Accredited Laboratory

A2LA has accredited

VISTA LABORATORIES, INC.

San Clemente, CA

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *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*).

Presented this 21st day of June 2018.

President and CEO
For the Accreditation Council
Certificate Number 4848.01
Valid to July 31, 2020

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

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

VISTA LABORATORIES, INC.
1261 Puerta Del Sol
San Clemente, CA 92673
David Zhang Email: info@vista-compliance.com

ELECTRICAL

Valid To: July 31, 2020 Certificate Number: 4848.01

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

Test Technology:	**Test Method(s) [1]:**
Emissions	
Conducted and Radiated *(up to 40 GHz)*	CISPR 11; EN 55011; CISPR 13; EN 55013; CISPR 22; EN 55022; CISPR 32; EN 55032; AS/NZS CISPR 11; AS/NZS CISPR 14.1; AS/NZS CISPR 22; AS/NZS CISPR 32; 47CFR FCC Part 18, (using MP-5:1986); 47 CFR FCC Part 11; 47CFR FCC Part 15, Subpart B (using ANSI C63.4:2014); ICES-001; ICES-003; ICES-005; ICES-006; JEITA IT-3001; VCCI-V-3 (*up to 6 GHz*); CNS 13438 (*up to 6 GHz*); CNS 13783-1; CNS 13803; CNS 13439; IMDA TS EMC; CISPR 22; SI 961 Part 6.1; TCVN 7189:2009 (CISPR 22:2006); GB9254; KN13; KN 22; Annex 2 (KN 11); Annex 3 (KN 41); Annex 4 (KN 14-1); Annex 5 (KN 15); Annex 11 (KN 32); Annex 13 (KN 12015)
Harmonics and Flickers	IEC 61000-3-2; EN 61000-3-2; IEC 61000-3-3; EN 61000-3-3; AS/NZS 61000.3.2; AS/NZS 61000.3.3; GB17625.1; Annex 1-11 (KN 61000-3-2, KN 61000-3-12); Annex 1-12 (KN 61000-3-3, KN 61000-3-11)
Immunity	
Electrostatic Discharge (ESD)	IEC 61000-4-2; EN 61000-4-2; Annex 1-13 (KN 61000-4-2)
Radiated Immunity (RI) *(up to 6 GHz, 3 V/m, UFA 0.5m x 0.5m for 1 to 6 GHz)*	IEC 61000-4-3; EN 61000-4-3; Annex 1-14 (KN 61000-4-3)
Electrical Fast Transient/Burst (EFT/B)	IEC 61000-4-4; EN 61000-4-4; Annex 1-15 (KN 61000-4-4)
Surge	IEC 61000-4-5; EN 61000-4-5; Annex 1-16 (KN 61000-4-5)

