



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

ELECTRONIC TEST CENTRE-AIRDRIE (MPB TECHNOLOGIES INC.)

27 East Lake Hill NE
Airdrie, Alberta T4A 2K3 Canada
Marc Rousseau 403 708 1057
Email: marc.rousseau@mpbc.ca

ELECTRICAL

Valid To: November 30, 2018

Certificate Number: 2750.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following electromagnetic compatibility and product safety tests:

<u>Test:</u>	<u>Test Method(s) ¹:</u>
<i>Emissions</i> Radiated	47 CFR FCC Parts 15.109 and 15.209 (using ANSI C63.4:2003, 2009, and 2014), (30 MHz to 40 GHz); CISPR 11 (150 kHz to 40 GHz); EN 55011 (150 kHz to 40 GHz); CISPR 22; CISPR 25; CISPR 32; ICES-003; IEC 60945; EN 55022; EN 55032; FCC Parts 15.247, 15.249; RSS 247, 210 A2.9; RSS-GEN (using ANSI C63.10:2009 and 2013, KDB 558074), (up to 40 GHz); RTCA/DO-160, Section 21
Conducted	47 CFR FCC Parts 15.107 and 15.207 (using ANSI C63.4:2003, 2009, and 2014); CISPR 11; EN 55011; CISPR 22 (Power and Ethernet ports only); CISPR 25; CISPR 32; ICES-003 (Power and Ethernet ports only); EN 55022 (Power and Ethernet ports only); EN 55032; RTCA/DO-160, Section 21
Harmonics	EN 61000-3-2; IEC 61000-3-2
Flicker	EN 61000-3-3; IEC 61000-3-3
Magnetic Effects	RTCA/DO-160, Section 15

<u>Test:</u>	<u>Test Method(s) ¹:</u>
<i>Immunity</i>	
Electrostatic Discharge (ESD)	EN 61000-4-2; IEC 61000-4-2; RTCA/DO-160, Section 25; ISO 14982; CLAAS CN 050215; ISO 10605
Radiated	EN 61000-4-3; IEC 61000-4-3; ISO 11452-2; IEEE C37.90.2
Electrical Fast Transient/Burst	EN 61000-4-4; IEC 61000-4-4
Surge Immunity	EN 61000-4-5; IEC 61000-4-5
Conducted	EN 61000-4-6; IEC 61000-4-6; ISO 11452-4
Power Frequency Magnetic Field	EN 61000-4-8; IEC 61000-4-8; AS/NZS 61000-4-8
Pulse Magnetic Field	EN 61000-4-9; IEC 61000-4-9
Voltage Dips/Interrupts and Variations	EN 61000-4-11; IEC 61000-4-11
Ripple on DC Input Power Port	IEC 61000-4-17
Power Input	RTCA/DO-160 F, G, Section 16
Voltage Spike	RTCA/DO-160 F, G, Section 17
Audio Frequency Conducted Susceptibility - Power Inputs	RTCA/DO-160 F, G, Section 18
Induced Signal Susceptibility	RTCA/DO-160 F, G, Section 19
Radio Frequency Susceptibility (Conducted & Radiated)	RTCA/DO-160 F, G, Section 20 (Category S and T for Radiated Susceptibility)
<i>Transmittivity</i>	
Minimum Operational Performance Standards for Nose Mounted Radomes	RTCA/DO-213, Sections 2.4.6.3, 2.4.7.1

Test:

Test Method(s) ¹:

*Generic and Product Family
Standards*

CISPR 24;
EN 55024;
CISPR 25, Section 6;
EN 60601-1-2;
IEC 61326;
EN 61326;
ISO 14982, Sections 6.4, 6.6.2;
IEC 60945;
EN 61000-6-1;
EN 61000-6-2;
EN 61000-6-3 (*excluding discontinuous disturbances*);
EN 61000-6-4 (*excluding discontinuous disturbances*)

Product Safety

Insulation Resistance and
Dielectric Withstand Voltage

IEC 60225-5, Section 6.1 (DC – 6kV Maximum,
AC – 5kV Maximum)

¹When the date, revision or edition of a test method standard is not identified on the scope of accreditation, the laboratory is required to be using the current version within one year of the date of publication, per part C., Section 1 of A2LA R101 - *General Requirements- Accreditation of ISO-IEC 17025 Laboratories.*



Accredited Laboratory

A2LA has accredited

ELECTRONICS TEST CENTRE - AIRDRIE (MPB TECHNOLOGIES INC.)

Airdrie, Alberta, 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 20th day of December 2016.

A handwritten signature in black ink, appearing to read "L. Sen", written over a horizontal line.

President and CEO
For the Accreditation Council
Certificate Number 2750.01
Valid to November 30, 2018

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