



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Environmental Testing Laboratory
11034 Indian Trail
Dallas, Texas 75229

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.

A handwritten signature in black ink, appearing to read 'R. Douglas Leonard Jr.', is positioned above a horizontal line.

R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 24 May 2023

Certificate Number: AT-1787



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

Environmental Testing Laboratory

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TESTING

Valid to: **May 24, 2023**

Certificate Number: **AT-1787**

Mechanical

| Specific Tests and/or Properties Measured | Specification, Standard, Method, or Test Technique | Items, Materials or Product Tested | Key Equipment or Technology |
|---|--|--|--|
| Temperature, Temperature Shock | ASTM Specifications GR-63-CORE Specifications GR-487-CORE Specifications IEC Specifications ISO Specifications ISTA Specifications MIL-Standards Specifications RTCA/DO-160 Specifications Customer Supplied Procedure | Interior Components Exterior Components | HP Data Acquisition Various Size Chambers |
| Altitude, Decompression, Overpressure | ASTM Specifications IEC Specifications MIL-Standard Specifications RTCA/DO-160 Telcordia GR-63-CORE Telcordia GR-487-CORE UL 50E Customer Supplied Procedure | Interior Components Exterior Components | HP Data Acquisition Various Size Chambers |
| Humidity | ASTM Specifications GR-63-CORE Specifications GR-487-CORE Specifications IEC Specifications ISO Specifications ISTA Specifications MIL-Standard Specifications RTCA/DO-160 Specifications Customer Supplied Procedure | Interior Components Exterior Components Cabinets | HP Data Acquisition Various Size Chambers |



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Mechanical

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|---|--|---|--|
| Earthquake Resistance, Seismic | GR-487-CORE Specifications GR-63-CORE Specifications ICC ES AC156 Seismic Specifications, IEEE Standard Specifications Customer Supplied Procedure | Interior Components Rack, Enclosures | 32 Channel Controller ANCO Shake Table |
| Solar Testing | MIL-Standard Specifications RTCA /DO-160 Specifications ASTM G154 Customer Supplied Procedure | Plastics, Metals, Exterior Components | HP Data Acquisition Various Size Chambers |
| Rain | DIN 40 050 Specifications IEC 60529 Specifications ISO 20653 Specifications MIL- Standard Specifications NEMA 250 Specifications RTCA/DO-160 Specifications Telcordia GR-487-CORE Telcordia GR-63-CORE UL 50E Customer Supplied Procedure | External Components, Racks, Outdoor Products | Various Nozzles Calibrated Flow Meters |
| Immersion | IEC 60529 MIL-STD Specifications RTCA/DO-160 Specifications Customer Supplied Procedure | External Components | Pressure Vessel Calibrated Flow Meter or Water Column |
| Sand and Dust | GR-487-CORE Specifications GR-63-CORE Specifications IEC 60529 MIL-Standard Specifications NEMA 250 Specifications RTCA/DO-160 Specifications Customer Supplied Procedure | Metals, Plastics, Rubbers, External Components | Sand & Dust Chambers HP Data Acquisition Anemometer |
| Explosive Atmosphere | MIL-Standard Specifications RTCA/DO-160 Specifications Customer Supplied Procedure | Internal Components, Electronics | Explosive Atmosphere Chamber N-Hexane or 100 LL HP Data Acquisition |
| Acceleration | MIL-Standard Specifications RTCA/DO-160 Specifications Customer Supplied Procedure | Aircraft Hardware, Military Hardware | 10 foot Centrifuge 200lbs at 200g |
| Icing Test | MIL-Standard Specifications IEEE C37.30.1-200X D1 Customer Supplied Procedure | External Components | Water Chiller for 33°F Water Various Size Chambers HP Data Acquisition |

Mechanical

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|---|--|--|--|
| Drop Test (Packaged and Un-Packaged) | ASTM Specifications GR-487-CORE Specifications GR-63-CORE Specifications IEC Specifications ISTA Specifications Customer Supplied Procedure | Pallet Packaged, Container Packaged | L.A.B. Drop Tester Multiple Quick Releases |
| Impact Test | MILSTD S-901D Customer Supplied Procedure | Container Package electrical components | Impact tester, tape measure accelerometer |
| Mechanical Load Test | ASTM Specifications GR-487-CORE Specifications GR-63-CORE Specifications IEC Specifications ISTA Specifications Customer Supplied Procedure | Metal, Alloys, Fasteners, Doors | 10 ton press Load Cells (5k, 10k, 100k) lb |
| Contamination by Fluids | MIL-Standard Specifications RTCA /DO-160 Specifications Customer Supplied Procedure | Rubbers, Plastics, Exterior Components | Various Fluids |
| Fungus Exposure | MIL STD 810G Sec 508.6 RTCA/DO-160 Specifications Customer Supplied Procedure | Interior Components Exterior Components | HP Data Acquisition Various Size Chambers |
| Mechanical Shock | ASTM Specifications GR-487-CORE Specifications GR-63-CORE Specifications IEC Specifications ISO Specifications ISTA Specifications MIL-Standards Specifications RTCA/DO-160 Specifications Customer Supplied Procedure | Interior Components Exterior Components | Unholtz Dickie Shakers Vibration Research Controllers Dactron Controllers |
| Vibration (Sine, Random, SRS, Shock) | ASTM Specifications ETS 300 0019-1-2 Specifications GR-487-CORE Specifications GR-63-CORE Specifications IEC Specifications IEEE Specifications ISTA Specifications MIL-Standard Specifications RTCA/DO-160 Specifications Customer Supplied Procedure | Interior Components Exterior Components | Unholtz Dickie Shakers L.A.B. Transportation Simulator Vibration Research Controllers Dactron Controllers |

