**3GPP T****SG-RAN WG4 Meeting#100 Rev. 1 of R4-2113701**

**E-meeting, 16th – 27th Aug, 2021**

**Title: TP for 37.717-11-21 to introduce DC\_3A-8A\_n1A-n40A**

**Source: Nokia**

**Agenda item: 8.19.2**

**Document for: Approval**

# Introduction

This is a TP for 37.717-11-21 to introduce DC\_3A-8A\_n1A-n40A

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

## 7.x DC\_3A-8A\_n1A-n40A

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

**Table 7.x.1-1: LTE 1 band DL/1UL + NR 2 bands DL/1UL DC operating bands**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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\_3-8\_n1-n40 | 3 | 1710 MHz | – | 1785 MHz | 1805 MHz | – | 1880 MHz | FDD |
| 8 | 880 MHz | – | 915 MHz | 925 MHz | – | 960 MHz | FDD |
| n1 | 1920 MHz | – | 1980 MHz | 2110 MHz | – | 2170 MHz | FDD |
| n40 | 2300 MHz | – | 2400 MHz | 2300 MHz | – | 2400 MHz | TDD |

Table 7.x.2-1: Inter-band EN-DC configurations (four bands)

| EN-DC  configuration | Uplink EN-DC  configuration  (NOTE 1) | E-UTRA CA configuration | NR band |
| --- | --- | --- | --- |
| DC\_3A-8A\_n1A-n40A | DC\_3A\_n1A  DC\_8A\_n1A  DC\_3A\_n40A  DC\_8A\_n40A | CA\_3A-8A | CA\_n1A-n40A |

### 

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

Table 7.x.2-1: Supported bandwidths per DC LTE 2DL/1UL + inter-band NR 2DL/1UL

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **DC operating / channel bandwidth [MHz]** | | | | | | | | | | | | | | | | | |
| **E-UTRA and NR DC Configuration** | **UL Configurations** | **E-UTRA and NR Band** | **SCS**  **[kHz]** | **5** | **10** | **15** | **20** | **25** | **30** | **40** | **50** | **60** | **70** | **80** | **90** | **100** | **Max aggreg. BW DL [MHz]** |
| DC\_3A-8A\_n1A-n40A | DC\_3A\_n1A  DC\_8A\_n1A  DC\_3A\_n40A  DC\_8A\_n40A | 3 | 15 | Yes | Yes | Yes | Yes |  |  |  |  |  |  |  |  |  | 160 |
| 8 | 15 | Yes | Yes |  |  |  |  |  |  |  |  |  |  |  |
| n1 | 15 | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |  |  |  |  |  |
| 30 |  | Yes | Yes | Yes | Yes | Yes | Yes | Yes |  |  |  |  |  |
| 60 |  | Yes | Yes | Yes | Yes | Yes | Yes | Yes |  |  |  |  |  |
| n40 | 15 | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |  |  |  |  |  |
| 30 |  | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |  | Yes |  |  |
| 60 |  | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |  | Yes |  |  |
|  | | | | | | | | | | | | | | | | | |

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

Co-existence studies of this 4DL/2UL DC configuration are already covered in the constituent fall-back modes.

### 7.x.4 ∆TIB and ∆RIB values

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

**Table 7.x.4-1: ΔTIB,c**

| **Inter-band DC Configuration** | **E-UTRA and NR Band** | **ΔTIB,c [dB]** |
| --- | --- | --- |
| DC\_3-8\_n1-n40 | 3 | 0.5 |
| 8 | 0.5 |
| n1 | 0.5 |
| n40 | 0.6 |

**Table 7.x.4-2: ΔRIB**

| **Inter-band DC Configuration** | **E-UTRA and NR Band** | **ΔRIB [dB]** |
| --- | --- | --- |
| DC\_3-8\_n1-n40 | 3 | 0 |
| 8 | 0 |
| n1 | 0.1 |
| n40 | 0.2 |

### 7.x.5 MSD

Based on co-existence studies no additional MSD is needed.

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