SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

BAY AREA COMPLIANCE LABORATORIES CORP.
1274 Anvilwood Avenue
Sunnyvale, CA 94089
Ms. Lisa Tang Phone: 408 732 9162

ELECTRICAL

Valid To: September 30, 2024 Certificate Number: 3297.02

In recognition of the successful completion of the A2LA evaluation process (including an assessment of the organization's compliance with A2LA's EPA ENERGY STAR® Accreditation Program[1,2] requirements), accreditation is granted to this laboratory to perform the following EMC, Product Safety, Radio, and Lighting tests:

Test Technology:	Test Method(s):
Emissions	
Conducted and Radiated	AS/NZS CISPR 11 (2011)[3]; CISPR 11 (2015+A1:2016+AMD2:2019)[3]; CNS 13803; EN 55011 (2009+A1:2010, 2016)[4]; KN 11[3]; J55011 (2015); AS/NZS CISPR 13 (2012); CISPR 13 (2009+A1:2015) (*ancillary equipment only*); CNS 13439; EN 55013 (2013+A1:2016); AS/NZS CISPR 14-1 (2010, 2013); CISPR 14-1 (2005, 2009, 2011+A2:2011, 2020); CNS 13783-1; IEC 55014-1 (2021); EN 55014-1 (2006, 2006+A1:2009, 2006+A2:2011, 2017+A11: 2020, 2021); KN 14-1; AS/NZS CISPR 15 (2012); 15 (2013, 2018); EN IEC 55015 (2006+A2:2009, 2013, 2019+A11:2020); KN 15; CNS 14115; AS/NZS CISPR 22 (2009+A1:2010); CISPR 22 (1999, 2008+A1:2005+A2:2006, 2008); EN 55022 (1994+A1:1995+A2:1997, 1998+A1:2000+A2:2003, 2006+A1:2007, 2010+AC:2011); CISPR 32 (2012)[3]; CISPR 32 (2015/AMD1: 2019)[3]; CISPR 32 Corr. 1 (2016)[3]; EN 55032 (2012+AC:2013)[3]; EN 55032 (2015+Corr. 2016+ A11: 2020, 2015+A1:2020)[3]; AS/NZS CISPR 32 (2015+AMD1:2020)[3]; VCCI-CISPR 32:2016; TEC-EMI-TEL-001-01 (Feb 09); KN 32; CNS 13438 (2006) (up to 6 GHz); CNS 15936 (2016); TCVN 7189 (2009); TCVN 7317 (2003); VCCI V-3 (up to 6 GHz); VCCI V-4 (2010.04); CISPR 25 (2008, 2016, 2021-12); GB 4343.1 (2018); GB 9254 (2008/XG1-2013); IEC 61000-2-2 (2002+Amd1 (2017)+Amd2 (2018)); IEC 61000-6-1(2016); EN 61000-6-1: 2019; AS/NZS 61000.6.3 (2012); EN 61000-6-2 (2019); IEC 61000-6-2 (2016); EN 61000-6-3 (2020); IEC 61000-6-4 (2018); EN 61000-6-4: 2019; IEEE 1613 (2009); IEEE 1613a (2011); IEEE 1613-1 (2016)

5202 Presidents Court, Suite 220 | Frederick, MD 21703-8515 | Phone: 301 644 3248 | Fax: 240 454 9449 | www.A2LA.org

Test Technology:	Test Method(s):
Emissions (cont.)	
Conducted and Radiated (cont.)	ICES-001, Issue 5; ICES-002, Issue-7; ICES-003, Issue 7; ICES-005, Issue 5; ICES-006, Issue 3; ANSI C63.10:2013; ANSI C63.26:2015; IEEE C63.17 (2013); ANSI C63.4:2014+ Amendment 2017); KS C 9811 (2019); KS C 9815 (2023); 47 CFR FCC Part 18 (using FCC OST/MP-5:1986); 47 CFR FCC Part 15, Subpart B (using ANSI C63.4:2014); 47 CFR FCC Part 15, Subpart C (using ANSI C63.10:2013); 47 CFR FCC Part 15, Subpart D (using ANSI C63.17:2013); 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)); 47 CFR FCC Part 15, Subpart F (using ANSI C63.10:2013); 47 CFR FCC Part 15, Subpart G (using ANSI C63.10:2013); 47 CFR FCC Part 15, Subpart H (using ANSI C63.10:2013); Access Broadband Over Power Line (Access BPL) (using FCC Order, ET Docket No. 04-37, FCC 04-245); SI 961 Part 6.1 - Electromagnetic Compatibility: Information Technology Equipment - Radio Frequency Interference Characteristics - Limits and Methods of Measurements; SI 961 Part 6.2 - Electromagnetic Compatibility: Information Technology Equipment - Immunity Characteristics - Limits and Methods of Measurements
Harmonics	AS/NZS 2279.1 (2000); AS/NZS 61000-3-2 (2013); EN 61000-3-2; IEC 61000-3-2; JIS C 61000-3-2 (2011); KN 61000-3-2
Flicker	AS/NZS 2279.3; AS/NZS 61000-3-3; EN 61000-3-3; IEC 61000-3-3; AS/NZS 61000-3-11; EN 61000-3-11; IEC 61000-3-11; KN 61000-3-3
Immunity	
Electrostatic Discharge (ESD)	EN 61000-4-2; IEC 61000-4-2[3]; IEEE C37.90.3; JIS C 1000-4-2 (1999); KN 61000-4-2; JIS C 61000-4-2
Radiated Immunity	EN 61000-4-3; IEC 61000-4-3; IEEE Std. C37.90.2; JIS C 1000-4-3; JIS C 61000-4-3; KN 61000-4-3
Electrical Fast Transient / Burst	EN 61000-4-4; IEC 61000-4-4[3]; JIS C 1000-4-4; JIS C 61000-4-4; KN 61000-4-4
Surge	EN 61000-4-5; IEC 61000-4-5[3]; IEEE C37.90.1; IEEE C62.41 Ring Wave; IEEE C62.41-2; JIS C 1000-4-5; JIS C 61000-4-5; KN 61000-4-5

