**3GPP TSG-RAN WG4 Meeting # 107**  **R4-230xxxx**

**Incheon, KR, May 22 – May 26, 2023**

**Source:** Huawei, HiSilicon, CATT

**Title:** TP for TR 38.718-02-01 to introduce BCS4 and BCS5 for CA\_n78-n79

**Agenda item:** 7.10.2

**Document for:** Approval

# 1 Background

This contribution provides some technical text proposals on the introduction BCS4 and BCS5 of the NR CA band combination CA\_n78-n79 as defined in Revised WID: NR inter-band Carrier Aggregation/Dual connectivity for 2 bands DL with x bands UL (x=1,2) [1].

# 2 Text Proposal

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

## 5.X CA\_n78-n79

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

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

Table 5.14.1.1-1: CA band combination of band n78+n79

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **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** | | |
| n78 | 3300 MHz | – | 3800 MHz | 3300 MHz | – | 3800 MHz | TDD |
| n79 | 4400 MHz | – | 5000 MHz | 4400 MHz | – | 5000 MHz | TDD |

#### 5.14.1.2 Channel bandwidths per operating band for CA

Table 5.14.1.2-1: Supported bandwidths per CA band combination of band n78+n79

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CA operating/channel bandwidth [MHz]** | | | | |
| **NR CA configuration** | **Uplink CA configuration or single uplink carrier** | **NR Band** | **Channel bandwidth (MHz)** | **Bandwidth combination set** |
| CA\_n78A-n79A | n78A  n79A  CA\_n78A-n79A | n78 | See n78 channel bandwidths in Table 5.3.5-1 | 4 and 5 |
|  |  | n79 | See n79 channel bandwidths in Table 5.3.5-1 |  |
| CA\_n78(2A)-n79A | CA\_n78A-n79A | n78 | CA\_n78(2A)\_BCS4 and 5 | 4 and 5 |
|  |  | n79 | See n79 channel bandwidths in Table 5.3.5-1 |  |

#### 5.X.1.3 REFSENS exception requirements

The MSD test points due to cross band isolation for band n79 10MHz are introduced as below for BCS4 and 5 cases.

Table 5.X.1.3-1: Reference sensitivity exceptions (MSD) and uplink/downlink configurations due to cross band isolation from a PC3 aggressor NR UL band for NR CA FR1

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| UL band | DL band | UL Fc | UL BW | SCS of UL band | UL RB Allocation | DL Fc | DL BW | MSD | Cross-band Interference  source |
| (MHz) | (MHz) | (kHz) | LCRB | (MHz) | (MHz) | (dB) |
| n783 | n79 | 3750 | 100 | 30 | 270 (RBstart=3) | 4405 | 10 | 2 | >ACLR2 |
| NOTE 3: The requirements only apply for UEs supporting inter-band carrier aggregation with simultaneous Rx/Tx capability. Simultaneous Rx/Tx capability does not apply for UEs supporting band n78 with a n77 implementation. | | | | | | | | | |

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

# Reference

[1] RP-230133, “Revised WID: Rel-18 NR inter-band Carrier Aggregation/Dual connectivity for 2 bands DL with x bands UL (x=1,2)”, ZTE Corporation