3GPP TSG-RAN WG4 Meeting #113 R4-2419787

Orlando, United States, November 18 – 22, 2024

**Title:** Way Forward for [113][310] NR\_NTN\_Ph3\_UE\_RF

**Agenda Item:** 7.26.5

**Source:** Qualcomm Inc.

**Document for:** Approval

## Issue 1-1: PC3 output power for (e)RedCap

**Agreement**:

* FFS on power increase by network controlled optional new capability for both FD-FDD and HD-FDD RedCap and eRedCap.
  + Further confirm whether rel-18 power boost is already applicable for NR NTN including (e)RedCap
  + Any new capability would need to guarantee improvement in minimum performance
* If no consensus reached in RAN4#114 on specifying power increase scheme, apply legacy tolerance of +/- 2 dB

## Issue 1-2: HD-FDD refsens for 2 Rx

**Agreement**: Reference sensitivity for n255 and n254 is as below

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| **Operating band / SCS / Channel bandwidth** | | | | | |
| --- | --- | --- | --- | --- | --- |
| **Operating Band** | **SCS kHz** | **5 MHz (dBm)** | **10 MHz (dBm)** | **15 MHz (dBm)** | **20 MHz (dBm)** |
| n255 | 15 | -100.0 | -96.8 | -95.0 | -93.8 |
| 30 |  | -97.1 | -95.1 | -94.0 |
| 60 |  | -97.5 | -95.4 | -94.2 |
| n254 | 15 | -100.0 | -96.8 | -95.0 |  |
| 30 |  | -97.1 | -95.1 |  |
| 60 |  | -97.5 | -95.4 |  |

]

Further confirm all values until RAN4#114, considering maximum 0.2 dB improvement on reference sensitivity based on average of the inputs. If no agreement on improvement beyond TDD band refsens in RAN4#114, table above applies.

## Issue 1-3: Simultaneous operation with GNSS

**Agreement:**

Send LS to RAN2 requesting common IDC solution for (e)RedCap NR NTN and non-RedCap NR NTN which further improves the existing IDC framework to be more suitable for NR NTN – GNSS co-existence. No specific values for UE speed are needed in the LS.

## Issue 2-1: UL capacity enhancements

**Agreement:** No RF impact on inter-slot OCC over 2 slots.