

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

CASCADE ENGINEERING SERVICES, INCORPORATED

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MECHANICAL

Valid To: November 30, 2025 Certificate Number: 3521.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on: <u>Automotive</u>, <u>Aerospace</u>, <u>Consumer</u>, <u>Medical</u>, <u>Military and Electrical</u>, <u>Electronic</u> and <u>Mechanical components</u>, <u>assemblies</u>, and <u>packaging</u>:

Test Type/Equipment Capabilities:	Test Method(s):
Temperature Testing ¹	IEC 60068-2-1;
Temperature range:	IEC 60068-2-2;
(-65 to +150) °C	IEC 60068-2-78;
	MIL-STD-810E/F/G Sec. 502;
	MIL-STD-883G/H, Sec. 1011;
	RTCA DO-160 D, E, F, G Sec. 4.0
Thermal Shock/ Temperature Cycling ¹	IEC 60068-2-14;
Temperature range:	MIL-STD-202G Sec. 107;
(-65 to +150) °C	MIL-STD-810E/F/G Sec. 501, 503, 520;
	MIL-STD-883G/H, Sec. 1010;
	RTCA DO-160 D, E, F, G Sec. 5.0
Temperature Humidity Testing	IEC 60068-2-30;
	IEC 60068-2-38;
	IEC 60068-2-78;
	IEC 60068-3-4;
	MIL-STD-810E/F/G Sec. 507;
	MIL-STD-202G Sec. 103, 106;
	MIL-STD-883G/H Sec. 1004;
	RTCA DO-160 D, E, F, G Sec. 6.0;
	ISTA 2A, 3A, 6A

Page 1 of

Test Type/Equipment Capabilities: Test Method(s):

Shock and Vibration Testing using IEC 60068-2-6; Electro-Dynamic Shaker ¹ IEC 60068-2-27; Random: IEC 60068-2-47;

Frequency Range: (10 to 3,000) Hz IEC 60068-2-59; Shock: 45g's IEC 60068-2-64;

MIL-STD-810E/F/G/H Sec. 514, 516, 519; Sine: MIL-STD-883G/H Sec. 2002, 2005, 2007; Frequency Range: (10 to 3,000) Hz MIL-STD-202G Sec. 201, 204, 213, 214;

RTCA DO-160 D, E, F, G Sec. 7.0, 8.0;

ISTA 2A, 3A, 6A

Salt Fog Chamber Testing IEC 60068-2-11;

> MIL-STD-202G Sec. 101; MIL-STD-810E/F/G Sec. 509; MIL-STD-883G/H Sec. 1009; RTCA DO-160 D, E, F, G Sec. 14.0;

ASTM B117

Constant Acceleration Testing ¹ IEC 60068-2-7:

Up to 20 G Forces MIL-STD 810E/F/G Sec. 513; MIL-STD 202G Method 212A

Crash Safety Testing RTCA DO-160 D, E, F, G Sec. 7.3

Altitude Testing¹ RTCA DO-160, D, E, F, G Sec. 4.0

(-1,500 to 100,000) Feet

Temperature Range (-65 to +150) °C

Rapid Decompression and Overpressure RTCA DO-160, D, E, F, G Sec. 4.0

Waterproofness Testing IEC 60529; IPX1, IPX2 only;

MIL-STD-810E/F/G Sec. 506; RTCA DO-160, D, E, F, G

Sec. 10.3.2 Drip Test and Sec. 10.3.3 Spray Test

Drop Testing ISTA 2A, 3A, 6A

Compression Testing ISTA 2A, 3A, 6A

¹Including Customer Specifications directly related to the test technologies and within the equipment capabilities/parameters listed above.



Accredited Laboratory

A2LA has accredited

CASCADE ENGINEERING SERVICES, INCORPORATED

Redmond, WA

for technical competence in the field of

Mechanical 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 20th day of February 2024.

Mr. Trace McInturff, Vice President, Accreditation Services For the Accreditation Council

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