SCOPE OF ACCREDITATION TO ISO/IEC 17025: 2017

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ELECTRICAL

Valid To: January 31, 2025 Certificate Number: 1266.03

In recognition of the successful completion of the A2LA evaluation process (including an assessment of the organization's compliance with A2LA's FDA ASCA Accreditation Program[1] requirements), accreditation is granted to this laboratory to perform the following tests on the following procedures: WiFi devices, Bluetooth Devices, Automotive Components, Cellular Devices, NFC Devices, ITE Devices, Medical Equipment, Industrial Equipment:

Test Technology:	**Test Method(s)[2]:**
Radio Tests	ANSI C63.4; ANSI C63.10:2013; ANSI C63.10:2020; ANSI C63.26; ANSI/TIA-603E; ASTM E2213-03; TIA-102.CAAA-E; FCC KDB 905462 D02v02; IEEE 1528; IEC 62209-1; IEC 62209-2; CFR 47 FCC Part 15 Subpart C (Up to 40 GHz); CFR 47 FCC Part 15 Subpart E (with DFS) (Up to 40 GHz); CFR 47 FCC Part 15 Subpart F (Up to 40 GHz); CFR 47 FCC Part 22 (Up to 40 GHz); CFR 47 FCC Part 24 (Up to 40 GHz); CFR 47 FCC Part 25 (Up to 40 GHz); CFR 47 FCC Part 27 (Up to 40 GHz); CFR 47 FCC Part 74 (non-microwave) (Up to 40 GHz); CFR 47 FCC Part 80 (Up to 40 GHz); CFR 47 FCC Part 87 (Up to 40 GHz); CFR 47 FCC Part 90 (Up to 40 GHz); CFR 47 FCC Part 95 (Up to 40 GHz); CFR 47 FCC Part 97 (Up to 40 GHz); CFR 47 FCC Part 101 (non-microwave) (Up to 40 GHz); RSS-GEN; RSS-119; RSS-132; RSS-133; RSS-141; RSS-210; RSS-216; RSS-220; RSS-238; RSS-247 (with DFS) Digital Transmission Systems (DTSs), Frequency

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Test Technology:	**Test Method(s)[2]:**
Radio Tests (continued)	Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices (with or without DFS); RSS-248; RSS-310; RSS-102 measurement (SAR); RSS-102 measurement (RF Exp); RSS-102 measurement (NS); SPR-002; SPR-APD; IEEE 1528; IEC 62209-1; IEC 62209-2; EN 62311(Measurement SAR Only); IEC 62209-1; EN 62209-1; IEC 62209-2; EN 62209-2; IEC/IEEE 62209-1528; EN IEC/IEEE 62209-1528; IEC/IEEE 63195-1; EN IEC/IEEE 63195-1; Radiocommunications Equipment (General) Rules 2021 Part 4 Schedule 4 (Measurement SAR Only); ARPANSA Standard Means the Radiation Protection Standard for Limiting Exposure to Radiofrequency Fields – 100 kHz to 300 GHz (Measurement SAR Only); EN 50360; EN 50566; ETSI EN 300 220-1; ETSI EN 300 220-2; ETSI EN 300 220-3-1; ETSI EN 300 220-3-2; ETSI EN 300 220-4; ETIS EN 300 330; ETSI EN 300 328; ETSI EN 300 440; ETSI EN 301 893; ETSI EN 302 208; ETSI EN 302 571; ETSI EN 303 417; ETSI EN 302 065-1; ETSI EN 302 065-2; ETSI EN 302 065-3 (*except Exterior Limits*); ETSI EN 302 571; ETSI EN 303 413; ETSI EN 303 883; ETSI EN 301 441 (Spurious Emission Intensity Only); ETSI EN 303 345-1; ETSI EN 303 345-2; ETSI EN 303 345-3; ETSI EN 303 345-4; ETSI EN 303 687; ETSI EN 301 489-1; ETSI EN 301 489-3; ETSI EN 301 489-5; ETSI EN 301 489-17; ETSI EN 301 489-19; ETSI EN 301 489-20; ETSI EN 301 489-33; AS/NZS 4268; KDB 865664
Emissions	
Conducted and Radiated	ANSI C63.4; ANSI C63.10; ANSI C63.26; FCC OST/MP-5
Harmonics	IEC 61000-3-2; EN 61000-3-2; EN IEC 61000-3-2; SANS 61000-3-2
Flicker	IEC 61000-3-3; EN 61000-3-3; SANS 61000-3-3
Generic and Product Family Standards	47 CFR FCC Part 15, Subpart B (using ANSIC63.4:2014); 47 CFR FCC Part 18 (using FCC OST/MP-5 (1986)); CISPR 11; EN 55011; SANS 211; CISPR 13; EN 55013

