# CERTIFICATE OF ACCREDITATION

## The ANSI National Accreditation Board

Hereby attests that

## Engineered Testing Systems LLC

**1711 West 15th Street**
**Indianapolis, IN 46202**

Fulfills the requirements of

## ISO/IEC 17025:2017

In the field of

## TESTING

This certificate is valid only when accompanied by a current scope of accreditation document.
The current scope of accreditation can be verified at www.anab.org.

Jason Stine, Vice President

Expiry Date: 14 August 2026

Certificate Number: L2397

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

# SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017


## Engineered Testing Systems LLC

1711 West 15th Street
Indianapolis, IN 46202
Bruce Justus 317 396 0573
justus@engineered-testing.com
www.engineered-testing.com


## TESTING

Valid to: **August 14, 2026** Certificate Number: **L2397**

**Mechanical**

| Specific Tests and/or Properties Measured | Specification, Standard, Method, or Test Technique | Items, Materials or Product Tested | Key Equipment or Technology |
|---|---|---|---|
| Random Vibration | MIL-STD-810<br>MIL-STD-167-1 Shipboard Vibration<br>RTCA/DO -160 MIL-S-4040 | military, automotive, and commercial products and systems | up to 15 000 lb/f<br>(10 to 3 000) Hz<br>2 in displacement p-p 200 g max level |
| Sine Vibration | MIL-STD-810<br>MIL-STD-167-1 Shipboard Vibration<br>RCTA/DO – 160 MIL-S-4040 | military, automotive, and commercial products and systems | up to 17 500 lb/f<br>up to 3 000 Hz<br>2 in displacement p-p 100 g max level<br>70 in/sec |
| Shock | MIL-STD-810 RCTA/DO – 160<br>MIL-S-4040 | military, automotive, and commercial products and systems | up to 35 000 lb/f<br>70 in/sec |
| Altitude | MIL-STD-810 MIL-PRF-28800 RCTA/DO -160 MIL-S-4040 | military, automotive, and commercial products and systems | Up to 100 000 ft<br>-71 ° C<br>Decompression not more than 0.1 seconds |
| Over Pressure | RCTA/DO -160 | military, automotive, and commercial products and systems | Up to 130 psi |
| Magnetic Effect | RTCA/DO-160 | military, automotive, and commercial products and systems | Up to 3 meters distance<br>0.5 Degree |

**Mechanical**

| Specific Tests and/or Properties Measured | Specification, Standard, Method, or Test Technique | Items, Materials or Product Tested | Key Equipment or Technology |
|---|---|---|---|
| Force | RTCA/DO-160 MIL-S-4040 | military, automotive, and commercial products and systems | (0.1 to 1 000) lbs |
| Blowing Rain/ Rain/Drip Waterproofness | MIL-STD-810 RCTA/DO - 160 | military, automotive, and commercial products and systems | Up to 50 MPH<br>Up to 12 in/hr Rain |
| Temperature / Humidity | MIL-STD-810 RCTA/DO - 160 | military, automotive, and commercial products and systems | (-72 to 191) ºC<br>(20 to 95) %RH |
| Acceleration | MIL-STD-810 RCTA/DO - 160 | military, automotive, and commercial products and systems | up to 150 G, 469 RPM |
| Salt Spray (Fog) | MIL-STD-810 ASTM B117 | military, automotive, and commercial products and systems | - |
| Explosive Atmosphere | MIL-STD-810, Method 511<br>MIL-STD-202, Method 109<br>RTCA-DO-160, Section 9 | military, automotive, and commercial products and systems | - |

**Electromagnetic Compatibility**

| Test Method | Test Specification(s) | Range | Comments |
|---|---|---|---|
| Conducted Emissions | MIL-STD-461 RCTA/DO - 160 | military, automotive, and commercial electronic systems | 30 Hz to 26.5 GHz |
| Conducted Susceptibility/ Immunity | MIL-STD-461 RCTA/DO - 160 | military, automotive, and commercial electronic systems | 30 Hz to 20 GHz |
| Radiated Emissions | MIL-STD-461 RCTA/DO - 160 | military, automotive, and commercial electronic systems | 30 Hz to 18 GHz |
| Radiated Susceptibility/ Immunity | MIL-STD-461 RCTA/DO - 160 | military, automotive, and commercial electronic systems | 30 Hz to 26.5 GHz |
| Dielectric Withstanding | MIL-STD-461 RCTA/DO – 160 MIL-S-4040 | military, automotive, and commercial electronic systems | (0.100 to 5.0) kV AC<br>(0.100 to 6.0) kV DC<br>(0.1 to 29.99) mA |

**Electromagnetic Compatibility**

| Test Method | Test Specification(s) | Range | Comments |
|---|---|---|---|
| Insulation Resistance | MIL-STD-461 RCTA/DO – 160 MIL-S-4040 | military, automotive, and commercial electronic systems | 50V/100V<br>(1 to 1 990) MΩ<br>500V/1 000V<br>(1 to 1 990) MΩ |
| DC Power Quality | MIL-STD-704 | military, automotive, and commercial electronic systems | (0-120) VDC<br>16.7 A |
| Electro Static Discharge (ESD) | MIL-STD-461 IEC 61000-4-2 | military, automotive, and commercial electronic systems | 200 V-16.5 kV(Air)<br>200 V-9 kV (Contact) |

Note:
1. Also using customer-specified test methods based on the parameters listed.
2. This scope is formatted as part of a single document including Certificate of Accreditation No. L2397.

Jason Stine, Vice President