3GPP TSG-RAN WG4 Meeting # 98-e R4-2100268

Electronic Meeting, 25th January – 5th February, 2021

Source: Verizon, Ericsson, MediaTek, LGE

Title: TP for TR 37.826 for DC\_5\_n77

Agenda item: 9.20.2

Document for: Approval

# **Introduction**

This contribution is a text proposal for TR 37.826 to include DC\_5\_n77 according to the request in [1].

# **Reference**

[1] RP-20xxxx, Revised WID on High power UE (power class 2) for EN-DC with 1 LTE band + 1 NR TDD band

# **Text Proposal**

**<Start of Text Proposal>**

## 6.x DC\_5A\_n77A

### 6.x.1 Transmitter Characteristics

#### 6.x.1.1 Maximum Output Power

Table 6.x.1.1-1: Maximum output power for inter-band EN-DC (two bands)

| **EN-DC combination** | Power class 2 (dBm) | Tolerance (dB) |
| --- | --- | --- |
| DC\_5A\_n77A | 266 | +2/-3 |
| NOTE 6: The UE supports PC3 within E-UTRA cell group, and supports either PC3 or PC2 within NR cell group. Power class support within each individual cell group is signalled separately by the UE. |

####

#### 6.x.1.2 Co-existence study

According to the PC3 CA\_n5A-n77A study, the same results are listed in below,

* The 4th and 5th IMD products from dual uplink of band 5 and n77 may fall into band 5 Rx frequency range

Additional MSD for IMD 4 and 5 should be considered to mitigate the impact of the interference for PC2 DC\_5A\_n77A combination.

### 6.x.2 Receiver Characteristics

#### 6.x.2.1 MSD test points for intermodulation interference due to dual uplink operation for PC2 EN-DC in NR FR1 involving two bands

#### 6.x.2.1.1 Power class 2 case a

Table 6.x.2.1-1: MSD test points for PCell due to dual uplink operation for PC2 EN-DC in NR FR1 (two bands)

|  |
| --- |
| **Band / Channel bandwidth / NRB / Duplex mode** |
| **NR EN-DC****Configuration** | **NR band** | **UL Fc****(MHz)** | **UL/DL BW****(MHz)** | **UL****CLRB** | **DL Fc (MHz)** | **MSD for PC2****(dB)** | **Duplex mode** | **Source of IMD** |
| DC\_5A\_n77A | 5 | 844 | 5 | 25 | 889 | 18.60 | FDD | IMD4 |
| n77 | 3421 | 10 | 50 | 3421 | N/A | TDD | N/A |
| 5 | 829 | 5 | 25 | 875 | [18.45]  | FDD | IMD5 |
| n77 | 3600 | 10 | 50 | 3600 | N/A | TDD | N/A |

#### 6.x.2.1.2 Power class 2 case b

Table 6.x.2.2-1: MSD test points for PCell due to dual uplink operation for PC2 EN-DC in NR FR1 (two bands)

|  |
| --- |
| **Band / Channel bandwidth / NRB / Duplex mode** |
| **NR EN-DC****Configuration** | **NR band** | **UL Fc****(MHz)** | **UL/DL BW****(MHz)** | **UL****CLRB** | **DL Fc (MHz)** | **MSD for PC2****(dB)** | **Duplex mode** | **Source of IMD** |
| DC\_5A\_n77A | 5 | 844 | 5 | 25 | 889 | 21.60 | FDD | IMD4 |
| n77 | 3421 | 10 | 50 | 3421 | N/A | TDD | N/A |
| 5 | 829 | 5 | 25 | 875 | [21.45]  | FDD | IMD5 |
| n77 | 3600 | 10 | 50 | 3600 | N/A | TDD | N/A |

#### 6.x.2.2 OOB blocking exception requirements

Since band 5 is a low band and n77 is a wide band, the OOBB exception is needed.

Table 6.x.2.4-1: EN-DC band combination with exceptions allowed

|  |
| --- |
| EN-DC band combination |
| DC\_5-n77 |

**<End of Text Proposal>**