3GPP TSG-RAN WG4 Meeting # 102-e R4-2203540

Electronic Meeting, February 21 – March 3, 2022

**Source:** Charter Communications

**Title:** TP to TR 38.717.03-02 for CA\_n46-n48--n96

**Agenda item:** 9.6.1

**Document for:** Approval

# Background

This contribution provides text proposal on the NR CA band combination CA\_n46A-n48A-n96A as defined in revised WID on Rel-17 NR inter-band Carrier Aggregation/Dual connectivity for 3 bands DL with 2 bands UL, RP-212889[1].

# Text Proposal

##### ---Start of changes---

## 5.0 Inter-band Carrier Aggregation for 3 bands DL with 2 bands UL: Specific Band Combination Part

### 5.1 Inter-band within FR1

#### 5.1.X.1 CA\_n46-n48-n96

Table 5.1.X.1-1: CA band combination of band n46+n48+n96

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NR CA Band Combination** | **NR Band** | **Uplink (UL) band** | **Downlink (DL) band** | **Duplex****mode** |
| **BS receive / UE transmit** | **BS transmit / UE receive** |
| **FUL\_low – FUL\_high** | **FDL\_low – FDL\_high** |
| CA\_ n46-n48-n96 | n46 | 5150 MHz | – | 5925 MHz | 5150 MHz | – | 5925 MHz | TDD |
| n48 | 3550 MHz | – | 3700 MHz | 3550 MHz | – | 3700 MHz | TDD |
| n96 | 5925 MHz  | – | 7125 MHz | 5925 MHz  | – | 7125 MHz | TDD |

#### 5.1.x.2 Channel bandwidths per operating band for CA

Table 5.1.X.2-1: Supported bandwidths per CA band combination of band n46 + n48 + n96