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Test Technology:	**Test Method(s) [1]:**
Conducted Immunity (CI)	IEC 61000-4-6; EN 61000-4-6; Annex 1-17 (KN 61000-4-6)
Dips, Short Interrupts, Voltage Variations	IEC 61000-4-11; EN 61000-4-11; Annex 1-19 (KN 61000-4-11)
Generic, Product Family and Industry Specific Standards	AS/NZS 1044; AS/NZS 2279.3; AS/NZS 3548; AS/NZS 4251.1; AS/NZS 4251.2; AS/NZS CISPR 24; AS/NZS 61000.6.3; AS/NZS 61000.6.4; EN 50121-3-2; EN 12184; EN 50083-2; EN 50090-2-2; EN 50091-2; EN 50121-4; EN 50130-4; EN 50130-4 + A12; EN 50412-2-1; EN 50491-5-1; EN 50491-5-2; EN 50491-5-3; EN 55015; EN 55024; EN 60601-1-2; EN 302 480; EN 61000-6-1; EN 61000-6-2; EN 61000-6-3; EN 61000-6-4; EN 61204-3; EN 61326-1; EN 61326-2-1; EN 61326-2-2; EN 61326-2-3; EN 61326-2-4; EN 61326-2-5; EN 61547; ETSI EN 301 489-01; ETSI EN 301 489-02; ETSI EN 301 489-03; ETSI EN 301 489-04; ETSI EN 301 489-05; ETSI EN 301 489-06; ETSI EN 301 489-07; ETSI EN 301 489-08; ETSI EN 301 489-09; ETSI EN 301 489-10; ETSI EN 301 489-11; ETSI EN 301 489-12; ETSI EN 301 489-13; ETSI EN 301 489-14; ETSI EN 301 489-15; ETSI EN 301 489-16; ETSI EN 301 489-17; ETSI EN 301 489-18; ETSI EN 301 489-19; ETSI EN 301 489-20; ETSI EN 301 489-22; ETSI EN 301 489-23; ETSI EN 301 489-24; ETSI EN 301 489-25; ETSI EN 301 489-26; ETSI EN 301 489-27; ETSI EN 301 489-28; ETSI EN 301 489-31; ETSI EN 301 489-32; ETSI EN 301 489-33; ETSI EN 301 489-50; CISPR 24; IEC 60601-1-2; IEC 60945; Annex 2-2 (KN 60601-1-2); KN 60601-1-2; TCVN 7317:2003 (CISPR 24:1997); SI961 Part 6.2; AS/NZS 61000.6.3; AS/NZS 61000.6.4; KN 20; KN 24; Annex 1-1 (KN 16-1-1); Annex 1-2 (KN 16-1-2); Annex 1-3 (KN 16-1-3); Annex 1-4 (KN 16-1-4); Annex 1-5 (KN 16-1-5); Annex 1-6 (KN 16-2-1); Annex 1-7 (KN 16-2-2); Annex 1-8 (KN 16-2-3); Annex 1-9 (KN 16-2-4); Annex 1-21 (KN 61000-2-2); Annex 1-22 (KN 61000-2-4); Annex 4-2 (KN 14-2); Annex 6 (KN 50); Annex 6-2 (KN 51); Annex 7 (KN 60); Annex 8-1 (KN 301-489-01); Annex 8-2 (KN 301-489-07); Annex 8-3 (KN 301-489-17); Annex 8-4 (KN 301-489-24); Annex 8-5 (KN 301-489-06); Annex 8-6 (KN 301-489-13); Annex 8-7 (KN 301-489-05); Annex 8-8 (KN 301-489-03); Annex 8-9 (KN 301-489-09); Annex 8-10 (KN 301-489-26);

