



# **Accredited Laboratory**

A2LA has accredited

### **TESTEQUITY LLC** Oceanside, CA

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 3<sup>rd</sup> day of June 2025.

Mr. Trace McInturff, Vice President, Accreditation Services For the Accreditation Council Certificate Number 3159.01 Valid to July 31, 2027

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



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

#### TESTEQUITY LLC 1935 Plaza Real Oceanside, CA 92056 Kevin Minor Phone: 760 639 1700

#### CALIBRATION

Valid To: July 31, 2027

Certificate Number: 3159.01

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<sup>1, 4</sup>:

I. Electrical – DC/Low Frequency

Parameter/Range	Frequency	CMC <sup>2, 3</sup> (±)	Comments
AC Current – Generate			
(10 to 220) μA	(10 to 20) Hz (20 to 40) Hz 40 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz	72 nA 47 nA 36 nA 81 nA 0.31 μA	Fluke 5730A
220 µA to 2.2 mA	(10 to 20) Hz (20 to 40) Hz 40 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz	0.60 μΑ 0.40 μΑ 0.28 μΑ 0.57 μΑ 3.1 μΑ	
(2.2 to 22) mA	(10 to 20) Hz (20 to 40) Hz 40 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz	6.1 μA 4.0 μA 2.8 μA 5.2 μA 29 μA	

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Parameter/Range	Frequency	CMC <sup>2, 3</sup> (±)	Comments
AC Current – Generate (cont)			
(22 to 220) mA	(10 to 20) Hz (20 to 40) Hz 40 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz	61 μA 40 μA 28 μA 50 μA 0.25 mA	Fluke 5730A
220 mA to 2.2 A	20 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz	0.59 mA 1.1 mA 16 mA	
AC Current – Measure			
Up to 100 μA	(10 to 20) Hz (20 to 45) Hz (45 to 100) Hz 100 Hz to 1 kHz	0.43 μΑ 0.18 μΑ 0.091 μΑ 0.091 μΑ	Agilent 3458A, option 002
100 μA to 1 mA	(10 to 20) Hz (20 to 45) Hz (45 to 100) Hz 100 Hz to 5 kHz (5 to 20) kHz	4.2 μΑ 1.7 μΑ 0.80 μΑ 0.51 μΑ 0.80 μΑ	
(1 to 10) mA	(10 to 20) Hz (20 to 45) Hz (45 to 100) Hz 100 Hz to 5 kHz (5 to 20) kHz	42 μΑ 17 μΑ 8.1 μΑ 5.1 μΑ 8.1 μΑ	
(10 to 100) mA	(10 to 20) Hz (20 to 45) Hz (45 to 100) Hz 100 Hz to 5 kHz (5 to 20) kHz	0.42 mA 0.17 mA 81 μA 51 μA 81 μA	
100 mA to 1 A	(10 to 20) Hz (20 to 45) Hz (45 to 100) Hz 100 Hz to 5 kHz (5 to 20) kHz	4.2 mA 1.8 mA 1.0 mA 1.2 mA 3.2 mA	

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Parameter/Range	Frequency	CMC <sup>2, 3</sup> (±)	Comments
AC Voltage – Generate			
Up to 2.2 mV	(10 to 20) Hz (20 to 40) Hz 40 Hz to 20 kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz (300 to 500) kHz 500 kHz to 1 MHz	4.6 μV 4.7 μV 4.2 μV 4.4 μV 6.1 μV 12 μV 25 μV 27 μV	Fluke 5730A
(2.2 to 22) mV	(10 to 20) Hz (20 to 40) Hz 40 Hz to 20 kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz (300 to 500) kHz 500 kHz to 1 MHz	11 μV 6.3 μV 6.0 μV 8.6 μV 15 μV 32 μV 49 μV 0.086 mV	
(22 to 220) mV	(10 to 20) Hz (20 to 40) Hz 40 Hz to 20 kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz (300 to 500) kHz 500 kHz to 1 MHz	62 μV 28 μV 19 μV 34 μV 0.082 mV 0.17 mV 0.31 mV 0.63 mV	
220 mV to 2.2 V	(10 to 20) Hz (20 to 40) Hz 40 Hz to 20 kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz (300 to 500) kHz 500 kHz to 1 MHz	0.52 mV 0.21 mV 0.10 mV 0.16 mV 0.21 mV 0.79 mV 2.2 mV 4.1 mV	
(2.2 to 22) V	(10 to 20) Hz (20 to 40) Hz 40 Hz to 20 kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz (300 to 500) kHz 500 kHz to 1 MHz	5.3 mV 2.1 mV 0.93 mV 1.5 mV 1.9 mV 5.8 mV 23 mV 40 mV	

