**3GPP T****SG-RAN WG4 Meeting#99 R4-2108934**

**E-meeting, 19th – 27th May, 2021**

**Title: TP to TR 38.717-03-02:** **CA\_n5-n30-n66**

**Source: Nokia, AT&T**

**Agenda item: 8.13.2**

**Document for: Approval**

# Introduction

This is a TP into TR 38.717-03-02 to introduce CA\_n5-n30-n66

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Start of TP \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

### 5.1.X CA\_n5A-n30A-n66A

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

Table 5.1.X.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\_n5-n30-n66 | n5 | 824 MHz | – | 849 MHz | 869 MHz | – | 894 MHz | FDD |
| n30 | 2305 MHz | – | 2315 MHz | 2350 MHz | – | 2360 MHz | FDD |
| n66 | 1710 MHz | – | 1780 MHz | 2110 MHz | – | 2200 MHz | FDD |

#### 5.1.X.2 Channel bandwidths per operating band for CA

Table 5.1.X.2-1: Supported channel bandwidths per CA configuration for 3DL inter-band CA

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **NR CA Configuration** | **UL Config** | **NR Band** | **5** | **10** | **15** | **20** | **25** | **30** | **40** | **50** | **60** | **70** | **80** | **90** | **100** | **BCS** |
|  | CA\_n5A-n30A | n5 | 5 | 10 | 15 | 20 |  |  |  |  |  |  |  |  |  |  |
| CA\_n5A-n30A-n66A | CA\_n30A-n66A | n30 | 5 | 10 |  |  |  |  |  |  |  |  |  |  |  | 0 |
|  | CA\_n5A-n66A | n66 | 5 | 10 | 15 | 20 |  |  | 40 |  |  |  |  |  |  |  |
| CA\_n5A-n30A-n66(2A) | CA\_n5A-n30A  CA\_n30A-n66A  CA\_n5A-n66A | n5 | 5 | 10 | 15 | 20 |  |  |  |  |  |  |  |  |  | 0 |
| n30 | 5 | 10 |  |  |  |  |  |  |  |  |  |  |  |
| n66 | See CA\_n66(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 in TS 38.101-1 | | | | | | | | | | | | |

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

There is 5th order IMD from uplink band CA\_n5-n30 to band n66 DL.

#### 5.1.X.4 REFSENS requirements

Table 5.1.X.4-1 shows the required MSD levels for the CA configuration, it is proposed to reuse the MAS value of DC\_12A-66A\_n25A in TS 38.101-3.

**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\_n5A-n30A-n66A  CA\_n5A-n30A-n66(2A) | n5 | 830 | 5 | 25 | 875 | N/A | FDD | N/A |
| n30 | 2307.5 | 5 | 25 | 2352.5 | N/A | FDD | N/A |
| n66 | 1725 | 5 | 25 | 2125 | 4 | FDD | IMD5 |

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