**3GPP TSG-WG RAN4 Meeting #95-e *R4-2006598***

**Online, 25th May – 5th June, 2020**

**Source:** Nokia, Nokia, Shanghai Bell, [AT&T]

**Title:** TP to TR 36.716-03-02 on 4DL/2UL CA\_2-14-30-66

**Agenda Item:** 5.6.2 [LTE\_CA\_R16\_xBDL\_2BUL-Core]

**Document for:** Approval

# Introduction

This TP introduces the following 4DL/2UL CA configurations to TR 36.716-03-02.

* 4BDL\_2A-14A-30A-66A\_2BUL\_2A-14A\_BCS0
* 4BDL\_2A-14A-30A-66A\_2BUL\_14A-66A\_BCS0
* 4BDL\_2A-2A-14A-30A-66A\_2BUL\_2A-14A\_BCS0
* 4BDL\_2A-2A-14A-30A-66A\_2BUL\_14A-66A\_BCS0
* 4BDL\_2A-14A-30A-66A-66A\_2BUL\_2A-14A\_BCS0
* 4BDL\_2A-14A-30A-66A-66A\_2BUL\_14A-66A\_BCS0

**TP to TR 36.716-03-02**

**<Start of Changes>**

6.X LTE-A inter-band CA: Band 2 and Band 14 and Band 30 and Band 66 DL with 2 bands UL

6.X.1 List of specific combination issues

6.X.1.1 Channel bandwidth per operating band for CA

**Table 6.X.1.1-1: CA configurations under study**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **E-UTRA CA configuration / Bandwidth combination set** | | | | | | | | | | |
| **E-UTRA CA Configuration** | **Uplink CA configurations** | **E-UTRA Bands** | **1.4 MHz** | **3 MHz** | **5 MHz** | **10 MHz** | **15 MHz** | **20 MHz** | **Maximum aggregated bandwidth**  **[MHz]** | **Bandwidth combination set** |
| CA\_2A-14A-30A-66A | CA\_2A-14A  CA\_14A-66A | 2 |  |  | Yes | Yes | Yes | Yes | 60 | 0 |
| 14 |  |  | Yes | Yes |  |  |
| 30 |  |  | Yes | Yes |  |  |
| 66 |  |  | Yes | Yes | Yes | Yes |
| CA\_2A-2A-14A-30A-66A | CA\_2A-14A  CA\_14A-66A | 2 | See CA\_2A-2A Bandwidth Combination Set 0 in Table 5.6A.1-3 | | | | | | 80 | 0 |
| 14 |  |  | Yes | Yes |  |  |
| 30 |  |  | Yes | Yes |  |  |
| 66 |  |  | Yes | Yes | Yes | Yes |
| CA\_2A-14A-30A-66A-66A | CA\_2A-14A  CA\_14A-66A | 2 |  |  | Yes | Yes | Yes | Yes | 80 | 0 |
| 14 |  |  | Yes | Yes |  |  |
| 30 |  |  | Yes | Yes |  |  |
| 66 | See CA\_66A-66A Bandwidth combination set 0 in Table 5.6A.1-3 | | | | | |

6.X.1.2 Co-existence studies for LTE-A inter-band CA 4 bands DL CA\_2A-14A-30A-66A and 2 bands UL

From the lower order fallback CAs, CA 2A-14A-30A, CA 2A-14A-66A, and CA 14A-30A-66A, the IMD issues are identified in the following.

* For 2 uplink CA\_2A-14A, there is 4th IMD to DL band 66.
* For 2 uplink CA\_14A-66A, there is 4th IMD to DL band 2.

6.X.1.3 MSD

The requirements of low order combinations CA\_3BDL\_2A-14A-66A\_2BUL\_2A-14A and CA\_3BDL\_2A-14A-66A\_2BUL\_14A-66A can be applied.

#### 6.X.1.4 ∆TIB and ∆RIB values

The ΔTIB,c and ΔRIB,c values are given in the tables below.

Table 6.X.1.4-1: ΔTIB,c

| E-UTRA CA Configuration | E-UTRA Band | ΔTIB,c [dB] |
| --- | --- | --- |
| CA\_2-14-30-66 | 2 | 0.5 |
| 14 | 0.3 |
| 30 | 0.3 |
| 66 | 0.5 |

Table 6.X.1.4-2: ΔRIB,c

| E-UTRA CA Configuration | E-UTRA NR Band | ΔRIB,c [dB] |
| --- | --- | --- |
| CA\_2-14-30-66 | 2 | 0.4 |
| 14 | 0 |
| 30 | 0.5 |
| 66 | 0.4 |

**<End of Changes>**