**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.