



# CERTIFICATE OF ACCREDITATION

## The ANSI National Accreditation Board

Hereby attests that

**IIA Lab Services, LLC**  
**8612 South 228<sup>th</sup> Street**  
**Kent, Washington 98031**

Fulfills the requirements of

**ISO/IEC 17025:2017**

and national standard

**ANSI/NCSL Z540-1-1994 (R2002)**

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](http://www.anab.org).

Jason Stine, Vice President

Expiry Date: 10 June 2026

Certificate Number: AC-1458



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**

**AND**

**ANSI/NCSL Z540-1-1994 (R2002)**

**IIA Lab Services, LLC**

8612 South 228<sup>th</sup> Street  
Kent, WA 98031

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**CALIBRATION**

Valid to: **June 10, 2026**

Certificate Number: **AC-1458**

**Electrical – DC/Low Frequency**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
DC Voltage - Source	Up to 330 mV 330 mV to 3.3 V (3.3 to 33) V (33 to 330) V 330 V to 1.02 kV	60 $\mu$ V/V + 3 $\mu$ V 50 $\mu$ V/V + 5 $\mu$ V 50 $\mu$ V/V + 50 $\mu$ V 55 $\mu$ V/V + 0.50 mV 55 $\mu$ V/V + 1.5 mV	Fluke 5500A Multi Product Calibrator SOP-LABE-03, Fluke 5500A Manual
AC Voltage - Source	(1 to 33) mV (10 to 45) Hz 45 Hz to 10 kHz (10 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 500) kHz (33 to 330) mV (10 to 45) Hz 45 Hz to 10 kHz (10 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 500) kHz 330 mV to 3.3 V (10 to 45) Hz 45 Hz to 10 kHz (10 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 500) kHz	3.5 mV/V + 20 $\mu$ V 1.5 mV/V + 20 $\mu$ V 2 mV/V + 20 $\mu$ V 2.5 mV/V + 20 $\mu$ V 3.5 mV/V + 33 $\mu$ V 10 mV/V + 60 $\mu$ V 2.5 mV/V + 50 $\mu$ V 0.50 mV/V + 20 $\mu$ V 1 mV/V + 20 $\mu$ V 1.6 mV/V + 40 $\mu$ V 2.4 mV/V + 0.17 mV 7 mV/V + 0.33 mV 1.5 mV/V + 0.25 mV 0.30 mV/V + 60 $\mu$ V 0.80 mV/V + 60 $\mu$ V 1.4 mV/V + 0.30 mV 2.4 mV/V + 1.7 mV 5 mV/V + 3.3 mV	Fluke 5500A Multi Product Calibrator SOP-LABE-03, Fluke 5500A Manual



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AC Voltage - Source	(3.3 to 33) V		Fluke 5500A Multi Product Calibrator SOP-LABE-03, Fluke 5500A Manual
	(10 to 45) Hz	1.5 mV/V + 2.5 mV	
	45 Hz to 10 kHz	0.40 mV/V + 0.60 mV	
	(10 to 20) kHz	0.80 mV/V + 2.6 mV	
	(20 to 50) kHz	1.9 mV/V + 5 mV	
	(50 to 100) kHz	2.4 mV/V + 17 mV	
	(33 to 330) V		
	45 Hz to 1 kHz	0.50 mV/V + 6.6 mV	
	(1 to 10) kHz	0.80 mV/V + 15 mV	
	(10 to 20) kHz	0.90 mV/V + 33 mV	
DC Current - Source	330 V to 1.02 kV		Fluke 5500A Multi Product Calibrator SOP-LABE-03, Fluke 5500A Manual
	45 Hz to 1 kHz	0.60 mV/V + 80 mV	
	(1 to 5) kHz	2 mV/V + 0.10 V	
	(5 to 10) kHz	2 mV/V + 0.50 V	
	Up to 3.3 mA	0.13 mA/A + 50 nA	
	(3.3 to 33) mA	0.10 mA/A + 0.15 μA	
AC Current - Source	(33 to 330) mA		Fluke 5500A Multi Product Calibrator SOP-LABE-03, Fluke 5500A Manual
	(33 to 330) mA	0.10 mA/A + 3.3 μA	
	330 mA to 2 A	0.30 mA/A + 44 μA	
	(2 to 10) A	0.60 mA/A + 0.33 mA	
	(330 μA to 3.3 mA)		
	(10 to 20) Hz	2.5 mA/A + 0.15 μA	
	(20 to 45) Hz	1.3 mA/A + 0.15 μA	
	45 Hz to 1 kHz	1.3 mA/A + 0.25 μA	
	(1 to 5) kHz	4 mA/A + 0.15 μA	
	(5 to 10) kHz	12.5 mA/A + 0.15 μA	
	(10 to 20) Hz	2 mA/A + 0.30 μA	
	(20 to 45) Hz	1 mA/A + 0.30 μA	
	45 Hz to 1 kHz	1 mA/A + 0.30 μA	
	(1 to 5) kHz	2 mA/A + 0.30 μA	
	(5 to 10) kHz	6 mA/A + 0.30 μA	
	(3.3 to 33) mA		
	(10 to 20) Hz	2 mA/A + 3 μA	
	(20 to 45) Hz	1 mA/A + 3 μA	
45 Hz to 1 kHz	0.90 mA/A + 3 μA		
(1 to 5) kHz	2 mA/A + 3 μA		
(5 to 10) kHz	6 mA/A + 3 μA		



