**3GPP TSG-RAN WG4 Meeting #94-e R4-2001509**

**Online, 24th February – 6th March 2020**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **36.101** | **CR** | **5600** | **rev** |  | **Current version:** | **16.4.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | CR to add LTE Intra-band band combinations in TS 36.101 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | LTE\_CA\_R16\_intra-Core | | | | |  | ***Date:*** | | | 2010-03-02 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *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-12 (Release 12) Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Adding approved LTE Intra-band combinations from RAN4 94-e | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Adding the following from RAN 94-e:  CA\_48B CA\_48A-48B CA\_48B-48B CA\_48B-48C CA\_48B-48D CA\_48B-48E | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Requirements for LTE Intra-band CA band combinations are not specified | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.5 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | |  | | |
| ***affected:*** | | **X** |  | Test specifications | | | | 36.521-1 | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | |  | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

---Start of changes---

Table 5.6A.1-1: E-UTRA CA configurations and bandwidth combination sets defined for intra-band contiguous CA

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | E-UTRA CA configuration / Bandwidth combination set | | | | | | |
| E-UTRA CA configuration | Uplink CA configurations  (NOTE 3) | Component carriers in order of increasing carrier frequency | | | | | Maximum aggregated  bandwidth [MHz] | Bandwidth combination set |
| Channel bandwidths for carrier [MHz] | Channel bandwidths for carrier [MHz] | Channel bandwidths for carrier [MHz] | Channel bandwidths for carrier [MHz] | Channel bandwidths for carrier [MHz] |
| CA\_1C | CA\_1C | 15 | 15 |  |  |  | 40 | 0 |
| 20 | 20 |  |  |  |
| 5, 10, 15 | 20 |  |  |  | 40 | 1 |
| 20 | 5, 10, 15, 20 |  |  |  |
| CA\_2C |  | 5 | 20 |  |  |  | 40 | 0 |
| 10 | 15, 20 |  |  |  |
| 15 | 10, 15, 20 |  |  |  |
| 20 | 5, 10, 15, 20 |  |  |  |
| CA\_3B |  | 5 | 3 |  |  |  | 10 | 0 |
| 3, 5 | 5 |  |  |  |
| CA\_3C | CA\_3C | 5, 10, 15 | 20 |  |  |  | 40 | 0 |
| 20 | 5, 10, 15, 20 |  |  |  |
| CA\_5B | CA\_5B | 5, 10 | 10 |  |  |  | 20 | 0 |
