**3GPP TSG-RAN WG4 Meeting # 111**  **R4-2409312**

**Fukuoka, Japan, May 20 – May 24, 2024**

**Source:** Huawei, HiSilicon

**Title:** TP for TR 38.718-03-01 to introduce CA\_n3A-n8A-n39A

**Agenda item:** 6.11.2

**Document for:** Approval

# 1 Background

This contribution provides text proposal on the NR CA band combination CA\_n3A-n8A-n39A as defined in Revised WID: Rel-18 NR Inter-band Carrier Aggregation/Dual Connectivity for 3 bands DL with x bands UL (x=1,2) [1]. It’s noted that the fallback combo CA\_n3A-n39A has been submitted in this meeting together and other fallback CA\_n3A-n8A/ CA\_n8A-n39A have been captured into the spec.

# 2 Text Proposal

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

## 5.X CA\_n3-n8-n39

### 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: 3DL Inter-band CA operating bands**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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\_n3-n8-n39 | n3 | 1710 MHz | – | 1785 MHz | 1805 MHz | – | 1880 MHz | FDD |
| n8 | 880 MHz | – | 915 MHz | 925 MHz | – | 960 MHz | FDD |
| n39 | 1880 MHz | – | 1920 MHz | 1880 MHz | – | 1920 MHz | TDD |

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

**Table 5.X.1.2-1: Supported channel bandwidths**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NR CA configuration** | **Uplink CA configuration**  **or single uplink carrier6** | **NR Band** | **Channel bandwidth (MHz) (NOTE 3)** | **Bandwidth combination set** |
| CA\_n3A-n8A-n39A | - | n3 | 5. 10, 15, 20, 25, 30 | 0 |
|  |  | n8 | 5. 10, 15, 20 |  |
|  |  | n39 | 5, 10, 15, 20, 25, 30, 35, 40 |  |

#### 5.X.1.3 ∆TIB,c and ∆RIB,c values

For CA\_n3-n8-n39, the ΔTIB,c and ΔRIB,c values are given in the tables below.

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Inter-band CA combination** | **ΔTIB,c for NR bands (dB)\*** | | |
| **Component band in order of bands in configuration\*\*** | | |
| CA\_n3-n8-n39 | 0.5 | 0.3 | 0.5 |
| NOTE \*: “-” denotes ΔTIB,c = 0.  NOTE \*\*: 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. | | | |

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Inter-band CA combination** | **ΔRIB,c for NR bands (dB)\*** | | |
| **Component band in order of bands in configuration\*\*** | | |
| CA\_n3-n8-n39 | - | - | - |
| NOTE \*: “-” denotes ΔRIB,c = 0.  NOTE \*\*: 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. | | | |

#### 5.X.1.4 MSD requirement

Since CA\_n3-n8, CA\_n8-n39 and CA\_n3-n39 are the fallback combination of CA\_n3-n8-n39, and the studies for the corresponding MSD have been covered by these fallback combinations.

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

# Reference

[1] RP-240166, “Revised WID: Rel-18 NR Inter-band Carrier Aggregation/Dual Connectivity for 3 bands DL with x bands UL (x=1,2)”, ZTE Corporation