Test Technology:	**Test Method(s)[2]:**
Generic and Product Family Standards (continued)	CISPR 15; EN 55015; EN IEC 55015; SANS 215; CISPR 22; EN 55022; CISPR 32; EN 55032; AS/NZS CISPR 32; SANS 2332; CISPR 20; EN 55020; CISPR 24; EN 55024; CISPR 35; EN 55035; SANS 2335; IEC 61547; EN 61547; SANS 61547; IEC 61000-6-1; EN 61000-6-1; EN IEC 61000-6-1; SANS 61000-6-1; IEC 61000-6-2; EN 61000-6-2; EN IEC 61000-6-2; SANS 61000-6-2; IEC 61000-6-3; EN 61000-6-3; EN IEC 61000-6-3; SANS 61000-6-3; IEC 61000-6-4; EN 61000-6-4; EN IEC 61000-6-4; SANS 61000-6-4; IEC 61131-2; EN 61131-2; SANS 61131-2; EN 50270; EN 50130-4; IEC 61326-1; EN 61326-1; EN IEC 61326-1; SANS 61326-1; IEC 61326-2-1; EN 61326-2-1; EN IEC 61326-2-1; IEC 61326-2-2; EN 61326-2-2; EN IEC 61326-2-2; IEC 61326-2-3; EN 61326-2-3; EN IEC 61326-2-3; SANS 61326-2-3; IEC 61326-2-6; EN 61326-2-6; EN IEC 61326-2-6; IEC 60601-1-2; EN 60601-1-2; SANS 60601-1-2; ICES-001; ICES-003; VCCI Technical Requirements
Immunity	
Electrostatic Discharge (ESD)	IEC 61000-4-2; EN 61000-4-2; SANS 61000-4-2
Radiated Immunity	IEC 61000-4-3; EN 61000-4-3; EN IEC 61000-4-3; SANS 61000-4-3
Electrical Fast Transient/Burst	IEC 61000-4-4; EN 61000-4-4; SANS 61000-4-4
Surge	IEC 61000-4-5; EN 61000-4-5; SANS 61000-4-5
Conducted Immunity	IEC 61000-4-6; EN 61000-4-6; SANS 61000-4-6
Magnetic Field Immunity	IEC 61000-4-8; EN 61000-4-8; SANS 61000-4-8
Dips, Short Interrupts, Voltage Variations	IEC 61000-4-11; EN 61000-4-11; EN IEC 61000-4-11; SANS 61000-4-11
Radiated Fields in Close Proximity	IEC 61000-4-39 (up to 26 MHz); EN 61000-4-39 (up to 26 MHz)
Automotive Standards	
Radiated Emissions	CISPR 25 (Only components and modules) (Up to 1GHz); EN 55025 (Only components and modules) (Up to 1GHz)
Conducted Emissions	CISPR 25 (Only components and modules) (Up to 1GHz); EN 55025 (Only components and modules) (Up to 1GHz)

