



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

NATIONAL TECHNICAL SYSTEMS (NTS)
New Jersey Facility
36 Gilbert Street South
Tinton Falls, NJ 07701
David Potpinka Phone: 732 936 0800

ELECTRICAL (EMC/SAFETY)

Valid to: September 30, 2019

Certificate Number: 0214.18

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following Electromagnetic Compatibility/Interference (EMC/EMI), Lightning Transients, Surges and Product Safety tests:

Tests:

Standard(s)¹:

Emissions

Radiated/Conducted
(3m Semi Anechoic Chamber)

Code of Federal Regulation (CFR) 47,
FCC Part 15 (Subpart B) using ANSI C63.4:2014,
and Part 18 (using MP5:1986) (up to 18 GHz);
ICES-003;
CISPR 22; EN 55022;
CISPR 32; EN 55032;
CISPR 11; EN 55011;
CISPR 14-1; EN 55014-1;
VCCI V-3 (up to 6 GHz);
MIL-STD-461* (Methods CE01, CE02, CE03,
CE04, RE01, RE02);
MIL-STD-461* (Methods CE101, CE102, CE106
[up to 18 GHz], RE101, RE102);
MIL-STD-462*;
RTCA DO 160* (Section 21)

Current Harmonics

EN/IEC 61000-3-2

Voltage Fluctuations and Flicker

EN/IEC 61000-3-3

Magnetic Effects

RTCA DO 160* (Section 15)

Tests:

Standard(s) ¹:

Immunity

Electrostatic Discharge (ESD)	EN/IEC 61000-4-2*; RTCA DO 160* (Section 25)
Radiated Immunity	EN/IEC 61000-4-3*; RTCA DO 160* (Sections 19 & 20); MIL-STD-461* (Methods RS01, RS02, RS03); MIL-STD-461* (Methods RS101, RS103); MIL-STD-462*
Electrical Fast Transient/Burst	EN/IEC 61000-4-4*
Surge Immunity	EN/IEC 61000-4-5* (<i>excluding clause 6.2</i>); RTCA DO 160* (Sections 16 & 17)
Conducted Immunity	EN/IEC 61000-4-6*; RTCA DO 160* (Sections 18 & 20); MIL-STD-461* (Methods CS01, CS02, CS06); MIL-STD-461* (Methods CS101, CS106, CS109, CS114, CS115, CS116); MIL-STD-462*
Magnetic Field Immunity	EN/IEC 61000-4-8*
Voltage Dips, Short Interruptions and Line Voltage Variations	EN/IEC 61000-4-11*

***Generic/Product Family Standards and
Industry Standards***

EN 60601-1-2; IEC/EN 61326-1; EN 55024;
EN 61000-6-1; EN 61000-6-2; EN 61000-6-3;
EN 61000-6-4;
GR-1089-CORE;
ETSI EN 300 386;
KN 35 (*excluding Broadcast Receivers*)

Product Safety

Product Safety	EN/IEC/UL 60950-1, 2 nd Edition (<i>excluding clauses 2.3.5, 2.10.5.8, 4.3.8, 4.3.13, 4.7 & Annex A [no flame tests], Annex N AC</i>); EN/IEC 61010-1, 3 rd Edition (<i>excluding clauses 9 [no flame tests], 9.4, 12.2.1, 13.2.2</i>); EN/IEC 60335-1, 4 th Edition (<i>excluding clauses 30 [no glow-wire or flame tests], 32</i>)
Hi Pot	MIL-STD 883 (Method 1003)

On the Following Product Types: Aerospace, Defense, Telecommunications, Electrical, Electronics, Automotive, Information Processing, Scientific Instruments, and Commercial



*Note: The laboratory's accreditation includes all revisions of the standards identified by this mark above.

¹When 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.1²

Rule Subpart/Technology	Test Method	Maximum Frequency (MHz)
<u>Unintentional Radiators</u> Part 15B	ANSI C63.4:2014	18000
<u>Industrial, Scientific, and Medical Equipment</u> Part 18	FCC MP-5:1986	18000

²Accreditation 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

NATIONAL TECHNICAL SYSTEMS (NTS)

Tinton Falls, NJ

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 8 January 2009).



Presented this 15th day of November 2017.

A handwritten signature in black ink, written over a horizontal line.

President and CEO
For the Accreditation Council
Certificate Number 0214.18
Valid to September 30, 2019

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