| 10 | 5 |  |  |  |
| 3 | 5 |  |  |  | 8 | 1 |
| 5 | 3 |  |  |  |
| CA\_7B |  | 15 | 5 |  |  |  | 20 | 0 |
| CA\_7C | CA\_7C | 15 | 15 |  |  |  | 40 | 0 |
| 20 | 20 |  |  |  |
| 10 | 20 |  |  |  | 40 | 1 |
| 15 | 15, 20 |  |  |  |
| 20 | 10, 15, 20 |  |  |  |
| 15 | 10, 15 |  |  |  | 40 | 2 |
| 20 | 15, 20 |  |  |  |
| CA\_8B | CA\_8B | 5,10 | 10 |  |  |  | 20 | 0 |
| 10 | 5 |  |  |  |
| CA\_12B | - | 5 | 5, 10 |  |  |  | 15 | 0 |
| CA\_23B | - | 10 | 10 |  |  |  | 20 | 0 |
| 5 | 15 |  |  |  |
| CA\_27B | - | 1.4, 3, 5 | 5 |  |  |  | 13 | 0 |
| 1.4, 3 | 10 |  |  |  |
| CA\_28C | - | 5 | 20 |  |  |  | 30 | 0 |
| 10 | 15, 20 |  |  |  |
| 15 | 10, 15 |  |  |  |
| 20 | 5, 10 |  |  |  |
| CA\_38C | CA\_38C | 15 | 15 |  |  |  | 40 | 0 |
| 20 | 20 |  |  |  |
| CA\_39C | CA\_39C | 5,10,15 | 20 |  |  |  | 35 | 0 |
| 20 | 5, 10, 15 |  |  |  |
| CA\_40C | CA\_40C | 10 | 20 |  |  |  | 40 | 0 |
| 15 | 15 |  |  |  |
| 20 | 10, 20 |  |  |  |
| 10, 15 | 20 |  |  |  | 40 | 1 |
| 15 | 15 |  |  |  |
| 20 | 10, 15, 20 |  |  |  |
| CA\_40D | CA\_40C, CA\_40D | 10, 15, 20 | 20 | 20 |  |  | 60 | 0 |
| 20 | 10, 15 | 20 |  |  |
| 20 | 20 | 10, 15 |  |  |
| 15, 20 | 15, 20 | 15, 20 |  |  | 60 | 1 |
| CA\_40E | - | 15, 20 | 15, 20 | 15, 20 | 20 |  | 80 | 0 |
| CA\_40F | - | 15, 20 | 15, 20 | 15, 20 | 20 | 20 | 100 | 0 |
| CA\_41C5 | CA\_41C | 10 | 20 |  |  |  | 40 | 0 |
| 15 | 15, 20 |  |  |  |
| 20 | 10, 15, 20 |  |  |  |
| 5, 10 | 20 |  |  |  | 40 | 1 |
| 15 | 15, 20 |  |  |  |
| 20 | 5, 10, 15, 20 |  |  |  |
| 10 | 15, 20 |  |  |  | 40 | 2 |
| 15 | 10, 15, 20 |  |  |  |
| 20 | 10, 15, 20 |  |  |  |
| 10 | 20 |  |  |  | 40 | 3 |
| 20 | 20 |  |  |  |
| CA\_41D | CA\_41C, CA\_41D | 10 | 20 | 15 |  |  | 60 | 0 |
| 10 | 15, 20 | 20 |  |  |
| 15 | 20 | 10, 15 |  |  |
| 15 | 10, 15, 20 | 20 |  |  |
| 20 | 15, 20 | 10 |  |  |
| 20 | 10, 15, 20 | 15, 20 |  |  |
| CA\_41E | CA\_41C, CA\_41D | 15, 20 | 15, 20 | 15, 20 | 20 |  | 80 | 0 |
| CA\_41F | CA\_41C, CA\_41D | 10,15, 20 | 15, 20 | 20 | 20 | 20 | 100 | 0 |
| CA\_42C5 | CA\_42C | 5, 10, 15, 20 | 20 |  |  |  | 40 | 0 |
| 20 | 5, 10, 15 |  |  |  |
| 10, 15, 20 | 20 |  |  |  | 40 | 1 |
| 20 | 10, 15 |  |  |  |
| CA\_42D | CA\_42C | 5,10,15,20 | 20 | 20 |  |  | 60 | 0 |
| 20 | 20 | 5,10,15 |  |  |
| 10, 15, 20 | 20 | 20 |  |  | 60 | 1 |
| 20 | 20 | 10, 15 |  |  |
| CA\_42E | CA\_42C | 5,10,15,20 | 20 | 20 | 20 |  | 80 | 0 |
