



CERTIFICATE OF ACCREDITATION

ANSI National Accreditation Board

11617 Coldwater Road, Fort Wayne, IN 46845 USA

This is to certify that

LabTest Certification, Inc.
3128, 20800 Westminster HWY
Richmond B.C. V6V 2W3

has been assessed by ANAB and meets the requirements of international standard

ISO/IEC 17025:2005

and the

**US Federal Communication Commission (FCC) EMC and
Telecommunications (EC&T) Testing Designation Program**

while demonstrating technical competence in the field of

TESTING

Refer to the accompanying Scope of Accreditation for information regarding the types of activities to which this accreditation applies

AT-2033

Certificate Number


ANAB Approval

Certificate Valid Through: 03/04/2020
Version No. 008 Issued: 04/09/2019



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



ANSI National Accreditation Board

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

LabTest Certification, Inc.

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TESTING

Valid to: **March 04, 2020**

Certificate Number: **AT-2033**

Testing performed in support of FCC DoC and certification approval procedures

Type of Device Examples	Scope of Accreditation	Supporting FCC Guidance	Comments
Unintentional Radiators (FCC Part 15, Subpart B)	ANSI C63.4-2014	-	-
Industrial, Scientific, and Medical Equipment (FCC Part 18) Consumer ISM equipment	FCC MP-5, (February 1986)	-	-
Intentional Radiators (FCC Part 15 Subpart C)	ANSI C63.10-2013	-	-
U-NII without DFS Intentional Radiators (FCC Part 15, Subpart E) Unlicensed National Information Infrastructure Devices (U-NII without DFS)	ANSI C63.10-2013	KDB Publication 789033	-
U-NII with DFS Intentional Radiators (FCC Part 15 Subpart E) Unlicensed National Information Infrastructure U-NII) Devices with Dynamic Frequency Selection (DFS)	FCC KDB Publication 905462 D02 UNII DFS Compliance Procedures New Rules v02 (April 8, 2016)	-	-
UWB Intentional Radiators (FCC Part 15, Subpart F) Ultra-wideband Operation	ANSI C63.10-2013	-	-
BPL Intentional Radiators (FCC Part 15, Subpart G) Access Broadband Over Power Line (Access BPL)	ANSI C63.10-2013	-	-
White Space Device Intentional Radiators (FCC Part 15, Subpart H) White Space Devices	ANSI C63.10-2013	-	-

Testing performed in support of FCC DoC and certification approval procedures

Type of Device Examples	Scope of Accreditation	Supporting FCC Guidance	Comments
Commercial Mobile Services (FCC Licensed Radio Service Equipment) Part 22 (cellular) Part 24 Part 25 (below 3 GHz) Part 27	ANSI/TIA-603-E [1] or TIA-102.CAAA-E-2016 [1] or ANSI C63.26-2015	KDB Publication 971168	-
General Mobile Radio Services (FCC Licensed Radio Service Equipment) Part 22 (non-cellular) Part 90 (non-microwave) Part 95 Part 97 (below 3 GHz) Part 101 (below 3 GHz)	ANSI/TIA-603-E [1] or TIA-102.CAAA-E-2016 [1] or ANSI C63.26-2015	-	-
Citizens Broadband Radio Services (FCC Licensed Radio Service Equipment) Part 96	ANSI/TIA-603-E [1] or TIA-102.CAAA-E-2016 [1] or ANSI C63.26-2015	KDB Publication 971168 KDB Publication 940660	-
Maritime and Aviation Radio Services (FCC Licensed Radio Service Equipment) Part 80 Part 87	ANSI/TIA-603-E [1] or ANSI C63-26-2015	-	-
Microwave and Millimeter Bands Radio Services (FCC Licensed Radio Service Equipment) Part 25 Part 30 Part 74 Part 90 (M, DSRC, Y, Z) Part 95 (M and L) Part 101	ANSI/TIA-603-E [1] or TIA-102.CAAA-E-2016 [1] or ANSI C63.26-2015	KDB Publication 653005	-
Broadcast Radio Services (FCC Licensed Radio Service Equipment) Part 73 Part 74 (below 3 GHz)	ANSI/TIA-603-E [1] or TIA-102.CAAA-E-2016 [1] or ANSI C63.26-2015	-	-
Signal Boosters (Part 20) Wideband Consumer signal boosters Provider-specific signal boosters Industrial signal boosters Signal Boosters (Section 90.219)	ANSI C63.26-2015	KDB Publication 935210 D03, D04, and D05 [3]	-

[1] ANSI/TIA-603-D-2010 or ANSI/TIA-102.CAAA-D-2013 may be used until March of 2020.

