



# American Association for Laboratory Accreditation

## SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

ELECTRONICS TEST CENTRE-AIRDRIE (MPB TECHNOLOGIES INC.)

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### MECHANICAL

Valid To: November 30, 2010

Certificate Number: 2750.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following dynamics and environmental simulation tests:

<u>Test Method</u>	<u>Test Equipment</u>	<u>Test Specifications/Standards</u>
<i>Dynamics</i>		
Vibration (Sine, Random, Sine on Random, Random on Random)	5 – 2000Hz 1” displacement peak to peak 700 lbs, up to 100g’s	ASAE EP455 Section 5.15 IEC 60945 Sections 8.7 MIL-STD-810 Sections 514.5, 5.20.2 RTCA-DO-160 Section 8
Vibration Shock UD T-100	6 ms, 11ms & 18 ms 30,000 lb-f Shock	ASAE EP455 Section 5.14 MIL-STD-810 Section 5.16.5 RTCA-DO-160 Section 7 Test Procedure 1
AVCO Shock Machine Model SM110-MP	Terminal Velocity 400 inch/Sec. Half Sine	
Mechanical Shock (Drop)	1 meter - All Six faces. Concrete or Steel surface	IEC 60945 Section 8.6 MIL-STD-810 Section 516.5
Loose Transport Simulation	Ref Fig 514.5 C-5 Up to 1136 Kg, 285 Hz	MIL-STD-810 Section 514.5, Section 4.1.2
<i>Environmental Simulation</i>		
Altitude	Altitude/Overpressure/Rapid Decompression 100,000 Ft to -10,000Ft	ASAE EP455 Sections 5.2.1, 5.2.2 MIL-STD-810 Section 500.4, 520.2 RTCA-DO-160 Section 4
Dust	1 Cube Meter Area 1.6 to 8.5 L/M Suction 2 L/M Max	NEMA 250 Section 5.5
Temperature (High & Low)	(-70 to 170) Deg C RH (20 to 100) %	ASAE EP 455 Section 5.1.1, 5.1.2 IEC 60945 Section 8.2, 8.4 MIL-STD-810 Sections 501.4, 502.4 RTCA-DO-160 Sections 4, 5



<u>Test Method</u>	<u>Test Equipment</u>	<u>Test Specifications/Standards</u>
Temperature Shock	(-70 to 170) Deg C	ASAE EP 455 Section 5.1.3 IEC 60945 Section 8.5 MIL-STD-810 Section 503.4
Temperature - Humidity	(-70 to 170) Deg C RH (20 to 100) %	ASAE EP 455 Sections 5.13.1, 5.13.2 IEC 60945 Section 8.3 MIL-STD-810 Section 507.4, 520.2 RTCA-DO-160 Section 6
Immersion and Submersion	Up to 1.5 Meter depth At 10 to 20 Deg C	ASAE EP455 Section 5.5 MIL-STD-810 Section 512.4 NEMA 250 Section 5.11
Water Jetting	170 LPM - max	ASAE EP455 Section 5.6 NEMA 250 Section 5.7 RTCA-DO-160 Section 10
Rain (Blowing, Drip, Water Tightness, Icing)		IEC 60945 Section 8.8 MIL-STD-810 Sections 506.4, 521.2 NEMA 250 Section 5.4, 5.6 RTCA-DO-160 Section 24
Oil Resistance		IEC 60945 Section 8.11
Salt Exposure	Na Cl 5% solution.	ASAE EP455 Section 5.9 IEC 60945 Section 8.8, 8.12 MIL-STD-810 Section 509.4 NEMA 250 Section 5.8 RTCA-DO-160 Section 14

Also using customer specific test methods utilizing any combinations of the test equipment parameter capabilities listed above.