| 20 | 20 | 20 | 5,10,15 |  |
| CA\_42F | CA\_42C | 5, 10, 15, 20 | 20 | 20 | 20 | 20 | 100 | 0 |
| 20 | 20 | 20 | 20 | 5, 10, 15, 20 |
| CA\_43C | - | 5 | 20 |  |  |  | 40 | 0 |
| 10 | 15, 20 |  |  |  |
| 15 | 10, 15, 20 |  |  |  |
| 20 | 5, 10, 15, 20 |  |  |  |
| CA\_46C 4 | - | 20 | 20 |  |  |  | 40 | 0 |
| 20 | 10, 20 |  |  |  | 40 | 1 |
| 10, 20 | 20 |  |  |  |
| CA\_46D 4 | - | 20 | 20 | 20 |  |  | 60 | 0 |
| 20 | 20 | 10, 20 |  |  | 60 | 1 |
| 10, 20 | 20 | 20 |  |  |
| CA\_46E 4 | - | 20 | 20 | 20 | 20 |  | 80 | 0 |
| 20 | 20 | 20 | 10, 20 |  | 80 | 1 |
| 10 | 20 | 20 | 20 |  |
| CA\_48B | CA\_48B | 10 | 10 |  |  |  | 20 | 0 |
| CA\_48C | CA\_48C | 5, 10, 15, 20 | 20 |  |  |  | 40 | 0 |
| 20 | 5, 10, 15 |  |  |  |
| CA\_48D | CA\_48C | 5,10,15,20 | 20 | 20 |  |  | 60 | 0 |
| 20 | 20 | 5,10,15 |  |  |
| CA\_48E | CA\_48C | 5,10,15,20 | 20 | 20 | 20 |  | 80 | 0 |
| 20 | 20 | 20 | 5,10,15 |  |
| CA\_48F | - | 5, 10, 15, 20 | 20 | 20 | 20 | 20 | 100 | 0 |
| 20 | 20 | 20 | 20 | 5, 10, 15, 20 |
| CA\_66B | CA\_66B | 5 | 5, 10, 15 |  |  |  | 20 | 0 |
| 10 | 5, 10 |  |  |  |
| 15 | 5 |  |  |  |
| CA\_66C | CA\_66C | 5 | 20 |  |  |  | 40 | 0 |
| 10 | 15, 20 |  |  |  |
| 15 | 10, 15, 20 |  |  |  |
| 20 | 5, 10, 15, 20 |  |  |  |
| CA\_66D | - | 5 | 20 | 20 |  |  | 60 | 0 |
| 20 | 5 | 20 |  |  |
| 20 | 20 | 5 |  |  |
| 10 | 20 | 15 |  |  |
| 15 | 20 | 10 |  |  |
| 10, 15, 20 | 15, 20 | 20 |  |  |
| 15, 20 | 10 | 20 |  |  |
| 15 | 15, 20 | 15 |  |  |
| 20 | 15, 20 | 10, 15 |  |  |
| 20 | 10 | 15 |  |  |
| CA\_70C | - | 5 | 20 |  |  |  | 25 | 0 |
| 10 | 15 |  |
| 15 | 10 |  |
| NOTE 1: The CA configuration refers to an operating band and a CA bandwidth class specified in Table 5.6A-1 (the indexing letter). Absence of a CA bandwidth class for an operating band implies support of all classes.  NOTE 2: For the supported CC bandwidth combinations, the CC downlink and uplink bandwidths are equal.  NOTE 3: Uplink CA configurations are the configurations supported by the present release of specifications.  NOTE 4: Restricted to E-UTRA operation when inter-band carrier aggregation is configured. The downlink operating band is paired with the uplink operating band (external) of the carrier aggregation configuration that is supporting the configured Pcell.  NOTE 5: 8Rx Requirements are applicable for this band configuration if UE supports 8Rx. | | | | | | | | |