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Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Current – Source	(33 to 330) mA (10 to 20) Hz (20 to 45) Hz 45 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz 330 mA to 2.2 A (10 to 45) Hz 45 Hz to 1 kHz (1 to 5) kHz (2.2 to 11) A (45 to 65) Hz (65 to 500) Hz 500 Hz to 1 kHz	2 mA/A + 30 $\mu$ A 1 mA/A + 30 $\mu$ A 0.90 mA/A + 30 $\mu$ A 2 mA/A + 30 $\mu$ A 6 mA/A + 30 $\mu$ A 2 mA/A + 0.30 mA 1 mA/A + 0.30 mA 7.5 mA/A + 0.30 mA 0.60 mA/A + 3 mA 1 mA/A + 3 mA 3.3 mA/A + 3 mA	Fluke 5500A Multi Product Calibrator SOP-LABE-03, Fluke 5500A Manual
Resistance - Source	Up to 11 $\Omega$ (11 to 33) $\Omega$ (33 to 110) $\Omega$ (110 to 330) $\Omega$ 330 $\Omega$ to 1.1 k $\Omega$ (1.1 to 3.3) k $\Omega$ (3.3 to 11) k $\Omega$ (11 to 33) k $\Omega$ (33 to 110) k $\Omega$ (110 to 330) k $\Omega$ 330 k $\Omega$ to 1.1 M $\Omega$ (1.1 to 3.3) M $\Omega$ (3.3 to 11) M $\Omega$ (11 to 33) M $\Omega$ (33 to 110) M $\Omega$	0.12 m $\Omega$ / $\Omega$ + 6 m $\Omega$ 0.12 m $\Omega$ / $\Omega$ + 10 m $\Omega$ 90 $\mu\Omega$ / $\Omega$ + 10 m $\Omega$ 90 $\mu\Omega$ / $\Omega$ + 10 m $\Omega$ 90 $\mu\Omega$ / $\Omega$ + 60 m $\Omega$ 90 $\mu\Omega$ / $\Omega$ + 60 m $\Omega$ 90 $\mu\Omega$ / $\Omega$ + 0.60 $\Omega$ 90 $\mu\Omega$ / $\Omega$ + 0.60 $\Omega$ 0.11 m $\Omega$ / $\Omega$ + 6 $\Omega$ 0.12 m $\Omega$ / $\Omega$ + 6 $\Omega$ 0.15 m $\Omega$ / $\Omega$ + 55 $\Omega$ 0.15 m $\Omega$ / $\Omega$ + 55 $\Omega$ 0.60 m $\Omega$ / $\Omega$ + 0.55 k $\Omega$ 1 m $\Omega$ / $\Omega$ + 0.55 k $\Omega$ 5 m $\Omega$ / $\Omega$ + 5.5 k $\Omega$	Fluke 5500A Multi Product Calibrator SOP-LABE-03, Fluke 5500A Manual
Resistance Simulation of RTD Indicators	PT 100 $\Omega$ , 385 (-180 to 0) $^{\circ}$ C (0 to 360) $^{\circ}$ C (360 to 750) $^{\circ}$ C	0.05 $^{\circ}$ C 0.01 $^{\circ}$ C 0.23 $^{\circ}$ C	Fluke 5500A Multi Product Calibrator SOP-LABE-03, Fluke 5500A Manual
Millivolt Simulation of Thermocouple Indicators	Type K (-200 to -100) $^{\circ}$ C (-100 to -25) $^{\circ}$ C (-25 to 120) $^{\circ}$ C (120 to 1 000) $^{\circ}$ C (1 000 to 1 372) $^{\circ}$ C	0.33 $^{\circ}$ C 0.18 $^{\circ}$ C 0.16 $^{\circ}$ C 0.26 $^{\circ}$ C 0.4 $^{\circ}$ C	Fluke 5500A Multi Product Calibrator SOP-LABE-03, Fluke 5500A Manual