Test Technology:	**Test Method(s):**
Immunity (cont.)	
Conducted Immunity	EN 61000-4-6; IEC 61000-4-6[3]; JIS C 1000-4-6; JIS C 61000-4-6; KN 61000-4-6; IEC 61000-4-16
Magnetic Field Immunity	EN 61000-4-8; IEC 61000-4-8; JIS C 1000-4-8; JIS C 61000-4-8; KN 61000-4-8
Pulse Magnetic Field	EN 61000-4-9; KN 61000-4-9; IEC 61000-4-9
Dips, Short Interrupts, Voltage Variations	EN 61000-4-11; IEC 61000-4-11; JIS C 1000-4-11; JIS C 61000-4-11; KN 61000-4-11
Ring Wave	EN 61000-4-12; IEC 61000-4-12
Damped Oscillatory Wave Immunity	IEC 61000-4-18
Immunity to Proximity Magnetic Fields	IEC 61000-4-39
Automotive EMC	CISPR 12 (2007+A1:2009); CISPR 25 (2016); UN ECE Regulation 10.4:2012; UN ECE Regulation 10.5:2014; SAE J1113/1_201310; SAE J1113/11_201201; SAE J1113/12_200608; SAE J1113/26_201404; SAE J1113/4_201404; SAE J1113/13_201502; ISO 10605 (2008); ISO 7637-2 (2011); ISO 11452-1 (2001, 2002, 2004, 2005); ISO 11452-2 (2004); ISO 11452-4 (2020); ISO 11452-7 (2003); ISO 11452-8 (2015); ISO 11452-10 (2009); Ford ES-XW7T-1A278-AC; FMC 1278 (2016); GMW 3097; DC-10614
Military / Avionic	MIL-STD 461G RE102; RTCA/DO-160G Section 20 (*Equipment Categories S and T only*); RTCA/DO-160G Section 21; RTCA/DO-160G Section 25
Mexico - Technical Provisions	IFT-008-2015; NOM-208-SCFI-2016
South Africa	SANS 211 (2010); SANS 212 (2009); SANS 214-1 (2009); SANS 214-2 (2009); SANS 215 (2019); SANS 2332 (2017); SANS 2335 (2018); SANS 61000-3-2 (2009); SANS 61000-3-3 (2009); SANS 61000-4-2 (2009); SANS 61000-4-3 (2008); SANS 61000-4-4 (2011); SANS 61000-4-5 (2006); SANS 61000-4-6 (2017); SANS 61000-4-8 (2009); SANS 61000-4-9 (2003); SANS 61000-4-11 (2005); SANS 61000-4-12 (2007); SANS 61547 (2021); SANS 60601-1-2 (2018); SANS 61326-1 (2007); SANS 61000-2-2 (2002); SANS 61000-6-1 (2005); SANS 61000-6-2 (2005); SANS 61000-6-4 (2011)

Test Technology:	**Test Method(s):**
Republic of Korea – Technical Requirements	Technical Requirements for Telecommunications Terminal Equipment (RRA Public Notification 2022-16, Sept 5, 2022); Conformity Assessment Procedure for Telecommunications Terminal Equipment (KS X 3074, KS X 3075, KS X 3076); Standard Test Procedure on the Technical Requirements for Telecommunications Terminal Equipment (RRA Public Notification 2012-17); Regulations on Radio Equipment (Ordinance of MSIT No., 86, Jan 4, 2022); Technical Requirements for grounding equipment, customer premise telecom equipment, line equipment and common ducts, etc. (RRA Public Notification 2022-23, Dec 12, 2022); Unlicensed Radio Equipment Established Without Notice (MSIT Public Notification 2023-18, June 20, 2023); Unlicensed Radio Equipment Established Without Notice (MSIT Public Notification 2022-75, Dec 30,2022); Technical Requirements for the Human Protection against Electromagnetic Waves (MSIT Public Notification 2019-4, Jan 16, 2019); Technical Requirements for Measurement and Test Procedure of Specific Absorption Rate (SAR) (RRA Public Notification 2018-18, Dec 7, 2018); Technical Requirements for Measurement of Electromagnetic Field Strength (RRA Public Notification 2023-11, June 30, 2023); Equipment to be Subject of Test Procedure for Electromagnetic Field Strength and Specific Absorption Rate (RRA Public Notification 2023-12, June 30, 2023; Conformity Assessment Procedure of Radio Equipment (KS X 3123); Technical Requirements of Other Service Radio Equipment for Simple Radio Station, Space Station, and Earth Station (RRA Public Notification 2023-5, April 3, 2023); Technical Requirements for Radio Equipment for Telecommunication Services (RRA Public Notification 2022-15, July 29, 2022); Technical Requirements for Radio Equipment for Maritime Services (RRA Public Notification 2021, Nov 17, 2021); Technical Requirements for Radio Equipment for Aeronautical Services (RRA Public Notification-2023-8, April 19, 2023); Technical Requirements for Electromagnetic Compatibility (RRA Public Notification 2023-13, June 30, 2023); Test Methods for Electromagnetic Compatibility (RRA Announce 2023-68, August 17, 2023); Notice on Designation and Management of Testing Laboratories for Broadcasting and Communications Equipment (RRA Public Notification 2023-15, August 16, 2023); Technical Requirements for CATV Equipment (MSIT Public Notification-2022-63, Nov 9, 2022); KN 11; KN 60601-1-2; KS C IEC 60601-1-2; KN 41; KN 14-1; KS C 9814-1:2020; KS C 9990; KN 14-2; KS C 9814-2; KN 15; KN 301-489-01; KN 301-489-07; KN 301 489-17; KS X 3126:2020; KN 301-489-24; KN 301 489-6; KS X 3128:2014; KN 301 489-13; KS X 3131:2014; KN 301 489-5; KS X 3127:2014; KN 301-489-03; KN 301 489-9; KS X 3130; KN 301-489-26; KN 301 489-50; KS X 3135:2020; KN 301 489-18; KS X 3132