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **NR CA configuration** | **Uplink CA configuration or single uplink carrier6** | **NR Band** | **5** | **10** | **15** | **20** | **25** | **30** | **40** | **50** | **60** | **70** | **80** | **90** | **100** | **Bandwidth combination set** |
| CA\_n46A-n48A-n96A |  CA\_n46A-n48A CA\_n48A-n96A | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | 5 | 10 | 15 | 20 |   | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46B-n48A-n96A |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | 5 | 10 | 15 | 20 |   | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46C-n48A-n96A |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | 5 | 10 | 15 | 20 |   | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46D-n48A-n96A |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | 5 | 10 | 15 | 20 |   | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46N-n48A-n96A |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | 5 | 10 | 15 | 20 |   | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46A-n48B-n96A | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | See CA\_n48B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46B-n48B-n96A | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46C-n48B-n96A | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46D-n48B-n96A | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46N-n48B-n96A | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46A-n48C-n96A | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | See CA\_n48C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46B-n48C-n96A | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46C-n48C-n96A | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46D-n48C-n96A | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46N-n48C-n96A | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46A-n48A-n96B |  CA\_n46A-n48A CA\_n48A-n96A CA\_n48A-n96B | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | 5 | 10 | 15 | 20 |   | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| n96 | See CA\_n96B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46B-n48A-n96B |  CA\_n46A-n48A CA\_n48A-n96A CA\_n48A-n96B | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | 5 | 10 | 15 | 20 |   | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| n96 | See CA\_n96B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46C-n48A-n96B |  CA\_n46A-n48A CA\_n48A-n96A CA\_n48A-n96B | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | 5 | 10 | 15 | 20 |   | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| n96 | See CA\_n96B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46D-n48A-n96B |  CA\_n46A-n48A CA\_n48A-n96A CA\_n48A-n96B | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | 5 | 10 | 15 | 20 |   | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| n96 | See CA\_n96B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46N-n48A-n96B |  CA\_n46A-n48A CA\_n48A-n96A CA\_n48A-n96B | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | 5 | 10 | 15 | 20 |   | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| n96 | See CA\_n96B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46A-n48B-n96C | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A CA\_n48A-n96B CA\_n48B-n96B | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | See CA\_n48B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46B-n48B-n96C | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A CA\_n48A-n96B CA\_n48B-n96B | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46C-n48B-n96C | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A CA\_n48A-n96B CA\_n48B-n96B | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46D-n48B-n96C | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A CA\_n48A-n96B CA\_n48B-n96B | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46N-n48B-n96C | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A CA\_n48A-n96B CA\_n48B-n96B | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46A-n48C-n96D | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A CA\_n48A-n96B CA\_n48B-n96B | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | See CA\_n48C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96D Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46B-n48C-n96D | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A CA\_n48A-n96B CA\_n48B-n96B | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96D Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46C-n48C-n96D | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A CA\_n48A-n96B CA\_n48B-n96B | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96D Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46D-n48C-n96D | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A CA\_n48A-n96B CA\_n48B-n96B | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96D Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46N-n48C-n96D | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A CA\_n48A-n96B CA\_n48B-n96B | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96D Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46A-n48C-n96E | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A CA\_n48A-n96B CA\_n48B-n96B | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | See CA\_n48C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96E Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46B-n48C-n96E | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A CA\_n48A-n96B CA\_n48B-n96B | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96E Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46C-n48C-n96E | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A CA\_n48A-n96B CA\_n48B-n96B | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96E Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46D-n48C-n96E | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A CA\_n48A-n96B CA\_n48B-n96B | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96E Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46N-n48C-n96E | CA\_n46A-n48A CA\_n48A-n96A CA\_n46A-n48B CA\_n48B-n96A CA\_n48A-n96B CA\_n48B-n96B | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96E Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46A-n48(2A)-n96A |  CA\_n46A-n48A CA\_n48A-n96A | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46B-n48(2A)-n96A |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46C-n48(2A)-n96A |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46D-n48(2A)-n96A |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46N-n48(2A)-n96A |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46A-n48(2A)-n96B |  CA\_n46A-n48A CA\_n48A-n96A | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46B-n48(2A)-n96B |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46C-n48(2A)-n96B |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46D-n48(2A)-n96B |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46N-n48(2A)-n96B |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46A-n48(2A)-n96C |  CA\_n46A-n48A CA\_n48A-n96A | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46B-n48(2A)-n96C |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46C-n48(2A)-n96C |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46D-n48(2A)-n96C |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46N-n48(2A)-n96C |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46A-n48(2A)-n96D |  CA\_n46A-n48A CA\_n48A-n96A | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96D Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46B-n48(2A)-n96D |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96D Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46C-n48(2A)-n96D |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96D Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46D-n48(2A)-n96D |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96D Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46N-n48(2A)-n96D |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96D Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46A-n48(2A)-n96E |  CA\_n46A-n48A CA\_n48A-n96A | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96E Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46B-n48(2A)-n96E |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96E Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46C-n48(2A)-n96E |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96E Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46D-n48(2A)-n96E |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96E Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46N-n48(2A)-n96E |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(2A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96E Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46A-n48(3A)-n96A |  CA\_n46A-n48A CA\_n48A-n96A | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46B-n48(3A)-n96A |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46C-n48(3A)-n96A |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46D-n48(3A)-n96A |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46N-n48(3A)-n96A |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46A-n48(3A)-n96B |  CA\_n46A-n48A CA\_n48A-n96A | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46B-n48(3A)-n96B |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46C-n48(3A)-n96B |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46D-n48(3A)-n96B |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46N-n48(3A)-n96B |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46A-n48(3A)-n96C |  CA\_n46A-n48A CA\_n48A-n96A | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46B-n48(3A)-n96C |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46C-n48(3A)-n96C |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46D-n48(3A)-n96C |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46N-n48(3A)-n96C |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46A-n48(3A)-n96D |  CA\_n46A-n48A CA\_n48A-n96A | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96D Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46B-n48(3A)-n96D |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96D Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46C-n48(3A)-n96D |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96D Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46D-n48(3A)-n96D |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96D Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46N-n48(3A)-n96D |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96D Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46A-n48(3A)-n96E |  CA\_n46A-n48A CA\_n48A-n96A | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96E Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46B-n48(3A)-n96E |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96E Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46C-n48(3A)-n96E |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96E Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46D-n48(3A)-n96E |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(3A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96E Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46N-n48(3A)-n96E |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96E Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46A-n48(4A)-n96A |  CA\_n46A-n48A CA\_n48A-n96A | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46B-n48(4A)-n96A |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46C-n48(4A)-n96A |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46D-n48(4A)-n96A |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46N-n48(4A)-n96A |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 |   |   |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   |
| CA\_n46A-n48(4A)-n96B |  CA\_n46A-n48A CA\_n48A-n96A | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46B-n48(4A)-n96B |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46C-n48(4A)-n96B |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46D-n48(4A)-n96B |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46N-n48(4A)-n96B |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96B Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46A-n48(4A)-n96C |  CA\_n46A-n48A CA\_n48A-n96A | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46B-n48(4A)-n96C |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46C-n48(4A)-n96C |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46D-n48(4A)-n96C |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46N-n48(4A)-n96C |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96C Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46A-n48(4A)-n96D |  CA\_n46A-n48A CA\_n48A-n96A | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96D Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46B-n48(4A)-n96D |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96D Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46C-n48(4A)-n96D |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96D Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46D-n48(4A)-n96D |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96D Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46N-n48(4A)-n96D |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96D Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46A-n48(4A)-n96E |  CA\_n46A-n48A CA\_n48A-n96A | n46 |   | 10 |   | 20 |   |   | 40 |   | 60 |   | 80 |   |   | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96E Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46B-n48(4A)-n96E |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96E Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46C-n48(4A)-n96E |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46C Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96E Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46D-n48(4A)-n96E |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46D Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96E Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| CA\_n46N-n48(4A)-n96E |  CA\_n46A-n48A CA\_n48A-n96A | n46 | See CA\_n46N Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n48 | See CA\_n48(4A) Bandwidth Combination Set 0 in Table 5.5A.1-1 |
| n96 | See CA\_n96E Bandwidth Combination Set 0 in Table 5.5A.1-1 |

