



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

UL JAPAN, INC.
4383-326 Asama-cho
Ise-shi, Mie 516-0021, Japan
Mr. Takayuki Shimada Phone: 81-596-24-8999
Takayuki.Shimada@ul.com

ELECTRICAL

Valid To: November 30, 2025

Certificate Number: 5107.02

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 Program³ requirements) accreditation is granted to this laboratory to perform the following tests on the following products: Wi-Fi Devices, Bluetooth Devices, Automotive Components, Cellular Devices, ITE Devices, Medical Equipment, and Industrial Equipment:

<u>Test Technology:</u>	<u>Test Method(s) ¹:</u>
<i>Emissions</i>	
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
<i>Generic and Product Family Standards</i>	47 CFR, FCC Part 15, Subpart B (using ANSI C63.4:2014); 47 CFR, FCC Part 18 (using FCC OST/MP-5:1986); CISPR 11; EN 55011; AS/NZS CISPR 11:2011; AS CISPR 11:2017; SANS 211; CISPR 22; EN 55022; AS/NZS CISPR 22; CISPR 32; EN 55032; AS/NZS CISPR 32; SANS 2332; CISPR 24; EN 55024; CISPR 35; EN 55035; SANS 2335; 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 61000-6-8; EN IEC 61000-6-8; IEC 61131-2; EN 61131-2; SANS 61131-2; IEC 61326-1; EN 61326-1; EN IEC 61326-1; SANS 61326-1; IEC 61326-2-6; EN 61326-2-6; EN IEC 61326-2-6; ICES-001; ICES-003; EN 50130-4; EN 50498; VCCI-CISPR 32

<u>Test Technology:</u>	<u>Test Method(s) ¹:</u>
<i>Automotive EMC</i>	
Emissions	CISPR 12; EN 55012; AS/NZS CISPR 12; SANS 212
Conducted and Radiated Emissions	CISPR 25; EN 55025; EN/IEC 55025
Electrostatic Discharge (ESD)	ISO 10605
Absorber-Lined Shielded Enclosure (ALSE) (200 MHz – 1 GHz 180 V/m, 1 GHz – 2 GHz 200 V/m, 2 GHz – 6 GHz 40 V/m)	ISO 11452-2
Conducted Transient Immunity	ISO 7637-2; ISO 7637-3
Off-Vehicle Radiation Sources	ISO 11451-2
Harness Excitation Methods	ISO 11451-4
Absorber Lined Chamber	ISO 11452-2
Transverse electromagnetic (TEM) cell	ISO 11452-3
Bulk Current Injection (BCI)	ISO 11452-4
Electrical Loads	ISO 16750-2
Vehicle and Machinery Standards	ISO 13766-1; EN ISO 13766-1; ISO 13766-2; EN ISO 13766-2; ISO 14982; EN 14982; EN 12895; ICES-002; SANS 20010; ECE UN Regulation 10 (Except “other than REESS charging mode”, IEC 61000-3-12 of Annex 11, and IEC 61000-3-11 of Annex 12); ECE UN Regulation 97 (Annex 9, EMC); ECE UN Regulation 116 (Annex 9, EMC); ECE UN Regulation 161 (Annex 7, EMC); ECE UN Regulation 162 (Annex 7, EMC); ECE UN Regulation 163 (Annex 7, EMC)
<i>Immunity</i>	
Electrostatic Discharge (ESD)	IEC 61000-4-2; EN 61000-4-2; SANS 61000-4-2
Radiated Immunity (80 MHz – 2.7 GHz 30 V/m, 2.7 GHz – 6 GHz 10 V/m)	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

<u>Test Technology:</u>	<u>Test Method(s) ¹:</u>
Conducted Immunity	IEC 61000-4-6; EN 61000-4-6; SANS 61000-4-6
Magnetic Field Immunity (excluding short duration mode)	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
<i>Product Safety</i>	
MED ¹	IEC 60601-1-2 Edition 4.1 2020-09; IEC 60601-1-2 Edition 4.0 2014-02; IEC 60601-1-2 Edition 3.0 2007-03; EN 60601-1-2; SANS 60601-1-2
<i>Radio</i>	
AS/NZS	AS/NZS 4268
Canada (ISED)	RSS-GEN; RSS-123; RSS-130; RSS-132; RSS-133; RSS-139; RSS-140; RSS-192; RSS-195; RSS-197; RSS-198; RSS-199; RSS-210; RSS-211; RSS-216; RSS-247 (with DFS); RSS-248; RSS-251; RSS-310
Europe	ETSI EN 300 220-1; ETSI EN 300 220-2; ETSI EN 300 220-4; ETSI EN 300 220-3-1; ETSI EN 300 220-3-2; ETSI EN 300 328; ETSI EN 300 330; ETSI EN 300 422-1; ETSI EN 300 422-2; ETSI EN 300 422-3; ETSI EN 300 440; ETSI EN 301 091-1; ETSI EN 301 091-2; ETSI EN 301 091-3; ETSI EN 301 357; ETSI EN 301 357-1; ETSI EN 301 357-2; ETSI EN 301 489-1; ETSI EN 301 489-3; ETSI EN 301 489-9; ETSI EN 301 489-17; ETSI EN 301 489-19; ETSI EN 301 489-51; ETSI EN 301 489-52; ETSI EN 301 511; ETSI EN 301 893; ETSI EN 301 908-1; ETSI EN 302 208; ETSI EN 302 264; ETSI EN 302 264-1; ETSI EN 302 264-2; ETSI EN 302 567; ETSI EN 302 858; ETSI EN 302 858-1; ETSI EN 302 858-2; ETSI EN 303 396; ETSI EN 303 417; ETSI EN 303 413; ETSI EN 303 687; ETSI EN 305 550; ETSI EN 305 550-1; ETSI EN 305 550-2
US/FCC	ANSI C63.10; ANSI C63.26; TIA-102.CAAA-D; ANSI/TIA-102.CAAA-E; ANSI/TIA-603-D; ANSI/TIA-603-E; 47 CFR, FCC Part 15, Subpart C (using ANSI C63.10:2013); 47 CFR, FCC Part 15, Subpart E (using ANSI C63.10:2013); 47 CFR, FCC Part 15, Subpart E (using FCC KDB 905462 D02 (V02));