Test Technology:	**Test Method(s) [1]:**
Generic, Product Family and Industry Specific Standards *(cont.)*	Annex 8-11 (KN 301-489-18); Annex 8-12 (KN 301-489-15); Annex 8-13 (KN 301-489-02); Annex 8-14 (KN 301-489-27); Annex 8-15 (KN 301-489-32); Annex 8-16 (KN 301-489-20); Annex 9 (KN 62040-2); Annex 10 (KN 60947); Annex 11-2 (KN 35); Annex 12 (KN 61800-3); Annex 13-2 (KN 12016); Annex 14 (KN 60945); Annex 15 (KN 19); Annex 16 (KN 17); Annex 17 (KN 61000-6-3); Annex 17-2 (KN 61000-6-1); Annex 18 (KN 61000-6-4); Annex 18-2 (KN 61000-6-2)
Radio Frequency (RF) – CE *(excluding protocol testing)*	ETSI EN 300 086-1; ETSI EN 300 224-1; ETSI EN 300 224-2; ETSI EN 300 279; ETSI EN 300 339; ETSI EN 300 385; ETSI EN 301 166-1; ETSI EN 301 166-2; ETSI EN 301 357-1; ETSI EN 301 357-2; ETSI EN 301 390; ETSI EN 301 406; ETSI EN 301 502; ETSI EN 301 511; ETSI EN 301 751; ETSI EN 301 753; ETSI EN 301 783-2; ETSI EN 301 796; ETSI EN 301 797; ETSI EN 301 839-1; ETSI EN 301 839-2; ETSI EN 301 840-2; ETSI EN 301 843-1; ETSI EN 301 843-2; ETSI EN 301 843-3; ETSI EN 301 843-4; ETSI EN 301 843-5; ETSI EN 301 843-6; ETSI EN 301 893; ETSI EN 301 908-01; ETSI EN 301 908-02; ETSI EN 301 908-03; ETSI EN 301 908-04; ETSI EN 301 908-05; ETSI EN 301 908-06; ETSI EN 301 908-07; ETSI EN 301 908-08; ETSI EN 301 908-09; ETSI EN 301 908-10; ETSI EN 301 908-11; ETSI EN 301 908-13; ETSI EN 301 929-2; ETSI EN 302 017-1; ETSI EN 302 017-2; ETSI EN 302 018-2; ETSI EN 302 054-2; ETSI EN 302 064-2; ETSI EN 302 065-1; ETSI EN 302 066-2; ETSI EN 302 077-2; ETSI EN 302 195-2; ETSI EN 302 208-1; ETSI EN 302 208-2; ETSI EN 302 217-1; ETSI EN 302 217-2-1; ETSI EN 302 217-2-2; ETSI EN 302 217-3; ETSI EN 302 217-4-1; ETSI EN 302 217-4-2; ETSI EN 302 245-2; ETSI EN 302 288-1; ETSI EN 302 288-2; ETSI EN 302 291-1; ETSI EN 302 291-2; ETSI EN 302 296; ETSI EN 302 297; ETSI EN 302 326-1; ETSI EN 302 326-2; ETSI EN 302 326-3; ETSI EN 302 372-2; ETSI EN 302 426; ETSI EN 302 454-2; ETSI EN 302 480; ETSI EN 302 500-1; ETSI EN 302 500-2; ETSI EN 302 502; ETSI EN 302 510-2; ETSI EN 302 567; ETSI EN 302 625; ETSI EN 303 883; ETSI EN 303 413; ETSI EN 300 086-2; ETSI EN 300 113-1; ETSI EN 300 113-2; ETSI EN 300 197; ETSI EN 300 198; ETSI EN 300 220-1; ETSI EN 300 220-2; ETSI EN 300 220-3; ETSI EN 300 296-1; ETSI EN 300 296-2; ETSI EN 300 328; ETSI EN 300 330-1; ETSI EN 300 330-2; ETSI EN 300 390-1; ETSI EN 300 390-2; ETSI EN 300 422-1; ETSI EN 300 422-2; ETSI EN 300 440-1; ETSI EN 300 440-2; ETSI EN 300 454-1; ETSI EN 300 454-2; ETSI EN 300 718-2; ETSI TS 102 883; ETSI TS 103 361

