



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

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MECHANICAL

Valid To: December 31, 2012

Certificate Number: 0038.06

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

Temperature, dust and humidity exposures are performed during durability cycling simulating actual environment; microprocessors control chambers allowing automatic cycling and tracking of desired time, temperature and humidity; sizes up to to 144 ft³; Electrodynamic vibration systems: generate controlled sine or random vibration, sine-on random vibration control, random-on-random vibration control, transient vibration control, mechanical shock in sawtooth, half-sine & squared wave forms, field data replication, operating or non-operating mode environments, high or low temperature & humidity conditions can be applied; thermal shock; HALT/HASS. Humidity; condensing; Environmental cycling; accelerated corrosion

For the following types of industries:

Aerospace; Defense; Telecommunications; Electrical; Electronics; Automotive; Information Processing and Scientific Instruments.

Test Description/Parameters

Methods¹

Corrosion Testing

G85-S

Salt Fog/Salt Spray

ASTM B117, ASTM D1735-S, ASTM D2247-S;
DIN50021-S; IEC 60945/Ed4 Section 8.12;
RTCA/DO160 Rev D – G Section 14 (Category S & T);
MIL-STD-202 Rev A – G Method 101E;
MIL-STD-810 Rev A – G Method 509;
MIL-DTL-5541F

Test Description/Parameters**Methods¹**

Dust	IEC 60529 Section 13; MIL-STD-202 Rev A – G Method 110A; MIL-STD-810 Rev A – G Method 510, Procedure I and II; RTCA/DO160 Rev D – G Section 12.4 (Category D)
High and Low Temperature: (-70 to 180) °C	IEC 60945/Ed4 Sections 8.2, 8.4; MIL-STD-202 Rev A – G Method 108A; MIL-STD-810 Rev A – G Methods 501, 502, 521; RTCA/DO160 Rev D – G Sections 4.5.1, 4.5.2, 4.5.3, 4.5.4, 4.5.5, 5, 24 (Category A & C)
Humidity: (10 to 95) % RH	DIN 50017-S; IEC 60945/Ed4 Sections 8.3; MIL-STD-202 Rev A – G Methods 103B and 106G; MIL-STD-810 Rev A – G Method 507; RTCA/DO160 Rev D – G Section 6
Thermal Shock	RTCA/DO160 Rev D – G Section 5; IEC 60945/Ed4 Sections 8.5; MIL-STD-202 Rev A – G Method 107G; MIL-STD-810 Rev A – G Method 503
Vibration: Up to 20 000 lbf (3 to 4000) Hz with Combined Environments of (-77 to 177) °C, (10 to 95) % RH. Acceleration up to 100 g; Displacement: up to 4"	IEC 60945/Ed4 Section 8.7; MIL-STD-167 Rev 1A; MIL-STD-202 Rev A – G Methods 106G and 201A, Method 204D, 214A; MIL-STD-810 Rev A – G Methods 514 and 516, Procedures IV and VI; RTCA/DO160 Rev D – G Section 8
Shock: Up to 210 g; 1/2 Sine < 1 ms to 35 m/s at Terminal Peak	MIL-STD-202 Rev A – G Method 213B (higher levels need drop tower); MIL-STD-810 Rev A- G Method 514 and 516, Procedures I, II, III, and V; RTCA/DO160 Rev D – G Section 7.2, 7.3.1
SRS : Up to 250g; (5 to 2500) Hz	MIL-STD-810 Rev A – G
Loose Cargo Circular Synchronous Bed 300 RPM, 1 inch Orbital Path at 5Hz	MIL-STD-810 Rev A – G Method 514
Altitude up to 80 000 feet	RTCA/DO160 Rev D – G Section 4.6.1, 4.6.3; MIL-STD-810 Rev A – G

Test Description/Parameters**Methods¹**

HALT/HASS: Random Vibration (5 to 5000) Hz Level (0 to 85) g(pk) Temperature: (-100 to 200) °C	Customer Supplied
Rapid Decompression	MIL-STD-810 Rev A – G; RTCA/DO160 Rev D – G
Over Pressure	RTCA/DO160 Rev D – G
Immersion	MIL-STD-810 Rev A – G Method 512
Rain	MIL-STD-810 Rev A – G Method 506 Proc III
Solar Radiation	MIL-STD-810 Rev A – G Method 505
Impact	UL 764C Section 57
Explosive Atmosphere	MIL-STD-810 Rev A – G Method 511; RTCA/DO160 Rev D – G
Icing/Freezing Rain	MIL-STD-810 Rev A – G Method 521; RTCA/DO160 Rev D – G Section 24
Contamination by Fluids/ Fluid Susceptibility	MIL-STD-810 Rev A – G Method 504; RTCA/DO160 Rev D – G Section 11
Drop Test	IEC 60945/Ed4 Section 8.6.1
Immersion	IEC 60945/Ed4 Section 8.9
Rain	IEC 60945/Ed4 Section 8.8
Pressure: Up to 3000 psi	Customer Supplied
Water	IEC 60529 Section 14
Waterproofness	RTCA/DO160 Rev D – G, Section 10.3.1, 10.3.3 & 10.3.4
Blowing Rain ²	MIL-STD-810 Rev F/G, Method 506, Procedure I

¹ Also using customer specific test methods utilizing any combination of test equipment parameters listed above.

² This test is performed at 620 Distribution Drive Melbourne, Florida 32904



The American Association for Laboratory Accreditation

World Class Accreditation

Accredited Laboratory

A2LA has accredited

ELEMENT - MELBOURNE

Melbourne, FL

for technical competence in the field of

Mechanical 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 15th day of September 2010.





President & CEO

For the Accreditation Council
Certificate Number 0038.06
Valid to December 31, 2012
Revised May 7, 2012

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