



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ELEMENT MATERIALS TECHNOLOGY DALLAS – PLANO WEST

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ELECTRICAL

Valid to: December 31, 2025

Certificate Number: 214.19

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), NEBS, wireless, and telecom tests:

Test Technology:

Test Method(s):

Emissions

Radiated Emissions

47 CFR, FCC Part 15 (Subpart B) using ANSI C63.4:2014;
47 CFR, FCC Part 18 using MP5:1986;
CISPR 11; EN 55011;
AS/NZS CISPR 11:2011; KS C 9811;
CISPR 25 (section 6.5);
CISPR 32 (excluding Annex H);
EN 55032 (excluding Annex H);
KS C 9832 (excluding Annex H);
VCCI-CISPR 32:2016 (excluding Annex H);
CNS 15936 (up to 6 GHz); QCVN 118: 2018/BTTTT;
ICES-003; ICES-002; EN 13309;
ISO 13766-1:2018;
ISO 13766-2:2018;
GR 1089-CORE

Radiated Emissions
(MIL/RTCA/DO)

MIL-PRF-28800F;
MIL-STD-461 B-G (Methods RE101, RE102, RE103); MIL-STD-462;
RTCA/DO-160 C-G (Sections 15, 21)

Conducted Emissions

47 CFR, FCC Part 15 (Subpart B) using ANSI C63.4:2014;
FCC Part 18 (using MP5:1986);
CISPR 11; EN 55011;
AS CISPR 11; KS C 9811

Test Technology:**Test Method(s):**

Conducted Emissions
(continued)

CISPR 25 (sections 6.3 and 6.4);
CISPR 32; EN 55032; KS C 9832;
VCCI-CISPR 32 :2016; CNS 15936;
QCVN 118: 2018/BTTTT;
ICES-003; ICES-002; ISO 13766; GR 1089-CORE

Conducted Emissions
(MIL/RTCA/DO)

MIL-STD-461 B-G
(Methods CE101, CE102, CE106);
MIL-STD-462; MIL-PRF-28800F;
RTCA/DO-160 C-G (Section 21)

Current Harmonics

IEC/EN 61000-3-2; AS/NZS 61000.3.2

Flicker

IEC/EN 61000-3-3; AS/NZS 61000.3.3

Immunity

Electrostatic Discharge (ESD)

EN/IEC 61000-4-2; KS C 9610-4-2;
ISO 13766; GR-1089-CORE

Electrostatic Discharge
(MIL/RTCA/DO)

MIL-PRF-28800F; RTCA/DO-160 C-G (Section 25); CS118

Radiated Immunity

KS C 9610-4-3;
MIL-STD-461 B-G (Methods RS101, RS103);
MIL-STD-462; MIL-PRF-28800F;
DoD-STD-1399, Section 300A and B;
IEEE P1613; MIL-STD 1275;
EN/IEC 55104; ISO 13766-1:2018;
ISO 13766-2:2018; EN 13309;
GR-1089-CORE; ISO 11452-2;
RTCA/DO-160 C-G (Section 20)

Electrical Fast Transient/Burst

EN/IEC 61000-4-4; KS C 9610-4-4;
IEEE P1613; GR-1089-CORE

EFT
(MIL/RTCA/DO)

MIL-PRF-28800F

Surge

EN/IEC 61000-4-5; KS C 9610-4-5;
IEEE P1613; IEEE 37.90.1;
K20; K21; RTCA/DO-160 C-G (Section 22);
GR-1089-CORE

Conducted Immunity

EN/IEC 61000-4-6; KS C 9610-4-6;
GR-1089-CORE

Conducted Immunity
(MIL/RTCA/DO)

MIL-STD-1399;
MIL-STD-461 B-G
(Methods CS101, CS102, CS103, CS104, CS105, CS109, CS114,
CS115, CS116, CS117, CS118)

Test Technology:**Test Method(s):**

Conducted Immunity
(MIL/RTCA/DO) (*cont.*)

MIL-STD-462; MIL-PRF-28800F;
RTCA/DO-160C-G (Sections 16, 17, 18, 19, 20, 22)

Power Frequency Magnetic Field
Immunity

EN/IEC 61000-4-8 (excluding short duration mode); KS C 9610-4-8
(excluding short duration mode)

Voltage Dips, Short Interruptions
and Line Voltage Variations
Power Transients

EN/IEC 61000-4-11; KS C 9610-4-11
EN 300 132-1 ; EN 300 132-2;
ANSI T1.315; ATT-TP-76200; ATT-TP-76450

Power Transients
(MIL/RTCA/DO)

MIL-HDBK-704/2-8;
DoD-STD-1399, Section 300A and B;
MIL-STD 1275;
RTCA/DO160C-G Section 16

Lightning

RTCA/DO-160 C-G (Section 22); GR-1089-CORE;
MIL-HDBK-704/2-8;
MIL-STD 461 G CS117

Steady State Power Induction

GR-1089-CORE; ETSI EN 300 386;
AT&T-TP76200

DC Potential

GR-1089-CORE; AT&T-TP76200

Electrical Safety

GR 1089-CORE; AT&T-TP76200

Bonding & Grounding

GR 1089-CORE; AT&T-TP76200

Insulation Resistance

GR-49-CORE; GR-937-CORE;
GR-950-CORE; GR-2916-CORE

Energy Efficiency for Telecom
Equipment

ATIS-0600015; VZ.TPR.9205

Heat Dissipation

GR-63-CORE; ATIS-0600010

DC Power Port

GR-1089-CORE (Section 10)

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

EN/IEC 61000-6-1; KS C 9610-6-1;
EN/IEC 61000-6-2; KS C 9610-6-2;
EN/IEC 61000-6-3; KS C 9610-6-3;
AS/NZS 61000.6.3;
EN/IEC 61000-6-4; KS C 9610-6-4;
AS/NZS 61000.6.4; KS C 9824;
CISPR 24; EN 55024;
EN 61326; ETSI EN 300 386; GR-1089-CORE;
ATT-TP-76200; EN/IEC 60601-1-2; EN 50082;
EN 61326; IEC 60601-1-2;
CISPR 14-2; KS C 9814-2; EN 55014-2;
CISPR 35 (excluding Annex A and G)

Test Technology:

***Generic/Product Family
Standards and Industry
Standards (cont.)***

Test Method(s):

EN 55035 (excluding Annex A and G);
KS C 9835 (excluding Annex A and G);
IEEE P1613

On the following products or types of products:

Telecommunications Terminal Equipment (TTE); Network Equipment; Information Technology Equipment (ITE); Industrial, Commercial, and Military Test Equipment.

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 ¹:

Rule Subpart/Technology	Test Method	Maximum Frequency (MHz)
<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

¹ 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 DALLAS – PLANO WEST

Plano, TX

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 27th day of February 2024

A blue ink signature of Mr. Trace McInturff.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 214.19
Valid to December 31, 2025

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