



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

NTS LABS, LLC BALTIMORE
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Hunt Valley, MD 21030
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ELECTRICAL

Valid To: December 31, 2024

Certificate Number: 0214.36

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on the following products: Aerospace, Automotive, Avionics, Consumer Products, Electronics, Industrial, Medical, Military Telecommunication and Textiles.

Test Technology:

Test Method(s)¹:

Arc Resistance

ASTM D495; IPC-TM-650 (Section 2.5.1)

Dielectric Constant/Loss Tangent/
Permittivity Dissipation Factor

ASTM D150; ASTM D2520;
IPC-TM-650 (Methods 2.5.5.1, 2.5.5.2, and 2.5.5.3);
MIL-STD-883, Method 5011

Range:

100Hz to 100KHz
1 MHz to 1.0 GHz

Resistivity/Volume and Surface Resistance

ASTM D257; IPC-TM-650 (Methods 2.5.17.1);
MIL-STD-883, Method 5011; IEC 60093

Q Factor/Q Resonance

IPC-TM-650 (Method 2.5.28); MIL-I-46058

Dielectric Strength/Dielectric Breakdown/
Electrical Strength

ASTM D149;
IPC-TM-650 (Methods 2.5.6, 2.5.6.1, 2.5.6.2, and 2.5.6.3);
IEC 62631

Range:

AC to 50kV
DC to 60kV

Electromigration (ECM)
Insulation Resistance (IR)
Moisture and Insulation Resistance (MIR)
Surface Insulation Resistance (SIR)

IPC-TM-650
(Sections 2.6.3, 2.6.3.1, 2.6.3.2, 2.6.3.3, 2.6.3.7, 2.6.14,
2.6.14.1);
MIL-STD-202, Methods 106 and 302

Range:

$10^5\Omega$ to $10^{12}\Omega$

Test Technology:

Test Method(s)¹:

Dielectric Withstanding Voltage (DWV)/
AC Withstanding Voltage
DC Withstanding Voltage

BELLCORE GR-78-CORE;
IPC-TM-650 (Method 2.5.7)

Event Detection

IPC-9701 (Paragraph 4.3)

Range:

>300Ω for >200 nanoseconds

Shelf Life of Conormal Coating

MIL-I-46058; IPC-CC-830

Supporting the following documents: IPC-4101, IPC-SM-840, IPC-CC-830, IPC-6012, IPC-6013, IPC-6018, IPC-J-STD-004, MIL-A-28870, MIL-I-46058, MIL-P-50884, MIL-PRF-31032, MIL-PRF-55110

This laboratory also uses customer supplied specifications and/or methods directly related to the testing technologies and parameters listed above.

Facility studies performed according to IPC-QL-653 “Certification of Facilities that Inspect/Test Printed Boards, Components and Materials.”

¹When 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.*





Accredited Laboratory

A2LA has accredited

NTS LABS, LLC BALTIMORE

Hunt Valley, MD

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 5th day of June 2023.

A blue ink signature of Mr. Trace McInturff, written in a cursive style.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 0214.36
Valid to December 31, 2024

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