---Text omitted---

Table 5.6A.1-3: E-UTRA CA configurations and bandwidth combination sets defined for non-contiguous intra-band CA (with two sub-blocks)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| E-UTRA CA configuration / Bandwidth combination set | | | | | | | | | | | | |
| E-UTRACA configuration | Uplink CA configurations (NOTE 1) | Component carriers in order of increasing carrier frequency | | | | | | | | | Maximum aggregated  bandwidth [MHz] | Bandwidth combination set |
| Channel bandwidths for carrier [MHz] | Channel bandwidths for carrier [MHz] | | | | Channel bandwidths for carrier [MHz] | Channel bandwidths for carrier [MHz] | Channel bandwidths for carrier [MHz] | Channel bandwidths for carrier [MHz] |
| CA\_1A-1A | - | 5, 10, 15, 20 | 5, 10, 15, 20 | | | |  |  |  |  | 40 | 0 |
| CA\_2A-2A | - | 5, 10, 15, 20 | 5, 10, 15, 20 | | | |  |  |  |  | 40 | 0 |
| CA\_3A-3A | - | 5, 10, 15, 20 | 5, 10, 15, 20 | | | |  |  |  |  | 40 | 0 |
| 5, 10 | 5, 10, 15, 20 | | | |  |  |  |  | 30 | 1 |
| 5 | 3 | | | |  |  |  |  | 10 | 2 |
| 3, 5 | 5 | | | |  |  |  |  |
| CA\_4A-4A | CA\_4A-4A | 5, 10, 15, 20 | 5, 10, 15, 20 | | | |  |  |  |  | 40 | 0 |
|  |  | 5, 10 | 5, 10 | | | |  |  |  |  | 20 | 1 |
| CA\_5A-5A | - | 5,10 | 5,10 | | | |  |  |  |  | 20 | 0 |
| 3 | 5 | | | |  |  |  |  | 8 | 1 |
| CA\_7A-7A | - | 5 | 15 | | | |  |  |  |  | 40 | 0 |
|  | 10 | 10, 15 | | | |  |  |  |  |
| 15 | 15, 20 | | | |  |  |  |  |
| 20 | 20 | | | |  |  |  |  |
| 5, 10, 15, 20 | 5, 10, 15, 20 | | | |  |  |  |  | 40 | 1 |
| 5, 10, 15, 20 | 5, 10 | | | |  |  |  |  | 30 | 2 |
| 10, 15, 20 | 10, 15, 20 | | | |  |  |  |  | 40 | 3 |
| CA\_12A-12A | - | 5 | 5 | | | |  |  |  |  | 10 | 0 |
| CA\_23A-23A | - | 5 | 10 | | | |  |  |  |  | 15 | 0 |
| CA\_25A-25A | - | 5, 10 | 5, 10 | | | |  |  |  |  | 20 | 0 |
| 5, 10, 15, 20 | 5, 10, 15, 20 | | | |  |  |  |  | 40 | 1 |
| CA\_40A-40A | - | 10, 20 | 10, 20 | | | |  |  |  |  | 40 | 0 |
| 10,15,20 | 10,15,20 | | | |  |  |  |  | 40 | 1 |
| CA\_40A-40C | CA\_40C | 20 | See CA\_40C Bandwidth Combination Set 1 in Table 5.6A.1-1 | | | | |  |  |  | 60 | 0 |
| See CA\_40C Bandwidth Combination Set 1 in Table 5.6A.1-1 | | | | | 20 |  |  |  |
| CA\_40C-40C | CA\_40C | See CA\_40C Bandwidth Combination Set 1 in Table 5.6A.1-1 | | | | | See CA\_40C Bandwidth Combination Set 1 in Table 5.6A.1-1 | |  |  | 80 | 0 |
| CA\_41A-41A | - | 10, 15, 20 | 10, 15, 20 | | | |  |  |  |  | 40 | 0 |
| 5, 10, 15, 20 | 5, 10, 15, 20 | | | |  |  |  |  | 40 | 1 |
| CA\_41A-41C | CA\_41C | 5, 10, 15, 20 | See CA\_41C Bandwidth Combination Set 1 in Table 5.6A.1-1 | | | | |  |  |  | 60 | 0 |
| See CA\_41C Bandwidth Combination Set 1 in Table 5.6A.1-1 | | | | | 5, 10, 15, 20 |  |  |  |
| CA\_41A-41D | CA\_41C | 5, 10, 15, 20 | See CA\_41D Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | |  |  | 80 | 0 |
| See CA\_41D Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | | 5, 10, 15, 20 |  |  |
| CA\_41C-41C | CA\_41C | See CA\_41C Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | See CA\_41C Bandwidth Combination Set 0 in Table 5.6A.1-1 | |  |  | 80 | 0 |
| CA\_41C-41D | CA\_41C | See CA\_41C Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | See CA\_41D Bandwidth Combination Set 0 in Table 5.6A.1-1 | | |  | 100 | 0 |
| See CA\_41D Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | | See CA\_41C Bandwidth Combination Set 0 in Table 5.6A.1-1 | |  |
| CA\_42A-42A | - | 5, 10, 15, 20 | 5, 10, 15, 20 | | | |  |  |  |  | 40 | 0 |
| 10, 15, 20 | 10, 15, 20 | | | |  |  |  |  | 40 | 1 |
| CA\_42A-42C | CA\_42C | 5, 10, 15, 20 | See CA\_42C Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | |  |  |  | 60 | 0 |
| See CA\_42C Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | 5, 10, 15, 20 |  |  |  |
| 10, 15, 20 | | | See CA\_42C Bandwidth Combination Set 1 in Table 5.6A.1-1 | | |  |  |  | 60 | 1 |
