



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005
& ANSI/NCSL Z540-1-1994

OHM-LABS, INC.
 611 East Carson Street
 Pittsburgh, PA 15203-1021
 Jay Klevens Phone: 412 431 0640

CALIBRATION

Valid To: October 31, 2012

Certificate Number: 2481.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations¹:

I. Electrical – DC/Low Frequency

Parameter/Equipment	Range ³	CMC ² (±)	Comments
DC High Voltage Ratio, Applied Voltage (100 to 1 000 000):1	(1 to 150) kV	0.006 % of ratio	Comparison with high voltage divider Ohm-Labs HV-S
DC Voltage – Measure	(1 to 150) kV	95 µV/V	Ohm-Labs HV-S w/DC meter
Resistance – Measure Fixed Points	10 µΩ 100 µΩ (0.1 to 1.1) mΩ (1 to 11) mΩ (10 to 110) mΩ (0.1 to 1.1) Ω	9 µΩ/Ω 6 µΩ/Ω 5 µΩ/Ω 1.9 µΩ/Ω 1.5 µΩ/Ω 1.1 µΩ/Ω	Comparison to 1000 A, current comparator bridge, Guildline 9920; or Comparison to 100 A with Guildline 9975 & 9923 extender

Parameter/Equipment	Range ³	CMC ² (±)	Comments	
Resistance (cont.) – Measure	(1 to 11) Ω	0.5 μΩ/Ω	Comparison with current comparator bridge, MI 6242B	
	(10 to 110) Ω	0.7 μΩ/Ω		
	(100 to 1100) Ω	1.3 μΩ/Ω		
	(1 to 11) kΩ	1.1 μΩ/Ω		
	10 kΩ	0.5 μΩ/Ω		
	(10 to 110) kΩ	3 μΩ/Ω		
	100 kΩ	3 μΩ/Ω		
	(10 to 1100) kΩ	13 μΩ/Ω	Comparison with conjunctive bridge, ESI 242D	
		1 MΩ		4 μΩ/Ω
		(1 to 11) MΩ		13 μΩ/Ω
	(10 to 110) MΩ	10 μΩ/Ω	Comparison with dual source bridge & Guarded hanon transfers	
		100 MΩ		15 μΩ/Ω
		(100 to 1100) MΩ		15 μΩ/Ω
		1 GΩ		12 μΩ/Ω
		(1 to 11) GΩ		30 μΩ/Ω
10 GΩ		25 μΩ/Ω		
(10 to 110) GΩ		60 μΩ/Ω		
100 GΩ		55 μΩ/Ω		
(100 to 1100) GΩ		150 μΩ/Ω		
1 TΩ		125 μΩ/Ω		
(1 to 11) TΩ	350 μΩ/Ω			
10 TΩ	350 μΩ/Ω			
DC Current – Measure	(0 to 10) mA (10 to 100) mA (100 to 1000) mA (1 to 3) A	0.06 % of rdg + 2 μA 0.06 % of rdg + 5 μA 0.13 % of rdg + 0.1 mA 0.16 % of rdg + 0.6 mA	Measurement with Agilent 34401A	

Parameter/Range	Frequency	CMC ² (±)	Comments
AC High Voltage Ratio, Applied Voltage (100 to 100 000:1)	(1 to 100) kV 60 Hz	0.10 % of ratio	Comparison with inductive high voltage divider
AC Voltage – Measure @ 60 Hz	(0.75 to 8.1) kV (8.1 to 81) kV (81 to 100) kV	0.07 % + 3 V 0.07 % + 30 V 0.07 % + 200 V	Measurement with inductive high voltage divider and Agilent 33401A

¹ This laboratory offers commercial calibration service.

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 calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. Calibration and Measurement Capabilities 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 Where ranges are not specified, the best measurement uncertainty stated is for the cardinal points only.



World Class Accreditation

The American Association for Laboratory Accreditation

Accredited Laboratory

A2LA has accredited

OHM-LABS, INC.

Pittsburgh, PA

for technical competence in the field of

Calibration

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 laboratory also meets the requirements of ANSI/NCSL Z540-1-1994 and any additional program requirements in the field of calibration. 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 4th day of November 2010.





Peter Meyer

President & CEO
For the Accreditation Council
Certificate Number 2481.01
Valid to October 31, 2012

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