Test Technology:	Test Method(s):
Republic of Korea – Technical Requirements (cont.)	KN 301 489-15; KS X 3136:2014; KN 301 489-2; KS X 3137:2014; KN 301 489-27; KS X 3134:2014; KN 301 489-32; KS X 3138:2015; KN 301 489-20; KS X 3139:2014; KS C 9040-2; KN 62040-2; KN 301 489-52; KS X 3129:2020; KS X 3125; KN 32; KS C 9832; KN 35; KS C 9835; KN 17; KN 60945/60533; KS X 3140/60533; KN 61000-6-3; KN 61000-6-1; KS C 9610-6-1; KS C 9610-6-3; KN 61000-6-4; KS C 9610-6-4; KN 61000-6-2; KS C 9610-6-2; KS X 3270; KS X 3271; KS C 9040-2; KS X 3143
Product Family Standards	IEC 61326-1 (2012, 2020); EN 61326-1 (2013); IEC 61326-2-1 (2012); JIS C 61326-1:2017; EN 61326-2-1 (2013); IEC 61326-2-2 (2012); EN 61326-2-2 (2013); EN 61326-2-3 (2013); EN 61326-2-4 (2013); IEC 61326-2-5 (2012); EN 61326-2-5 (2013); IEC 61326-2-6 (2012); EN 61326-2-6; IEC 61326-3-1 Ed. 1.0 (2008-01, 2017); EN 60335-1: 2012 + A2 (2019); IEC 60335-1:2016; UL 60335-1: 2016; CAN CSA C22.2 No. 60355-1:2016; KN 60601-1-2; JIS C 1806-1 (2010); JIS C 1806-2-6 (2012); CNS 14409 (2006); EN 50091-2 (1999); EN 50121-1 (2017); EN 50121-4 (2016); EN 50121-5 (2017); EN 61547 (2009); EN 50130-4 (2011); EN 50370-2 (2003); EN 50412-2-1 (2005); EN 55103-2 (2009); EN 60945 (2004); IEC 60945 (2002); EN 61547 (2009); IEC 61547 (2009, 2020); KN 61547; KS C 9547 (2020); EN 55014-2 (1997+A1:2001+A2:2008); EN IEC 55014-2 (2021); CISPR 14-2 (2015, 2020); KN 14-2; EN 55020 (2011); CISPR 20; AS/NZS CISPR 14-2 (2015); EN 55024 (2010); EN 55035 (2017+A11: 2020); AS/NZS CISPR 24: 2013/AMDT 1:2017; CISPR 24 (2010); CISPR 35 (2016.08); EN 50083-2 (2012); CAN3-C14-M84 (2008); IC LMB-EG-07 (2000); EN 50155 (2007); ATIS-0600015 (2009); GR-1089-CORE, Issue 7 *(except corrosion)*; EN 50065-1 (2011; EN 50065-2-2 (2003+A1); KN 35; IEC 61851-21-2:2018; BS EN 50121-3-2 (2006); BS EN 50121-4 (2006); EN 50121-4 (2016); AREMA Communications and Signals Manual Sections 11.5.1 Item 6 and 11.5.2
Product Safety	
ITAV (*excluding Audio Amplifier Test*)	EN 62368-1 (2014, AC:2017); EN 62368-1 (2014, AC:2017); IEC 62368-1 (2014, 2018, 2023); UL 62368-1; CAN/CSA-C22.2 NO. 62368-1; BS EN 62368-1 (2014); BS EN IEC 62368-1:2020/A11; CNS 14336-1:2010; CNS 14336-1:2015; CNS 15598-1; IEC 62087-1 :2015; EN 62087-1:2016; IEC 62368-3:2017; AS NZS 62368.1-2018
LITE (*excluding, Stress Corrosion, Rough Service Luminaires, UV Radiation, IP Testing, Dust Proof Luminaire*	AS/NZS 60598.1 (2013); IEC 60598-1 (2017); AS/NZS 60598.2.1 (2014); EN 60598-2-1:1979+A1:1987; AS/NZS 60598.2.4 (2005); EN 60598-2-4 (2018); AS/NZS 60598.2.17 (2006); IEC 60598-2-17 (2017); AS/NZS 60598.2.20 (2018); EN 60598-2-20 (2010); IEC 60598-2-20 (2014); EN 60598-2-3 (2011); IEC 60598-2-3 (2011)

