**3GPP TSG-RAN WG4 Meeting #96-e R4-20xxxxx**

**Online, 2nd-13th Nov, 2020**

**Source:** Samsung, KDDI

**Title:** TP for TR 38.717-03-02: CA\_n3A-n28A-n41A

**Agenda item:**  10.11.2

**Document for:** Approval

1. Introduction

This contribution is a text proposal for TR 38.717-03-02 to include CA\_n3A-n28A-n41A according to the request in [1].

# 2. Reference

1. RP-201541, Revised WID on Rel-17 NR Inter-band Carrier Aggregation/Dual Connectivity for 3 bands DL with 2 bands UL.

3. Text Proposal

**<Start of Text Proposal>**

### 5.1.x CA\_n3-n28-n41

#### 5.1.x.1 Operating bands for CA

Table 5.1.x.1-1: CA band combination of band n3+n28+n41

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | | |
| n3 | 1710 MHz | – | 1785 MHz | 1805 MHz | – | 1880MHz | FDD |
| n28 | 703 MHz | – | 748 MHz | 758 MHz | – | 803 MHz | FDD |
| n41 | 2496 MHz | – | 2690 MHz | 2496 MHz | – | 2690 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 n3+n28+n41

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **NR CA configuration** | **NR Uplink CA configuration** | **NR Band** | **SCS**  **(kHz)** | **5**  **MHz** | **10**  **MHz** | **15**  **MHz** | **20**  **MHz** | **25**  **MHz** | **30**  **MHz** | **40**  **MHz** | **50**  **MHz** | **60**  **MHz** | **70**  **MHz** | **80**  **MHz** | **90**  **MHz** | **100 MHz** | **Bandwidth combination set** |
| CA\_n3A-n28A-n41A | CA\_n3A-n28A | n3 | 15 | Yes | Yes | Yes | Yes | Yes | Yes | Yes |  |  |  |  |  |  | 0 |
| 30 |  | Yes | Yes | Yes | Yes | Yes | Yes |  |  |  |  |  |  |
| 60 |  | Yes | Yes | Yes | Yes | Yes | Yes |  |  |  |  |  |  |
| n28 | 15 | Yes | Yes | Yes | Yes |  | Yes |  |  |  |  |  |  |  |
| 30 |  | Yes | Yes | Yes |  | Yes |  |  |  |  |  |  |  |
| 60 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| n41 | 15 |  | Yes | Yes | Yes |  | Yes | Yes | Yes |  |  |  |  |  |
| 30 |  | Yes | Yes | Yes |  | Yes | Yes | Yes | Yes |  | Yes | Yes | Yes |
| 60 |  | Yes | Yes | Yes |  | Yes | Yes | Yes | Yes |  | Yes | Yes | Yes |

#### 5.1.x.3 UE co-existence studies

Co-existence studies of CA\_n3-n28-n41 with 2UL have been covered in the constituent fall-back modes, it can get that

- IMD2 and IMD3 of band n3 UL and band n28 UL falling to band n41 DL

#### 5.1.x.4 REFSENS requirements

Table 5.1.x.4-1 shows the required MSD levels for the CA configuration, its value can reuse the value of DC\_3A-41A\_n28A.

**Table 5.1.x.4-1: 3DL/2UL interband Reference sensitivity QPSK PREFSENS and uplink/downlink configurations**

| **EN-DC Configuration** | **EUTRA/NR band** | **UL Fc  (MHz)** | **UL/DL BW  (MHz)** | **UL**  **LCRB** | **DL Fc (MHz)** | **MSD  (dB)** | **Duplex mode** | **IMD order** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CA\_n3A-n28A-n41A | n3 | 1715 | 5 | 25 | 1810 | N/A | FDD | N/A |
| n28 | 743 | 5 | 25 | 798 | N/A | FDD | N/A |
| n41 | 2518 | 5 | 25 | 2518 | 27.4 | TDD | IMD2 |
| n3 | 1715 | 5 | 25 | 1810 | N/A | FDD | N/A |
| n28 | 743 | 5 | 25 | 798 | N/A | FDD | N/A |
| n41 | 2687 | 5 | 25 | 2687 | 15.9 | TDD | IMD3 |

<End of Text Proposal>