**3GPP TSG-RAN WG4 #95-e R4-2008803**

**Electronic Meeting, May 25th – June 5th, 2020**

**Agenda item:** 6.7.3

**Source:** MediaTek Inc.

**Title:** Simulation assumption for PDCCH-WUS test

**Document for:** Discussion

# Introduction

In this contribution, we present simulation assumptions for joint test for PDCCH-WUS in DRX OFF and PDCCH in DRX ON. Our simulation assumptions are based on the existing Rel-15 PDCCH demodulation test number 5 defined in section 5.3.3.1.1 [1].

# Simulation Assumptions

Table 1: General parameters

|  |  |
| --- | --- |
| **Parameter** | **Value** |
| Bandwidth | 10MHz |
| Channel model | TDLA30-10 |
| Subcarrier spacing | 15kHz |
| Number of BS antennas | 1Tx |
| Number of UE antennas | 2Rx, 4Rx |
| DM-RS channel estimation | Realistic |
| DRX period | 80ms |

Table 2: PDCCH and PDCCH-WUS parameters

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Value** | |
|  | **PDCCH** | **PDCCH-WUS** |
| DCI format | 1\_0 | 2\_6 |
| DCI length (excluding 24bits CRC) | 39 bits | 12 bits, 36 bits  (Other options are not precluded) |
| Aggregation level | 16 | 8, 16   (Other options are not precluded) |
| CORESET symbol | 2 | 2 |
| CORESET bandwidth | 48RB | 48RB |
| Mapping type | Interleaved | Interleaved |
| REG bundle size | 6 | 6 |
| Interleaver size | 2 | 2 |

# Performance Metrics

The following performance metrics are to be provided:

* BLERPDCCH: BLER of PDCCH for the case that only PDCCH transmission
* BLERPDCCH-WUS: BLER of PDCCH-WUS for the case that only PDCCH-WUS transmission
* BLERPDCCH-JOINT: BLER of PDCCH for the case that joint transmission of PDCCH-WUS and PDCCH (UE does not wake up when missing PDCCH-WUS in DRX-OFF period)

# Reference

1. TS38.101-4-f40