



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ELEMENT MATERIALS TECHNOLOGY MONTRÉAL

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ELECTRICAL

Valid To: September 30, 2026

Certificate Number: 214.48

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on Consumer, Laboratory, Medical, Railway, Automotive, Aerospace, & Photonic products:

<u>Test(s):</u>	<u>Test Method(s) ¹:</u>
EMISSIONS	
Conducted and Radiated Emissions	47 CFR FCC Part 15, Subpart B (using ANSI C63.4:2014); 47 CFR FCC Part 18 (using OET MP-5:1986); CISPR 11 ² ; EN 55011 ² ; CISPR 12 ² ; EN 55012 ² ; CISPR 14-1 ² (excluding disturbance power measurements); EN 55014-1 ² (excluding disturbance power measurements); CISPR 15 ² ; EN 55015 ² ; CISPR 25 (sections 6.3, 6.4, 6.5 only); CISPR 32 ² (excluding Annex H); EN 55032 ² (excluding Annex H); KS C 9832; AS/NZS CISPR 32 ² (excluding Annex H); ICES-001 ² ; ICES-002 ² ; ICES-003 ² ; ICES-005 ²
Harmonic Emissions	EN 61000-3-2; IEC 61000-3-2; AS/NZS 61000-3-2
Voltage Fluctuations and Flicker	EN 61000-3-3; IEC 61000-3-3; AS/NZS 61000-3-3
IMMUNITY	
ESD	EN 61000-4-2 ² ; IEC 61000-4-2 ² ; ANSI C37.90.3; KS C 9610-4-2
Radiated Immunity	EN 61000-4-3 ² ; IEC 61000-4-3 ² ; ANSI C37.90.2; KS C 9610-4-3
EFT / Burst	EN 61000-4-4 ² ; IEC 61000-4-4 ² ; ANSI C37.90.1; KS C 9610-4-4

<u>Test(s):</u>	<u>Test Method(s) ¹:</u>
<i>IMMUNITY (continued)</i>	
Surge	EN 61000-4-5 ² ; IEC 61000-4-5 ² ; KS C 9610-4-5
Conducted Immunity	EN 61000-4-6 ² ; IEC 61000-4-6 ² ; KS C 9610-4-6
Power Frequency Magnetic Field	EN 61000-4-8 ² ; IEC 61000-4-8 ² ; KS C 9610-4-8
Pulse Magnetic Field	EN 61000-4-9 ² ; IEC 61000-4-9 ²
Damped Oscillated Magnetic Field	EN 61000-4-10 ² ; IEC 61000-4-10 ²
Voltage Dips, Short Interruptions and Voltage Variations	EN 61000-4-11 ² ; IEC 61000-4-11 ² ; KS C 9610-4-11
Harmonics and Interharmonics	EN 61000-4-13; IEC 61000-4-13
Conducted Common Mode Disturbances in the Frequency (Range 0 Hz-150 kHz)	EN 61000-4-16 ¹ ; IEC 61000-4-16 ¹
Ripple On and DC Input Power Port	EN 61000-4-17 ² ; IEC 61000-4-17 ²
Damped Oscillatory Wave	EN 61000-4-18 ² ; IEC 61000-4-18 ² ; EN 61000-4-12 ² ; IEC 61000-4-12 ² ; EN 60255-22-1; ANSI C37.90.1
Variation of Power Frequency	EN 61000-4-28 ² ; IEC 61000-4-28 ²
Voltage Dips / Short Interrupts	EN 61000-4-29 ² ; IEC 61000-4-29 ²
Testing and Measurement Techniques – Radiated Fields in Close Proximity – Immunity Test	EN 61000-4-39; IEC 61000-4-39 (<i>magnetic field only</i>)
Impulse Voltage Withstand Dielectric (AC or DC) (to 5 kV), Insulation Resistance Protective Bonding	IEC 60255-5; EN 60255-5; IEC 60255-27; EN 60255-27

