SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

NTS LABS, LLC HUNTSVILLE
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ACOUSTICS AND VIBRATION

Valid To: December 31, 2023 Certificate Number: 0214.41

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

Tests	**Test Method(s) [1]:**
Explosive Atmosphere [2] (Site to 50,000 ft simulation)	MIL-STD-202, 109; MIL-STD-810, 511 Procedures I and II; RTCA/DO-160, Section 9
Sand and Dust [2] Site Ambient to 160°F Air Velocity to 40 MPH	MIL-STD-202, 110; MIL-STD-810, 510; RTCA/DO-160, Section 12
Temperature/Altitude [2] (-65 to 160) °F 80,000 ft	MIL-STD-202, 105; MIL-STD-810, 500; RTCA/DO-160, Section 4
High Temperature [2] Up to 600 °F	MIL-STD-202, 108; MIL-STD-810, 501; RTCA/DO-160, Sections 4 and 5
Low Temperature [2] Down to -100 °F	MIL-STD-810, 502; RTCA/DO-160, Sections 4 and 5
Temperature Shock [2] (-100 to +300) °F	MIL-STD-202, 107; MIL-STD-810, 503
Thermal Vacuum [2] $1x10^{-5}$ torr ± 250 °F	MIL-STD-1540D
Temperature/Humidity (-100 to +300) °F (20 to 95) % Humidity	MIL-STD-202, 103 and 106; MIL-STD-810, 507 (*excluding vibration*); RTCA/DO-160, Section 6

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Tests	Test Method(s) [1]:
Explosive Decompression 100,000 ft ≤ 100msec	MIL-STD-810, 500 Procedure IV
Rain/Wind	MIL-STD-810, 506
Icing/Freezing Rain	MIL-STD-810, 521
Immersion	MIL-STD-202, 104 MIL-STD-810, 512
Freeze/Thaw	MIL-STD-810, 521
Waterproofness	RTCA/DO-160, Section 10
Salt Fog	ASTM B117; MIL-STD-202, 101; MIL-STD-810, 509; RTCA/DO-160, Section 14
Salt Fog and SO2	MIL-STD-810, 518
Solar Radiation (Heat Effects only)	MIL-STD-810, 505, Procedure I
Fluid Susceptibility/Exposure to Fluids (Fluid Compatibility and Resistance to Fluids)	MIL-STD-202, 215; MIL-STD-810, 504; RTCA/DO-160, Section 11
Fungus	MIL-STD-810, 508; RTCA/DO-160, Section 13
Acoustics Reverberation Up to 160 dB Overall (10 to 20,000) Hz	MIL-STD-810, 515
Acoustics Progressive Wave Tube Up to 160 dB Overall (10 to 20,000) Hz	MIL-STD-810, 515
Thermal Acoustic Up to 160 dB Overall (10 to 20,000) Hz (-65 to 200) °F	MIL-STD-810, 515 with Temperature
Acoustic Emissions 23dBA Noise Floor (23 to 175) dBA (10 to 20,000) Hz	MIL-STD-740-1

Tests	Test Method(s) [1]:
Vibration Electro Dynamic Shaker Sine, Random, and Combined 30,000 Pounds Force (5 to 2,000) Hz 1.0” Double Amplitude Combined Environment of (-65 to 300) °F	MIL-STD-167-1 5.1, 5.2, 5.3; MIL-STD-202, 201, 204, and 214; MIL-STD-810, 514, and 528; RTCA/DO-160, Section 8
Vibration Servo Hydraulic Shaker Sine, Random, and Combined 30,000 Pounds Force (2 to 200) Hz 4.0” Double Amplitude Combined Environment of (-65 to 300) °F	MIL-STD-810, 514, and 516; RTCA/DO-160, Section 8
Shock Electro Dynamic Shaker 30,000 Pounds Force 1.0” Double Amplitude 1,200 SRS G	MIL-STD-202, 207, and 213; MIL-STD-810, 516, and 519; RTCA/DO-160, Section 7
Transportation (Loose Cargo)	MIL-STD-810, 514
Drop Impact	MIL-STD-202, 203; MIL-STD-810, 516
Earthquake Resistance (Seismic) Vibration Characteristics of Materials Acceptance Criteria for Seismic Qualification by Shake Table Testing of Nonstructural Components and Systems	IEEE-344; Telcordia GR-63 (5.4.1); ICC-ES AC156

[1] When the date, edition, version, etc. is not identified in the scope of accreditation, laboratories may use the version that immediately precedes the current version for a period of one year from the date of publication of the standard measurement method, per part C., Section 1 of A2LA R101 - General Requirements- Accreditation of ISO-IEC 17025 Laboratories

[2] This laboratory also uses customer supplied specifications and/or methods directly related to the testing technologies and parameters listed above.

Accredited Laboratory

A2LA has accredited

NTS LABS, LLC HUNTSVILLE

Huntsville, AL

for technical competence in the field of

Acoustics and Vibration Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *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 April 2017*).

Presented this 13th day of June 2022.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 0214.41
Valid to December 31, 2023
Revised August 9, 2022

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