[3] For Signal Boosters (Part 20) accreditation is required for Commercial Mobile Services (FCC Licensed Radio Services Equipment) and for Signal Booster (Section 90.219) accreditation is required for General Mobile Radio Services (FCC Licensed Radio Service Equipment).

Electromagnetic Compatibility

Test Method	Test Specification(s)	Range	Comments
Unintentional Radiators; Radiated and Conducted Emissions	ANSI C63.4-2003, ANSI C63.4-2009 ANSI C63.4:2014; FCC OST/MP-05 (1986); ICES-001(2006); ICES-002(2013); ICES-003(2016); ICES-005(2015); CISPR 16-2-1(2017); CISPR 16-2-3(2016); EN 55016-2-1(2014); EN 55016-2-3(2014); CISPR 11(2016); EN 55011(2016); AS/NZS CISPR 11(2016); KN 11 (RRA Announce 2016-79, Dec, 19, 2016); VCCI V-3 (up to 6 GHz); VCCI V-5; CNS 13438	9 kHz to 40 GHz	-
Harmonics Emissions	IEC 61000-3-2 (2014); EN 61000-3-2 (2014); AS/NZS 61000-3-2(2014); KN 61000-3-2 (RRA Announce 2016-79, Dec, 19, 2016)	-	IEC 61000-3-12 EN 61000-3-12 KN 61000-3-12
Flicker Emissions	IEC 61000-3-3 (2013); EN 61000-3-3 (2013); AS/NZS 61000-3-3(2013); KN 61000-3-3 (RRA Announce 2016-79, Dec, 19, 2016)	-	IEC 61000-3-11 KN 61000-3-11 EN 61000- 3-11
ESD Immunity Testing	IEC 61000-4-2(2008); EN 61000-4-2(2009); KN 61000-4-2 (RRA Announce 2016-79, Dec, 19, 2016)	-	IEC 60255-22-2 IEEE C37.90.3 ISO 10605 JIS C 61000-4-2
RF Immunity Radiated Immunity	IEC 61000-4-3(2010); IEC 61000-4-20(2010); EN 61000-4-3(2010); EN 61000-4-20(2010); KN 61000-4-3 (RRA Announce 2016-79, Dec, 19, 2016)	Up to 2.7 GHz, 20 V/m	IEEE Std. C37.90.2 JIS C 61000-4-3
EFT	IEC 61000-4-4 (2012); EN 61000-4-4(2012); KN 61000-4-4 (RRA Announce 2016-79, Dec, 19, 2016)		JIS C 61000-4-4

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Test Method	Test Specification(s)	Range	Comments
Surge	IEC 61000-4-5 (2017); EN 61000-4-5 (2014); KN 61000-4-5 (RRA Announce 2016-79, Dec, 19, 2016)		JIS C 61000-4-5
Conducted Immunity	IEC 61000-4-6 (2013); EN 61000-4-6 (2014); KN 61000-4-6 (RRA Announce 2016-79, Dec, 19, 2016)	-	JIS C 61000-4-6 IEC 61000-4-16-
Low Frequency Magnetic Immunity	IEC 61000-4-8 (2009); EN 61000-4-8(2010); KN 61000-4-8 (RRA Announce 2016-79, Dec, 19, 2016)	-	-
Pulse Field Immunity	IEC 61000-4-9(2016); EN 61000-4-9(2016); KN 61000-4-9 (RRA Announce 2016-79, Dec, 19, 2016)	-	-
Damped Oscillatory Field Immunity	IEC 61000-4-10(2016); EN 61000-4-10(2017)	-	-
Power Dips and Interrupts	IEC 61000-4-11 (2017); EN 61000-4-11 (2004); KN 61000-4-11 (RRA Announce 2016-79, Dec, 19, 2016)	-	-
Ring Wave Immunity	IEC 61000-4-12 (2017); EN 61000-4-12 (2017)	-	-
Harmonics and Interharmonics	IEC 61000-4-13 (2015); EN 61000-4-13 (2009)	-	-
Damped oscillatory wave immunity test	IEC 61000-4-18 (2010); EN 61000-4-18(2007)	-	-

