



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

LAKE SHORE CRYOTRONICS  
 575 McCorkle Blvd  
 Westerville, OH 43082  
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CALIBRATION

Valid To: September 30, 2025

Certificate Number: 6941.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations<sup>1,4</sup>:

I. DC/Low Frequency

| Parameter/Equipment  | Range  | CMC <sup>2,3</sup> (±) | Comments                                      |                |
|----------------------|--------|------------------------|---|----------------|
| DC Current – Measure | 100 nA | 4.8E-3 nA              | 3458A digital multimeter<br><br>M81 CM module |                |
|                      | 1 µA   | 4.2E-5 µA              |   |                |
|                      | 10 µA  | 4.2E-4 µA              |   |                |
|                      | 100 µA | 2.9E-3 µA              |   |                |
|                      | 1 mA   | 5.6E-5 mA              |   |                |
|                      | 10 mA  | 5.4E-4 mA              |   |                |
|                      | 100 mA | 7.9E-3 mA              |   |                |
|                      | 0 A    | 3.3E-13 A              |   | M81 BCS module |
|                      | 5 nA   | 6.4E-4 nA              |   |                |
|                      | 10 nA  | 1.2E-3 nA              |   |                |
|                      | 50 nA  | 6.3E-3 nA              |   |                |
|                      | 100 nA | 1.2E-2 nA              |   |                |
|                      | 500 nA | 5.9E-2 nA              |   |                |
|                      | 1 µA   | 1.2E-4 µA              |   |                |
|                      | 5 µA   | 2.2E-4 µA              |   |                |
|                      | 10 µA  | 4.9E-4 µA              |   |                |
|                      | 50 µA  | 2E-3 µA                |   |                |
|                      | 100 µA | 4.2E-3 µA              |   |                |
|                      | 500 µA | 1.8E-2 µA              |   |                |
|                      | 1 mA   | 4.1E-5 mA              |   |                |
|                      | 5 mA   | 2E-4 mA                |   |                |
|                      | 10 mA  | 4.2E-4 mA              |   |                |
|                      | 50 mA  | 2.4E-3 mA              |   |                |
|                      | 100 mA | 4.9E-3 mA              |   |                |

| Parameter/Equipment  | Range     | CMC <sup>2,3</sup> (±) | Comments                                 |
|----------------------|-----------|------------------------|--|
| DC Voltage – Measure | 0 V       | 2.3E-6 V               | 3458A digital multimeter<br>M81 SSM head |
|                      | 5 V       | 8.3E-5 V               |  |
|                      | 10 V      | 2.3E-4 V               |  |
|                      | 0 V       | 6.6E-7 V               | M81 VM module                            |
|                      | 5 mV      | 7.5E-4 mV              |  |
|                      | 10 mV     | 8.5E-4 mV              |  |
|                      | 50 mV     | 1.6E-3 mV              |  |
|                      | 100 mV    | 2.5E-3 mV              |  |
|                      | 500 mV    | 9E-3 mV                |  |
|                      | 1 V       | 1.7E-5 V               |  |
|                      | 5 V       | 8.5E-5 V               |  |
|                      | 10 V      | 1.7E-4 V               |  |
|                      | 0 V       | 6.6E-7 V               |  |
|                      | 10 V      | 1.7E-4 V               |  |
|                      | 0 V       | 1.9E-6 V               | M81 VS module                            |
| 5 mV                 | 2.7E-3 mV |                        |  |
| 10 mV                | 2.7E-3 mV |                        |  |
| 50 mV                | 2.3E-3 mV |                        |  |
| 100 mV               | 3.9E-3 mV |                        |  |
| 500 mV               | 1.2E-2 mV |                        |  |
| 1 V                  | 2.9E-5 V  |                        |  |
| 5 V                  | 1.2E-4 V  |                        |  |
| 10 V                 | 2.9E-4 V  |                        |  |
| AC Voltage – Measure | 3.4 V     | 5e-3 V                 |  |

<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. CMC's 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. CMC's are expressed as either a specific value that covers the full range or as a percentage or fraction of the reading plus a fixed floor specification.

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





# Accredited Laboratory

A2LA has accredited

## LAKE SHORE CRYOTRONICS

Westerville, OH

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 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 12<sup>th</sup> day of September 2023

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 6941.01  
Valid to September 30, 2025

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