**3GPP TSG-RAN WG4 Meeting #116 R4-25xxxxx**

**Bengaluru, India, August 25th – 29th, 2025**

**Agenda item: 7.24.3.2**

**Source: Samsung**

**Title: TP to TR 38.774 on testability for LP-WUR**

**Document for: Approval**

1 Introduction

In last meeting, the TP on testability in general framework aspect was approved in [1, R4-2508090]

In this paper, we provide text proposal to TR 38.774 on other testability aspect focusing on reducing test time.

2 Text propsoal

**<<Start of Change>>**

8 Testability

*<Editor’s note: discussions and analysis for testability solutions>*

8.1 Testability for UE Performance verification

8.1.1 General Framework

It has been agreed that same LP-WUS RF requirements will apply to all RRC states, but only one RRC state needs to be tested. It is agreed to verify LP-WUR based on 1% MDR of LP-WUS which can be tested based on UE’s response to the NW/TE upon successfully detecting the LP-WUS (e.g. ACK/NACK in CONNECTED state or MSG1/3 in IDLE state or other methods). The ultimate test method including the potential test mode will be decided by RAN5 based on RAN4 input.

For demodulation requirements FAR will also be used.

8.1.2 other

The RAN4 UE RF requirements for LP-WUR need very long test time because of the MDR metric for almost all receiver requirements. It is necessary to consider test time reduction aspects in testability.

* The LR requirements are applicable for various MR configurations. For the purpose of verify LR performance, it is not necessary to test all the combinations between LR and MR. RAN4 agrees to test LR with single set of MR parameters, e.g., only the minimum supported CBW of MR needs to be tested as worst case.
* For the case when LR supporting both RRC\_Idle/Inactive and RRC\_Connected states, RAN4 agrees to only test with one RRC state, FFS which RRC state is to be used.
* For the case when LR supporting both OOK and OFDM waveforms, FFS how to reduce test case.
* For FR2, the LR and MR are assumed to share the same Rx chain so the peak direction for LR is agreed to be the same as legacy Rx beam peak direction for MR. Given the antenna of LR is assumed as single antenna element, it is considered enough to verify REFSENS only. RAN4 agrees to skip FR2 spherical coverage test for LR.
* To verify LP-WUS RF performance with MDR testing, RAN4 agrees that test time reduction is needed, e.g., to counter the detection rate without waking up the MR for each LP-WUS signal, to consider confidence level adjustment, etc.

RAN4 should suggest RAN5 taking test reduction into account on LP-WUR performance verification based on RAN4 input.

**<<End of Change>>**