | 100 | 100 |  |  |  |  |  |  |  |  | 400 | 0 |  |
| CA\_n262J | CA\_n262G/H/I/J | 50, 100 | 100 | 100 | 100 | 100 |  |  |  |  |  |  |  | 500 | 0 |  |
| CA\_n262K | CA\_n262G/H/I/J/K | 50, 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  |  |  | 600 | 0 |  |
| CA\_n262L | CA\_n262G/H/I/J/K/L | 50, 100 | 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  |  | 700 | 0 |  |
| CA\_n262M | CA\_n262G/H/I/J/K/L/M | 50, 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  | 800 | 0 |  |
| CA\_n263B | CA\_n263A | 400 | 400 |  |  |  |  |  |  |  |  |  |  | 800 | 0 | 1 |
| CA\_n263C | CA\_n263A | 400 | 400 | 400 |  |  |  |  |  |  |  |  |  | 1200 | 0 | 1 |
| CA\_n263G | CA\_n263A | 100 | 100 |  |  |  |  |  |  |  |  |  |  | 200 | 0 | 3 |
| CA\_n263H | CA\_n263A | 100 | 100 | 100 |  |  |  |  |  |  |  |  |  | 300 | 0 | 3 |
| CA\_n263I | CA\_n263A | 100 | 100 | 100 | 100 |  |  |  |  |  |  |  |  | 400 | 0 | 3 |
| CA\_n263J | CA\_n263A | 100 | 100 | 100 | 100 | 100 |  |  |  |  |  |  |  | 500 | 0 | 3 |
| CA\_n263K | CA\_n263A | 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  |  |  | 600 | 0 | 3 |
| CA\_n263L | CA\_n263A | 100 | 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  |  | 700 | 0 | 3 |
| CA\_n263M | CA\_n263A | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  | 800 | 0 | 3 |
| NOTE 1: VoidNOTE 2: For the NR CA configuration with more than two component carries, the bandwidths in a BCS which may introduce combinations more than requested unintentionally should be listed in a row separately. NOTE 3: In this release of the specification, contiguous DL CA configurations within FR2-2 may only contain multiples of the same channel bandwidth.NOTE 4: In Rel-18 maximum aggregated downlink BW is limited to 1600 MHz.NOTE 5: In Rel-18 maximum aggregated uplink BW is limited to 800 MHz.NOTE 6: The delimiter “/” is only used in the uplink configurations for the sake of simplicity. For example, CA\_nyA/B/C denotes CA\_nyA, CA\_nyB and CA\_nyC, where ny is a FR2 NR band and A, B and C are the corresponding bandwidth classes respectively. |

---End of changes---