



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017
& ANSI/NCSL Z540-1-1994

MARVEL AERO INTERNATIONAL, INC., DBA CHRISTIE DISTRIBUTION & SERVICE CENTER
41780 N Vision Way, Bldg. 3
Phoenix, AZ 85086
Scott Marvel Phone: (949) 829-8264

CALIBRATION

Valid To: July 31, 2027

Certificate Number: 7456.01

In recognition of the successful completion of the A2LA evaluation process (including an assessment of the organization's compliance with R205 – A2LA's Calibration Program Requirements), accreditation is granted to this laboratory to perform the following calibrations^{1,3}:

I. Electrical – DC/Low Frequency

Parameter/Range	Frequency	CMC ^{2, 4, 6} (±)	Comments
AC Voltage – Measure ⁵ 115 V 208 V 230 V	60 Hz	0.61 V 0.89 V 0.96 V	Fluke 287
DC Current – Measure	Up to 400 mA (0.4 to 5) A (5 to 10) A (10 to 80) A	0.16 % + 0.02 mA 0.32 % + 1 mA 0.31 % + 2 mA 0.23 % + 0.033 A	Fluke 287 Fluke 287 with DC shunt

Parameter/Equipment	Range	CMC ^{2, 4, 6} (±)	Comments
DC Voltage – Measure	Up to 5 V (5 to 50) V (50 to 500) V	0.16 % + 0.2 mV 0.033 % + 2 mV 0.14 % + 20 mV	Fluke 287

II. Thermodynamics

Parameter/Equipment	Range	CMC ^{2,7} (±)	Comments
Temperature – Measure	(18 to 28) °C	2.5 °C	Fluke 287 with 80TK & 80PK-1

III. Time & Frequency

Parameter/Equipment	Range	CMC ^{2,7} (±)	Comments
Time – Measure	(60 to 300) s	1.1 s	Thomas 9371W22 timer

¹ This laboratory offers commercial calibration services.

² Calibration and Measurement Capability Uncertainty (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. CMCs 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 calibration 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 calibration.

³ This scope meets A2LA's *P112 Flexible Scope Policy*.

⁴ In the statement of CMC, the value is defined as the percentage of reading.

⁵ The uncertainties shown relate to voltages that lie within ± 10 % of the specified values.

⁶ The stated measured values are determined using the indicated instrument (see Comments). This capability is suitable for the calibration of the devices intended to measure or generate the measured value in the ranges indicated. CMC's are expressed as either a specific value that covers the full range or as a percent or fraction of the reading plus a fixed floor specification.

⁷ The type of instrument or material being calibrated is defined by the parameter. This indicates the laboratory is capable of calibrating instruments that measure or generate the values in the ranges indicated for the listed measurement parameter.



Accredited Laboratory

A2LA has accredited

MARVEL AERO INTERNATIONAL, INC., DBA CHRISTIE DISTRIBUTION & SERVICE CENTER

Phoenix, AZ

for technical competence in the field of

Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets the requirements of ANSI/NCSL Z540-1-1994 and R205 – Specific Requirements: Calibration Laboratory Accreditation Program. 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 29th day of May 2025.

A blue ink signature of Mr. Trace McInturff, written over a horizontal line.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 7456.01
Valid to July 31, 2027

For the calibrations to which this accreditation applies, please refer to the laboratory's Calibration Scope of Accreditation.