CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Axiom Test Equipment
2610 Commerce Way
Vista, CA 92081

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

CALIBRATION

This certificate is valid only when accompanied by a current scope of accreditation document.
The current scope of accreditation can be verified at www.anab.org.

R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 17 October 2022
Certificate Number: AC-2626

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
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).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Axiom Test Equipment

2610 Commerce Way
Vista, CA 92081
Spencer Campbell (760) 806-6600

CALIBRATION

Valid to: **October 17, 2022** Certificate Number: **AC-2626**

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Current – Source	(10 to 220) µA		Fluke 5700A Multiproduct Calibrator
	(10 to 20) Hz	0.18 µA	
	(20 to 40) Hz	99 nA	
	40 Hz to 1 kHz	50 nA	
	(1 to 5) kHz	0.17 µA	
	(5 to 10) kHz	0.43 µA	
	(0.22 to 2.2) mA		
	(10 to 20) Hz	1.6 µA	
	(20 to 40) Hz	0.82 µA	
	40 Hz to 1 kHz	0.38 µA	
	(1 to 5) kHz	1.7 µA	
	(5 to 10) kHz	4.3 µA	
	(2.2 to 22) mA		
	(10 to 20) Hz	16 µA	
	(20 to 40) Hz	8.1 µA	
	40 Hz to 1 kHz	3.4 µA	
	(1 to 5) kHz	17 µA	
	(5 to 10) kHz	43 µA	
	(22 to 220) mA		
	(10 to 20) Hz	0.16 mA	
	(20 to 40) Hz	82 µA	
	40 Hz to 1 kHz	38 µA	
	(1 to 5) kHz	0.17 mA	
	(5 to 10) kHz	0.43 mA	
	(0.22 to 2.2) A		
	20 Hz to 1 kHz	1.5 mA	
	(1 to 5) kHz	1.7 mA	
	(5 to 10) kHz	19 mA	

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Current – Measure	Up to 100 µA		Agilent 3458A, option 002 8.5 Digit Multimeter
	(10 to 20) Hz	0.43 µA	
	(20 to 45) Hz	0.18 µA	
	(45 to 100) Hz	92 nA	
	(0.1 to 1) kHz	92 nA	
	(0.1 to 1) mA		
	(10 to 20) Hz	4.2 µA	
	(20 to 45) Hz	1.7 µA	
	(45 to 100) Hz	0.81 µA	
	100 Hz to 5 kHz	0.52 µA	
	(5 to 10) kHz	0.81 µA	
	(1 to 10) mA		
	(10 to 20) Hz	42 µA	
	(20 to 45) Hz	17 µA	
	(45 to 100) Hz	8.1 µA	
	100 Hz to 5 kHz	5.2 µA	
	(5 to 10) kHz	8.1 µA	
	(10 to 100) mA		
	(10 to 20) Hz	0.42 mA	
	(20 to 45) Hz	0.17 mA	
	(45 to 100) Hz	81 µA	
	100 Hz to 5 kHz	52 µA	
	(5 to 10) kHz	81 µA	
	(0.1 to 1) A		
	(10 to 20) Hz	4.2 mA	
	(20 to 45) Hz	1.8 mA	
	(45 to 100) Hz	1 mA	
	100 Hz to 5 kHz	1.2 mA	
	(5 to 10) kHz	3.2 mA	
AC Voltage – Source	Up to 2.2 mV		Fluke 5700A Multiproduct Calibrator
	(10 to 20) Hz	6.1 µV	
	(20 to 40) Hz	5.3 µV	
	40 Hz to 20 kHz	5.1 µV	
	(20 to 50) kHz	6 µV	
	(50 to 100) kHz	9.7 µV	
	(100 to 300) kHz	17 µV	
	(300 to 500) kHz	30 µV	
	500 kHz to 1 MHz	35 µV	

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Voltage – Source	(2.2 to 22) mV		Fluke 5700A Multiproduct Calibrator
	(10 to 20) Hz	13 µV	
	(20 to 40) Hz	5.4 µV	
	40 Hz to 20 kHz	3.6 µV	
	(20 to 50) kHz	9.5 µV	
	(50 to 100) kHz	20 µV	
	(100 to 300) kHz	29 µV	
	(300 to 500) kHz	42 µV	
	500 kHz to 1 MHz	82 µV	
	(22 to 220) mV		
	(10 to 20) Hz	0.12 mV	
	(20 to 40) Hz	47 µV	
	40 Hz to 20 kHz	24 µV	
	(20 to 50) kHz	71 µV	
	(50 to 100) kHz	0.19 mV	
	(100 to 300) kHz	0.25 mV	
	(300 to 500) kHz	0.38 mV	
	500 kHz to 1 MHz	0.77 mV	
	(0.22 to 2.2) V		
	(10 to 20) Hz	1.2 mV	
	(20 to 40) Hz	0.38 mV	
	40 Hz to 20 kHz	0.18 mV	
	(20 to 50) kHz	0.29 mV	
	(50 to 100) kHz	0.63 mV	
	(100 to 300) kHz	1.1 mV	
	(300 to 500) kHz	2.7 mV	
	500 kHz to 1 MHz	5.9 mV	
	(2.2 to 22) V		
	(10 to 20) Hz	12 mV	
	(20 to 40) Hz	3.8 mV	
	40 Hz to 20 kHz	1.8 mV	
	(20 to 50) kHz	2.9 mV	
	(50 to 100) kHz	6 mV	
	(100 to 300) kHz	13 mV	
	(300 to 500) kHz	32 mV	
	500 kHz to 1 MHz	69 mV	
	(22 to 220) V		
	(20 to 40) Hz	39 mV	
	40 Hz to 20 kHz	19 mV	
	(20 to 50) kHz	53 mV	
	(50 to 100) kHz	96 mV	