Test Technology:	**Test Method(s) [1]:**
Radio Frequency (RF) - FCC	47 CFR FCC Part 15, Subparts C, D, E, F, G, H (using ANSI C63.10-2013, ANSI C63.17-2013, KDB 905462); 47 CFR FCC Parts 20, 22, 24, 25, 27, 30, 73, 74, 80, 87, 90, 95, 96, 97, 101 (using TIA-603-E, ANSI C63.26:2015, FCC KDB 935210 D03 (v04), D04 (v02), D05 (v01r01))
Radio Frequency (RF) - Canada	RSS 111; RSS 112; RSS 117; RSS 119; RSS 123; RSS 125; RSS 127; RSS 130; RSS 131; RSS 132; RSS 133; RSS 134; RSS 135; RSS 137; RSS 139; RSS 141; RSS 142; RSS 170; RSS 181; RSS 182; RSS 191; RSS 192; RSS 194; RSS 195; RSS 196; RSS 197; RSS 199; RSS 210; RSS 211; RSS 220; RSS 213; RSS 215; RSS 216; RSS 236; RSS 238; RSS 243; RSS 244; RSS 247; RSS 251; RSS 287; RSS 288; RSS 310; RSS Gen
Radio Frequency (RF) – Israel	Wireless Telegraph Ordinance (Ordinance Non-Application Directive), 1984; Frequencies for GSM and UMTS networks; Checklist for Conformance Approval for DECT equipment in the Spectrum Division, July 2010; Type Approval – Licensed Frequencies; Type Approval – Licensed Exempt Frequencies
Radio Frequency (RF) – IMDA	IMDA TS DSRC; IMDA TS WSD; IMDA TS DVB-T2 IRD; IMDA TS CT-CTS; IMDA TS SRD; IMDA TS AR; IMDA TS GMPCS; IMDA TS CMT; IMDA TS CBS; IMDA TS UWB; IMDA TS WBA; IMDA TS LMR
Radio Frequency (RF) – Vietnam	QVCN 10:2010/BTTTT; QCVN 11:2010/BTTTT; QVCN 12:2015/BTTTT; QVCN 13:2010/BTTTT; QCVN 14:2010/BTTTT; QVCN 15:2015/BTTTT; QCVN 16:2010/BTTTT; QCVN 17:2010/BTTTT; QVCN 18:2014/BTTTT; QVCN 19:2010/BTTTT; QVCN 20:2010/BTTTT; QVCN 21:2010/BTTTT; QCVN 29:2011/BTTTT; QCVN 30:2011/BTTTT; QCVN 31:2011/BTTTT; QCVN 37:2011/BTTTT; QCVN 41:2011/BTTTT; QCVN 42:2011/BTTTT; QCVN 43:2011/BTTTT; QCVN 44:2011/BTTTT; QCVN 45:2011/BTTTT; QVCN 47:2015/BTTTT; QCVN 53:2011/BTTTT; QCVN 54:2011/BTTTT; QVCN 55:2011/BTTTT; QCVN 56:2011/BTTTT; QCVN 65:2013/BTTTT; QCVN 66:2013/BTTTT; QCVN 73:2013/BTTTT; QCVN 74:2013/BTTTT; QCVN 77:2013/BTTTT; QCVN 86:2013/BTTTT; QCVN 88:2013/BTTTT; QCVN 91:2013/BTTTT; QCVN 92:2013/BTTTT; QCVN 93:2013/BTTTT; QCVN 94:2013/BTTTT; QCVN 95:2013/BTTTT; QCVN 96:2013/BTTTT; QCVN 103:2013/BTTTT

Test Technology:	**Test Method(s) [1]:**
Radio Frequency (RF) – Taiwan	LP0002; PLMN07; PLMN01; PLMN08; PLMN10
Radio Frequency (RF) – Hong Kong	HKCA 1001; HKCA 1002; HKCA 1003; HKCA 1004; HKCA 1006; HKCA 1007; HKCA 1008; HKCA 1010; HKCA 1015; HKCA 1016; HKCA 1019; HKCA 1020; HKCA 1022; HKCA 1026; HKCA 1027; HKCA 1033; HKCA 1034; HKCA 1035; HKCA 1036; HKCA 1037; HKCA 1039; HKCA 1041; HKCA 1042; HKCA 1043; HKCA 1044; HKCA 1045; HKCA 1046; HKCA 1047; HKCA 1048; HKCA 1049; HKCA 1050; HKCA 1052; HKCA 1053; HKCA 1054; HKCA 1056; HKCA 1057; HKCA 1061; HKCA 1063; HKCA 1064; HKCA 1065; HKCA 1066; HKCA 1067; HKCA 1068; HKCA 1069; HKCA 1070; HKCA 1071; HKCA 1072; HKCA 1073; HKCA 1076
Radio Frequency (RF) – Australia & New Zealand	AS 2772.2; AS/NZS 4281; AS/NZS 4771; AR IB RCR STD-28; Radiocommunications (Short range devices) Standard 2014 (AS/NZS 4268, AS/NZS 4268.1, AS/NZS 4268.2); Radiocommunications (406 MHz Satellite Distress Beacons) Standard 2014 (AS/NZS 4280, AS/NZS 4280.1:2003, AS/NZS 4280.2:2003); Radiocommunications (Cordless Telephone) Standard 2008 (AS/NZS 4281:2007); Radiocommunications (Analogue Speech (Angle Modulated Equipment) Standard 2014 (AS/NZS 4295:2015); Radiocommunications (121.5 MHz and 243.0 MHz Emergency Position Indicating Radio Beacons) Standard 2014 (AS/NZS 4330:2006); Radiocommunications (UHF CB Radio Equipment) Standard 2011 (No.1) (AS/NZS 4365:2011); Radiocommunications (VHF Radiotelephone Equipment - Maritime Mobile Service) Standard 2014 (AS/NZS 4415.1:2003, AS/NZS 4415.2:2003); Radiocommunications (MF and HF Radiotelephone Equipment - International Maritime Mobile Service) Standard 2014 (AS/NZS 4582:2004); Radiocommunications (118 MHz to 137 MHz Amplitude Modulated Equipment - Aeronautical Radio Service) Standard 2012 (AS/NZS 4583:2016); Radiocommunications (Paging Service Equipment) Standard 2014 (AS/NZS 4769.1:2000, AS/NZS 4769.2:2000); Radiocommunications (MF and HF equipment - Land Mobile Service) Standard 2014 (AS/NZS 4770:2000); Radiocommunications (Digital Cordless Communications Devices - DECT Devices) Standard 2007; Radiocommunications (Digital Cordless Communications Devices - PHS Devices) Standard 2007

