**3GPP TSG-RAN WG4 Meeting #102-e R4-2205726**

**Electronic Meeting, 21 February – 03 March 2022**

**Source:** Ericsson, Telstra

**Title:** TP for TR 38.841 to add CA\_n7-n78

**Agenda item:** 9.30.2

**Document for:** Approval

# 1. Introduction

A text proposal for TR 38.841 to add CA\_n7A-n78A, CA\_n7B-n78A.

# 2. Text Proposal

---Start of changes---

## 5.x CA\_n7-n78

### 5.x.1 Configurations

**Table 5.x.1-1: NR CA configurations and bandwidth combinations sets for supporting power class 2**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NR CA configuration | Uplink CA configuration | NR Band | SCS(kHz) | 5 MHz | 10MHz | 15MHz | 20MHz | 25 MHz | 30 MHz | 40MHz | 50MHz | 60MHz | 70MHz | 80MHz | 90 MHz | 100 MHz | Bandwidth combination set |
| CA\_n7A-n78A | CA\_n7A-n78A | n7 | 15 | 5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 |  |  |  |  |  | 0 |
| 30 |  | 10 | 15 | 20 | 25 | 30 | 40 | 50 |  |  |  |  |  |
| 60 |  | 10 | 15 | 20 | 25 | 30 | 40 | 50 |  |  |  |  |  |
| n78 | 15 |  | 10 | 15 | 20 | 25 | 30 | 40 | 50 |  |  |  |  |  |
| 30 |  | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 704 | 80 | 90 | 100 |
| 60 |  | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 704 | 80 | 90 | 100 |
| CA\_n7B-n78A | CA\_n7A-n78A | n7 | See CA\_n7B Bandwidth Combination Set 0 in Table 5.5A.1-1 | 0 |
| n78 | 15 |  | 10 | 15 | 20 | 25 | 30 | 40 | 50 |  |  |  |  |  |
| 30 |  | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 704 | 80 | 90 | 100 |
| 60 |  | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 704 | 80 | 90 | 100 |
| NOTE 4: This UE channel bandwidth is optional in this release of the specification |

### 5.x.2 Maximum output power

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Uplink CA configuration** | **Power class 2 cases for CA\_n7A-n78A** | **CA power class** | **Carrier n7 power class** | **Carrier n78 power class** |
| CA\_n7A-n78A | Case a | 26dBm | 23dBm | 23dBm |
| Case b | 26dBm | 23dBm | 26dBm |

The tolerance +2/-3 dB is applied. Also when the transmission bandwidths confined within FUL\_low and FUL\_low + 4 MHz or FUL\_high – 4 MHz and FUL\_high, the maximum output power requirement is relaxed by reducing the lower tolerance limit by 1.5 dB.

### 5.x.3 REFSENS requirements

According to the PC3 CA\_n7A-n78A study, there are no IMD products from dual uplink of band n7 and n78 may fall into band n7 Rx frequency range. Thus, additional MSD need not to be considered.

#### 5.x.3.1 Power class 2 Case A

There is no need for additional MSD.

#### 5.x.3.2 Power class 2 Case B

There is a need to define additional MSD due to cross-band isolation. Values are derived from CA\_n41-n77.

Table 5.x.3.2-1: Reference sensitivity exceptions (MSD) due to cross band isolation from a PC2 aggressor NR UL band for NR CA FR1 for PC2 CA

|  |
| --- |
| NR Band / Channel bandwidth of the affected DL band |
| 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) | 70MHz(dB) | 80 MHz (dB) | 90 MHz (dB) | 100 MHz (dB) |
| n78 | n71 |  | 6.5 | 6.5 | 6.5 |  | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |
| NOTE 1: Applicable only when harmonic mixing MSD for this combination is not applied. |

### 5.x.3 ∆TIB and ∆RIB values

For the ∆TIB,c and ∆RIB,c values, same PC3 CA\_n7A-n78A requirements are applied for PC2 CA\_n7A-n78A.

---End of changes---