Test Technology:	Test Method(s)[2]:
Automotive Standards (continued)	
Absorber-Lined Shielded Enclosure (ALSE)	ISO 11452-2 (200 MHz - 6 GHz)
Transverse Electromagnetic (TEM) Cell	ISO 11452-3
Bulk Current Injection (BCI) *(Excluding Section 6.2 TWC Test Method)*	ISO 11452-4 (1 MHz - 400 MHz)
Conducted Transients	ISO 7637-2
Product Family Standard for Aftermarket Electronic Equipment in Vehicles	EN 50498

[1]These methods have been assessed by A2LA according to A2LA's FDA ASCA Program requirements. Accreditation by A2LA does not imply FDA ASCA-Accreditation. All ASCA-accreditation decisions for testing laboratory applications are made solely by the FDA, a list of approved laboratories can be found at FDA.gov.

[2]The laboratory is only accredited for testing activities outlined within the test methods listed above. Reference to any other activity within these standards, such as risk management or risk assessment, does not fall within the laboratory's accredited capabilities.

Testing Activities Performed in Support of FCC Certification in Accordance with 47 Code of Federal Regulations and FCC KDB 974614, Appendix A, Table A.1[3]

Rule Subpart/Technology	Test Method	Maximum Frequency (MHz)
Unintentional Radiators		
Part 15B	ANSI C63.4:2014	40000
Industrial, Scientific, and Medical Equipment		
Part 18	FCC MP-5:1986	40000
Intentional Radiators		
Part 15C	ANSI C63.10:2013	40000
U-NII without DFS Intentional Radiators		
Part 15E	ANSI C63.10:2013	40000
U-NII with DFS Intentional Radiators		
Part 15E	FCC KDB 905462 D02 (v02)	40000
UWB Intentional Radiators		
Part 15F	ANSI C63.10:2013	40000

Testing Activities Performed in Support of FCC Certification in Accordance with 47 Code of Federal Regulations and FCC KDB 974614, Appendix A, Table A.1[3]

Rule Subpart/Technology	**Test Method**	**Maximum Frequency (MHz)**
Commercial Mobile Services (FCC Licensed Radio Service Equipment)		
Parts 22 (cellular), 24, 25 (below 3 GHz), and 27	ANSI/TIA-603-E; TIA-102.CAAA-E; ANSI C63.26:2015	40000
General Mobile Radio Services (FCC Licensed Radio Service Equipment)		
Parts 22 (non-cellular), 90 (below 3 GHz), 95, 97 (below 3 GHz), and 101 (below 3 GHz)	ANSI/TIA-603-E; TIA-102.CAAA-E; ANSI C63.26:2015	40000
Maritime and Aviation Radio Services		
Parts 80 and 87	ANSI/TIA-603-E; ANSI C63.26:2015	40000
RF Exposure		
Devices Subject to SAR Requirements	IEEE Std 1528:2013	6000

[3]Accreditation does not imply acceptance to the FCC equipment authorization program. Please see the FCC website (https://apps.fcc.gov/oetcf/eas/) for a listing of FCC approved laboratories.

Testing Activities performed under the scope of the U.S FDA ASCA Pilot Program Specifications: *Basic Safety and Essential Performance of Medical Electrical Equipment, Medical Electrical Systems, and Laboratory Medical Equipment – Standards Specific Information for the Accreditation Scheme for Conformity Assessment (ASCA) Pilot Program* published on September 25th, 2020, and in accordance with all requirements of A2LA *R256 Specific Requirements- FDA ASCA Program*[1]

Standards	**ASCA Doc Number**
IEC 60601-1-2 Edition 4.1 2020-09 CONSOLIDATED VERSION	19-36

Accredited Laboratory

A2LA has accredited

UL JAPAN, INC., SHONAN EMC LABORATORY

Kanagawa, Japan

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets *A2LA R256 – Specific Requirements FDA ASCA Program*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated April 2017*).

American Association for Laboratory Accreditation
CORPORATE SEAL 1978
DISTRICT OF COLUMBIA
A2LA

Presented this 14th day of March 2023.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 1266.03
Valid to January 31, 2025

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.