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Voltage – Source	(220 to 1 100) V 40 Hz to 1 kHz (1 to 20) kHz (20 to 30) kHz	 99 mV 94 mV 0.18 V	Fluke 5700A Multiproduct Calibrator, Fluke 5725A Amplifier
AC Voltage – Measure	(1 to 10) mV 40 Hz to 1 kHz (1 to 20) kHz (20 to 100) kHz (100 to 300) kHz (10 to 100) mV 40 Hz to 1 kHz (1 to 20) kHz (20 to 100) kHz (100 to 300) kHz (0.1 to 1) V 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 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 (10 to 100) V 40 Hz to 1 kHz (1 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 1 000) V 40 Hz to 1 kHz	 4.2 µV 5 µV 52 µV 0.4 mV 10 µV 17 µV 84 µV 0.31 mV 0.11 mV 0.17 mV 0.33 mV 0.84 mV 3.1 mV 10 mV 0.9 µV 1.6 mV 3.2 mV 8.4 mV 31 mV 36 mV 0.15 V 22 mV 22 mV 38 mV 0.12 V 0.42 V	Agilent 3458A, option 002 8.5 Digit Multimeter
DC Current – Source	Up to 220 µA (0.22 to 2.2) mA (2.2 to 22) mA (22 to 220) mA (0.22 to 2.2) A	19 nA 0.12 µA 1.2 µA 14 µA 0.21 mA	Fluke 5700A Multiproduct Calibrator

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
DC Current – Measure	Up to 100 nA (0.1 to 1) µA (1 to 10) µA (10 to 100) µA (0.1 to 1) mA (1 to 10) mA (10 to 100) mA (0.1 to 1) A	43 pA 62 pA 0.33 nA 2.8 nA 26 nA 0.26 µA 4 µA 0.12 mA	Agilent 3458A, option 002 8.5 Digit Multimeter
DC Voltage – Source	Up to 220 mV (0.22 to 2.2) V (2.2 to 11) V (11 to 22) V (22 to 220) V (220 to 1 100) V	2.7 µV 17 µV 81 µV 0.16 mV 1.8 mV 11 mV	Fluke 5700A Multiproduct Calibrator
DC Voltage – Measure	Up to 100 mV 100 mV to 1 V (1 to 10) V (10 to 100) V (100 to 1 000) V	1.2 µV 5.7 µV 49 µV 0.73 mV 20 mV	Agilent 3458A, option 002 8.5 Digit Multimeter
DC Resistance – Source (Fixed Points)	1 Ω 1.9 Ω 10 Ω 19 Ω 100 Ω 190 Ω 1 kΩ 1.9 kΩ 10 kΩ 19 kΩ 100 kΩ 190 kΩ 1 MΩ 1.9 MΩ 10 MΩ 19 MΩ 100 MΩ	97 µΩ 0.18 mΩ 0.3 mΩ 0.55 mΩ 2 mΩ 3.7 mΩ 16 mΩ 30 mΩ 0.16 Ω 0.28 Ω 1.7 Ω 3.2 Ω 24 Ω 57 Ω 0.48 kΩ 3.5 kΩ 19 kΩ	Fluke 5700A Multiproduct Calibrator

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
DC Resistance – Measure	Up to 10 Ω (10 to 100) Ω (0.1 to 1) kΩ (1 to 10) kΩ (10 to 100) kΩ (0.1 to 1) MΩ (1 to 10) MΩ (10 to 100) MΩ (0.1 to 1) GΩ	0.2 mΩ 1.7 mΩ 11 mΩ 0.11 Ω 1.1 Ω 18 Ω 0.13 kΩ 51 kΩ 5 MΩ	Agilent 3458A, option 002 8.5 Digit Multimeter

Time and Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Frequency – Source	(1 to 120) Hz 120 to 1.2 kHz (1.2 to 12) kHz (12 to 120) kHz 120 kHz to 1.2 MHz	13 mHz 1.2 Hz 1.3 Hz 13 Hz 0.13 kHz	Fluke 5700A Multiproduct Calibrator
Frequency – Measure	40 Hz to 10 MHz	1 kHz	Agilent 3458A, option 002 8.5 Digit Multimeter

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 (k=2), corresponding to a confidence level of approximately 95%.

Notes:

1. On-site calibration service is available for this parameter, since on-site conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected on-site than what is reported on the accredited scope.
2. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-2626.

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