#### 5.1.X.3 UE Co-existence studies

Table 5.1.X.3-1 shows the harmonics and IMD analysis for band n48 and band n46. Table 5.1.X.3-2 1 shows the harmonics and IMD analysis for band n48 and band n96.

**Table 5.1.X.3-1: Band n48, Band n46 UL IMD products**

|  |  |  |
| --- | --- | --- |
|   | **n48** | **n46** |
| UE UL carriers | fx\_low | fx\_high | fy\_low | fy\_high |
| UL frequency (MHz) | 3550 | 3700 | 5150 | 5925 |
| Two-tone 2nd order IMD products | |fy\_low - fx\_high| | |fy\_high - fx\_low| | |fy\_low + fx\_high| | |fy\_high + fx\_low| |
| IMD frequency limits (MHz) | 1450 | 2375 | 8700 | 9625 |
| Two-tone 3rd order IMD products | |2\*fx\_low - fy\_high| | |2\*fx\_high - fy\_low| | |2\*fy\_low - fx\_high| | |2\*fy\_high - fx\_low| |
| IMD frequency limits (MHz) | 1175 | 2250 | 6600 | 8300 |
| Two-tone 3rd order IMD products | |2\*fx\_low + fy\_low| | |2\*fx\_high + fy\_high| | |2\*fy\_low + fx\_low| | |2\*fy\_high + fx\_high| |
| IMD frequency limits (MHz) | 12250 | 13325 | 13850 | 15550 |
| Two-tone 4th order IMD products | |3\*fx\_low - fy\_high| | |3\*fx\_high - fy\_low| | |3\*fy\_low - fx\_high| | |3\*fy\_high - fx\_low| |
| IMD frequency limits (MHz) | 4725 | 5950 | 11750 | 14225 |
| Two-tone 4th order IMD products | |3\*fx\_low + fy\_low| | |3\*fx\_high + fy\_high| | |3\*fy\_low + fx\_low| | |3\*fy\_high + fx\_high| |
| IMD frequency limits (MHz) | 15800 | 17025 | 19000 | 21475 |
| Two-tone 4th order IMD products | |2\*fx\_low - 2\*fy\_high| | |2\*fx\_high - 2\*fy\_low| | |2\*fy\_low + 2\*fx\_low| | |2\*fy\_high + 2\*fx\_high| |
| IMD frequency limits (MHz) | 4750 | 2900 | 17400 | 19250 |
| Two-tone 5th order IMD products | |fx\_low - 4\*fy\_high| | |fx\_high - 4\*fy\_low| | |fy\_low - 4\*fx\_high| | |fy\_high - 4\*fx\_low| |
| IMD frequency limits (MHz) | 20150 | 16900 | 9650 | 8275 |
| Two-tone 5th order IMD products | |fx\_low + 4\*fy\_low| | |fx\_high + 4\*fy\_high| | |fy\_low + 4\*fx\_low| | |fy\_high + 4\*fx\_high| |
| IMD frequency limits (MHz) | 24150 | 27400 | 19350 | 20725 |
| Two-tone 5th order IMD products | |2\*fx\_low - 3\*fy\_high| | |2\*fx\_high - 3\*fy\_low| | |2\*fy\_low - 3\*fx\_high| | |2\*fy\_high - 3\*fx\_low| |
| IMD frequency limits (MHz) | 10675 | 8050 | 800 | 1200 |
| Two-tone 5th order IMD products | |2\*fx\_low + 3\*fy\_low| | |2\*fx\_high + 3\*fy\_high| | |2\*fy\_low + 3\*fx\_low| | |2\*fy\_high + 3\*fx\_high| |
| IMD frequency limits (MHz) | 22550 | 25175 | 20950 | 22950 |