| See CA\_42C Bandwidth Combination Set 1 in Table 5.6A.1-1 | | | | | 10, 15, 20 |  |  |  |
| CA\_42A-42D | - | 5, 10, 15, 20 | See CA\_42D Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | |  |  | 80 | 0 |
| See CA\_42D Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | | 5, 10, 15, 20 |  |  |
| CA\_42C-42C | CA\_42C | See CA\_42C Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | See CA\_42C Bandwidth Combination Set 0 in Table 5.6A.1-1 | |  |  | 80 | 0 |
| See CA\_42C Bandwidth Combination Set 1 in Table 5.6A.1-1 | | | | | See CA\_42C Bandwidth Combination Set 1 in Table 5.6A.1-1 | |  |  | 80 | 1 |
| CA\_43A-43A | - | 5, 10, 15, 20 | 5, 10, 15, 20 | | | |  |  |  |  | 40 | 0 |
| CA\_46A-46A2 | - | 20 | 20 | | | |  |  |  |  | 40 | 0 |
| CA\_46A-46C2 | - | 20 | See CA\_46C Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | |  |  |  | 60 | 0 |
| See CA\_46C Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | 20 |  |  |  |
| CA\_46A-46D2 | - | 20 | See CA\_46D Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | |  |  | 80 | 0 |
| See CA\_46D Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | | 20 |  |  |
| CA\_48A-48A | - | 5, 10, 15, 20 | 5, 10, 15, 20 | | | |  |  |  |  | 40 | 0 |
| CA\_48A-48B | CA\_48B | 5, 10, 15, 20 | See CA\_48B Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | |  |  |  | 40 | 0 |
| CA\_48B-48B | CA\_48B | See CA\_48B Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | See CA\_48B Bandwidth Combination Set 0 in Table 5.6A.1-1 | |  |  | 40 | 0 |
| CA\_48B-48C | CA\_48B | See CA\_48B Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | See CA\_48C Bandwidth Combination Set 0 in Table 5.6A.1-1 | |  |  | 60 | 0 |
| CA\_48B-48D | CA\_48B | See CA\_48B Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | See CA\_48D Bandwidth Combination Set 0 in Table 5.6A.1-1 | | |  | 80 | 0 |
| CA\_48B-48E | CA\_48B | See CA\_48B Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | See CA\_48E Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | 100 | 0 |
| CA\_48A-48C | - | 5, 10, 15, 20 | See CA\_48C Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | |  |  |  | 60 | 0 |
| See CA\_48C Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | 5, 10, 15, 20 |  |  |  |
| CA\_48A-48D | - | 5, 10, 15, 20 | See CA\_48D Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | |  |  | 80 | 0 |
| See CA\_48D Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | | 5, 10, 15, 20 |  |  |
| CA\_48C-48C | CA\_48C | See CA\_48C Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | See CA\_48C Bandwidth Combination Set 0 in Table 5.6A.1-1 | |  |  | 80 | 0 |
| CA\_48C-48D | - | See CA\_48C Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | See CA\_48D Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | |  | 100 | 0 |
| See CA\_48D Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | | See CA\_48C Bandwidth Combination Set 0 in Table 5.6A.1-1 | |  |
| CA\_48A-48E | - | 5, 10, 15, 20 | | See CA\_48E Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | |  | 100 | 0 |
| See CA\_48E Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | | | 5, 10, 15, 20 |  |
| CA\_66A-66A | - | 5, 10, 15, 20 | 5, 10, 15, 20 | | | |  |  |  |  | 40 | 0 |
| CA\_66A-66B | - | 5, 10, 15, 20 | See CA\_66B Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | |  |  |  | 40 | 0 |
| See CA\_66B Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | 5, 10, 15, 20 |  |  |  |
| CA\_66A-66C | - | 5, 10, 15, 20 | See CA\_66C Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | |  |  |  | 60 | 0 |
| See CA\_66C Bandwidth Combination Set 0 in Table 5.6A.1-1 | | | | | 5, 10, 15, 20 |  |  |  |
| NOTE 1: Uplink CA 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 is paired with the uplink operating band (external) of the carrier aggregation configuration that is supporting the configured Pcell. | | | | | | | | | | | | |

