



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

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ELECTRICAL

Valid To: February 29, 2024

Certificate Number: 0214.28

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

Test Technology:

Test Method(s) ¹:

Emissions

Radiated Emissions

47 CFR FCC Part 15B (using ANSI C63.4:2014);
47 CFR FCC Part 18 (using MP-5:1986)²;
VCCI V-3 (up to 6 GHz); ANSI C63.4:2014;
EN 55011; CISPR 11; AS CISPR 11; KS C 9811;
EN 55012; CISPR 12; AS/NZS CISPR 12;
EN 55014-1; CISPR 14-1; AS/NZS CISPR 14-1; KS C 9814-1
EN 55022; CISPR 22; AS/NZS CISPR 22;
CISPR 25 (section 6.5); EN 55025 (section 6.5);
EN 55032 (excluding Annex H); CISPR 32 (excluding Annex H);
AS/NZS CISPR 32 (excluding Annex H);
KS C 982 (excluding Annex H);
EN/IEC 61000-6-3; EN/IEC 61000-6-4;
AS/NZS 4268 + A1/A2; AS/NZS 4251-1; AS/NZS 4251-2;

MIL-STD-461 (RE101, RE102, RE103)³;
MIL-STD-462D (RE101, RE102, RE103)²;
MIL-STD-462 (RE01, RE02)²;
RTCA/DO-160 C, D, E, F, and G, Sections 15² and 21²

Conducted Emissions ²

47 CFR FCC Part 15B (using ANSI C63.4:2014);
47 CFR FCC Part 18 (using MP-5:1986);
VCCI V-3;
EN 55011; CISPR 11; AS/NZS CISPR 11; KS C 9811
EN 55012; CISPR 12; AS/NZS CISPR 12; KS C 9812
EN 55014-1 (excluding click and disturbance power measurements);
CISPR 14-1 (excluding click and disturbance power measurements);
AS/NZS CISPR 14-1 (excluding click and disturbance power
measurements);
KS C 9814-1 (excluding click and disturbance power
measurements);

Test Technology:

Test Method(s) ¹:

Emissions (cont.)

EN 55022; CISPR 22; AS/NZS CISPR 22;
CISPR 25 (sections 6.3 and 6.4), EN 55025 (sections 6.3 and 6.4);
EN 55032; CISPR 32; AS/NZS CISPR 32; KS C 9832;
EN/IEC 61000-6-3; EN/IEC 61000-6-4;
AS/NZS 4268 + A1/A2;
AS/NZS 4251-1; AS/NZS 4251-2;
AS/NZS 4250-1; AS/NZS 4250-2;
MIL-STD-461E, F, and G (CE101, CE102, CE106);
MIL-STD-462D (CE101, CE102, CE106);
MIL-STD-462 (CE01, CE03, CE07);
RTCA/DO-160 C, D, E, F, and G, Section 21

Immunity

Electrostatic Discharge (ESD) ²	EN/IEC 61000-4-2 ³ ; AS/NZS 61000.4.2 ³ ; KS C 9610-4-2; RTCA/DO-160 C, D, E, F, and G, Section 25; MIL-STD-1686C; MIL-STD-461G (CS118)
Electrical Fast Transient/Burst ²	EN/IEC 61000-4-4 ³ ; AS/NZS 61000.4.4 ³ ; KS C 9610-4-4
Surge Immunity ²	EN/IEC 61000-4-5 ³ ; AS/NZS 61000.4.5 ³ ; KS C 9610-4-5; IEEE C62.41; IEEE C62.41.1; IEEE C6241.2
Radiated ²	EN/IEC 61000-4-3 ³ ; AS/NZS 61000.4.3 ³ ; KS C 9610-4-3; MIL-STD-461E, F, and G (RS101, RS103, RS105); MIL-STD-462D (RS101, RS103); MIL-STD-462 (RS01, RS02, RS03); RTCA/DO-160 C, D, E, F, and G, Section 20
Conducted ²	EN/IEC 61000-4-6 ³ ; AS/NZS 61000.4.6 ³ ; KS C 9610-4-6; MIL-STD-461E, F, and G (CS103, CS104, CS105, CS109, CS114, CS115, CS116); MIL-STD-462D (CS103, CS104, CS105, CS109, CS114, CS115, CS116); MIL-STD-462 (CS01, CS02, CS06); RTCA/DO-160 C, D, E, F, and G, Section 20
Power Frequency Magnetic Field ²	EN/IEC 61000-4-8 ³ (<i>excluding short duration mode</i>); AS/NZS 61000.4.8 ³ (<i>excluding short duration mode</i>); KS C 9610-4-8 (<i>excluding short duration mode</i>); RTCA/DO-160 C, D, E, F, G, Section 15; MIL-STD-461D, E, F, G, (RS101); MIL-STD-462 (RS01)
Voltage Dips/Interruptions and Variations ²	EN/IEC 61000-4-11 ³ ; AS/NZS 61000.4.11 ³ ; KS C 9610-4-11
Voltage Spike ²	RTCA/DO-160 C, D, E, F, and G, Section 17; MIL-STD-461F (CS106)
Power Input ²	RTCA/DO-160 C, D, E, F, and G, Section 16; MIL-STD-704A, B, C, D, E, and F, w/ Notice 1

Test Technology:**Test Method(s) ¹:*****Immunity (cont.)***

Audio Frequency Conducted Susceptibility ² RTCA/DO-160 C, D, E, F, and G, Section 18; MIL-STD-461D, E, F, and G (CS101); MIL-STD-462 (CS01)

Induced Signal Susceptibility ² RTCA/DO-160 C, D, E, F, and G, Section 19

Lightning Induced Transient ² RTCA/DO-160 C, D, E, F, and G, Section 22; MIL-STD-461G (CS117)

Generic and Product Family Standards

EN/IEC 61000-6-1; AS/NZS 61000.6.1;
 EN/IEC 61000-6-2; AS/NZS 61000.6.2;
 CISPR 14-2; EN 55014-2; AS/NZS CISPR 14-2;
 CISPR 24; EN 55024; AS/NZS CISPR 24; KS C 9824; CISPR 35 (excluding Annex A-H); EN 55035 (excluding Annex A-H); AS/NZS CISPR 35 (excluding Annex A-H);
 KS C 9835 (excluding Annex A-H);
 BS EN/IEC 60601-1-2; BS EN/IEC 60947-1; BS EN/IEC 60439-1;
 BS EN/IEC 61326-1; BS EN/IEC 61326-2;
 BS EN 50130-4; BS EN 50131-1;
 EN 61800-3; IEC 61800-3 (up to 75A, 1000V)

On the following product types:

Aerospace, Defense, Telecommunications, Electrical, Electronics, Automotive, and Commercial.

¹ 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*.

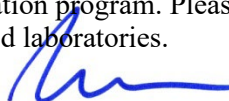
² This laboratory performs field testing activities for the noted tests.

³ The laboratory's accreditation includes all revisions of the noted standards.

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 ⁴:

Rule Subpart/Technology:	Test Method:	Maximum Frequency (MHz):
<u>Unintentional Radiators</u> Part 15B	ANSI C63.4:2014	10000
<u>Industrial, Scientific, and Medical Equipment</u> Part 18	FCC MP-5 (February 1986)	10000

⁴Accreditation 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.
 (A2LA Cert. No. 0214.28) Revised 10/11/2022

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Accredited Laboratory

A2LA has accredited

NTS LABS, LLC ROCKFORD

Rockford, IL

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).

Presented this 6th day of June 2022.



A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 0214.28
Valid to February 29, 2024
Revised October 11, 2022

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