Test Technology:	**Test Method(s) [1]:**
Radio Frequency (RF) – Korea	Regulations on Radio Equipment (Enforcement Decree of MSIP NO. 78, Aug 12, 2016); Unlicensed Radio Equipment Established Without Notice (MSIP Public Notification 2016-127); Technical Requirements for Radio Equipment for Maritime Services (RRA Public Notification 2016-33); Technical Requirements for Radio Equipment for Aeronautical Services (RRA Public Notification 2015-28); Technical Requirements for Radio Equipment for Telecommunication Services (RRA Public Notification 2016-11); Technical Requirements of the Other Service Radio Equipment for Simple radio station, Space station and Earth station (RRA Public Notification 2016-21); Technical Requirements of the Other Service Radio Equipment for Simple radio station, Space station and Earth station (RRA Public Notification 2016-21); Technical Requirements of Radio Wave Application (RRA Public Notification 2016-20); Measurements of the high-frequency output of radio wave application equipment and antenna power calculation methods (RRA Public Notification 2016-2); Technical Requirements for Radio Equipment of Standard of Safety Facility (RRA Public Notification 2016-20); Technical Requirements for the Human Protection against Electromagnetic Waves (MSIP Public Notification 2015-18); Technical Requirements for Measurement and Test Procedure of Specific Absorption Rate (RRA Public Notification 2015-23); Technical Requirements for Measurement of Electromagnetic Field Strength (RRA Public Notification 2014-2); Equipment to be subject of Test Procedure for Electromagnetic Field Strength and Specific Absorption Rate (MSIP Public Notification 2016-66); Conformity Assessment Procedure for Telecommunications Terminal Equipment (RRA Announce 2015-135); KS X 3123
Radio Frequency (RF) – Japan	ARIB STD-T66; ARIB STD-T81; ARIB STD-T89; ARIB STD-T90; ARIB STD-T94 Fascicle 1; RCR STD-1; RCR STD-29; RCR STD-33
Japan – Notification No. 88 of MIC 2004	
Table No 13	CB Radio
Table No 21	Cordless Telephone
Table No 22-1 thru 22-17	Low Power Radio Equipment
Table No 36	Low Power Security System
Table No 43	Low Power Data Communication in the 2.4 GHz Band
Table No 44	Low Power Data Communication in the 2.4 GHz Band
Table No 45	Low Power Data Communication in the 5.2, 5.3, 5.6 GHz Bands

