**3GPP TSG-RAN WG4 Meeting # 112 Rev R4-2413349**

**Maastricht Meeting, Aug. 19th – Aug 23rd, 2024**

**Title: TP to TR 38.718-03-01 Addition of CA\_n1A-n5A-n8A**

**Source: Nokia, Vodafone**

**Agenda item: 7.3.4**

**Document for: Approval**

# 1 Introduction

This is a TP to TR 38.718-03-01 to add CA\_n1A-n5A-n8A.

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## 5.x CA\_n1-n5-n8

### 5.x.1 Common for 1 band UL and 2 bands UL CA

#### 5.x.1.1 Operating bands for CA

Table 5.x.1.1-1: CA band combination constituent bands definition

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **NR CA Band** | **NR Band** | **Uplink (UL) operating band** | | | **Downlink (DL) operating band** | | | **Duplex Mode** |
| **BS receive / UE transmit** | | | **BS transmit / UE receive** | | |
| **FUL\_low – FUL\_high** | | | **FDL\_low – FDL\_high** | | |
| CA\_n1-n5-n8 | n1 | 1920 MHz | – | 1980 MHz | 2110 MHz | – | 2170 MHz | FDD |
| n5 | 824 MHz | – | 849 MHz | 869 MHz | – | 894 MHz | FDD |
| n8 | 880 MHz | – | 915 MHz | 925 MHz | – | 960 MHz | FDD |

#### 5.x.1.2 Channel bandwidths per operating band for CA

Table 5.x.1.2-1: Supported bandwidths per CA band combination of band n1-n5-n8

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| NR CA configuration | Uplink CA configuration or single uplink carrier | NR Band | Channel bandwidth (MHz) | Bandwidth combination set |
| CA\_n1A-n5A-n8A | - | n1 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
|  |  | n5 | 5, 10, 15, 20 |  |
|  |  | n8 | 5, 10, 15, 20 |  |

#### 5.x.1.3 ∆TIB,c and ∆RIB,c values

For CA\_n1-n5-n8, since there is only single carrier UL the following ΔTIB,c  values are proposed:

Table 5.x.1.3-1: ΔTIB,c due to NR CA (three bands)

|  |  |  |  |
| --- | --- | --- | --- |
| **Inter-band CA combination** | **ΔTIB,c for NR bands (dB)8** | | |
| **Component band in order of bands in configuration9** | | |
| CA\_n1-n5-n8 | 0.3 | 0.5 | 0.5 |
| NOTE 8: “-” denotes ΔTIB,c = 0.  NOTE 9: The component band order in the configuration should be listed by the order of NR bands, such as for CA\_n1-n3-n5 the band order from left to right is n1, n3 and n5. | | | |

The ΔRIB,c values are proposed to be defined following CA\_n5-n8 as in the following table

Table 5.x.1.3-2: ΔRIB,c due to NR CA (three bands)

|  |  |  |  |
| --- | --- | --- | --- |
| **Inter-band CA combination** | **ΔRIB,c for NR bands (dB)9** | | |
| **Component band in order of bands in configuration10** | | |
| CA\_n1-n5-n8 | - | 0.4 | 0.4 |
| NOTE 9: “-” denotes ΔRIB,c = 0.  NOTE 10: The component band order in the configuration should be listed by the order of NR bands, such as for CA\_n1-n3-n8 the band order from left to right is n1, n3 and n8. | | | |

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