**Electrical – DC/Low Frequency**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Millivolt Simulation of Thermocouple Indicators	Type J		Fluke 5500A Multi Product Calibrator SOP-LABE-03, Fluke 5500A Manual
	(-210 to -100) °C	0.27 °C	
	(-30 to 150) °C	0.14 °C	
	(150 to 760) °C	0.17 °C	
	(760 to 1 200) °C	0.23 °C	
	Type T		
	(-250 to -150) °C	0.63 °C	
	(-150 to 0) °C	0.24 °C	
(0 to 120) °C	0.16 °C		
(120 to 400) °C	0.14 °C		

**Thermodynamics**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
System Accuracy Tests <sup>1</sup>	Type N		AMS 2750 (G)
	(0 to 500) °F	1.4 °F	
	(501 to 1 000) °F	1.5 °F	
	(1 001 to 2 300) °F	1.6 °F	
Temperature Uniformity Surveys <sup>1</sup>	Type K (24 gage)		AMS2750 (G)
	(0 to 300) °F	1.6 °F	
	(301 to 900) °F	1.7 °F	
	(901 to 1 250) °F	1.8 °F	
Temperature Uniformity Surveys <sup>1</sup>	Type K (20 gage)		AMS2750 (G)
	(1 000 to 1 450) °F	1.5 °F	
	(1 451 to 1 600) °F	1.5 °F	
	(1 601 to 2 300) °F	1.6 °F	

**Length – Dimensional Metrology**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Gage Blocks <sup>2</sup>	(0.01 to 4) in	(2.1 + 4.5L) μin	Mahr UMM, Gage Blocks SOP-LABM-04 Rev B
Calipers <sup>2</sup>	Up to 60 in	(4 + 4.9L) μin	Gage Blocks SOP-LABM-17
Micrometers <sup>2</sup>	Up to 20 in	60 μin	Gage Blocks SOP-LABM-08

**Length – Dimensional Metrology**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Indicators <sup>2</sup> Dial and Digital	Up to 2 in	13 $\mu$ m	Mahr UMM, Gage Blocks SOP-LABM-10 SOP-LABM-11
Height Gage <sup>2</sup>	Up to 60 in	(22 + 4.8L) $\mu$ m	Gage Blocks SOP-LABM-09

**Mass and Mass Related**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Force (Tension) Load Cells <sup>1</sup>	Up to 750 lbf	0.017 lbf	Class F Weights SOP-FIELD-12 Rev New ASTM E4
Force (Tension) Load Cells <sup>1</sup>	(58 to 1 010) lbf (288 to 10 100) lbf (1 146 to 51 000) lbf (5 504 to 101 000) lbf	0.15 lbf 0.58 lbf 2 lbf 18 lbf	Load Cells SOP-FIELD-12 Rev New ASTM E4
Force (Compression) Load Cells <sup>1</sup>	Up to 190 lbf	0.008 9 lbf	Class F Weights SOP-FIELD-12 Rev New ASTM E4
Force (Compression) Load Cells <sup>1</sup>	(29 to 505) lbf (200 to 10 100) lbf (2 543 to 61 000) lbf (23 652 to 400 000) lbf	0.057 lbf 0.55 lbf 3.5 lbf 35 lbf	Load Cells SOP-FIELD-12 Rev New ASTM E4
Vacuum	(-29 to 0) inHg	0.14 inHg	Pressure Calibrator SOP-FIELD-05
Pressure	Up to 95 psi (95 to 237.5) psi (237.5 to 475) psi (475 to 3 000) psi (3 000 to 10 000) psi	0.13 psi 0.14 psi 0.24 psi 1.6 psi 5.4 psi	
Scales and Balances	(1 to 20) g (20 to 210) g (0.46 to 21) lb (21 to 190) lb (190 to 750) lb (751 to 1 770) lb	0.000 36 g 0.001 2 g 0.001 4 lb 0.005 1 lb 0.02 lb 0.04 lb	Class F Weights SOP-FIELD-24

**Time and Frequency**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Frequency - Source	0.01 Hz to 10 kHz (10 to 100) kHz	25 $\mu$ Hz/Hz + 1 mHz 25 $\mu$ Hz/Hz + 15 mHz	Fluke 5500A Multi Product Calibrator

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.  $L$  = length in inches.
3. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-1458.



Jason Stine, Vice President

