**3GPP TSG-RAN WG4 Meeting #112 R4-2411182**

**Maastricht, NL, 19-23 Aug 2024**

Source: China Telecom, NTT DOCOMO

Title: Work plan for NR demodulation performance: Phase 5

Agenda Item: 8.16.1

Document for: Approval

# Introduction

In RAN #103 meeting, the new WI on NR demodulation performance: Phase 5 was approved, and the latest revised WID was approved in [1] at RAN #104.

This contribution presents a work plan aiming to find an appropriate contributing timeline for each work task. The CR work split will be added in the future meetings.

# Work item objectives

The following objectives are copied from the WID in [1]:

* *Define the following UE performance requirements for 8Rx CPE/FWA/vehicle/industrial devices:*
  + *PDSCH demodulation and CQI reporting requirements with inter-cell interference with MMSE-IRC receiver*
    - *Reuse the Rel-17 interference model for 2/4Rx UE as a baseline*
  + *PDSCH demodulation requirements with intra-cell inter-user interference with MMSE-IRC receiver*
    - *Reuse the existing interference model for 2/4Rx UE as a baseline*
* *Define FR1 PUSCH performance requirements with inter-cell interference in homogeneous and heterogeneous deployment based on the following assumptions:*
  + *Receiver type: MMSE-IRC receiver*
  + *Scenarios:*
    - *FDD synchronous deployments*
    - *TDD synchronous deployments with aligned UL:DL configurations among cells*
    - *Slot-based transmission and aligned SCS among cells*
  + *Reuse LTE based interference profile in TR 36.884 as a starting point. Other interference profiles are not precluded.*

# Work Plan

With the target completion date of September 2025 in RAN#109, the following work plan is proposed.

Note that the work plan will be updated if needed with the update on RAN4 meeting plan.

Table 1 Work plan for NR demodulation performance: Phase 5

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **RAN4#112**  **(Aug 2024)** | **RAN4#112bis**  **(Oct 2024)** | **RAN4#113**  **(Nov 2024)** | **RAN4#114**  **(Feb 2025)** | **RAN4#114bis**  **(Apr 2025)** | **RAN4#115**  **(May 2025)** | **RAN4#116**  **(Aug 2025)** |
| **UE performance requirements for 8Rx** | * Discussion on test scope, interference profile, simulation assumptions and test parameters | * Agreement on baseline assumptions, test parameters and test metrics * Collection of initial simulation results | * Discussion on applicability for the new requirements * Collection of updated & additional simulation results if any | * Collection of updated & additional simulation results if any * Agreement on the test applicability and test requirement values * Draft CRs endorsed | * CRs agreed | * *(If any based on the discussion outcome)* | * *(If any based on the discussion outcome)* |
| **BS performance requirements with inter-cell interference** | * Discussion on test scope, interference profile, link level simulation assumptions | * Continue discussion on test scope, interference profile, link level simulation assumptions | * Agreement on baseline assumptions | * Update of link level simulation assumptions if needed * Collection of initial ideal simulation results | * Update of link level simulation assumptions if needed * Discussion on applicability for the new requirements * Collection of updated & additional simulation results if any | * Agree applicability for the new requirements * Collection of updated & additional simulation results if any * Agreement on test requirement values * Draft CRs endorsed | * CRs agreed |

# Simulation results collection work split

|  |  |
| --- | --- |
|  | **Responsibility** |
| UE performance requirements for 8Rx | Apple |
| BS performance requirements with inter-cell interference | Samsung |

# CR work split

*To be added*

# Reference

1. RP-241297, Revised WID on NR demodulation performance: Phase 5, China Telecom, NTT DOCOMO, RAN #104, June 2024.