SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

KEYSTONE COMPLIANCE
2320 Presidential Drive, Suite 101
Durham, NC 27703
Authorized Representative: Joey Sullivan Phone: 724 657 9940

ELECTRICAL

Valid To: May 31, 2023 Certificate Number: 3293.03

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following EMC tests:

WITHDRAWN

Test Technology:	**Test Method(s) [1, 2]:**
Emissions	
Radiated and Conducted *(3m semi-anechoic chambers, up to 40 GHz)* *(excluding clicks and CISPR 13 equipment)*	47 CFR FCC Part 15, Subpart B (using ANSI C63.4:2014); 47 CFR FCC Part 18 (using FCC MP-5:1986); IEC CISPR 11; EN 55011; IEC CISPR 14; EN 55014-1; CISPR 16-2-1; CISPR 16-2-3; CISPR 22; CISPR 32; EN 55022; EN 55032; ICES-001; ICES-003; ICES-006; AS/NZS CISPR 11; AS/NZS CISPR 14.1; AS/NZS CISPR 22; AS/NZS CISPR 32; ANSI C63.4:2014; FCC MP-5:1986
Current Harmonics	IEC 61000-3-2; EN 61000-3-2; AS/NZS 61000.3.2
Voltage Flicker and Fluctuations	IEC 61000-3-3; EN 61000-3-3; AS/NZS 61000.3.3
Immunity	
Electrostatic Discharge (ESD)	IEC 61000-4-2; EN 61000-4-2; KS C 9610-4-2
Radiated Immunity *(80 MHz – 6GHz, 10V/m)*	IEC 61000-4-3; EN 61000-4-3; KS C 9610-4-3
Electrical Fast Transients	IEC 61000-4-4; EN 61000-4-4; KS C 9610-4-4

Test Technology:	**Test Method(s) [1, 2]:**
Immunity (cont.)	
Surge	IEC 61000-4-5; EN 61000-4-5; KS C 9610-4-5
Conducted Immunity	IEC 61000-4-6; EN 61000-4-6; KS C 9610-4-6
Power Frequency Magnetic Field Immunity	IEC 61000-4-8; EN 61000-4-8; KS C 9610-4-8
Voltage Dips, Short Interruptions, and Line Voltage Variations	IEC 61000-4-11; EN 61000-4-11; KS C 9610-4-11
Generic / Product / Country Specific EMC Standards	
Residential, Commercial and Light Industrial Generic (Emissions and Immunity)	IEC 61000-6-3; EN 61000-6-1; EN 61000-6-3; AS/NZS 61000.6.1; AS/NZS 61000.6.3
Industrial Generic (Emissions and Immunity)	IEC 61000-6-4; EN 61000-6-2; EN 61000-6-4; AS/NZS 61000.6.2; AS/NZS 61000.6.4
ITE/Telecom (Immunity)	EN 300 386; EN 55024; IEC CISPR 24
Household Appliances	EN 55014-2; IEC CISPR 14-2
Multimedia Equipment	EN 55035; CISPR 35
Medical Equipment (Emissions and Immunity) [1]	EN 60601-1-2; IEC 60601-1-2
Laboratory Equipment (Emissions and Immunity)	EN 61326-1; EN 61326-2-1; EN 61326-2-2; EN 61326-2-3; EN 61326-2-6
Uninterruptible Power Supply (Emissions and Immunity)	EN 62040-2
Country Specific EMC Standards	Technical Requirements for Electromagnetic Compatibility (RRA Public Notification 2021-3, Feb 8, 2021); Test Methods for Electromagnetic Compatibility (RRA Announce 2021-10, Feb 8, 2021); KS C 9811; KS C IEC 60601-1-2; KS X 3124; KS X 3125; KS X 3126; KS X 3138; KS X 3129; KS C 9835; KS C 9610-6-1; KS C 9610-6-2;

WITHDRAWN

Test Technology:	**Test Method(s) [1, 2]:**
Generic / Product / Country Specific EMC Standards (cont.)	
Country Specific EMC Standards	QCVN 86:2019/BTTTT; TCVN 7317:2003; QCVN 118:2018/BTTTT; VCCI V-2 (*up to 6 GHz*); V-3; V-4; VCCI-CISPR 32; JIS C 61000-3-2; JIS C 61000-3-3; EN 301 489-1; EN 301 489-3; EN 301 489-5; EN 301 489-17; EN 301 489-19; EN 301 489-33
Radio Tests / Intentional Radiators *(Excluding Adaptivity and DFS)*	
US	47 CFR, FCC Part 2; 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 F (using ANSI C63.10:2013); 47 CFR, FCC, Part 15 G (using ANSI C63.10:2013); 47 CFR, FCC, Part 15 H (using ANSI C63.10:2013); ANSI C63.10:2013 47 CFR, FCC Part 2; 47 CFR, FCC Parts 22, 24, 25, 27, 30, 73, 74, 80, 87, 90, 95, 97, 101 (using ANSI/TIA-603-E, TIA-102.CAAA-E-2016, and ANSI C63.26:2015); ANSI C63.26:2015
Australia / New Zealand	AS/NZS 4268