Test Technology:	**Test Method(s):**
Test, Water Proof Luminaire Test, Resistance to Flame Test, Glow-wire Test, and Resistance to Tracking Test) LITE (*excluding, Stress Corrosion, Rough Service Luminaires, UV Radiation, IP Testing, Dust Proof Luminaire Test, Water Proof Luminaire Test, Resistance to Flame Test, Glow-wire Test, and Resistance to Tracking Test*) *(cont'd)*	AS/NZS 60598.2.6 (1998); EN 60598-2-6 (1995); IEC 60598-2-6 (1994+A1:1996); EN 60598-2-12 (2013); IEC 60598-2-12 (2013); UL 1598; AS/NZS 62560: 2017+A1(2019) (Endurance and Temperature Test Only); EN 62560: 2012 + A1(2015) (Endurance and Temperature Test Only); IEC 62560: 2011 + A1(2015) (Endurance and Temperature Test Only); UL 1993; UL 8750; UL 935; UL 1574; UL 1598C; UL 153; UL 1310; CAN/CSA C22.2 No. 1993; CAN/CSA C22.2 No. 250.0; CAN/CSA C22.2 No. 250.1; CAN/CSA C 22.2 No. 250.4; CAN/CSA C22.2 No. 250.13; C22.2 No. 223; CSA C861-10
MEAS[3] (*excluding Flammability Test, Ionizing Radiation, UV Radiation, Microwave Radiation, Ultrasonic Pressure, and IP Testing*)	EN 61010-1 (2010); IEC 61010-1:2010+AMD:2016; UL 61010-1; CAN/CSA C22.2 No. 61010-1-12; EN 61010-2-30 (2010); EN 61010-2-081 (2015); IEC 61010-2-081 (2015); EN 61010-2-101 (2017); IEC 61010-2-101-2015; IEC 60730-2-7 (2015); AS/NZS 60968 (2001); EN 60968 (2015); IEC 60968 (2015); EN 60969 (1993); IEC 60969:2016 RLV; EN 60825-1 (2014); IEC 60825-1 (2014); IEC 61347-1 (2017); EN 61347-2-3 (2017); IEC 61347-2-3 (2011); EN 61347-2-11 (2002); IEC 61347-2-13 (2006); AS/NZS 61347.2.2 (2007); EN 61347-2-2 (2012); IEC 61347-2-2 (2011); EN 61326-1 (2013); IEC 61326-1 (2020); EN 61426-2 (2013); AS/NZS 61347.2.3 (2004); EN 62040-1 (2008+A1 :2003); EN 62040-1-1 (2004); IEC 62040-1:2012+AMD:2016 CSV (2013); IEC 62053-21 (2003-01); IEC 62053-22:2003+A1:2016; IEC 62053-23:2003+AMD1:2016 CSV; EN 62115:2005/A12:2015; CNS 13803 (2003); QCVN 22:2010/BTTTT; QCVN 22:2021/BTTTT; CNS 15285:2017

Test Technology:	**Test Method(s):**
MED (*excluding Risk Assessment, Defibrillation Protection, Cathode Ray Tube, Hand-transmitted Vibration, Pressure Vessels, X-radiation, Ingress of Water or Particulate Matter, IP Testing, and Protection against Hazards of Ignition of Flammable Anesthetic Mixtures*)	IEC 60601-1 (2012); UL 60601-1 (2006); EN 60601-1 (2006+A1:2013); IES 60601-2-22 (2007+A1:2012); EN 60601-2-22 (2013); IEC TR 60601-4-2 (2016); CAN/CSA C22.2 No. 60601-1 (2008); ANSI AAMI ES60601-1 (2005/2012); EN 60601-1-2 (2001+A1:2006, 2007, 2015+A1:2021); IEC 60601-1-2 (2004, 2014+AMD1:2020); EN 60601-1-2 (2015); YY0505 (2012); JIS T0601-1-2 (2012); KN 60601-1-2 (2008); IEC 60601-1-11 (2015); EN 60601-2-4 (2011); IEC 60601-2-4 (2010); EN 60601-2-10 (2012); IEC 60601-2-18 (2009); IEC 60601-2-27 (2011); EN 60601-2-30 (2010); EN 60601-2-38 (2010); EN 60601-2-24 (2012); IEC 60601-2-24 (2012); IEC 60601-2-37 (2001); IEC 60601-1-6 (2013); GB9706.9 (2008)
Product Safety (cont.)	
OFF[4] (*excluding Cathode Ray Tube, Flammable Liquids, Ionizing Radiation, Effect of UV Radiation on Material, Test to Resistance on Fire, Flammability Test, Impulse Test, Mandrel Test and Operating Voltages Test*)	AS/NZS 60950.1 (2015); EN 60950-1 (2013); CAN/CSA-C22.2 No. 60950-1-07; IEC 60950-1 (2005+A1:2009+A2:2013); KS C 60950-1; AC/ACIF S001 (2001); SI 60950 Part 1 (2012); UL 60950-1; SI 62368 Part 1 (2018)
TRON *(excluding Audio Amplifier Test)*	EN 60065 (2014); UL 60065 Ed. 5 (2015); AS/NZS 60065 (2012); KS C IEC 60065 (2013); IEC 60825-1 (2014-05); CAN/CSA-C22.2 NO. 60065:2016
TOOL *(Excluding Lasers exceeding Class 1, Non-coherent light sources with a risk of potential photo-biological harm, LEDs with Risk Group other than 1, IP testing outside of IPX0, Liquid systems, Immersion testing for corrosion)*	EN 62841-1 (2015); IEC 62841-1 (2014)
INDA	EN 60204-1 (2018)
MISC	CAN/CSA-C381.1; CAN/CSA-C381.2; CAN/CSA-C62301

