Certification Program Working Group
Liaison Statement

To	3GPP RAN4, 3GPP RAN5, GCF SG, GCF PAG, GSMA TSGAP, CCSA
CC	
Source	CTIA Certification OTA Working Group
Subject	LS on CTIA Certification OTA Performance Test Plan Version 4.0 Publication
Date	06 May 2022

Introduction

CTIA Certification has released the Test Plan for Wireless Device Over-the-Air Performance Version 4.0 in February 2022.

Discussion

In 2020, CTIA Certification initiated OTA test plan restructuring efforts to support the expansion of CTIA Certification OTA test scope to accommodate new airlink technologies, new operating bands, new test methodologies, new device types, new phantoms, etc.

These efforts resulted in the streamlined suite of Test Plan for Wireless Device Over-the-Air Performance Version 4.0 which include the following documents (available to download at https://ctiacertification.org/test-plans/):

Test Plan for Wireless Device Over-the-Air Performance	
Document Number	Document Name
CTIA 01.01	Test Scope, Requirements, and Applicability
CTIA 01.02	Operator Priority List
CTIA 01.03	Normative Reporting Tables
CTIA 01.04	Informative Reporting Tables
CTIA 01.20	Test Methodology, SISO, Anechoic Chamber
CTIA 01.21	Test Methodology, SISO, Reverberation Chamber
CTIA 01.22	Test Methodology, SISO, Millimeter Wave
CTIA 01.40	Test Methodology, MIMO, Static Channel Model, Multi-Probe Anechoic Chamber
CTIA 01.41	Test Methodology, MIMO, Static Channel Model, Radiated Two Stage
CTIA 01.50	Wireless Technology, 3GPP Radio Access Technologies
CTIA 01.51	Wireless Technology, Location Based Technologies
CTIA 01.52	Wireless Technology, Non-3GPP Radio Access Technologies
CTIA 01.70	Measurement Uncertainty
CTIA 01.71	Device Setup and Positioning Guidelines
CTIA 01.72	Near-Field Phantoms
CTIA 01.73	Supporting Procedures
CTIA 01.90	Informative Reference Material

The overarching document, CTIA 01.01, defines general requirements for equipment configurations, laboratory techniques, test methodologies, and evaluation criteria that must be met in order to ensure the accurate, repeatable, and uniform testing of wireless devices to ensure that they meet CTIA Certification standards.

The test methodology documents, CTIA 01.20 through 01.22 for SISO and CTIA 01.40 through 01.41 for MIMO, describe the individual test procedures while the settings for the airlink technologies, operating bands, channels, etc. are described in the wireless technology documents, CTIA 01.50 through 01.52.

The underlying measurement uncertainty contributions and descriptions for each methodology are defined in CTIA 01.70 while setup/positioning guidelines as well as supporting procedures are discussed in CTIA 01.71 and 01.73, respectively. The near-field phantoms used for OTA testing are defined in CTIA 01.72.

Some of the new features, test requirements, and test methodologies introduced in Version 4.0 are as follows:

- MIMO OTA testing based on Radiated-Two Stage (RTS)
- Reverberation chamber test methodology for non-MIMO testing (IoT devices and Large Form Factor devices)
- Normative NR FR1 OTA testing to include NR SA and EN-DC
- TRP and TIS Quantities based on Clenshaw-Curtis quadrature as opposed to the traditional sin(theta) weighting
- Additional GNSS test methods: A-GPS L5, NR FR1 NSA A-GNSS, A-GALILEO E1
- Recommended LTE TRP/TIS limits for IoT devices
- Generic Chest Phantom for body-worn use cases (Informative)
- Bluetooth™ Low Energy (LE) test methodology (Informative)

CTIA Certification is getting ready to validate system vendors using the System Validation Document (SVD) which is released separately for each test methodology. Once SVD submissions from system vendors have been received by CTIA Certification and accepted by the Subject Matter Experts, CTIA Certification will determine whether a sufficient number of labs would meet the pre-determined minimum required percentage, determined per feature/test case, to ensure adequate test capacity for the certification program. The Lab Authorization Documents (LADs), released for each test methodology as well, will be released shortly for test labs to start the process of becoming Authorized Test Labs (ATLs). As soon as the minimum requirement above is met, the date at which time the new test plan version is mandatory for certification will be determined.

The mandatory date for each test methodology has not been finalized/defined yet as the development of the SVDs and LADs is still in progress.

Actions

None

Contact Info

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Next Meeting Dates

OTA Working Group:

- Conference Call #5 (2022): May 24th, from 11am-1pm EDT (15:00-17:00 UTC)
- Conference Call #6 (2022): June 21st, from 11am-1pm EDT (15:00-17:00 UTC)