



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

EUROFINS ELECTRICAL AND ELECTRONIC TESTING NA, INC.  
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MECHANICAL

Valid to: January 31, 2025

Certificate Number: 0591.04

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

<b><u>Test Technology:</u></b>	<b><u>Test Method(s)<sup>1,2:</sup></u></b>
<b>Physical Testing</b>	
Attenuation	GR-1209; GR-1221; FOTP-20
Cable Freezing	FOTP-98
Cable Jacket Testing	FOTP-89; FOTP-86
Component Impact	FOTP-2; ANSI B109.1, 2 and 4
Compression Test	GR-950; FOTP-41
Corrosion Resistance - Salt Fog Spray	FOTP-16; ASTM B117; ASTM D610; IEC 60068-2-52
Durability	FOTP-21
Fiber Flexing	FOTP-1; FOTP 104
Fluid Immersion	FOTP-12
Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)	ASTM D2794
Insertion Loss	FOTP-20; FOTP-78
Polarization-Dependent Loss (PDL)	FOTP-157
Polarization-Mode Dispersion (PMD)	FOTP-113; FOTP-122; FOTP-124
Reflectance	FOTP-107A

(A2LA Cert. No. 0591.04) 05/15/2023

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**Test Technology:**

Tensile Testing  
(up to 10kN)

Twist/Torsion Testing

Visual Inspection and Dimensions

**Environmental Simulation**

Altitude (up to 80,000 feet)

Cable Aging

Chemical / Fluid Compatibility

Chemical Resistance

Drop / Shock Tests (Free Fall)

Sand and Dust Test (Blowing)

Dust Test (Enclosure)

Enclosure Integrity

Fiber and Cable Retention (Straight Pull)

Fire Resistance

**Test Method(s)<sup>1,2:</sup>**

ASTM D638;  
ASTM E8; FOTP-89; FOTP-28

FOTP-36; FOTP-85

FOTP-13; ASTM E29

RTCA/DO-160 D through G, Sec 4.0;  
SAE J145 Sec. 4.9;  
MIL-STD-810 A through H, Rev H Change 1,  
Method 500;  
MIL-STD-202 F & G, Method 105C;  
MIL-STD-202-105, 18 April 2015

FOTP-3

MIL-STD-810 A through H, Rev H Change 1,  
Method 504;  
RTCA/DO-160 D through G, Sec 11.0;  
NEMA 250 Sec. 5.14.4; EN 60945 Sec. 8.11;  
SAE J1455 Sec. 4.4

ANSI B109.1, .2, and .3

ASTM D5276-98 (2009);  
EN 60945 Sec. 8.6; SAE J1455 Sec. 4.11;  
ETS 300-019-2-1 through 8;  
MIL-STD-810 A through H,  
Method 516 (IV & VI);  
FOTP-35

MIL-STD-810 A through H, Rev H Change 1,  
Method 510, Procedure I & II;  
ANSI/EIA/TIA 455-35 (FOTP-35);  
IEC 60068-2-68, Method Lc1, Variant 2

IEC 60529, IP5x and 6x;  
IEC 60068-2-68, Method La2;  
ISO 20653, IP5K and 6K

NEMA 250; ISO 20653;  
EN 60945; IEC 60529:2013 (*excluding IPX9*)

FOTP-33; FOTP-6

RTCA/DO-160 D through G, Sec. 26.0

**Test Technology:**

**Test Method(s)<sup>1,2:</sup>**

Corrosion

ASTM B810 (rev 01a, 2011);  
ASTM G85-11;  
ISO 9227; NEMA 250 Sec. 5.8, 5.9, 5.10;  
UL 1332-1995, 3rd Ed., Sec. 8

High / Low Temperature

RTCA/DO-160 D through G, Sections 4.0 and 5.0;  
EN 60945 Sec. 8.2-8.5; SAE J1455 Sec. 4.1;  
NEMA 250 Sec. 5.14.2;  
MIL-STD-810 A through H, Rev H Change 1,  
Method 501 and 502;  
MIL-STD-202 F & G, Method 108A;  
MIL-STD-202-108, 18 April 2015;  
IEC 60068-2-1; IEC 60068-2-2;  
ETS 300-019-2-1 through -8;  
FOTP-4;  
ANSI B109.1, 2, 4; ANSI C12.1, C12.20;  
TR-TSY-000949

Humidity (Moisture Resistance) / Humidity Aging

EN 60945 Sec. 8.3; SAE J1455 Sec. 4.2;  
RTCA/DO-160 D through G, Sec 6.0;  
MIL-STD-810 A through H, Rev H Change 1,  
Method 507;  
MIL-STD-202 F & G, Methods 103B and 106G;  
MIL-STD-883 E & F; IEC 60068-2-30;  
IEC 60068-2-56; ETS 300-019-2-1 through 8;  
ANSI C12.1, C12.20; FOTP-5B

Icing

NEMA 250 Sec. 5.6; MIL-STD-810 D through  
Rev H Change 1, Method 521;  
RTCA/DO 160 D through G, Sec 24.0

Immersion

MIL-STD-202 F & G, Method 104A;  
MIL-STD-202-108, 18 April 2015;  
MIL-STD-810 A through H, Rev H Change 1,  
Method 512;  
EN 60945 Sec. 8.9

Mechanical Impact

FOTP-2; FOTP-25

Mechanical Shock

Pneumatic Shock Table: half-sine/sawtooth up to  
3,000g's  
Electrodynamic: half-sine/sawtooth/triangle/  
rectangular/trapezoid/haversine/transient (SRS)  
up to 18,000 lbf