WITHDRAWN

Test Technology:	**Test Method(s) [1, 2]:**
Radio Tests / Intentional Radiators (cont.) *(Excluding Adaptivity and DFS)*	
Europe	EN 300 086; EN 300 113; EN 300 113-1; EN 300 113-2; EN 300 220-1; EN 300 220-2; EN 300 220-3-1; EN 300 220-3-2; EN 300 220-4; EN 300 296; EN 300 296-1; EN 300 296-2; EN 300 328; EN 300 330; EN 300 330-1; EN 300 330-2; EN 300 390; EN 300 440; EN 300 440-1; EN 300 440-2; EN 301 511; EN 301 893; EN 301 908-1; EN 301 908-2; EN 301 908-13; EN 302 065; EN 302 065-1; EN 302 065-2; EN 302 065-3; EN 302 065-4; EN 302 208; EN 303 413; EN 303 417; EN 303 883
Canada	RSS-Gen; RSS-119; RSS-130; RSS-132; RSS-133; RSS-134; RSS-139; RSS-210; RSS-216; RSS-220; RSS-247 (without DFS); RSS-310
Taiwan	CNS 13438 (*up to 6 GHz*); LP0002 (2020)
Singapore	IMDA TS SRD
Hong Kong	HKCA 1005; HKCA 1007; HKCA 1022; HKCA 1033; HKCA 1035; HKCA 1039; HKCA 1041; HKCA 1042; HKCA 1046; HKCA 1047; HKCA 1048; HKCA 1049; HKCA 1050; HKCA 1054; HKCA 1057; HKCA 1061; HKCA 1073; HKCA 1080
Vietnam	QCVN 18:2014/BTTTT; QCVN 54:2011/BTTTT
RF Exposure *(MPE calculation method)*	IEEE C95.3; EN 62311; AS/NZS 2772.2; RSS-102 (RF Exposure)

WITHDRAWN

[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.

[2] When the date, edition, version, etc. is not identified in the scope of accreditation, laboratories may use the version that immediately precedes the current version for a period of one year from the date of publication of the standard measurement method, per part C., Section 1 of A2LA *R101 - General Requirements-Accreditation of ISO-IEC 17025 Laboratories*. When a superseded standard or method is required for an accredited test, the scope will include the superseded date/version.

On the following products or types of products:
Land Mobile Radio Service, Digital Devices, Peripheral Devices, Personal Communications, Miscellaneous Wireless Communication Services, Private Land Mobile Radio Service, Family Radio Service, Industrial, Scientific, and Medical (ISM) Equipment; Information Technology Equipment (ITE); Household Appliances; Portable Tools; Multimedia; and Medical Equipment

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 MHz
Industrial, Scientific, and Medical Equipment Part 18	FCC MP-5:1986	40000 MHz
Intentional Radiators Part 15C	ANSI C63.10:2013	40000 MHz
U-NII without DFS Intentional Radiators Part 15E	ANSI C63.10:2013	40000 MHz
UWB Intentional Radiators Part 15F	ANSI C63.10:2013	40000 MHz
BPL Intentional Radiators Part 15G	ANSI C63.10:2013	40000 MHz
White Space Device Intentional Radiators Part 15H	ANSI C63.10:2013	40000 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 MHz
General Mobile Radio Services (FCC Licensed Radio Service Equipment) Parts 22 (non-cellular), 90 (below 3 GHz), 95 (below 3 GHz), 97 (below 3 GHz), and 101 (below 3 GHz)	ANSI/TIA-603-E; TIA-102.CAAA-E; ANSI C63.26:2015	40000 MHz

WITHDRAWN

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)
Maritime and Aviation Radio Services		
Parts 80 and 87	ANSI/TIA-603-E; ANSI C63.26:2015	40000 MHz
Microwave and Millimeter Bands Radio Services		
Parts 25, 30, 74, 90 (above 3 GHz), 95 (above 3 GHz), 97 (above 3 GHz), and 101	ANSI/TIA-603-E; TIA-102.CAAA-E; ANSI C63.26:2015	40000 MHz
Broadcast Radio Services		
Parts 73 and 74 (below 3 GHz)	ANSI/TIA-603-E; TIA-102.CAAA-E; ANSI C63.26:2015	40000 MHz

[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.

WITHDRAWN

Accredited Laboratory

A2LA has accredited

KEYSTONE COMPLIANCE

Durham, NC

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 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*).

WITHDRAWN

Presented this 6th day of July 2021.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3293.03
Valid to May 31, 2023

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