



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

DATASYST ENGINEERING & TESTING SERVICES, INC.  
 S14 W33511 Highway 18  
 Delafield, WI 53018  
 Janelle Harvey Phone: 262 968 4003  
 FAX: 262 968 3050  
 E-mail: [jharvey@datasystest.com](mailto:jharvey@datasystest.com)

MECHANICAL

Valid To: February 28, 2018

Certificate Number: 2107.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on mechanical assemblies and electrical components:

| <u>Test(s):</u>              | <u>Test Method(s):</u>                   |
|------------------------------|--|
| Vibration                    |  |
| Sine, Random, Sine-on-Random | ETSI EN 300 019-2-2 v.2.1.2;             |
| Combined Environment         | ETSI EN 300 019-2-3 v.2.1.3;             |
| DC up to 3,000 Hz            | IEC 68-2-6;                              |
| up to 30,000 Force Pounds    | IEC 68-2-64;                             |
| (-73 to 177) °C              | MIL-STD-202G, Method 201A, 204D, 214;    |
| (30 to 80) %RH               | MIL-STD-810(D,E,F,G), Method 514;        |
|                              | MIL-STD-883E, Method 2005.2, 2007.2;     |
|                              | MIL-STD-1344A, Method 2005;              |
|                              | RTCA/DO-160 E, Section 8;                |
|                              | SAE J1211, Section 4.7;                  |
|                              | SAE J1455, Section 4.10;                 |
|                              | GR-63-CORE, Section 5.4.2, 5.4.3, 4.4.3; |
| Mechanical Shock             |  |
| Pulse (0.1 to 700) g's       | ETSI EN 300 019-2-2 v.2.1.2;             |
| Temperature (-73 to 177) °C  | ETSI EN 300 019-2-3 v.2.1.3;             |
| Humidity (5 to 95) %RH       | GR-63-CORE, Section 5.3;                 |
|                              | IEC 68-2-27;                             |
|                              | MIL-STD-202G, Method 213B;               |
|                              | MIL-STD-810(D,E,F,G) Method 516;         |
|                              | MIL-STD-810F, Method 519;                |
|                              | MIL-STD-883E, Method 2002;               |
|                              | MIL-STD-1344A, Method 2004;              |
|                              | RTCA/DO-160 E, Section 7;                |
|                              | SAE J1211, Section 4.8;                  |
|                              | SAE J1455, Section 4.11                  |

Test(s):  
 Mechanical Impact  
 Drop - up to 5 ft

Test Method(s):

CFR 49 Para. 178.603

|   |   |
|---|---|
| Durability/Mechanical Cycling<br>Force - up to 30,000 lbs<br>Displacement - up to 10 in<br>Velocity 35 in/s | MIL-STD-1344A: 2009, 2010   |
| Environmental Simulation<br>Temperature<br>(-73 to 177) °C  | IEC 68-2-1;<br>MIL-STD-883E, Methods 1005, 1006, 1007, 1008;<br>MIL-STD-1344A, Method 1005;<br>RTCA/DO-160 E, Section 5;<br>SAE J1211, Section 4.1;<br>SAE J1455, Section 4.1;<br>MIL-STD-781                               |
| Thermal Shock<br>(-73 to 177) °C within 3 seconds   | MIL-STD-883E, Method 1010;<br>MIL-STD-1344A, Method 1003  |
| Humidity<br>(5 to 95) %RH   | ETSI EN 300 019-2-1 v.2.1.2;<br>IEC 68-2-28;<br>IEC 68-2-30;<br>IEC 68-2-38;<br>MIL-STD-202G, Method 103B;<br>MIL-STD-1344A, Method 1002;<br>SAE J1211, Section 4.2;<br>SAE J1455, Section 4.2;<br>RTCA/DO-160 E, Section 6 |
| Temperature/Altitude<br>(0 to +177) °C<br>Sea Level to 40,000 feet or<br>24 inches Hg                       | GR-63-CORE, 5.1;<br>MIL-STD-883E, Method 1001;<br>RTCA DO 160 E, Section 4;<br>SAE J1211, Section 4.6;<br>SAE J1455, Section 4.9  |
| Icing/Freezing Rain   | MIL-STD-810F, 521   |
| Immersion   | MIL-STD-883E, Method 1002   |
| Immersion and Splash  | MIL-STD-1344A, Method 1016;<br>SAE J1211, Section 4.4;<br>SAE J1455, Section 4.4  |
| Packaged Products for Parcel Delivery Systems –   | ISTA 1A, 1B, 1C, 1D, 1E, 1G, 1F, 2A, 2B, 2C, 3A,<br>3B, 3E, 3F, 4A, 4B, 6, 7D   |
| Strain Gage Application (Installation of Bonded<br>Resistance Strain Gages)                                 | ASTM E1237  |
| Voltage<br>VDC: 1000 V<br>VAC: 750 V  | SAE J1455, 4.13.1   |





## *Accredited Laboratory*

A2LA has accredited

# **DATASYST ENGINEERING & TESTING SERVICES, INC.**

*Delafield, WI*

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 25<sup>th</sup> day of March 2016.

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

President and CEO  
For the Accreditation Council  
Certificate Number 2107.01  
Valid to February 28, 2018  
Revised December 26, 2017

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