---Text omitted---

Table 6.2.2A-1: CA UE Power Class for intraband contiguous CA

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| E-UTRA CA Configuration | Class 1 (dBm) | Tolerance (dB) | Class 2 (dBm) | Tolerance (dB) | Class 3 (dBm) | Tolerance (dB) | Class 4 (dBm) | Tolerance (dB) |
| CA\_1C |  |  |  |  | 23 | +2/-2 |  |  |
| CA\_3C |  |  |  |  | 23 | +2/-22 |  |  |
| CA\_5B |  |  |  |  | 23 | +2/-22 |  |  |
| CA\_7C |  |  |  |  | 23 | +2/-22 |  |  |
| CA\_8B |  |  |  |  | 23 | +2/-22 |  |  |
| CA\_38C |  |  |  |  | 23 | +2/-2 |  |  |
| CA\_39C |  |  |  |  | 23 | +2/-2 |  |  |
| CA\_40C |  |  |  |  | 23 | +2/-2 |  |  |
| CA\_40D |  |  |  |  | 23 | +2/-2 |  |  |
| CA\_41C |  |  | 26 | +2/-22 | 23 | +2/-22 |  |  |
| CA\_41D |  |  |  |  | 23 | +2/-22 |  |  |
| CA\_42C |  |  |  |  | 23 | +2/-3 |  |  |
| CA\_48B |  |  |  |  | 23 | +2/-3 |  |  |
| CA\_48C |  |  |  |  | 23 | +2/-3 |  |  |
| CA\_66B |  |  |  |  | 23 | +2/-2 |  |  |
| CA\_66C |  |  |  |  | 23 | +2/-2 |  |  |
| NOTE 1: Void  NOTE 2: If all transmitted resource blocks (Figure 5.6A-1) over all component carriers are confined within FUL\_low and FUL\_low + 4 MHz or/and FUL\_high – 4 MHz and FUL\_high, the maximum output power requirement is relaxed by reducing the lower tolerance limit by 1.5 dB  NOTE 3: PPowerClass is the maximum UE power specified without taking into account the tolerance  NOTE 4: For intra-band contiguous carrier aggregation the maximum power requirement should apply to the total transmitted power over all component carriers (per UE). | | | | | | | | |

---Text omitted---

Table 6.2.4A-1: Additional Maximum Power Reduction (A-MPR) for intra-band contiguous CA

|  |  |  |  |
| --- | --- | --- | --- |
| CA Network Signalling value | Requirements  (subclause) | Uplink CA Configuration | A-MPR [dB]  (subclause) |
| CA\_NS\_01 | 6.6.3.3A.1 | CA\_1C | 6.2.4A.1 |
| CA\_NS\_02 | 6.6.3.3A.2 | CA\_1C | 6.2.4A.2 |
| CA\_NS\_03 | 6.6.3.3A.3 | CA\_1C | 6.2.4A.3 |
| CA\_NS\_04 | 6.6.2.2A.1, 6.6.3.3A.8, 6.6.3.3A.9 | CA\_41C, CA\_41D | 6.2.4A.4 |
| CA\_NS\_05 | 6.6.3.3A.4 | CA\_38C | 6.2.4A.5 |
| CA\_NS\_06 | 6.6.3.3A.5 | CA\_7C | 6.2.4A.6 |
| CA\_NS\_07 | 6.6.3.3A.6 | CA\_39C | 6.2.4A.7 |
| CA\_NS\_08 | 6.6.3.3A.7 | CA\_42C | 6.2.4A.8 |
| CA\_NS\_09 | 6.6.2.2A.2 | CA\_66B | N/A |
| 6.6.2.2A.3 | CA\_66C | N/A |
| CA\_NS\_10 | 6.6.2.2A.4  6.6.3.3A.10 | CA\_48B, CA\_48C | 6.2.4A.10 |
| … |  |  |  |
| CA\_NS\_31 | NOTE 1 | Table 5.6A.1-1 (NOTE 1) | N/A |
| CA\_NS\_32 | Reserved | | |
| NOTE 1: Applicable for uplink CA configurations listed in Table 5.6A.1-1 for which none of the additional requirements in subclauses 6.6.2.2A or 6.6.3.3A apply.  NOTE 2: The index of the sequence CA\_NS corresponds to the value of *additionalSpectrumEmissionSCell-r10*. | | | |

---Text omitted---

Table 7.3.1A-0h: Intra-band contiguous CA uplink configuration for reference sensitivity for Bandwidth Class B

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CA configuration / CC combination / NRB\_agg / Duplex mode | | | | | | | | | |
| Uplink CA configuration | 25RB+25RB | | 50RB+25RB | | 50RB+50RB | | 75RB+25RB | | Duplex Mode |
| PCC | SCC | PCC | SCC | PCC | SCC | PCC | SCC |
| CA\_5B | N/A | N/A | 25 | 0 | 25 | 0 | N/A | N/A | FDD |
| CA\_8B | N/A | N/A | 25 | 0 | 25 | 0 | N/A | N/A | FDD |
| CA\_48B | N/A | N/A | N/A | N/A | 50 | 50 | N/A | N/A | TDD |
| CA\_66B | 25 | 25 | 50 | 25 | 50 | 50 | 75 | 25 | FDD |
| NOTE 1: The carrier centre frequency of SCC in the UL operating band is configured closer to the DL operating band.  NOTE 2: The transmitted power over both PCC and SCC shall be set to PUMAX as defined in subclause 6.2.5A.  NOTE 3: The UL resource blocks in both PCC and SCC shall be confined within the transmission bandwidth configuration for the channel bandwidth (Table 5.6-1).  NOTE 4: The UL resource blocks in PCC shall be located as close as possible to the downlink operating band, while the UL resource blocks in SCC shall be located as far as possible from the downlink operating band.  NOTE 5: In case a CA configuration consists of CC channel bandwidths which are unequal in bandwidth the PCC channel bandwidth shall be the larger one for reference sensitivity test. | | | | | | | | | |

