

#### SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

#### PCB PIEZOTRONICS, INC., PCB LOAD & TORQUE DIVISION 24350 Indoplex Circle Farmington Hills, MI 48335 Lance Pellens Phone: 716 684 0002 x 102222

#### CALIBRATION

Valid To: April 30, 2026

Certificate Number: 1015.01

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In recognition of the successful completion of the A2LA evaluation process, (including an assessment of the organization's compliance with A2LA's Calibration Program Requirements), accreditation is granted to this laboratory to perform the following calibrations<sup>1, 4</sup>:

I. Electrical – DC/Low Frequency

| Parameter/Equipment               | Range           | CMC <sup>2, 3</sup> (±) | Comments                      |
|-----------------------------------|-----------------|-------------------------|-------------------------------|
| Torque/Force Indicating<br>System | (0 to 2.5) mV/V | 0.0041 mV/V             | Precision bridge<br>simulator |

#### II. Mechanical

| Parameter/Equipment                | Range  | $\mathrm{CMC}^2$ (±)   | Comments            |
|------------------------------------|--|--|---------------------|
| Force – Tension and<br>Compression | Up to 250 lbf<br>(250 to 500) lbf                                    | 0.021 % Full Scale<br>0.042 % Full Scale                       | Deadweight          |
|                                    | (500 to 2200) lbf<br>(2200 to 30 000) lbf<br>(30 000 to 100 000) lbf | 0.025 % Full Scale<br>0.022 % Full Scale<br>0.036 % Full Scale | Reference load cell |

(A2LA Cert. No. 1015.01) 05/28/2024

| Parameter/Equipment | Range  | CMC <sup>2</sup> (±)   | Comments                                       |
|---------------------|--|--|--|
| Torque              | Up to 2 lbf·in<br>(2 to 100) lbf·in<br>(100 to 3600) lbf·in<br>(3600 to 12 000) lbf·in<br>(12 000 to 144 000) lbf·in<br>(144 000 to 216 000) lbf·in<br>(12 000 to 64 800) lbf·in | 0.74 % Full Scale<br>0.046 % Full Scale<br>0.014 % Full Scale<br>0.017 % Full Scale<br>0.029 % Full Scale<br>0.019 % Full Scale<br>0.12 % Full Scale | Torque arm with<br>weights<br>Reference torque |
|                     | $(64\ 800\ to\ 216\ 000)\ lbf \cdot in$  | 0.047 % Full Scale   | cell   |

<sup>1</sup> This laboratory offers commercial calibration service.

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

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<sup>&</sup>lt;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>&</sup>lt;sup>3</sup> The type of instrument or material being calibrated is defined by the parameter. This indicates the laboratory is capable of calibrating instruments that measure or generate the values in the ranges indicated for the listed measurement parameter.





# **Accredited Laboratory**

A2LA has accredited

## PCB PIEZOTRONICS, INC. PCB LOAD & TORQUE DIVISION

Farmington Hills, MI

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 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 28<sup>th</sup> day of May 2024.

Mr. Trace McInturff, Vice President, Accreditation Services For the Accreditation Council Certificate Number 1015.01 Valid to April 30, 2026

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