<u>Test Technology:</u>	<u>Test Method(s) ¹:</u>
US/FCC (continued)	47 CFR, FCC Parts 2, 22, 24, 25, 27, 30, 73, 74, 90, 95, 96, 97, 101 (using ANSI C63.26:2015, ANSI/TIA-102.CAAA-E, and ANSI/TIA-603-E); FCC KDB 905462 D02 (V02); FCC KDB 890966; FCC KDB 987594
<i>SAR / RF Exposure</i> (SAR: 13 MHz – 7.5 GHz, LPD: 750 MHz – 110 GHz)	RSS-102 Measurement (SAR); RSS-102 Measurement (RF Exp.); RSS-102 Measurement (NS); RSS-102 Measurement (LPD); SPR-002; SPR-003; SPR-APD; EN 50360; EN 50361; EN 50364; EN 50383; EN 50566; EN 50663; EN 50664; EN 50665; IEC 62209-1; EN 62209-1; IEC 62209-2; EN 66209-2; IEC 62311; EN 62311; EN IEC 62311; EN 62479; FCC KDB 447498; FCC KDB 865664 D01 and D02; FCC KDB 941225 D01, D05, D05A, D06, D07; FCC KDB 680106; FCC KDB 616217 D04; IEEE C95.1 (2005+A1:2010); IEEE C95.3 (2002); ACA Standard (2014); IEEE 1528:2013; IEC/IEEE 62209-1528; EN IEC/IEEE 62209-1528; IEC/IEEE 63195-1; EN IEC/IEEE 63195-1
<i>Bluetooth</i> (per Bluetooth SIG Laboratory Recognition Program)	RF:1; RF – PHY:1; RF – PHY:2; RF – PHY:3

¹ 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 under the scope of the U.S FDA ASCA Pilot Program Specifications: <i>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</i> published on September 25th, 2020, and in accordance with all requirements of A2LA R256 <i>Specific Requirements- FDA ASCA Program</i> ²	
<u>Standards</u>	<u>ASCA Doc Number</u>
IEC 60601-1-2 Edition 4.1 2020-09 CONSOLIDATED VERSION	19-36

² 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

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)
<u>Unintentional Radiators</u>		
Part 15B	ANSI C63.4:2014	40000
<u>Industrial, Scientific, and Medical Equipment</u>		
Part 18	FCC MP-5:1986	40000
<u>Intentional Radiators</u>		
Part 15C	ANSI C63.10:2013	243000
<u>U-NII without DFS Intentional Radiators</u>		
Part 15E	ANSI C63.10:2013	40000
<u>U-NII with DFS Intentional Radiators</u>		
Part 15E	FCC KDB 905462 D02 (v02)	40000
<u>Commercial Mobile Services (FCC Licensed Radio Service Equipment)</u>		
Parts 22 (cellular), 24, 25 (below 3 GHz), and 27	ANSI/TIA-603-E; ANSI/TIA-102.CAAA-E; ANSI C63.26:2015	40000
<u>General Mobile Radio Services (FCC Licensed Radio Service Equipment)</u>		
Parts 22 (non-cellular), 90 (below 3 GHz), 95, 97 (below 3 GHz), and 101 (below 3 GHz)	ANSI/TIA-603-E; ANSI/TIA-102.CAAA-E; ANSI C63.26:2015	243000
<u>Microwave and Millimeter Bands Radio Services</u>		
Parts 25, 30, 74, 90 (above 3 GHz), 95 (above 3 GHz), 97 (above 3 GHz), and 101	ANSI/TIA-603-E; ANSI/TIA-102.CAAA-E; ANSI C63.26:2015	243000
<u>Citizens Broadband Radio Services (FCC Licensed Radio Service Equipment)</u>		
Part 96	ANSI/TIA-603-E; ANSI/TIA-102.CAAA-E; ANSI C63.26:2015	40000
<u>Broadcast Radio Services</u>		
Parts 73 and 74 (below 3 GHz)	ANSI/TIA-603-E; ANSI/TIA-102.CAAA-E; ANSI C63.26:2015	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)
<u>RF Exposure</u>		
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.



Accredited Laboratory

A2LA has accredited

UL JAPAN, INC.

Ise-shi, Mie, 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).



Presented this 4th day of January 2024.

A blue ink signature of Mr. Trace McInturff.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 5107.02
Valid to November 30, 2025

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