---Text omitted---

Table 7.6.1.1A-2: In-band blocking

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CA configuration | Parameter | Unit | Case 1 | Case 2 |
| PInterferer | dBm | -56 | -44 |
| FInterferer  (offset) | MHz | =-Foffset– FIoffset,case 1  &  =+Foffset + FIoffset,case 1 | ≤-Foffset– FIoffset,case 2  &  ≥+Foffset + FIoffset,case 2 |
| CA\_1C, CA\_2C, CA\_3B, CA\_3C, CA\_5B, CA\_7B, CA\_7C, CA\_8B, CA\_12B, CA\_23B, CA\_27B, CA\_28C, CA\_38C, CA\_39C, CA\_40C, CA\_40D, CA\_40E, CA\_40F, CA\_41C, CA\_41D, CA\_41E, CA\_41F, CA\_42C, CA\_42D, CA\_42E, CA\_42F, CA\_43C, CA\_48B, CA\_48C, CA\_48D, CA\_48E, CA\_48F, CA\_66B, CA\_66C, CA\_66D, CA\_70C | FInterferer (Range) | MHz | (NOTE 2) | FDL\_low – 15  to  FDL\_high + 15 |
| NOTE 1: For certain bands, the unwanted modulated interfering signal may not fall inside the UE receive band, but within the first 15 MHz below or above the UE receive band  NOTE 2: For each carrier frequency the requirement is valid for two frequencies:  a. the carrier frequency -Foffset - FIoffset, case 1 and  b. the carrier frequency +Foffset + FIoffset, case 1  NOTE 3: Foffset is the frequency offset from the center frequency of the CC being tested to the edge of aggregated channel bandwidth.  NOTE 4: The Finterferer (offset) is the frequency separation of the center frequency of the carrier closest to the interferer and the center frequency of the interferer and shall be further adjusted to MHz to be offset from the sub-carrier raster. | | | | |

---Text omitted---

Table 7.6.2.1A-2: Out of band blocking

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CA configuration | Parameter | Units | Frequency | | |
| Range 1 | Range 2 | Range 3 |
| PInterferer | dBm | -44 | -30 | -15 |
| CA\_1C, CA\_2C, CA\_3B, CA\_3C, CA\_5B, CA\_7B, CA\_7C, CA\_8B, CA\_12B, CA\_23B, CA\_27B, CA\_28C, CA\_38C, CA\_39C, CA\_40C, CA\_40D, CA\_40E, CA\_40F, CA\_41C, CA\_41D, CA\_41E, CA\_41F, CA\_42C1, CA\_42D1, CA\_42E1, CA\_42F1, CA\_43C1, CA\_48B1, CA\_48C1, CA\_48D1, CA\_48E1, CA\_48F1, CA\_66B, CA\_66C, CA\_66D, CA\_70C | FInterferer (CW) | MHz | FDL\_low -15 to  FDL\_low -60 | FDL\_low -60 to  FDL\_low -85 | FDL\_low -85 to  1 MHz |
| FDL\_high +15 to  FDL\_high + 60 | FDL\_high +60 to  FDL\_high +85 | FDL\_high +85 to  +12750 MHz |
| NOTE 1: The power level of the interferer (PInterferer) for this CA configuration for Range 3 shall be modified to -20 dBm for FInterferer > 2800 MHz and FInterferer < 4400 MHz. The power level of the interferer (PInterferer) for Range 3 shall be modified to -20 dBm for FInterferer > 2800 MHz and FInterferer < 4800 MHz when UE supports both E-UTRA band B42 and NR bands n77, n78. | | | | | |

---End of changes---