



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

LUDLUM MEASUREMENTS INC. KNOXVILLE CALIBRATION DIVISION  
10744 Dutchtown Road  
Knoxville, TN 37932  
Richard Lewis Phone: 325 235 5494

CALIBRATION

Valid To: September 30, 2022

Certificate Number: 4084.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations<sup>1,3</sup>:

I. Ionizing Radiation & Radioactivity

Parameter/ Equipment	Range	CMC <sup>2</sup> (±)	Comments
Gamma Exposure/Dose Rate Cs-137	100 µR/hr to 800 R/hr 1 µSv/hr to 8 Sv/hr	5.0 % of reading	Beam calibrator
	(0.001 to 2500) V	1.3 % of reading	Multimeter
Count Rate Instruments	(1 to 9.999 x 10 <sup>6</sup> ) cpm	5.4 % of reading	Ludlum model 500 Pulser
	(0.001 to 2500) V	1.3 % of reading	Multimeter
Pulsers –			
Pulse Count	(1 to 9.999 x 10 <sup>6</sup> ) cpm	0.46 % of reading	Precision counter
Pulse Duration	0.1 µs to 0.5 s	0.85 % of reading	Oscilloscope
Reference Voltage/Pulse Amplitude	(0.001 to 2500) V	1.3 % of reading	Multimeter

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



## Accredited Laboratory

A2LA has accredited

# LUDLUM MEASUREMENTS INC. KNOXVILLE CALIBRATION DIVISION

*Knoxville, TN*

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 12<sup>th</sup> day of October 2020.

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 4084.02  
Valid to September 30, 2022

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