**3GPP TSG-RAN WG4 Meeting #94-e R4-2001305**

**Online, 24th Feb. 2020 – 6th Mar. 2020**

**Source:** Nokia, T-Mobile

**Title:** TP for 37.716-21-21 to introduce DC\_46-66\_n41-n71

**Agenda Item:**  9.7.2 [DC\_R16\_xBLTE\_2BNR\_yDL2UL-Core]

**Document for:** Approval

# 1 Introduction

This contribution is a TP for TR 37.716-21-21 to introduce DC\_46-66\_n41-n71.

# 2 Text Proposal

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

## 7.x DC\_46-66\_n41-n71

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

Table 7.x.1-1: DC band combination of LTE 2DL/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\_46-66\_n41-n71 | 46 | 5150 MHz | – | 5925 MHz | 5150 MHz | – | 5925 MHz | TDD |
| 66 | 1710 MHz | – | 1780 MHz | 2110 MHz | – | 2200 MHz | FDD |
| n41 | 2496 MHz |  | 2690 MHz | 2496 MHz |  | 2690 MHz | TDD |
| n71 | 663 MHz | – | 698 MHz | 617 MHz | – | 652 MHz | FDD |

### 7.x.2 Co-existence studies

Co-existence studies are captured in TR 37.716-11-11 as well as for lower order combinations in TR 37.716-21-21.

### 7.x.3 ∆TIB and ∆RIB values

The ΔTIB,c and ΔRIB,c values are given in the tables below based on lower order combinations including the same bands.

**Table 7.x.3-1: ΔTIB,c**

| **Inter-band DC Configuration** | **E-UTRA and NR Band** | **ΔTIB,c [dB]** |
| --- | --- | --- |
| DC\_46-66\_n41-n71 | 46 | 0 |
| 66 | 0.5 |
| n41 | 0.41 |
| 0.92 |
| n71 | 0.6 |
| NOTE 1: The requirement is applied for UE transmitting on the frequency range of 2545 – 2690 MHz.  NOTE 2: The requirement is applied for UE transmitting on the frequency range of 2496 – 2545 MHz. | | |

**Table 7.x.3-2: ΔRIB**

| **Inter-band DC Configuration** | **E-UTRA and NR Band** | **ΔRIB [dB]** |
| --- | --- | --- |
| DC\_46-66\_n41-n71 | 46 | 0 |
| 66 | 0.3 |
| n41 | 0.51 |
| 12 |
| n71 | 0.2 |
| NOTE 1: The requirement is applied for UE transmitting on the frequency range of 2545 – 2690 MHz.  NOTE 2: The requirement is applied for UE transmitting on the frequency range of 2496 – 2545 MHz. | | |

### 7.x.4 MSD

MSD was studied in lower order band combinations. No need for additional MSD analysis.

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# 3 References