



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

AUSTIN RELIABILITY LABS
12317 Technology Blvd, Suite 100
Austin, TX 78727
Larry Legler Phone: 512-623-4717

MECHANICAL

Valid To: March 31, 2020

Certificate Number: 2976.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on computer, IT, aerospace, oil, and gas:

Test Type/ Test Capabilities:

Test Method(s):

Environmental Tests:

Hot/Cold Temperature¹
(-65 to 180) °C

IEC 60068-2-1 (Tests Ab and Ad);
IEC 60068-2-2 (Tests Bb and Bd);
IEC 60068-2-14; ASTM D322;
MIL-STD-810G² (Methods 501 and 502);
Lloyds Register Type Approval (LRTA) Test
Specification (Section 17)

Temperature and Humidity¹
(20 to 80) °C
(10 to 95) %RH

IEC 60068-2-30 (Test Db);
IEC 60068-3-38 (Test Z/AD);
IEC 60068-2-66 (Test Cx);
IEC 60068-2-67 (Test Cy);
IEC 60068-2-78;
MIL-STD-810G² (Method 507);
Lloyds Register Type Approval (LRTA) Test
Specification (Sections 14 and 15)

Thermal Shock¹
(-65 to 180) °C

MIL-STD-810G² (Method 503)

Vibration (Random)¹
(10 to 2000) Hz
(6000 pounds force)
(1.5 inch peak to peak stroke)

IEC 60068-2-64 (Test Fh);
Lloyds Register Type Approval (LRTA) Test
Specification (Section 12); ASTM D4728;
ASTM D999; MIL-STD-810G² (Method 514)

Test Type/ Test Capabilities:

Test Method(s):

Environmental Tests (Cont.):

Vibration (Sine)¹
(10 to 2000) Hz
(6000 pounds force)
(1.5 inch peak to peak stroke)

IEC 60068-2-6 (Test Fc);
Lloyds Register Type Approval (LRTA) Test
Specification (Sections 12 and 13); ASTM D999

Shock¹
Up to 600 g's
(.5 to 20) mSec
(ED Shaker up to 50 g's, 20 mSec)

IEC 60068-2-27;
MIL-STD-810G² (Method 516)

(Drop Tower 600 g's, 20 mSec)

Altitude
1000 to 100,000 feet

MIL-STD-810G² (Method 500)

Battery Accelerated Mechanical Fatigue Test

TM-DELL-REL 0023

Battery Cycle Life Fatigue Test

TM-DELL-REL 0029

Degrees of Protection

IEC 60529²: 2001, IP5X, IP6X, IPX5, IPX6, IPX7,
IPX8 (Water & Dust Ingress)

HALT¹ (Highly Accelerated Life Test)
(-100 to 200) °C
(2 to 10) kHz (up to 50 g's rms)

QualMark HALT Guideline, doc #993-0336

HASS¹ (Highly Accelerated Stress Screen)
(-100 to 200) °C

QualMark HASS Guideline,
doc #993-0384

Drop Test
(Up to 100 kg)

ISTA 3A; ISTA 2B; IEC 60068-2-27;
MIL-STD-810G², Method 516,
Procedure II, IV, and VI

Electrical Tests:

AC and DC Voltage¹ (0 to 300) Volts

ARL-TM1

AC and DC Current¹ (0 to 10) Amps

ARL-TM2

Temperature Measure¹ (-100 to 200) °C

ARL-TM3

Resistance Measure¹ (1 to 10M) Ω

ARL-TM4

Test Type/ Test Capabilities:

Test Method(s):

Electrical Tests (cont'd):

Electrical Tests:

Gross Leak – Seal Leak Test
Procedure for Aluminum Electrolyte Capacitors

TM-DELL-REL 00XX

¹Also using customer specified methods directly related to the tests and parameters listed above.

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

AUSTIN RELIABILITY LABS

Austin, TX

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 April 2017).



Presented this 9th day of July 2018

A handwritten signature in black ink, written over a horizontal line.

President/CEO
For the Accreditation Council
Certificate Number 2976.01
Valid to March 31, 2020

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