Mechanical

| Specific Tests and/or Properties Measured | Specification, Standard, Method, or Test Technique | Items, Materials or Product Tested | Key Equipment or Technology |
|---|--|------------------------------------|--|
| Salt Fog/Spray | ASTM B 117 MIL-STD Specifications RTCA/DO-160 Specifications | Metals, Alloys | Salt Fog Chamber Customer Set-ups |
| Body Structure Load Test | AMD 001 NFPA 1917, Section 9.1 SAE J3057 | Ambulance | Hydraulic Fixture Loads up to 60 000 lb |
| Body Door Retention Load Test | AMD 002 NFPA 1917, Section 9.2 | Ambulance | Load Cell Loads up to 3 500 lb |
| Tank Retention Load Test | AMD 003 NFPA 1917, Section 9.3 | Ambulance | Load Cell Loads up to 3 500 lb |
| Litter Retention Load Test | AMD 004 NFPA 1917, Section 9.4 SAE J3102 | Ambulance | Custom Fixture with load cell, loads up to 3 500 lb |
| 12 volt DC Electrical System Test | AMD 005 NFPA 1917, Section 9.5 | Ambulance | Calibrated Multi-Meter |
| Sound Level Test | AMD 006 NFPA 1917, Section 9.6 | Ambulance | Sound Meter |
| Carbon Monoxide Level Test | AMD 007 NFPA 1917, Section 9.7 | Ambulance | CO Monitor 0.5 ppm Accuracy |
| Grab Rail Load Test | AMD 008 NFPA 1917, Section 9.8 | Ambulance | Load Cell Loads up to 1 000 lb |
| 125 Volt AC Electrical System Test | AMD 009 NFPA 1917, Section 9.9 | Ambulance | Calibrated Multi-Meter |
| Water Spray | AMD 010 NFPA 1917, Section 9.10 | Ambulance | Water Spray Apparatus per AMD |
| Equipment Temperature Test | AMD 011 NFPA 1917, Section 9.11 | Ambulance | HP Data Acquisition System -30 °F to 140 °F |
| Interior Climate Control Test | AMD 012 NFPA 1917, Section 9.12 | Ambulance | HP Data Acquisition System -30 °F to 140 °F |
| Weight Distribution / Center of Gravity | AMD 013 NFPA 1917, Section 9.13 | Ambulance | 4 Vehicle Wheel Scales Up to 10 000 per scale Accurate to 5 lb |
| Engine Cooling Test | AMD 014 NFPA 1917, Section 9.14 | Ambulance | HP Data Acquisition System -30 °F to 140 °F |
| Main Oxygen System Test | AMD 015 NFPA 1917, Section 9.15 | Ambulance | Calibrated Pressure Gauge Gas Flow Meter |
| Patient Lighting Test | AMD 016 NFPA 1917, Section 9.16 | Ambulance | Calibrated Light Meter |
| Road Test | AMD 017 NFPA 1917, Section 9.17 | Ambulance | Test per AMD |



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|---|---|---|--|
| Step / Bumper Load Test | AMD 018 NFPA 1917, Section 9.18 | Ambulance | Hand-Truck and Scale |
| Storage Measuring | AMD 019 NFPA 1917, Section 9.19 | Ambulance | Calibrated tape measure |
| Floor Distribution Load Test | AMD 020 NFPA 1917, Section 9.20 | Ambulance | Hand-Truck Deflection Indicator per AMD |
| Aspirator System Test | AMD 021 NFPA 1917, Section 9.21 | Ambulance | Gas Flow Meter Vacuum Gauge |
| Cold Engine Start Test | AMD 022 NFPA 1917, Section 9.22 | Ambulance | HP Data Acquisition System -30 °F to 140 °F |
| Perimeter Illumination Test | AMD 024 NFPA 1917, Section 9.24 | Ambulance | Calibrated Light Meter |
| Occupant Head Clearance | AMD 025 NFPA 1917, Section 9.25 | Ambulance | Test Fixture per AMD |
| Line Voltage Test | AMD 027 NFPA 1917, Section 8 | Ambulance | Volt Meter Amp Meter |
| Interior Storage Compartment Integrity | SAE J3058 | Ambulance | Lead Weights Calibrated Weighing Terminal |
| Occupant Restraint – Front, Rear, and Side Impact | SAE J2917 SAE J2956 SAE J3044 FMVSS 571.210 | Ambulance | Load Cell Loads up to 25,000 lbf |
| Seat Belt Assemblies Testing | FMVSS 571.209 Customer Supplied Procedure | Occupant Restraint Assemblies | Load Cell |

- Note:
1. This scope is formatted as part of a single document including Certificate of Accreditation No. AT-1787.
 2. General identified Standards and Specifications in the above scope that do not have specific document numbers (i.e., ASTM, IEC, ISO, ISTA, MIL STD, and IEEE specifications) are identified of having several documents that provide specifications for a particular test.

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