**3GPP TSG-RAN4 Meeting #116bis R4-2514613 Prague, Czech Republic, Oct. 13-17, 2025**

**Title:** LS to RAN5 on LP-WUS/WUR Testability

**Response to:**

**Release:** Release 19

**Work Item:** NR\_LPWUS-Core

**Source:** RAN4

**To:** RAN5

**Cc:**

**Contact Person:**

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**Attachments:** None

1. **Overall Description:**

RAN4 has concluded the RF core requirements for Rel-19 LP-WUS/WUR WI in RAN4#116 meeting, and the core part WI is formally closed in RAN#109 meeting.

According to the WID objective, RAN4 also discussed the testability issue of LP-WUS/WUR and reached the following agreements:

* 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 any other methods).
	+ The test method including any potential test mode can be decided by RAN5
* The following conditions were assumed in the derivation of Rx requirements:
	+ LP-WUS, LPSS and SSB all share the same EPRE
	+ LPSS shares the same chip rate M and same overlaid sequence length as LP-WUS
	+ LPSS shares the same length in OFDM symbols as LP-WUS
	+ LPSS is transmitted at lowest periodicity (160 ms), or equivalently at highest rate of repetition
	+ SSB is transmitted at 20 ms periodicity
* For the case when LR supporting both OOK and OFDM waveforms, only test with OFDM waveform
* LP-WUS RF requirements apply to all three RRC states, but the verification may be limited to only one RRC state
	+ For idle-mode only or connected-mode only LP-WUR, the test can be done accordingly.
	+ For UE that supports both idle-mode and connected-mode, it is up to RAN5 which mode is chosen for verification.
* To verify the LR performance, it is not necessary to test the LR for all possible MR configurations. RAN5 can choose the MR configuration for which LR is tested.
* Testing time reduction of LP-WUS RF requirements can be considered when define the test cases

RAN4 would like to ask RAN5 to take above testability agreements into account when developing conformance test specifications.

**2. Actions:**

**To RAN5.**

**ACTION:** 3GPP RAN4 respectfully asks RAN5 to take the above information into account when developing LP-WUS/WUR RF conformance test specifications.

**3. Date of Next TSG-RAN WG4 Meetings:**

TSG-RAN4 Meeting#117 17th – 21st November 2025 Dallas, USA

TSG-RAN WG4 Meeting #118 9th – 13th February 2026 Gothenburg, SE