SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

AMERICAN TESTING AND MEASUREMENT LABORATORY (ATM)
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MECHANICAL

Valid To: August 31, 2012 Certificate Number: 2467.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on plastic components and metal terminals [1]:

Tests	Test Methods	Sections
Temperature Testing (-40 to 150) ºC	USCAR-2 USCAR-15 USCAR-21	5.6.3 6.1, 6.3 4.5.2.4
Temperature Humidity Cycling (-40 to 150) ºC (20 to 95) %RH	USCAR-2 USCAR-15 USCAR-21	5.6.2 6.8 4.5.2.4, 4.5.4
Thermal Shock (-40 to 150) ºC	USCAR-2 USCAR-15 USCAR-21	5.6.1 6.2 4.5.2.4, 4.5.5
Vibration / Mechanical Shock 10 Hz to 2 KHz (1 to 10) mS	USCAR-2 USCAR-15 USCAR-21	5.4.6 5.9, 5.10
Pressure Vacuum Leak (0.1 to 20) Kpa	USCAR-2 USCAR-15	5.6.6 5.7
Submersion	USCAR-2	5.6.5
Salt Fog	USCAR-15	6.6

Tests	Test Methods	Sections
Fluid Resistance	USCAR-2 USCAR-15	5.6.4 6.4
Outgassing	USCAR-15	6.5
Insertion Force (0 to 2500) N	USCAR-2 USCAR-15	5.4.1, 5.4.2, 5.4.3 5.1, 5.3, 5.5, 5.6
Insertion Torque (0 to 20) Nm	USCAR-15	5.2
Bulb Wobble	USCAR-15	5.4
Mating/Unmating Force (0 to 2300) N	USCAR-2	5.4.1, 5.4.2, 5.4.3
Voltage Drop (0 to 20) VDC	USCAR-2 USCAR-15	5.3.2 4.1
Isolation Resistance (0 to 2000) MΣ	USCAR-2 USCAR-15	5.5.1 4.2
Resistance Including Dry Circuit (0 to 100) Σ	USCAR-2 USCAR-21	5.1.9, 5.3.1 4.5.3
Temperature Rise (0 to 200) ºC	USCAR-15	4.3
Current and Current Cycling (1 to 150) A	USCAR-2 USCAR-15 USCAR-21	5.3.3, 5.3.4 4.4 4.5.1
Crimp Cross Section	USCAR-15 USCAR-21	5.8 4.3
Crimp Force (0 to 2500) N	USCAR-15 USCAR-21	5.8, 5.2 4.4
Mechanical Durability Tests	USCAR-2 USCAR-15	5.1.7, 5.2.2, 5.4.4, 5.4.7, 5.4.8, 5.7.1, 5.7.2 5.3, 5.5

Dimensional Testing:

Parameter	Range	CMC[2] (±)	Equipment	Standards
Length [3]	(0 to 152.4) mm (0 to 6) in	0.02 mm 0.00079 in	Mitutoyo 6” Caliper	PLA011 (5.4)
Length [3]	(0 to 25.4) mm (0 to 1) in	0.005 mm 0.0002 in	Mitutoyo Micrometer	PLA011 (5.4)
Length [3]	(0 to 12.7) mm (0 to 0.5) in	0.02 mm 0.00079 in	Mitutoyo Dial Indicator	USCAR-5 (Sec. 5.4)
Dimensional – Fixed Points [3] X Y Z	 (0 to 800) mm (0 to 700) mm (0 to 600) mm	 0.003 mm 0.004 mm 0.003 mm	Metris LK CMM	PLA011 (5.4)
Dimensional – Fixed Points [3] X Y	 (0 to 200) mm (0 to 200) mm	 0.002 mm 0.001 mm	Mituyo MiCat Vision System	PLA011 (5.4)

[1] This lab offers dimensional testing services.

[2] Calibration and Measurement Capability (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine tests of nearly ideal measurement standards or nearly ideal measuring equipment. CMC’s represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of $k = 2$. The actual measurement uncertainty of a specific test performed by the laboratory may be greater than the CMC due to the behavior of the customer’s device and to influences from the circumstances of the specific test.

[3] This test is not equivalent to that of a calibration.

The American Association for Laboratory Accreditation

World Class Accreditation

Accredited Laboratory

A2LA has accredited

AMERICAN TESTING AND MEASUREMENT LABORATORY (ATM)

San Pedro Sula, Honduras

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 18th day of January 2011.

President & CEO
For the Accreditation Council
Certificate Number 2467.01
Valid to August 31, 2012

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