Test Technology:	**Test Method(s) [1]:**
Table No 46	Low Power Data Communication in the 25 and 27 GHz Bands
Table No 47	Base Station for 5 GHz Band Wireless Access System
Table No 47	Base Station for 5 GHz Band Wireless Access System (low spurious type)
Table No 47	Land Mobile Relay for 5 GHz Band Wireless Access System (limited for use in special zones)
Table No 47	Land Mobile Relay for 5 GHz Band Wireless Access System (limited for use in special zones, low spurious type)
Table No 47	Land Mobile Relay for 5 GHz Band Wireless Access System
Table No 47	Land Mobile Relay for 5 GHz Band Wireless Access System (low spurious type)
Table No 47	Land Mobile Relay for 5 GHz Band Wireless Access System (low power type)
Table No 50	Digital Cordless Telephone
Table No 50	PHS Base Station
Table No 50	PHS Land Mobile Station
Table No 50	PHS Relay Station
Table No 50	PHS Test Station
Table No 64	Mobile Station for Dedicated Short-Range Communication Systems
Table No 64	Base Station for Dedicated Short-Range Communication Systems
Table No 64	Test Station for Dedicated Short-Range Communication Systems
Table No 70	UWB (Ultra-Wide Band) Radio System

On the following types of products:
Radio Frequency Equipment; Telecommunications Terminal Equipment (TTE); Network Equipment; Information Technology Equipment (ITE); Medical Electrical Equipment; Household Appliance; Consumer Product; Audio & Video Product

[1] When the date, revision or edition of a test method standard is not identified on the scope of accreditation, the laboratory is expected to be using the current version within one year of the date of publication, per part C., Section 1 of A2LA *R101 - General Requirements - Accreditation of ISO-IEC 17025 Laboratories*.

Testing Activities Performed in Support of FCC Declaration of Conformity and Certification in Accordance with 47 Code of Federal Regulations and FCC KDB 974614, Appendix A, Table A.1 [2]:

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 (February 1986)	40000
Intentional Radiators Part 15C	ANSI C63.10:2013	40000
Unlicensed Personal Communication Systems Devices Part 15D	ANSI C63.17:2013	40000
U-NIII without DFS Intentional Radiators Part 15E	ANSI C63.10:2013	40000
U-NIII with DFS Intentional Radiators Part 15E	FCC KDB 905462 D02 (v02)	40000
UWB Intentional Radiators Part 15F	ANSI C63.10:2013	40000
BPL Intentional Radiators Part 15G	ANSI C63.10:2013	40000
White Space Device Intentional Radiators Part 15H	ANSI C63.10:2013	40000
Commercial Mobile Services (FCC Licensed Radio Service Equipment) Parts 22 (cellular), 24, 25 (below 3 GHz), and 27	ANSI C63.26:2015; ANSI/TIA-603-E	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 C63.26:2015; ANSI/TIA-603-E	40000
Citizens Broadband Radio Services (FCC Licensed Radio Service Equipment) Part 96	ANSI C63.26:2015; ANSI/TIA-603-E	40000

Testing Activities Performed in Support of FCC Declaration of Conformity and Certification in Accordance with 47 Code of Federal Regulations and FCC KDB 974614, Appendix A, Table A.1 [2]:

Rule Subpart/Technology	**Test Method**	**Maximum Frequency (MHz)**
Maritime and Aviation Radio Services		
Parts 80 and 87	ANSI C63.26:2015; ANSI/TIA-603-E	40000
Microwave and Millimeter Bands Radio Services		
Parts 25, 30, 74, 90 (M DSRC, Y, Z), 95 (M and L) and 101	ANSI C63.26:2015; ANSI/TIA-603-E	40000
Broadcast Radio Services		
Parts 73 and 74 (below 3 GHz)	ANSI C63.26:2015; ANSI/TIA-603-E 74	40000
Signal Boosters		
Part 20 (Wideband Consumer Signal Boosters, Provider-specific signal boosters, and Industrial Signal Boosters)	ANSI C63.26:2015	40000

[2]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.