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Parameter/Range	Frequency	CMC <sup>2, 3</sup> (±)	Comments
AC Voltage – Generate (cont)			
(22 to 220) V	(10 to 20) Hz (20 to 40) Hz 40 Hz to 20 kHz (20 to 50) kHz (50 to 100) kHz	54 mV 20 mV 12 mV 18 mV 34 mV	Fluke 5730A
(220 to 1100) V	(15 to 50) Hz 50 Hz to 1 kHz	0.35 V 0.12 V	
AC Voltage – Measure			
(10 to 100) mV	(1 to 40) Hz 40 Hz to 1 kHz (1 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz 300 kHz to 1 MHz	24 μV 10 μV 18 μV 33 μV 90 μV 0.31 mV 1.0 mV	Agilent 3458A, option 002
100 mV to 1 V	(1 to 40) Hz 40 Hz to 1 kHz (1 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz 300 kHz to 1 MHz	0.12 mV 0.096 mV 0.17 mV 0.33 mV 0.84 mV 3.1 mV 10 mV	
(1 to 10) V	(1 to 40) Hz 40 Hz to 1 kHz (1 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz 300 kHz to 1 MHz	1.1 mV 0.95 mV 1.7 mV 3.3 mV 8.3 mV 31 mV 0.10 V	
(10 to 100) V	(1 to 40) Hz 40 Hz to 1 kHz (1 to 20) kHz (20 to 50) kHz (50 to 100) kHz	25 mV 22 mV 24 mV 39 mV 0.12 V	

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Parameter/Equipment	Range	CMC <sup>2, 3</sup> (±)	Comments
DC Current – Generate	(0 to 220) μA 220 μA to 2.2 mA (2.2 to 22) mA (22 to 220) mA 220 mA to 2.2 A	15 nA 87 nA 0.84 μA 11 μA 0.20 mA	Fluke 5730A
DC Current – Measure	(10 to 100) μA 100 μA to 1 mA (1 to 10) mA (10 to 100) mA 100 mA to 1 A	3.6 nA 32 nA 0.33 μA 5.1 μA 0.13 mA	Agilent 3458A, option 002
DC Voltage – Generate	(0 to 0.22) V (0.22 to 2.2) V (2.2 to 11) V (11 to 22) V (22 to 220) V (220 to 1100) V	2.1 μV 12 μV 43 μV 85 μV 1.1 mV 7.8 mV	Fluke 5730A
DC Voltage – Measure	0 V to 100 mV 100 mV to 1 V (1 to 10) V (10 to 100) V 100 V to 1 kV	1.1 μV 6.5 μV 62 μV 0.84 mV 9.7 mV	Agilent 3458A, option 002
DC Resistance – Generate, Fixed Points	0 Ω 1 Ω 1.9 Ω 10 Ω 19 Ω 100 Ω 190 Ω 1 kΩ 1.9 kΩ 10 kΩ 19 kΩ 100 kΩ	$\begin{array}{c} 43 \ \mu\Omega \\ 98 \ \mu\Omega \\ 0.18 \ m\Omega \\ 0.25 \ m\Omega \\ 0.46 \ m\Omega \\ 1.0 \ m\Omega \\ 2.0 \ m\Omega \\ 6.8 \ m\Omega \\ 13 \ m\Omega \\ 67 \ m\Omega \\ 0.13 \ \Omega \\ 0.88 \ \Omega \end{array}$	Fluke 5730A

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Parameter/Equipment	Range	CMC <sup>2, 3</sup> (±)	Comments
DC Resistance – Generate, Fixed Points (cont)	190 kΩ 1 MΩ 1.9 MΩ 10 MΩ 19 MΩ 100 MΩ	1.7 Ω 14 Ω 36 Ω 0.43 kΩ 0.95 kΩ 11 kΩ	Fluke 5730A
DC Resistance – Measure	(0 to 10) Ω (10 to 100) Ω 100 Ω to 1 kΩ (1 to 10) kΩ (10 to 100) kΩ 100 kΩ to 1 MΩ (1 to 10) MΩ (10 to 100) MΩ	$\begin{array}{c} 0.24 \ m\Omega \\ 2.0 \ m\Omega \\ 14 \ m\Omega \\ 0.14 \ \Omega \\ 1.4 \ \Omega \\ 21 \ \Omega \\ 0.68 \ k\Omega \\ 55 \ k\Omega \end{array}$	Agilent 3458A, option 002

<sup>1</sup> This laboratory offers commercial calibration service.

- <sup>2</sup> 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.
- <sup>3</sup> 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. CMCs are expressed as either a specific value that covers the full range or as a fraction/percentage of the reading plus a fixed floor specification.

<sup>4</sup> This scope meets A2LA's *P112 Flexible Scope Policy*.

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