<u>Test(s):</u>	<u>Test Method(s) ¹:</u>
ROAD VEHICLE EQUIPMENT (AUTOMOTIVE)	
Industrial Trucks EMC	EN 12895 ²
Electrostatic Discharge (ESD) Automotive	ISO 10605 ²
Absorber Lined Shielded Enclosure (ALSE) (Substitution Method, Metallic Bench) (Freq. 80 MHz-8 GHz, up to 100V/m)	ISO 11452-2 ² ; ISO 11451-2 ²
Bulk Current Injection (BCI) (excluding TWC method)	ISO 11452-4 ² ; ISO 11451-4 ²
Magnetic Field Immunity (excluding Helmholtz coil)	ISO 11452-8
Electrical transient conduction along supply lines only	ISO 7637-2 ² Section 4.3 (Voltage Transient Emissions)
The United Nations Economic Commission for Europe (UNECE) for Automotive	ECE Regulation 10.06 (excluding conducted transients)
Automotive electronic equipment in vehicles	EN 50498 (excluding conducted transients)
Earth-moving and building construction machinery	ISO 13766-1 ² ; ISO 13766-2 ² (excluding conducted transients)
Lifts, Escalators, and Moving Walks Equipment	EN 12015; EN 12016; ISO 22200
Road Traffic Signal Systems	EN 50293
Radio Equipment and Services	ETSI EN 301 489-1 (excluding clause 9.6)
AIRBORNE EQUIPMENT	RTCA-DO160 Section 15 (Magnetic Effect); RTCA-DO160 Section 16 (Power Input); RTCA-DO160 Section 17 (Voltage Spike); RTCA-DO160 Section 18 (Audio Frequency Conducted Susceptibility – Power Inputs); RTCA-DO160 Section 19 (Induced Signal Susceptibility) Paragraphs 19.3.1, 19.3.2, 19.3.3, 19.3.4 only); RTCA-DO160 Section 20.4 (Conducted Susceptibility); RTCA-DO160 Section 20.5 (Radiated Susceptibility – up to 8 GHz, Categories S & T only); RTCA-DO160 Section 21.4 (Conducted RF Emissions);

<u>Test(s):</u>	<u>Test Method(s) ¹:</u>
AIRBORNE EQUIPMENT <i>(cont.)</i>	RTCA-DO160 Section 21.5 (Radiated RF Emissions); RTCA-DO160 Section 25 (Electrostatic Discharge); Airbus ABD0100.1.2 Section 3.5 (ESD); Boeing D6-16050-5 Section 7.1 (ESD); Boeing D6-16050-5 Section 8.1 (Audio Frequency Conducted Emission)
<i>GENERIC/PRODUCT FAMILY STANDARDS & INDUSTRY STANDARDS</i>	
Immunity for Residential, Commercial and Light-Industrial Environments	EN 61000-6-1; IEC 61000-6-1; AS/NZS 61000-6-1
Immunity for Industrial Environments	EN 61000-6-2; IEC 61000-6-2; AS/NZS 61000-6-2
Emission for Residential, Commercial and Light-Industrial Environments	EN 61000-6-3; IEC 61000-6-3; AS/NZS 61000-6-3
Emission for Industrial Environments	EN 61000-6-4; IEC 61000-6-4; AS/NZS 61000-6-4
Emission Standard for Professional Equipment in Commercial and Light-industrial Locations	EN 61000-6-8; IEC 61000-6-8
Railway Equipment	IEC 62236-3-2; EN 50121-3-2; IEC 60571; EN 50155
Household Appliances, Electric Tools and Similar Apparatus	CISPR 14-1; EN 55014-1; CISPR 14-2; EN 55014-2
Multimedia Equipment	CISPR 35 (excluding Annex F, G and H); EN 55035 (excluding Annex F, G and H); KS C 9835
General Requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS)	EN 50491-5-2; EN 50491-5-3; IEC 63044-5-2; IEC 63044-5-3
Medical Equipment	EN 60601-1-2; IEC 60601-1-2
Laboratory Equipment	IEC 61326-1; EN 61326-1

<u>Test(s):</u>	<u>Test Method(s) ¹:</u>
<i>GENERIC/PRODUCT FAMILY STANDARDS & INDUSTRY STANDARDS (cont.)</i>	
Lighting	IEC 61547; EN 61547
Power Substation Equipment	IEC 61850-3; IEEE 1613; IEEE 1613.1; IEC 61000-6-5; IEC 60255-26; SN-62.1008-1 (Hydro-Quebec)
Low Voltage Equipment	SN-62.1008e (<i>clauses 7.10, 7.12, 7.13 only</i>)
Electro-sensitive Protective Equipment	IEC 61496-1 (<i>clause 4.3.2</i>)
Radio Equipment and Services	ETSI EN 301 489-1 (<i>excluding clause 9.6</i>)

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 test method, per Annex A, Part C of A2LA's *R101 - General Requirements: Accreditation of Conformity Assessment Bodies*.

² This laboratory performs field testing activities for the noted test methods.

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 ³:

Rule Subpart/Technology	Test Method	Maximum Frequency (MHz)
Unintentional Radiators Part 15B	ANSI C63.4:2014	26500
Industrial, Scientific, and Medical Equipment Part 18	FCC MP-5: 1986	26500

³Accreditation 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 MONTRÉAL

Boucherville, Quebec, Canada

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 10th day of September 2024.

A blue ink signature of Mr. Trace McInturff.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 214.48
Valid to September 30, 2026

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