SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

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ELECTRICAL (EMC)

Valid To: September 30, 2018 Certificate Number: 3583.01

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:

Test(s):	**Test Method(s):**
EMISSIONS	
Conducted and Radiated Emissions (*3m test distance*) *(up to 18Ghz)*	47 CFR FCC Part 15, subpart B (using ANSI C63.4-2014); 47 CFR FCC Part 18, (using OET MP-5); CISPR 11; EN 55011; KN 11; CISPR 12, EN 55012; CISPR 14; EN 55014-1; CISPR 15; EN 55015; KN 15; CISPR 22; EN 55022; KN 22; CISPR 32; EN 55032; AS-NZS CISPR22; ICES-001; ICES-003; ICES-005
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; IEC 61000-4-2; KN 61000-4-2
Radiated Immunity	EN 61000-4-3; IEC 61000-4-3; KN 61000-4-3
EFT / Burst	EN 61000-4-4; IEC 61000-4-4; KN 61000-4-4
Surge	EN 61000-4-5; IEC 61000-4-5; KN 61000-4-5
Conducted Immunity	EN 61000-4-6; IEC 61000-4-6; KN 61000-4-6
Power Frequency Magnetic Field	EN 61000-4-8; IEC 61000-4-8; KN 61000-4-8

Test(s):	**Test Method(s):**
IMMUNITY (cont'd)	
Pulse Magnetic Field	EN 61000-4-9; IEC 61000-4-9; KN 61000-4-9
Damped Oscillated Magnetic Field	EN 61000-4-10; IEC 61000-4-10
Voltage Dips, Short Interruptions and Voltage Variations	EN 61000-4-11; IEC 61000-4-11; KN 61000-4-11
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; IEC 61000-4-16
Ripple On and DC Input Power Port	EN 61000-4-17; IEC 61000-4-17
Damped Oscillatory Wave	EN 61000-4-18; IEC 61000-4-18; EN 61000-4-12; IEC 61000-4-12; EN 60255-22-1
Variation of Power Frequency	EN 61000-4-28; IEC 61000-4-28
Voltage Dips / Short Interrupts	EN 61000-4-29; IEC 61000-4-29
Impulse Voltage Withstand Dielectric Insulation Resistance	IEC 60255-5; EN 60255-5
Assessment of Lighting Equipment Related to Human Exposure to Electromagnetic Fields	IEC 62493; EN 62493
GENERIC STANDARDS	
Immunity for Residential, Commercial and Light-Industrial Environments	EN 61000-6-1; IEC 61000-6-1; KN 61000-6-1; AS/NZS 61000-6-1
Immunity for Industrial Environments	EN 61000-6-2; IEC 61000-6-2; KN 61000-6-2; AS/NZS 61000-6-2
Emission for Residential, Commercial and Light-Industrial Environments	EN 61000-6-3; IEC 61000-6-3; KN 61000-6-3; AS/NZS 61000-6-3
Emission for Industrial Environments	EN 61000-6-4; IEC 61000-6-4; KN 61000-6-4; AS/NZS 61000-6-4

Test(s):	**Test Method(s):**
PRODUCT STANDARDS	
Railway Equipment	IEC 62236-3-2; EN 50121-3-2; IEC 60571; EN 50155
Household Appliances, Electric Tools and Similar Apparatus	CISPR 14, EN 55014-1
Information Technology Equipment	CISPR 24; EN 55024; KN24
Medical Equipment	EN 60601-1-2; IEC 60601-1-2; KN 60601-1-2
Laboratory Equipment	IEC 61326-1; EN 61326-1
Lighting	IEC 61547; EN 61547
Power Substation Equipment	IEC 61850-3; IEEE 1613; IEC TS 61000-6-5; IEC 60255-26; SN-62.1008-1 (Hydro-Quebec)
Airborne Equipment	RTCA-DO160: Section 15 (Magnetic Effect), Section 16 (Power Input), Section 17 (Voltage Spike), Section 18 (Audio Frequency Conducted Susceptibility – Power Inputs), Section 19 (Induced Signal Susceptibility) Paragraphs 19.3.1, 19.3.2, 19.3.3, 19.3.4 only, Section 20.4 (Conducted Susceptibility), Section 20.5 (Radiated Susceptibility) Categories S & T only, Section 21.4 (Conducted RF Emissions), Section 21.5 (Radiated RF Emissions), Section 25 (Electrostatic Discharge)
Road Vehicles Equipment	ISO 10605; ISO 11452-2; ISO 11452-4
Lifts, Escalators and Moving Walks Equipment	EN 12015; EN 12016

Accredited Laboratory

A2LA has accredited

LABORATOIRE D'ESSAIS CEM INC.

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 17025:2005 *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 8 January 2009*).

Presented this 31st day of October 2016.

President and CEO
For the Accreditation Council
Certificate Number 3583.01
Valid to September 30, 2018
Revised: November 10, 2016

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