



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

NATIONAL TECHNICAL SYSTEMS ¹
 38995 Cherry Street
 Newark, CA 94560
 Ms. Laura Bader Phone: 510 578 3500

MECHANICAL

Valid to: September 30, 2019

Certificate Number: 0214.27

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to the laboratory at the location listed above, *as well as the satellite location listed below*, to perform the following Environmental Tests for the following industries: Aerospace, Defense, Telecommunication, Electronics and Automotive:

<u>Test Technology:</u>	<u>Test Capabilities:</u>	<u>Test Specifications/Standards:</u>
Vibration ²	Electro Dynamic Sine, Random, Mixed Mode (5 to 3,000) Hz Sine: 10,000 force-lbs Random: 10,000 force-lbs Shock: 10,000 force-lbs ½ Sine, Sawtooth	AT&T-TP76200; EN 60065; EN 60204-1; ETS EN 300 019; GR-63-CORE; GR-487-CORE; GR-950-CORE; GR-3108-CORE; MIL-STD-167; MIL-STD-202; MIL-STD-331; AC 156; IEC 60068-2-64; ISO 15197 Section 6.10; MIL-PRF-28800; RTCA/DO-160; IEC 68
Seismic Loose Cargo (Vertical Shock only) ²	Servo Hydraulic Sine, Random and Shock 15,000 force-lbs (1 to 500) Hz	ANSI T1.329; AC 156; GR-63-CORE; GR-487-CORE; GR-950-CORE; GR-3108-CORE; ASTM D4169
Illumination	Visual Inspection/ Observation	GR-63-CORE; GR-487-CORE
Packaged Drop Testing/ Unpackaged Drop Testing		GR-63-CORE; GR-487-CORE; GR-950-CORE; GR-3108-CORE; ETSI EN 300 019; MIL-PRF 28800
Hygroscopic Dust		GR-63-CORE; GR-3108-CORE
Salt Fog		ASTM B117; MIL-STD-810, Method 509; GR-487-CORE; GR-950-CORE; GR-3108-CORE

<u>Test Technology:</u>	<u>Test Capabilities:</u>	<u>Test Specifications/Standards:</u>
Temperature ²	(-72 to 125) °C	AT&T-TP76200; GR-63-CORE; GR-487-CORE; GR-950-CORE; GR-3108-CORE; MIL-PRF-28800F; MIL-STD-810; MIL-STD-202; RTCA/DO-160 C-F; ISO 15197 Section 6.11; ETSI EN 300 019
Humidity ²	(5 to 95) %RH	GR-63-CORE; GR-487-CORE; GR-950-CORE; GR-3108-CORE; MIL-STD-810; MIL-STD-202; RTCA/DO-160 C-F; ISO 15197 Section 6.12; ETSI EN 300 019
Thermal Shock ²	(-72 to 125) °C	GR-63-CORE; GR-487-CORE; GR-950-CORE; GR-3108-CORE; ETSI EN 300 019
Mixed Flowing Gas		GR-63-CORE; GR-3108-CORE; ASTM B827
Altitude ²	(-600 to 85,000) feet	GR-63-CORE
Immersion (Protection against direct sprays of water up to 15° from the vertical)		IEC 60529, IPX2
Immersion (Protection against direct sprays of water up to 60° from the vertical)		IEC 60529, IPX3
Immersion (Protection against water sprayed from all directions – limited ingress permitted)		IEC 60529, IPX4
Immersion (Protection against low pressure jets of water from all directions – limited ingress)		IEC 60529, IPX5
Immersion (Protection against the effect of immersion between 15 cm and 1 m)		IEC 60529, IPX7

<u>Test Technology:</u>	<u>Test Capabilities:</u>	<u>Test Specifications/Standards:</u>
<i>Fire Testing</i> <ul style="list-style-type: none"> • Fire Propagation Risk Assessment Criteria • Fire Spread • Needle Flame Test • AT&T • Verizon 		ATIS-0600319.2008; GR-63-CORE, Issue 4, Section 8.2; ATIS 0600307.2007, GR-3108-CORE; AT&T TP76200; VZ.TPR.9305

¹ This accreditation covers testing performed at the main laboratory listed above, and the satellite laboratory listed below:

41039 Boyce Road
Fremont, CA 94538

<u>Test Technology:</u>	<u>Test Capabilities:</u>	<u>Test Specifications/Standards:</u>
Acoustic Noise	(30 to 100) dBa	GR-63-CORE; GR-487-CORE; GR-3108-CORE; ETSI EN 300 019; ISO 3744 (Excluding Section 8.3); ISO 7779 (Excluding Section 6); MIL-STD-1474D, (Requirement 5 only)

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

NATIONAL TECHNICAL SYSTEMS

Newark, 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 27th day of December 2017.

A handwritten signature in black ink, appearing to read "L. S. ...", positioned above a horizontal line.

President and CEO
For the Accreditation Council
Certificate Number 0214.27
Valid to September 30, 2019

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