MIL-STD-810 A through H, Rev H Change 1,  
Method 516;  
MIL-STD-202; MIL-STD-883;  
MIL-STD-202-207, 18 April 2015;  
MIL-STD-202-213, 18 April 2015;  
IEC 60068-2-27;  
RTCA/DO160 D through G, Sec 7.0;  
SAE J1455 Sec. 4.11;  
ETS 300-019-2-1 through -8;  
ASTM D3332

**Test Technology:**

Mechanical Vibration  
(Sine/ Random/ Gunfire/ Sine on Random/  
Random on Random/ Sine and Random on  
Random) (5 to 3,000) Hz;  
Sine: 17,000lbf  
Random: 16,000 lbf

Package / Shipping Testing

Salt Spray

Solar Radiation

Temperature Cycling

Thermal Shock

Tension / Compression

**Test Method(s)<sup>1,2:</sup>**

GR-63, Issue 4; GR-487, Issue 5; FOTP-11;  
MIL-STD-810 A through H, Rev H Change 1,  
Method 514;  
MIL-STD-883 E & F;  
RTCA/DO-160 D through G, Sec 8.0;  
MIL-STD-202 F & G, Methods 201, 204, and 214;  
MIL-STD-201-207, 18 April 2015;  
MIL-STD-204-207, 18 April 2015;  
MIL-STD-202-214, 18 April 2015;  
MIL-STD-167-1 & 167-1A, Type 1;  
ASTM D3580; ASTM D4728-06 (2012);  
IEC 60068-2-6; IEC 60721-3-4;  
EN 60945 Sec. 8.7;  
SAE J1455 Sec. 4.10; ETS 300-019-2-1 through 8

ASTM D4169; 49 CFR 178

RTCA/DO-160 D through G, Sec 14.0;  
ISO 21207; ISO 9227; EN 60945 Sec. 8.12;  
SAE J1455 Sec. 4.3; ASTM G85-11;  
ASTM B117;  
MIL-STD-810 A through H, Rev H Change 1,  
Method 509;  
MIL-STD-202 F & G, Method 101E;  
MIL-STD-202-101, 18 April 2015;  
NEMA 250 Sections 5.8, 5.9 & 5.10;  
UL 1332-1995, 3<sup>rd</sup> Ed., Sec. 7

MIL-STD-810 A through H, Rev H Change 1,  
Method 505;  
IEC 60068-2-5; DIN 75220;  
EN 60079-0, Clause 26.10; EN 60945 Sec. 8.10

FOTP-3; MIL-STD-810 A through H, Rev H  
Change 1, Method 501 and 502;  
SAE J1455 Sec. 4.1

FOTP-71; MIL-STD-202;  
MIL-STD-202-107, 18 April 2015;  
MIL-STD-810 A through H, Rev H Change 1,  
Method 503;  
MIL-STD-883; EN 60945 Sec. 8.5;  
SAE J1455 Sec. 4.1;  
ANSI B109.1, 2, 4

NEMA 250 Sec. 5.14

**Test Technology:**

**Test Method(s)<sup>1,2:</sup>**

UV Exposure

ASTM G154; ASTM G155;  
EN 60079-0, Clause 26.10;  
UL 746C, Sections 25 and 27;  
UL 969, Section 7.1.6B;  
IEC 62093, Section 11.10;  
IEC 61215, Section 10.10;  
IEC 61646, Section 10.10

Fluid Immersion

GR-950; FOTP-12; IEC 60529; ISO 20653;  
EN 60945 Sec. 8.11; SAE J1455 Sec. 4.4

Waterproofness / Rain

RTCA/DO-160 D through G, Sec 10.0;  
MIL-STD-108 E;  
MIL-STD-810 A through H , Rev H Change 1,  
Method 506;  
IEC 60529; ISO 20653;  
NEMA 250 Sections 5.3, 5.4, 5.7, and 5.12;  
EN 60945 Sec. 8.8-8.9;  
IEC 60068-2-18; ETS 300-019-2-1 through -8

**Battery Testing**

250N Steady Force Test

UL 2054

Mold Stress Relief Test

UL 2054; IEC 62133

Drop Test

UL 2054

Heating / Thermal Abuse (High Temp)

UL 1642; UL 2054; IEC 62133

Temperature Cycling

UL 1642; UL 2054; UN/DOT 38.3; IEC 62133

Altitude Simulation

UL 1642; UN/DOT 38.3; IEC 62133

Shock

UL 1642; UL 2054; UN/DOT 38.3; IEC 62133

Vibration

UL 1642; UL 2054; UN/DOT 38.3; GR 3150;  
GR 3168; GR 4228; IEC 62133

Free Fall

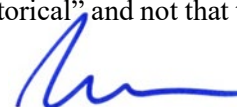
IEC 62133

**On the following products or types of products:**

Information Technology Equipment, Industrial Equipment, Audio/Visual Equipment, Wireless Equipment, Medical Electrical Equipment, Radio Equipment, Telecommunications Equipment, Batteries

<sup>1</sup> 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*.

<sup>2</sup> This laboratory's scope contains withdrawn or superseded methods. As a clarifier, this indicates that the applicable method itself has been withdrawn or is now considered "historical" and not that the laboratory's accreditation for the method has been withdrawn.





## Accredited Laboratory

A2LA has accredited

**EUROFINS ELECTRICAL AND ELECTRONIC TESTING NA, INC.**

*Baltimore, MD*

for technical competence in the field of

**Mechanical 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 15<sup>th</sup> day of May 2023.

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

Mr. Trace McInturff, Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 0591.04  
Valid to January 31, 2025

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