Test Technology:	Test Method(s):
Radio Communications *(excluding protocol testing)*	ETSI TS 125 106; ETSI ES 200 674-1; ETSI ES 200 674-2; ETSI EN 300 065; ETSI EN 300 086; ETSI EN 300 086-1; ETSI EN 300 113; ETSI EN 300 113-2; ETSI EN 300 162; ETSI EN 300 178; ETSI EN 300 197; ETSI EN 300 198; ETSI EN 300 219; 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 300 224; ETSI EN 300 224-2; ETSI EN 300 225; ETSI EN 300 279; ETSI EN 300 296; ETSI EN 300 296-1; ETSI EN 300 328; ETSI ETS 300 329; ETSI EN 300 330; ETSI EN 300 330-1; ETSI EN 300 330-2; ETSI EN 300 341; ETSI EN 300 373-1; ETSI EN 300 385; ETSI EN 300 390; ETSI EN 300 394-1; ETSI EN 300 422-1; ETSI EN 300 422-2; ETSI EN 300 422-3; ETSI EN 300 422-4; ETSI EN 300 431; ETSI EN 300 440; ETSI EN 300 440-1; ETSI EN 300 440-2; ETSI ETS 300 445+A1; ETSI ETS 300 446; ETSI EN 300 454-2; ETSI EN 300 471-2; ETSI ETS 300 487+A1; ETSI EN 300 630; ETSI EN 300 633; ETSI EN 300 639; ETSI EN 300 674-1; ETSI EN 300 674-2-1; ETSI EN 300 674-2-2; ETSI EN 300 718-2; ETSI EN 300 761-1; ETSI EN 300 761-2; ETSI EN 300 783; ETSI EN 301 021; ETSI EN 301 091; ETSI EN 301 091-1; ETSI EN 301 091-2; ETSI EN 301 091-3; ETSI EN 301 126-1; ETSI EN 301 126-2-1; ETSI EN 301 126-2-2; ETSI EN 301 126-2-3; ETSI EN 301 126-2-4; ETSI EN 301 126-2-5; ETSI EN 301 126-2-6; ETSI EN 301 126-3-1; ETSI EN 301 166; ETSI EN 301 213-1; ETSI EN 301 213-2; ETSI EN 301 213-3; ETSI EN 301 213-4; ETSI EN 301 213-5; ETSI EN 301 357-1; ETSI EN 301 357-2; ETSI EN 301 390; ETSI EN 301 406; ETSI EN 301 428; ETSI EN 301 489-1; ETSI EN 301 489-2; ETSI EN 301 489-3; ETSI EN 301 489-4; ETSI EN 301 489-5; ETSI EN 301 489-6; ETSI EN 301 489-7; ETSI EN 301 489-8; ETSI EN 301 489-9; 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 301 489-16; ETSI EN 301 489-17; ETSI EN 301 489-18; ETSI EN 301 489-19; 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 301 489-29; ETSI EN 301 489-31; ETSI EN 301 489-32; ETSI EN 301 489-33; ETSI EN 301 489-34; ETSI EN 301 489-35; ETSI EN 301 489-50; ETSI EN 301 511; ETSI EN 301 721; ETSI EN 301 751; ETSI EN 301 753; ETSI EN 301 796; ETSI EN 301 797; ETSI EN 301 840-2; ETSI EN 301 841-1; ETSI EN 301 841-3; ETSI EN 301 843-1; ETSI EN 301 893; ETSI EN 301 908-1; ETSI EN 301 908-2; ETSI EN 301 908-3; ETSI EN 301 908-4; ETSI EN 301 908-5; ETSI EN 301 908-6; ETSI EN 301 908-7; ETSI EN 301 908-8; ETSI EN 301 908-9; ETSI EN 301 908-10; ETSI EN 301 908-11; ETSI EN 301 908-12; ETSI EN 301 908-13; ETSI EN 301 908-14; ETSI EN 301 908-15; ETSI EN 301 908-16; ETSI EN 301 908-17; ETSI EN 301 908-18; ETSI EN 301 908-19;

Test Technology:	Test Method(s):
Radio Communications *(excluding protocol testing) (cont.)*	ETSI EN 301 929-1; ETSI EN 301 929-2; ETSI EN 302 065-1; ETSI EN 302 065-2; ETSI EN 302 065-3; ETSI EN 302 065-4; ETSI EN 302 186; ETSI EN 302 208; ETSI EN 302 217-2; ETSI EN 302 217-2-2; ETSI EN 302 217-3; ETSI EN 302 217-4-2; ETSI EN 302 264-2; ETSI EN 302 288-2; ETSI EN 302 291-2; ETSI EN 302 326-2; ETSI EN 302 326-3; ETSI EN 302 340; ETSI EN 301 459; ETSI EN 302 448; ETSI EN 302 502; ETSI EN 302 544-1; ETSI EN 302 544-2; ETSI EN 302 550-2; ETSI EN 302 567; ETSI EN 302 977; ETSI EN 303 413; ETSI EN 303 470; ETSI EN 303 609; ETSI EN 303 446-1; ETSI EN 303 446-2 ETSI EN 303 980; ETSI EN 303 981; ETSI EN 303 687; ETSI EN 305 550-1; ETSI EN 305 550-2 AS/NZS 4268 (A1+A2:2006, 2008); AS/NZS 4268 (A1), AS/NZS 4268; Radiocommunications (Short range devices) Standard 2014; Radiocommunications (Short Range Devices) Amendment; Standard 2013 (No. 1), Radiocommunications (Short Range Devices) Amendment Standard (No 2); AS/NZS 4280.1, Radiocommunications (406 MHz Satellite Distress Beacons) Standard, Part 1: Marine emergency position-indicating radio beacons (EPIRB) (IEC 61097-2, MOD); AS/NZS 4280.2, Radiocommunications (406 MHz Satellite Distress Beacons) Standard, Part 2: Personal locator beacons (PLBs);

