**3GPP TSG-RAN WG4 Meeting #94-e R4-2001983**

**Online, 24th February – 6th March 2020**

**Source:** Ericsson, US Cellular

**Title:** TP to TR 37.716.21-21: Addition of DC configurations for DC\_2\_n12-n261

**Agenda item:** 9.7.3

**Document for:** Approval

# Background

This text proposal for TR 37.716-21-21 to add DC\_2\_n12-n261 configurations as defined in WID [1].

# Text Proposal

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

## 6.x DC\_2\_n12-n261

### 6.x.1 Operating bands for DC

**Table 6.x.1-1: DC band combination of LTE 1DL/1UL + inter-band NR 2DL/1UL**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **E-UTRA and NR DC Band combination** | **E-UTRA and NR DC 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** | | |
| DC\_2\_n12-n261 | 2 | 1850 MHz | – | 1910 MHz | 1930 MHz | – | 1990 MHz | FDD |
| n12 | 699 MHz | – | 716 MHz | 729 MHz | – | 746 MHz | FDD |
| n261 | 27500 MHz | – | 28350 MHz | 27500 MHz | – | 28350 MHz | TDD |

### 6.x.2 Channel bandwidths per operating band for DC

**Table 6.x.2-1: Supported bandwidths per DC LTE 1DL/1UL + inter-band NR 2DL/1UL**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **E-UTRA and NR DC Configuration** | **UL Configuration** | **NR Band** | **SCS [kHz]** | **5** | **10** | **15** | **20** | **30** | **40** | **50** | **100** | **200** | **400** | **Max**  **BW**  **[MHz]** |
| DC\_2A\_n12A-n261A | DC\_2A\_n261A  DC\_2A\_n12A | 2 | 15 | Yes | Yes | Yes | Yes |  |  |  |  |  |  | 435 |
| 30 |  | Yes | Yes | Yes |  |  |  |  |  |  |
| 60 |  | Yes | Yes | Yes |  |  |  |  |  |  |
| n12 | 15 | Yes | Yes | Yes |  |  |  |  |  |  |  |
| 30 |  | Yes | Yes |  |  |  |  |  |  |  |
| 60 |  |  |  |  |  |  |  |  |  |  |
| n261 | 60 |  |  |  |  |  |  | Yes | Yes | Yes |  |
| 120 |  |  |  |  |  |  | Yes | Yes | Yes | Yes |

### 6.x.3 Co-existence studies

Co-existence analysis for DC\_2\_n261 shows that there is no impact from DC\_2\_n261 UL to Band n12 DL.

Co-existence analysis for DC\_2\_n12 shows that there is no impact from DC\_2\_n12 UL to Band n261 DL.

### 6.x.4 ∆TIB and ∆RIB values

For DC\_2\_n12-n261 the ΔTIB,c and ΔRIB,c values are same as for DC\_12\_n2\_and are given in the tables below.

**Table 6.x.4-1: ΔTIB,c**

| **Inter-band DC Configuration** | **E-UTRA and NR Band** | **ΔTIB,c [dB]** |
| --- | --- | --- |
| DC\_2\_n12-n261 | 2 | 0.3 |
| n12 | 0.3 |
| n261 | 0 |

**Table 6.x.4-2: ΔRIB**

| **Inter-band DC Configuration** | **E-UTRA and NR Band** | **ΔRIB [dB]** |
| --- | --- | --- |
| DC\_2\_n12-n261 | 2 | 0 |
| n12 | 0 |
| n261 | 0 |

### 6.x.5 MSD

There is no need to define MSD.

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

# Reference

[1] RP-192592, “Revised WID on EN-DC of x bands (x=1,2,3,4) LTE inter-band CA (xDL/1UL) and 2 bands NR inter-band CA (2DL/1UL)”, LG Electronics