Based on above table, there is no harmonic interference.

**Table 5.1.X.3-2: Band n48, Band n96 UL IMD products**

|  |  |  |
| --- | --- | --- |
|   | n48 | n96 |
| UE UL carriers | fx\_low | fx\_high | fy\_low | fy\_high |
| UL frequency (MHz) | 3550 | 3700 | 5925 | 7125 |
| Two-tone 2nd order IMD products | |fy\_low - fx\_high| | |fy\_high - fx\_low| | |fy\_low + fx\_high| | |fy\_high + fx\_low| |
| IMD frequency limits (MHz) | 2225 | 3575 | 9475 | 10825 |
| Two-tone 3rd order IMD products | |2\*fx\_low - fy\_high| | |2\*fx\_high - fy\_low| | |2\*fy\_low - fx\_high| | |2\*fy\_high - fx\_low| |
| IMD frequency limits (MHz) | 25 | 1475 | 8150 | 10700 |
| Two-tone 3rd order IMD products | |2\*fx\_low + fy\_low| | |2\*fx\_high + fy\_high| | |2\*fy\_low + fx\_low| | |2\*fy\_high + fx\_high| |
| IMD frequency limits (MHz) | 13025 | 14525 | 15400 | 17950 |
| Two-tone 4th order IMD products | |3\*fx\_low - fy\_high| | |3\*fx\_high - fy\_low| | |3\*fy\_low - fx\_high| | |3\*fy\_high - fx\_low| |
| IMD frequency limits (MHz) | 3525 | 5175 | 14075 | 17825 |
| Two-tone 4th order IMD products | |3\*fx\_low + fy\_low| | |3\*fx\_high + fy\_high| | |3\*fy\_low + fx\_low| | |3\*fy\_high + fx\_high| |
| IMD frequency limits (MHz) | 16575 | 18225 | 21325 | 25075 |
| Two-tone 4th order IMD products | |2\*fx\_low - 2\*fy\_high| | |2\*fx\_high - 2\*fy\_low| | |2\*fy\_low + 2\*fx\_low| | |2\*fy\_high + 2\*fx\_high| |
| IMD frequency limits (MHz) | 7150 | 4450 | 18950 | 21650 |
| Two-tone 5th order IMD products | |fx\_low - 4\*fy\_high| | |fx\_high - 4\*fy\_low| | |fy\_low - 4\*fx\_high| | |fy\_high - 4\*fx\_low| |
| IMD frequency limits (MHz) | 24950 | 20000 | 8875 | 7075 |
| Two-tone 5th order IMD products | |fx\_low + 4\*fy\_low| | |fx\_high + 4\*fy\_high| | |fy\_low + 4\*fx\_low| | |fy\_high + 4\*fx\_high| |
| IMD frequency limits (MHz) | 27250 | 32200 | 20125 | 21925 |
| Two-tone 5th order IMD products | |2\*fx\_low - 3\*fy\_high| | |2\*fx\_high - 3\*fy\_low| | |2\*fy\_low - 3\*fx\_high| | |2\*fy\_high - 3\*fx\_low| |
| IMD frequency limits (MHz) | 14275 | 10375 | 750 | 3600 |
| Two-tone 5th order IMD products | |2\*fx\_low + 3\*fy\_low| | |2\*fx\_high + 3\*fy\_high| | |2\*fy\_low + 3\*fx\_low| | |2\*fy\_high + 3\*fx\_high| |
| IMD frequency limits (MHz) | 24875 | 28775 | 22500 | 25350 |