Test Technology:	Test Method(s):
Radio Communications *(excluding protocol testing) (cont.)*	AS/NZS 4281; AS/NZS 4295, Radiocommunications (Analogue Speech (Angle Modulated) Equipment) Standard 2014; AS/NZS 4330, Radiocommunications (121.5 MHz and 243.0 MHz Emergency Position Indicating Radio Beacons) Standard; Radiocommunications (HF CB and Handphone Equipment) Standard; AS/NZS 4365; AS/NZS 4365, Radiocommunications (UHF CB Radio Equipment) Standard(No.1); AS/NZS 4367; AS/NZS 4367, Radiocommunications (Devices Used in the Inshore Boating Radio Services Band) Standard; AS/NZS ETSI EN 301 025; AS/NZS ETSI EN 301 178; AS/NZS ETSI EN 302 885, Radiocommunications (VHF Radiotelephone Equipment - Maritime Mobile Service) Standard 2018, Part 1: Shipborne equipment and limited coast stations (including DSC) (IEC 61097-7, MOD); AS/NZS 4415.2, Radiocommunications (VHF Radiotelephone Equipment - Maritime Mobile Service) Standard, Part 2: Major coast stations, limited coast stations, ship stations and handheld stations (non- DSC); AS/NZS 4582, Radiocommunications (MF and HF Radiotelephone Equipment - International Maritime Mobile Service) Standard; AS/NZS 4770 Radiocommunications (MF and HF equipment - Land Mobile Service) Standard; AS/NZS 4583; AS/NZS 4583 + A1, Radiocommunications (118 MHz to 137 MHz Amplitude Modulated Equipment – Aeronautical Radio Service) Standard; AS/NZS 4768.1; AS/NZS 4768.2; AS/NZS 4769.1, Radiocommunications (Paging Service Equipment) Standard, Part 1: Angle modulated equipment; AS/NZS 4769.2, Radiocommunications (Paging Service Equipment) Standard, Part 2: Amplitude modulated equipment; ETSI EN 301 406, Radiocommunications (Digital Cordless Communications Devices - DECT Devices) Standard; ARIB Standard STD-T66, Version 3.5; ARIB Standard STD-T67, Version 1.3; HKCA 1001; HKCA 1002; HKCA 1003; HKCA 1004; HKCA 1005; HKCA 1006; HKCA 1007; HKCA 1008; HKCA 1010; HKCA 1015; HKCA 1016; HKCA 1019; HKCA 1020; HKCA 1022; HKCA 1026; 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 1064;HKCA 1065; HKCA 1066; HKCA 1067; HKCA 1068; HKCA 1069; HKCA 1070; HKCA 1071; HKCA 1072; HKCA 1073; HKCA 1074; HKCA 1075; HKCA 1076; HKCA 1077; HKCA 1078; HKCA 1080; HKCA 1081; HKCA 1218; HKCA 1223; HKCA 1224; HKCA 1225; HKCA 1257; HKCA 1258; HKCA 1259; HKCA 1260; HKCA 1261; HKCA 1262; HKCA 1263; HKCA 1264; HKCA 1265; HKCA 1266;

Test Technology:	Test Method(s):
Radio Communications *(excluding protocol testing) (cont.)*	HKCA 1277; HKCA 1281; HKCA 1282; HKCA 1283; IMDA TS WBA; IMDA TS GMPCS; IMDA TS UWB; IMDA TS CT-CTS; IMDA TS SRD; IMDA TS CMT; IMDA TS CBS; IMDA TS AR; IMDA TS LMR; IMDA TS WSD; IMDA TS IOT; IMDA TS DSRC; ITU-T K.21; ITU-T K.20; ITU-T K.44; ITU-T K.45; KN 301 489-1; KN 301 489-17; KS X 3124; KN 301 489-24; Korea MIC Rule No. 179; TCN 68-192; TCN 68-193; TCN 68-242; TCN 68-243; TCN 68-246; PLMN ALL; PLMN01; PLMN08; PLMN09; PLMN10; PLMN11; PLMN12; LP0001; LP0002; QCVN 10:2010/BTTTT; QCVN 11:2010/BTTTT; QCVN 12:2015/BTTTT; QCVN 13:2010/BTTTT; QCVN 15:2015/BTTTT; QCVN 17:2010/BTTTT; QCVN 18:2022/BTTTT; QCVN 37:2018/BTTTT; QCVN 39:2011/BTTTT; QCVN 42:2011/BTTTT; QCVN 43:2011/BTTTT; QCVN 44:2018/BTTTT; QCVN 47:2015/BTTTT; QCVN 54:2020/BTTTT; QCVN 55:2011/BTTTT; QCVN 65:2013/BTTTT; QCVN 65:2021/BTTTT; QCVN 66:2018/BTTTT; QCVN 73:2013/BTTTT; QCVN 74:2020/BTTTT; QCVN 75:2013/BTTTT; QCVN 76:2013/BTTTT; QCVN 86: 2019/BTTTT;QCVN 88:2015/BTTTT; QCVN 95:2015/BTTTT; QCVN 96:2015/BTTTT; QCVN 99:2015/BTTTT; QCVN 103:2016/BTTTT; QCVN 111:2017/BTTTT;QCVN 112:2017/BTTTT; QCVN 117:2020/BTTTT; QCVN 118:2018/BTTTT; QCVN 123:2021/BTTT; QCVN 124:2021/BTTTT; QCVN 127:2021/BTTTT; QCVN 129:2021/BTTTT ANSI C63.26:2015; VNS-Voluntary National Specification 2030/8/3

