**3GPP TSG-RAN Meeting # 91-e RP-21xxxx**

**Electronic Meeting, March 22-26, 2021**

**Agenda item:** x.x.x

**Source:** Moderator (Apple)

**Title:** Email discussion summary for [91E][05][OTA]

**Document for:** Information

# Introduction

This document captures companies’ comments on documents related to the handling of OTA work in RAN4.

# Deciding potential work around OTA testing

## Topics for discussion

* Sub-topic 1-1: Handling 60 GHz test methodology work
* Sub-topic 1-2: Handling of other items in the “umbrella OTA” proposal
* Sub-topic 1-3: Other OTA topics for further discussion

## Companies’ views collected

### Sub-topic 1-1: Handling 60 GHz test methodology work

**Issue 1-1-1: BS OTA test methods**

Proposal: Study and define NR 52.6-71 GHz BS OTA methods within the scope of Rel-17 NR 52.6-71 GHz WI, as a part of RAN4 BS conformance requirements objectives

**Issue 1-1-2: Scope of the work on UE OTA test methods**

Proposal: adopt the following study objectives of UE OTA test methods

- Study and define the over the air (OTA) test methods for UE RF, RRM, and demodulation requirements for the 52.6-71 GHz frequency range:

- Extend the applicability of the FR2 OTA UE RF/RRM/demodulation test methods defined in TR 38.810 and TR 38.884 whenever possible

- Identify any changes needed, including general testing and calibration, permitted test methods, multi-path fading propagation conditions, measurement applicability criteria

- Establish applicable frequency range for system

- Determine whether the test system need to test different frequency ranges in the same system (e.g. 24 GHz to 71 GHz)

- Target device types

- First priority: Handheld UE, laptop, tablet

- Focus on devices prioritized in the NR > 52 GHz WI

- Utilize free space testing configuration for test methods definition

**Issue 1-1-3: How to structure the work on UE OTA test methods**

Option 1: Add NR 52.6-71 GHz UE OTA test methods objectives into the scope of the ongoing RAN4-led Rel-17 NR FR2 Test Methods Enhancements SI

Option 2: Add NR 52.6-71 GHz UE OTA test methods objectives into the scope of a newly created “umbrella” SI on mmWave OTA test methods

**Issue 1-1-4: When to initiate the work on UE OTA test methods**

Proposal: The studies can start in Aug 2021 and work plan discussion can take place in May 2021

Please provide comments if any on ...

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| **Company** | **Comments** |
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### Sub-topic 1-2: Handling of other items in the “umbrella OTA” proposal

**Issue 1-2-1: Whether work on multi panel UE Rx/Tx testing can be addressed by RAN4**

Option 1: The “umbrella OTA” SI can address this objective

Option 2: Other views?

**Issue 1-2-2: Whether work on FR2 HST testing can be addressed by RAN4**

Option 1: The “umbrella OTA” SI can address this objective

Option 2: Other views?

**Issue 1-2-3: Leftovers from the current FR2 test enhancements SI, if any, can be addressed by RAN4**

Option 1: The “umbrella OTA” SI can address this objective

Option 2: Other views?

Please provide comments if any on …

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| **Company** | **Comments** |
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### Sub-topic 1-3: Other OTA topics for further discussion

**Issue 1-3-1: Whether work on RRM testing enhancements (tests not covered in Rel.15 and 16) can be addressed by RAN4**

Proposal: company views to further elaborate on this proposal in RP-210506 are encouraged

**Issue 1-3-2: Whether work on FR1+FR2 testing (actual tests will depend on FR1 OTA requirements, however, test method study can start) can be addressed by RAN4**

Proposal: company views to further elaborate on this proposal in RP-210506 are encouraged

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| **Company** | **Comments** |
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## Initial summary of discussion

*To be filled in by moderator*

# References

1. RP-210506, Handling of OTA Projects, Qualcomm Incorporated
2. RP-210682, OTA Test Methods for NR 52.6 - 71 GHz, Intel Corporation
3. RP-210683, New SID: Study on OTA test methods for NR 52.6 – 71 GHz frequency range, Intel Corporation
4. RP-210314, Discussion on testability of NR 52.6-71 GHz RAN4 Core requirements, vivo
5. [RP-210636, Testability aspects for the 52.6 GHz to 71 GHz frequency range, Apple Inc.]