



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ELEMENT MATERIALS TECHNOLOGY DENVER- LONGMONT  
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ELECTRICAL

Valid To: March 31, 2024

Certificate Number: 0214.43

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

**Test Technology:**

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

***Emissions***

Radiated and Conducted  
(10m semi-anechoic chamber)

CFR 47 FCC, Part 15B (using ANSI C63.4:2014),  
CFR 47 FCC, Part 18 (using MP-5:1986);  
CISPR 11; EN 55011; AS CISPR 11; KS C 9811;  
CISPR 32 (excluding Annex H); EN 55032 (excluding Annex H);  
AS/NZS CISPR 32 (excluding Annex H);  
KS C 9832 (excluding Annex H);  
VCCI-CISPR 32:2016 (excluding Annex H);  
CISPR 14-1 (excluding disturbance power and click  
measurements);  
EN 55014-1(excluding disturbance power and click  
measurements);  
AS/NZS CISPR 14-1 (excluding disturbance power and click  
measurements);  
KS C 9814-1(excluding disturbance power and click  
measurements);  
CNS 13438;  
TCVN 7189;  
QCVN 118:2018/BTTTT;  
ICES-003

Harmonics

IEC 61000-3-2; EN 61000-3-2;  
IEC 61000-3-12; EN 61000-3-12

Flicker

IEC 61000-3-3; EN 61000-3-3

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

Electrostatic Discharge (ESD)	IEC 61000-4-2; EN 61000-4-2; KS C 9610-4-2
Radiated	IEC 61000-4-3; EN 61000-4-3; KS C 9610-4-3
Electrical Fast Transient/Burst	IEC 61000-4-4; EN 61000-4-4; KS C 9610-4-4
Surge	IEC 61000-4-5; EN 61000-4-5; KS C 9610-4-5; IEEE C62.41.1 (2002); IEEE C62.41.2 (2002); IEEE C62.45 (2002)
Conducted	IEC 61000-4-6; EN 61000-4-6; KS C 9610-4-6
Power Frequency Magnetic Field	IEC 61000-4-8 ( <i>excluding short duration mode</i> ); EN 61000-4-8 ( <i>excluding short duration mode</i> ); KS C 9610-4-8 ( <i>excluding short duration mode</i> )
Voltage Dips, Short Interruptions, and Voltage Variations	IEC 61000-4-11; EN 61000-4-11; KS C 9610-4-11

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

IEC 61000-6-1; EN 61000-6-1; KS C 9610-6-1;  
IEC 61000-6-2; EN 61000-6-2; KS C 9610-6-2;  
IEC 61000-6-3; EN 61000-6-3; KS C 9610-6-3;  
IEC 61000-6-4; EN 61000-6-4; KN 61000-6-4; KS C 9610-6-4;  
IEC 60601-1-2; EN 60601-1-2; KS C IEC 60601-1-2;  
EN 61326-1;  
CISPR 24; EN 55024; KS C 9824  
CISPR 35 (*excluding Annex A-H*); EN 55035 (*excluding Annex A-H*);  
KS C 9835 (*excluding Annex A-H*);  
CISPR 14-2; EN 55014-2; KS C 9814-2;  
ISO 7176-21

***Military/Defense***

MIL-STD-461E, F, G Method CE101 (30 Hz to 10 kHz);  
MIL-STD-461E, F, G Method CE102 (10 kHz to 10 MHz);  
MIL-STD-461E, F, G Method CE106 (10 kHz to 40 GHz);  
MIL-STD-461E, F, G Method CS101 (30 Hz to 150 kHz);  
MIL-STD-461E, F, G Method CS106;  
MIL-STD-461E, F, G Method CS114 (10 kHz to 200 MHz);  
MIL-STD-461E, F, G Method CS115;  
MIL-STD-461E, F, G Method CS116 (10 kHz to 100 MHz);  
MIL-STD-461E, F, G Method RE101 (30 Hz to 100 kHz);  
MIL-STD-461E, F, G Method RE102 (10 kHz to 18 GHz);  
MIL-STD-461E, F, G Method RE103 (10 kHz to 40 GHz);  
MIL-STD-461E, F, G Method RS101 (30 Hz to 100 kHz);  
MIL-STD-461E, F, G Method RS103 (2 MHz to 40 GHz);  
MIL-STD-704 D, E, F;  
MIL-HDBK-704-8 Method LDC101;  
MIL-HDBK-704-8 Method LDC102;

**Test Technology:*****Military/Defense (cont.)*****Test Method(s) <sup>1,2</sup>:**

MIL-HDBK-704-8 Method LDC103;  
MIL-HDBK-704-8 Method LDC104;  
MIL-HDBK-704-8 Method LDC105;  
MIL-HDBK-704-8 Method LDC201;  
MIL-HDBK-704-8 Method LDC301;  
MIL-HDBK-704-8 Method LDC302;  
MIL-HDBK-704-8 Method LDC401;  
MIL-HDBK-704-8 Method LDC501;  
MIL-HDBK-704-8 Method LDC601

***Aerospace***

RTCA DO-160G Section 15; RTCA DO-160G Section 16;  
RTCA DO-160G Section 17; RTCA DO-160G Section 18;  
RTCA DO-160G Section 19; RTCA DO-160G Section 20;  
RTCA DO-160G Section 21; RTCA DO-160G Section 25

**On the following types of products:**

Telecommunication Equipment, Network Equipment, Industrial and Commercial Equipment, Electronic (Digital) Equipment, Medical, Aerospace, Military. Information Technology Equipment, Multimedia Equipment, Scientific Equipment

<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> The laboratory is only accredited for testing activities outlined within the test methods listed above. Reference to any other activity within these standards, such as risk management or risk assessment, does not fall within the laboratory's accredited capabilities.

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<sup>3</sup>:

<b>Rule Subpart/Technology</b>	<b>Test Method</b>	<b>Maximum Frequency (MHz)</b>
<u>Unintentional Radiators</u> Part 15B	ANSI C63.4:2014	40000
<u>Industrial, Scientific, and Medical Equipment</u> Part 18	FCC MP-5 (February 1986)	40000

<sup>3</sup> Accreditation 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

**ELEMENT MATERIALS TECHNOLOGY DENVER-**

**LONGMONT**

*Longmont, CO*

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 27<sup>th</sup> day of July 2022.

A blue ink signature of Mr. Trace McInturff.

Mr. Trace McInturff, Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 0214.43  
Valid to March 31, 2024  
Revised February 20, 2024

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