



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

QUANTA LABORATORIES  
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MECHANICAL

Valid To: August 31, 2020

Certificate Number: 2454.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following environmental simulation tests:

<b><u>Test</u></b>	<b><u>Test Method(s)</u></b>
Mechanical Shock (Including ½-Sine, Sawtooth, Trapezoid)	MIL-STD-810F and 810G, Method 516.5; MIL-STD-883E, Method 2002.3; MIL-STD-202F and 202G, Method 213B; RTCA/DO-160D, E, and F, Sect. 7.0; ETSI 300 019-2, Sect. 1, 2, 3, 4, 5, 7; ISTA, Sect. 1A, 1B, 1G, 1H, 2A, 2B, 3A, 3E, 6A, 6B; IEC 60068; ANSI C12.1, C136.3; EN 60601-1, Sect. 10.1 3.a, b, d; ST/SG/AC.10/11, Sect. UN 38.3 T4
Thermal Shock and Temperature Cycling	MIL-STD-202F and 202G, Method 107G; MIL-STD-883E, Method 1010.7; Telcordia GR-63-CORE Issue 3, Sect. 4.1, 5.1; RTCA/DO-160D, E, and F, Sect. 5.0; ISTA, Sect. 3A, 3E ST/SG/AC.10/11, Sect. UN 38.3 T2
Short Circuit	ST/SG/AC.10/11, Sect. UN 38.3 T5
Overcharge	ST/SG/AC.10/11, Sect. UN 38.3 T7
High/Low Temp, Temperature/Humidity	MIL-STD-810F and 810G, Methods 501.4, 502.4, 507.4; ISTA, Sect. 1A, 2A, 1B, 2B, 1G, 1H, 3A, 3E, 6A, 6B; ETSI 300 019-2, Sect. 1, 2, 3, 4, 5, 7; ASTM D4169; Telcordia GR-63-CORE Issue 3, Sect. 4.1, 5.1
Ingress of Water with Harmful Effects	MIL-STD-810F and 810G, Method 509 Procedure III; IEC 60529 (IPX 1, 2, 3, 4, 5, 6, 7, 8, 9K)
Ingress of Solid Foreign Objects/Dust	IEC 60529 (IP1, 2, 3, 4, 5X and IP6X)

<u>Test</u>	<u>Test Method(s)</u>
Moisture Resistance	MIL-STD-883E, Method 1004.7; MIL-STD-202F and 202G, Methods 103B and 106E; Telcordia GR-63-CORE Issue 3, Sect. 4.1, 5.1; GR-1221; RTCA/DO-160D, E, and F, Sect. 6.0; IEC 60529
Acceleration	MIL-STD-810F and 810G, Method 513.5; MIL-STD-883E, Method 2001.2
Drop	ETSI 300 019-2, Sect. 1, 2, 3, 4, 5, 7; ISTA, Sect. 1A, 2A, 1B, 2B, 1G, 1H, 3A, 3E, 6A, 6B, FedExp; ASTM D4169; Telcordia GR-63-CORE Issue 3, Sect. 4.3.1, 4.3.2, 5.3.1, 5.3.2; MIL-STD-810F and 810G, Method 516.6 Procedure IV; EN 60601-1 15.3.4
Altitude (Low Barometric Pressure)	MIL-STD-810F and 810G, Method 500.4; MIL-STD-883E, Method 1001 ( <i>except condition G</i> ); MIL-STD-202F and 202G, Method 105C ( <i>except condition G</i> ); Telcordia GR-63-CORE Issue 3, Sect. 4.1.3, 5.1.3; RTCA/DO-160D, E, and F, Sect. 4.0; EN 60601-1, Sect. 10.1 Altitude 4.2.2; ST/SG/AC.10/11/Rev.5, Sect. UN 38.3 T1
Salt Fog/Spray	MIL-STD-810F and 810G, Method 509.4; MIL-STD-883E, Method 1009.8; ASTM B117; RTCA/DO-160D, E, and F, Sect. 14.0
Ultraviolet Exposure	ASTM G154
Adhesion by Tape	ASTM D3359
Bubble Test	ASTM F2096
Compression	ISTA 2A, 2B, 3A, 6A, 6B, FedExp

ACOUSTICS AND VIBRATION

**Test**

**Test Method(s)**

Acoustic Noise, Sound

ISO 7779; Telcordia GR-63-CORE

Vibration

(Includes Sine/Dwell, Random,  
Sine-On-Random,  
Random-On-Random,  
Seismic/Earthquake On  
Electrodynamic and Hydraulic  
Shakers)

MIL-STD-810F and 810G, Method 514.5;  
MIL-STD-202F and 202G, Methods 201, 204, 214;  
MIL-STD-883E, Methods 2007.2, 2026;  
Telcordia GR-63-CORE Sect. 4.4, 5.4;  
GR-1221, 1209; RTCA/DO-160D, E, and F, Sect. 8.0;  
ETSI 300 019-2, Sect. 1, 2, 3, 4, 5, 7;  
ISTA, Sect. 1A, 2A, 1B, 2B, 1G, 1H, 3A, 3E, 6A, 6B,  
FedExp; ASTM D4169; IEC 60068; MIL-STD-167 Rev 1;  
ANSI C12.2, C136.3; EN 60601-1, Sect. 10.1.3.C;  
ST/SG/AC.10/11, Sect. UN 38.3 T3





## *Accredited Laboratory*

A2LA has accredited

### **QUANTA LABORATORIES**

*Santa Clara, CA*

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 8<sup>th</sup> day of October 2018.

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

President and CEO  
For the Accreditation Council  
Certificate Number 2454.01  
Valid to August 31, 2020

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