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Test Method	Test Specification(s)	Range	Comments
Generic EMC Standards	IEC 61000-6-1(2016), IEC 61000-6-3(2010) EN 61000-6-1(2007) EN 61000-6-3(2017/AC:2012) AS/NZS 61000.6.3(2012) KN 61000-6-1(RRA Announce 2016-79, Dec, 19, 2016) KN 61000-6-3(RRA Announce 2016-79, Dec, 19, 2016) IEC 61000-6-2(2016) IEC 61000-6-4(2018) EN 61000-6-2(2005) EN 61000-6-4(2007/A1:2011) AS/NZS 61000.6.4(2012) KN 61000-6-2 (RRA Announce 2016-79, Dec, 19, 2016) KN 61000-6-4 (RRA Announce 2016-79, Dec, 19, 2016)	-	-
Product Type EMC Standards Multimedia Equipment	CISPR 22 (2010), CISPR 24(2010/A1:2015) CISPR 32(2015), CISPR 35(2016) EN 55022(2010), EN55024 (2010) EN 55032(2015), EN 55035(2017) AS/NZS CISPR 22(2010) AS/NZS CISPR 32(2013) AS/NZS CISPR 24(2009) KN35 (RRA Announce 2016-79, Dec, 19, 2016) TCVN 7189:2009, TCVN 7600:2010 TCVN 7317:2003	-	-
Product Type EMC Standards Household appliances	CISPR 14-1(2016), EN 55014-1 (2017) CISPR 14-2(2015), EN55014-2(2015) AS/NZS CISPR 14-1(2013) KN 14-1(RRA Announce 2016-79, Dec, 19, 2016)	-	-
Product Type EMC Standards Measurement Control & Laboratory	IEC 61326-1(2012), IEC 61326-2(2012) EN 61326-1(2013), EN 61326-2(2013)	-	-
Product Type EMC Standards Medical Devices	IEC 60601-1-2(Ed3 & Ed.4) EN 60601-1-2(2015) KN 60101-1-2(RRA Announce 2016-79, Dec, 19, 2016)	-	-



Electromagnetic Compatibility

Test Method	Test Specification(s)	Range	Comments
Product Type EMC Standards Lifts, escalators and moving walks	EN 12015(2014), EN 12016(2013)	-	-
Product Type EMC Standards Alarm systems	EN 50130-4(2011)	-	-
Product Type EMC Standards Audio, video, audio-visual and entertain-ment; lighting control apparatus for professional use	EN 55103-1(2012), EN 55103-2(2009)	-	-
Product Type EMC Standards Signaling on low-voltage electrical installation	EN50065-1(2011), EN50065-2-1(2003) EN50065-2-2(2003), EN50065-2-3(2003)	-	-
Product Type EMC Standards Lighting and similar equipment	CISPR 15(2013/A1 :2015) EN 55015(2013), IEC 61547(2009) EN 61547(2009) KN 61547(RRA Announce 2016-79, Dec, 19, 2016)	-	-
Product Type EMC Standards Gases, toxic gases or oxygen	EN 50270(2015)	-	-
Product Type EMC Standards Electricity metering equipment (a.c.)	IEC 62053-22(2003/A1:2016) EN 62053-22(2003)	-	-
Product Type EMC Standards Railway applications	IEC 62236-1, 2, 3, 4, 5(2008) EN 50121-1,2,3,4,5(2015)	-	-
Product Type EMC Standards Automotive	CISPR 12(2009) CISPR 25(2016) EN 55012(2012) EN 55025(2017) AS/NZS CISPR 12(2013) ISO 7637-2	-	ISO 11451-1, ISO 11451-2 ISO 11451-3, ISO 11451-4 ISO 11452-1, ISO 11452-2 ISO 11452-3, ISO 11452-4 ISO 11452-5, ISO 11452-7 ISO 11452-8, ISO 11452-9 ISO 11452-10, ISO 10605 UNECE R10:2014, ISO 7637-3
Product Type EMC Standards Maritime	IEC 60945(2002) EN 60945(2002) LLOYD'S REGISTE TYPE APPROVAL SYSTEM Test Specification Number 1 DNVGL-CG-0339	-	-

