SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

NATIONAL TECHNICAL SYSTEMS (NTS)
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MECHANICAL

Valid to: June 30, 2018 Certificate Number: 0214.06

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to the laboratory to perform the following automotive, telecommunications, and aerospace testing:

Test:	Test Method(s):
Acceleration[1]	
2 Foot Centrifuge • 200 g's 10 Foot Centrifuge • 200 g's 25 Foot Centrifuge • 40 g's	MIL-STD-202: 212; MIL-STD-750: 2006; MIL-STD-810: 513; RTCA DO 160, S7
Drop Impact[1]	
Mechanical up to 40 feet	MIL-STD-331: A3 and A4.1; MIL-STD-810: 516
Explosive Atmosphere[1]	
• (0 to 50,000) ft. simulation	MIL-STD-810: 511, Procedures I and II; RTCA DO 160, Section 9
Sand and Dust[1]	
• Ambient to 180°F • Air Velocity to 60 MPH	MIL-STD-810: 510; RTCA DO 160, Section 12; GR-487-CORE: 3.28.4
Environmental Exposure[1]	
Temperature/Altitude • (-65 to 180) °F • 100,000 feet	MIL-STD-810: 500 and 520; RTCA DO 160, Section 4
Icing (Altitude) • (-100 to +77) °F • Up to 55,000 feet • Rh > 95%	RTCA DO 160, Section 24

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Test:	**Test Method(s):**
High Temperature • up to 2,500 °F	MIL-STD-331: C-6; MIL-STD-810: 501; RTCA DO 160, Sections 4 and 5
Low Temperature • -400°F	MIL-STD-810: 502; RTCA DO 160, Sections 4 and 5
Temperature Shock • (-100 to +300) °F	MIL-STD-202: 107; MIL-STD-331: C-7; MIL-STD-810: 503; MIL-STD-883: 1011
Thermal Vacuum • 10^{-6} torr ±300 °F	MIL-STD-1540D (*with the exception of TQCM data*)
Temperature Humidity • (-100 to +300) °F • (10 to 95)% humidity	MIL-STD-202: 103 and 106; RTCA DO 160, S6; MIL-STD-810: 507 and 520 (*except vibration*); MIL-STD-2105: 5.1.1 and 5.1.3;
Explosive Decompression • 100,000 ft <100 msec	MIL-STD-810: 500, Procedure IV; RTCA/DO-160, Section 9
Fluid Flow[1]	
Pressure and Flow Endurance	MIL-F-8615D[2]; MIL-V-8608A[2]
Fuels (propane, butane, JP)	NTS Test Procedure Number 12942
Hot gas up to 2000 °F	SOP SAN OPS 026
Pressure Drop • H_2O (0 to 2,300) gpm • Air (0 to 270) lbs/min • LN2 (0 to 2,600) gpm • GN2 (0 to 600) lbs/min	SAE: ARP868
Temperature Pressure Cycle Testing	UTAS-SOW-33344, Paragraph 1.3; MIL-F-8615D
Hydraulics • (0 to 5,000) psig	SAE: ARP868
Leakage • Ghe, GH2, Air, Oil	MIL-STD-202H, Method 112E
Pneumatics • (0 to 18,000) psig	SOP SAN OPS 025
Jolt and Jumble	MIL-STD-331: A1 and A2.4
Transportation (Loose Cargo)	MIL-STD-331: A5; MIL-STD-810: 514

Test:	**Test Method(s):**
Rain/Wind	MIL-STD-810: 506
Waterproofness	RTCA/DO-160, Section 10
Salt Fog	ASTM B117; MIL-STD-202: 101; MIL-STD-331: C3; MIL-STD-810: 509; MIL-STD-883: 1009; RTCA/DO-160, Section 14; GR-487-CORE, 3.34.1
Salt Fog & SO2	ASTM G85, Annex A2 and A4
Solar Radiation	MIL-STD-810: 505, Procedure I
Hail Strike	ASTM F320
Fluids Susceptibility/Exposure to Fluids (Fluid Compatibility and Resistance to Fluids)	MIL-STD-810: 504; RTCA/DO-160

[1]Also using customer specifications based on the above standards and within the listed parameters.

[2] This laboratory's scope contains withdrawn or superseded methods. As a clarifier, this indicates that the applicable method itself has been withdrawn or is now considered "historical" and not that the laboratory's accreditation for the method has been withdrawn.

Accredited Laboratory

A2LA has accredited

NATIONAL TECHNICAL SYSTEMS (NTS)

Santa Clarita, CA

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 11th day of July 2016.

President and CEO
For the Accreditation Council

Certificate Number 0214.06
Valid to June 30, 2018
Revised March 27, 2018

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