Note: band n46 and band n96 could be implemented by using a common filter due to the immediately adjacent to each other, and n48 is the primary cell and n46 and n96 is secondary, which is only one UL in the frequency range of 5150~7125.

#### 5.1.X.4 REFSENs requirements

The n46-n96 shall be synchronized in both UL/DL configuration and frame boundary/timing. Therefore there is no need to have MSD due to IMD table for CA\_n46-n48-n96.

#### 7.3G.5.X Reference sensitivity exceptions due to cross band isolation

For unsynchronized operation, Rx de-sensing in one band will be caused by another band due to lack of isolation in the band filters. Reference sensitivity exceptions for cross band are specified in Table 7.3G.5.X-1 with uplink configuration specified in Table 7.3G.5.X-2.

Table 7.3G.5.X-1: MSD due to cross band isolation

|  |
| --- |
| **Operating Band / Channel bandwidth of the affected DL band** |
| **CA Configuration** | **UL band** | **DL band** | **5MHz (dB)** | **10MHz (dB)** | **15MHz (dB)** | **20MHz (dB)** | **25MHz (dB)** | **30 MHz (dB)** | **40 MHz (dB)** | **50 MHz (dB)** | **60 MHz (dB)** | **80 MHz (dB)** | **90 MHz (dB)** | **100 MHz (dB)** |
| CA\_n46A-n48A | n46 | n48 | 13.3 | 13.3 | 11.8 | 10.7 | - | 9.4 | 8.5 | 7.9 | 7.3 | 7.0 | 6.4 | 6.2 |
|  | n48 | n46 | - | - | - | 15.7 | - | - | 15.7 | - | 15.7 | 15.7 | - | - |
| CA\_n48A-n96A | n96 | n48 | 4.3 | 4.1 | 4.0 | 3.9 |  | 3.9 | 3.9 | 3.9 | 3.8 | 3.8 | 3.8 | 3.8 |
|  | n48 | n96 |  |  |  | 5.8 |  |  | 5.6 |  | 5.5 | 5.5 |  |  |

Table 7.3G.5.X-2: Uplink configuration for reference sensitivity exceptions due to cross band isolation

|  |
| --- |
| **Operating Band / SCS / Channel bandwidth of the affected DL band** |
| **UL band** | **DL band** | **SCS of UL band (kHz)** | **5 MHz** | **10 MHz** | **15 MHz** | **20 MHz** | **25 MHz** | **30 MHz** | **40 MHz** | **50 MHz** | **60 MHz** | **80 MHz** | **90 MHz** | **100 MHz** |
| n46 | n48 | 30 | 216 | 216 | 216 | 216 |  |  | 216 | 216 | 216 | 216 | 216 | 216 |
| n48 | n46 | 15 |  |  |  | 216 |  |  | 216 |  | 216 | 216 |  |  |
| n96 | n48 | 30 | 216 | 216 | 216 | 216 |  | 216 | 216 | 216 | 216 | 216 | 216 | 216 |
| n48 | n96 | 15 |  |  |  | 216 |  |  | 216 |  | 216 | 216 |  |  |
| NOTE 1: The UL configuration applies regardless of the channel bandwidth of the UL band unless the UL resource blocks exceed that specified in Table 7.3.2-3 for the uplink bandwidth in which case the allocation according to Table 7.3.2-3 applies.NOTE 2: Refers to the UL resource blocks shall be located as close as possible to the downlink operating band but confined within the transmission bandwidth configuration for the channel bandwidth in Table 5.3.2-1. |

##### ---End of changes---

# Reference

[1] RP-212889, “Revised WID on Rel-17 NR Inter-band Carrier Aggregation/Dual Connectivity for 3 bands DL with 2 bands UL”, ZTE Corporation