Electromagnetic Compatibility

Test Method	Test Specification(s)	Range	Comments
Product Type EMC Standards UPS and Power Units	IEC 61800-3(2017) EN 61800-3(2004) IEC 62040-2(2016) EN 62040-2(2006) AS 62040-2(2008)	-	-
Military Conducted Emissions	MIL-STD-461E, F, G: Methods CE101, CE102, CE106 MIL-STD-462D Methods CE101, CE102, CE106 MIL-STD-462 Methods CE01, CE02, CE03, CE06	-	-
Military Radiated Emissions	MIL-STD-461E, F, G: Methods RE101, RE102 and RE103 MIL-STD-462D: Methods RE101, RE102 and RE 103 MIL-STD-462: Methods RE01, RE02 and RE03	-	-
Conducted Susceptibility	MIL-STD-461E, F, G: Methods CS101, CS 103; CS 104; CS 105, CS109, CS114, CS115, CS116 MIL-STD- 462D: Methods CS101, CS103, CS114, CS115, CS116; CS118 MIL-STD-462: Methods, CS01, CS02, CS03, CS04, CS05, CS06, CS08	-	-
Radiated Susceptibility	MIL-STD-461/462D: Methods RS101, RS103 MIL-STD-461E, F, G: Methods RS101, RS103	-	-

Radio

Test Method	Test Specification(s)	Range	Comments
Australia/New Zealand	AS/NZS 4268(2012) AS/NZS 4295(2015) AS/NZS 4365(2011)	-	-

Radio

Test Method	Test Specification(s)	Range	Comments
Europe	ETSI EN 300 113, v2.2.1(2016-12) ETSI EN 300 220-1, v3.1.1(2017-02) ETSI EN 300 220-2, v3.2.0(2017-09) ETSI EN 300 328, v2.2.0(2017-11) ETSI EN 300 330, v2.1.1(2017-02) ETSI EN 300 390, v2.1.1(2016-03) ETSI EN 300 440, v2.2.0(2017-09) ETSI EN 301 489-1, v2.2.0(2017-03) ETSI EN 301 489-3, v2.2.1(2017-03) ETSI EN 301 489-4, v3.2.0(2017-03) ETSI EN 301 489-5, v2.2.0(2017-03) ETSI EN 301 489-11, v1.3.1(2006-05) ETSI EN 301 489-13, v1.2.1(2002-08) ETSI EN 301 489-17, v3.2.0(2017-03) ETSI EN 301 489-34, v2.1.1(2017-04)	-	-
Canada	RSS-Gen (2014), RSS-111(2014), RSS-112(2008), RSS-117(2016), RSS-119(2015), RSS-123(2015), RSS-125(2000), RSS-127(2009), RSS-130(2013), RSS-131(2017), RSS-132(2013), RSS-133(2013), RSS-134(2016), RSS-135(2009), RSS-137(2009), RSS-139(2015), RSS-141(2010), RSS-142(2013), RSS-170(2015), RSS-181(1971), RSS-182(2012), RSS-191(2008), RSS-192(2008), RSS-194(2007), RSS-195(2014), RSS-210(2016), RSS-211(2015), RSS-213(2015), RSS-215(2009), RSS-216(2016), RSS-220(2009), RSS-236(2012), RSS-238(2013), RSS-243(2010), RSS-244(2013), RSS-247(2017) with DFS RSS-251(2014), RSS-287(2014), RSS-288(2012), RSS-310(2015)	-	-
Hongkong	HKCA 1039; HKCA 1042; HKCA 1049; HKCA 1020; HKCA 1043; HKCA 1056	-	-
Vietnam	QCVN 18:2014/BTTTT, QCVN 44:2011/BTTTT QCVN 54:2011/BTTTT, QCVN 55:2011/BTTTT QCVN 65:2013/BTTTT, QCVN 73:2013/BTTTT QCVN 74:2013/BTTTT, QCVN 96:2015/BTTTT	-	-

Radio

Test Method	Test Specification(s)	Range	Comments
Mexico	NOM-084sct1-2002, NOM-088/1-SCT1-2002 NOM-088/2-SCT1-2002 NOM-EM-016-SCF1-2015	-	-
South Korea	MSIT Public Notification 2017-10, Sep 1, 2017 RRA Public Notification 2016-33, Dec 29, 2016 RRA Public Notification 2017-3, Mar 31, 2017 RRA Announce 2016-20, Sep, 27, 2016	-	-

Notes:

1. ANSI/TIA-603-D-2010 or ANSI/TIA-102.CAAA-D-2013 may be used until March of 2020.
2. ANSI C63.19-2007, American National Standard for Methods of Measurement Compatibility Between Wireless Communications Devices and Hearing Aids, may be used for HAC testing until August 28, 2018, per FCC 17-135.
3. For Signal Boosters (Part 20) accreditation is required for Commercial Mobile Services (FCC Licensed Radio Services Equipment) and for Signal Booster (Section 90.219) accreditation is required for General Mobile Radio Services (FCC Licensed Radio Service Equipment).
4. This scope is formatted as part of a single document including Certificate of Accreditation No. AT-2033.



Vice President