Test Technology:	Test Method(s):
Radio Communications *(excluding protocol testing) (cont.)*	
ISED Radio Testing	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-140; RSS-141; RSS-142; RSS-170; RSS-181; RSS-182; 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-140; 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-213; RSS-215; RSS-216; RSS-220; RSS-222; RSS-236; RSS-238; RSS-243; RSS-244; RSS-246; RSS-247; RSS-248; RSS-251; RSS-252; RSS-287; RSS-288; RSS-310; RSS-GEN; BETS-1, Issue 1[3]; BETS-3, Issue 1[3]; BETS-4, Issue 1[3]; BETS-5, Issue 1[3]; BETS-6, Issue 2 [3]; BETS-7, Issue 3[3]; BETS-8, Issue 1[3]; BETS-9, Issue 1[3];
FCC Testing	47 CFR Parts 2, 11, 15, 18, 20, 22 (cellular), 24, 25, 27, 30, 73, 74, 80, 87, 90, 95, 96, 97, 101 (using ANSI C63.4:2014, ANSI C63.10:2013, ANSI C63.17:2013; ANSI C63.19:2011; ANSI C63.26:2015; FCC KDB 905462 D02 (v02); ANSI/TIA-603E (2016); TIA-102.CAAA-E; FCC KDB 935210 D03; FCC KDB 935210 D04; and FCC KDB 935210 D05
SAR/ RF Exposure/ HAC	IEEE C95.1; IEEE 1528 and 1528a; OET Bulletin 65, Edition 97-01; Supplement C, Edition 01-01 to OET Bulletin 65, Edition 97-01; ANSI C63.19:2011; RSS-102 measurement (SAR, RF Exposure, NS); SPR-002; RSS-HAC; EN 50357; EN 50360; EN 50361; EN 50384 EN 50385; EN 50371 (2002); EN 50383; EN 60215; IEC 215 (A1+A2); IEC 62209; EN 62209-1; IEC 62209-1; IEC 62209-2; EN 62233; IEC 62233; IEC 62311; EN 62311; BS EN IEC 62311; BS EN 62479 ; H46-2/99-273E; BS EN 50566; CNS 14958-1; CNS 14959; HKCA; IEC/IEEE 62209-1528

ENERGY STAR Testing

Product Family:	**Supporting Standard(s)/Method(s):**
Computers	ENERGY STAR Program Requirements Product Specification for Computers, Version 8.0; ENERGY STAR Computers Final Test Method (Rev. October-2019)
Displays (*excluding enhanced performance and full network connectivity*)	ENERGY STAR Program Requirements for Displays, Version 8.0; ENERGY STAR Test Method for Determining Displays Energy Use, (Rev. February-2020)
Electric Vehicle Supply Equipment	ENERGY STAR Program Requirements Product Specification for Electric Vehicle Supply Equipment, Version 1.2; ENERGY STAR Level 1 and Level 2 Electric Vehicle Supply Equipment Test Method (Rev. Apr-2017); ENERGY STAR DC-output Electric Vehicle Supply Equipment Test Method (Rev. March – 2021); ENERGY STAR Test Method for Determining Displays Energy Use, (Rev. Sep-2015) Section 6.7.5.2 of Consumer Electronics Association (CEA) 2037 A
Enterprise Servers	ENERGY STAR Program Specification for Computer Servers, Version 4.0 (Rev. April-2023); ENERGY STAR Test Method for Computer Servers, (Rev. September-2018); Standard Performance Evaluation Corporation (SPEC) most current Server Efficiency Rating Tool (SERT)
Imaging Equipment	ENERGY STAR Program Specification for Imaging Equipment, Version 3.2; ENERGY STAR Imaging Equipment Test Method (December 2018)
Lighting Products	ENERGY STAR Program Requirements for Luminaires, Version 2.2; ENERGY STAR Program Requirements for Lamps (Version 2.1) (Rev. June-2020); ENERGY STAR Test Method for Lamps and Luminaries – Start Time (October 2017); ENERGY STAR Test Method for Lamps and Luminaries – Run-up Time (September 2015); ENERGY STAR Test Method for Lamps and Luminaries – Noise (September 2015); ENERGY STAR Elevated Temperature Light Output Ratio Test Method (September 2015); ENERGY STAR Ambient Temperature Life Testing Test Method (September 2015); ENERGY STAR Elevated Temperature Life Testing Test Method (September 2015) ENERGY STAR Method of Measurement for Light Source Flicker (December 2015)

Product Family:	Supporting Standard(s)/Method(s):
Measurement of Standby Power and Power Consumption	IEC 62301 Edition 2.0 2011-01; BS EN 50564 (2011); IEC 62623 (2012)
Televisions	ENERGY STAR Program Requirements for Televisions, Version 9.0; 10 CFR Part 430, Subpart B, Appendix H; Determination of Television Set Power Consumption, ANSI/CTA-2037-C (October 2021; CEA Procedure for DAM Testing: For TV's, Rev 0.3, September 2010

Lighting Testing

Tests are performed on Florescent, Compact Florescent, Solid State, High-Intensity Discharge (HID), Light-Emitting Diode (LED), and Incandescent (filament-based) lighting products[2]

Test Technology:	Supporting Standard(s)/Method(s):
Color Measurements	IES LM-16 (1993); IES LM-79 (2008) Section 12; IES LM-79 (2019) Section 9; IES LM-58 (2013); CIE Pub. 13.3 (1995); CIE Pub. 15 (2004)
Electrical Measurements	IES LM-9 (1988, 1999, 2009); IES LM-45-15; IES LM-66 (1991, 2000, 2011, 2014); ANSI C78.375 (1997); ANSI C78.375A; ANSI C82.2 (2002, R2016); ANSI C82.77 (2014)
Life Testing / Maintenance	IES LM-40 (2010); IES LM-49 (2001, 2012); IES LM-65 (1991, 2001, 2010, 2014); IES LM-80 (2008, 2015); IES LM-84 (2014); IES LM-85 (2014)
Luminous Intensity Distribution	IES LM-79 (2008) Section 10; IES LM-79 (2019) Section 8
Photometric Measurements	IES LM-9 (1988, 1999, 2009); IES LM-20-13; IES LM-45-15; IES LM-66 (2000, 2011, 2014); IES LM-79 (2008) Section 9; IES LM-79 (2019) Section 7; EN/IEC 60969:2016; LM-82-12; LM-41-14

[1] A2LA provides accreditation to the U.S. EPA's *Conditions and Criteria for Recognition of Laboratories for the ENERGY STAR Program* by verifying an organization's compliance to A2LA document *R222 - Specific Requirements - EPA ENERGY STAR Accreditation Program* and to the related test methods listed above.

Accreditation by A2LA does not infer Recognition by the EPA for ENERGY STAR testing. Please verify this organization's recognition status at the EPA's website, located at http://www.energystar.gov/index.cfm?fuseaction=recognized_bodies_list.show_RCB_search_form .

Recognized Testing / Certifying Organizations (does not include Lighting):
http://www.energystar.gov/index.cfm?fuseaction=recognized_bodies_list.show_RCB_search_form

Recognized Lighting Testing / Certifying Organizations:
http://www.energystar.gov/cms/default/index.cfm/news-and-announcements/hidden-articles/epa-recognized-bodies-for-lighting-products/epa-recognized-bodies-for-lighting-products

[2] The EPA ENERGY STAR program does not recognize incandescent lighting products; however, this laboratory is accredited to perform these tests for its commercial customers.

[3] This laboratory performs field testing activities for these tests.

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[5]

Rule Subpart/Technology	**Test Method**	**Maximum Frequency (MHz)**
Unintentional Radiators Part 15B	ANSI C63.4:2014	40000
Industrial, Scientific, and Medical Part 18	FCC MP-5 (February 1986)	325000
Intentional Radiators Part 15C	ANSI C63.10:2013	200000
Unlicensed Personal Communication Systems Devices Part 15D	ANSI C63.17:2013	200000
U-NIII without DFS Intentional Radiators Part 15E	ANSI C63.10:2013	200000
U-NIII with DFS Intentional Radiators Part 15E	FCC KDB 905462 D02 (v02)	200000
UWB Intentional Radiators Part 15F	ANSI C63.10:2013	200000
BPL Intentional Radiators Part 15G	ANSI C63.10:2013	40000
White Space Device Intentional Radiators Part 15H	ANSI C63.10:2013	200000
Commercial Mobile Services (FCC Licensed Radio Service Equipment) Parts 22 (cellular), 24, 25 (below 3 GHz), and 27	ANSI/TIA-603-E; ANSI C63.26:2015	200000
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; ANSI C63.26:2015	200000

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[5]

Rule Subpart/Technology	Test Method	Maximum Frequency (MHz)
Citizens Broadband Radio Services (FCC Licensed Radio Service Equipment)		
Part 96	ANSI/TIA-603-E; ANSIC63.26:2015	200000
Maritime and Aviation Radio Services		
Parts 80 and 87	ANSI/TIA-603-E; ANSI C63.26:2015	200000
Microwave and Millimeter Bands Radio Services		
Parts 25, 30, 74, 90 (below 3 GHz), 95, 97 (below 3 GHz), and 101	ANSI/TIA-603-E; ANSI C63.26:2015	200000
Broadcast Radio Services		
Parts 73 and 74 (Below 3 GHz)	ANSI/TIA-603-E; ANSI C63.26:2015	200000
RF Exposure		
Devices Subject to SAR Requirements	IEEE Std 1528:2013	6000
Hearing Aid Compatibility		
Part 20 (HAC for Commercial Mobile Services)	ANSI C63.19:2011	6000
Signal Boosters		
Part 20 (Wideband Consumer Signal Boosters Provider-specific Signal Boosters Industrial Signal Boosters), Section 90.219	ANSI C63.26:2015	200000

[5] 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

BAY AREA COMPLIANCE LABORATORIES CORP.

Sunnyvale, CA

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 R222 - Specific Requirements EPA ENERGY STAR Accreditation 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 21st day of December 2022.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3297.02
Valid to September 30, 2024
Revised March 6, 2024

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