

CERTIFICATION OF CONFORMANCE

Title Page of Calibration Certificate Documentation

CUSTOMER:

TANDM Technologies (Pty) Ltd
342 The Rand Street
Lynnwood
Pretoria, 0081
SOUTH AFRICA


PURCHASE ORDER #: TMO9024

PCB ORDER #: I000357223

QTY	ITEM	DESCRIPTION
1	106B52	ICP MICROPHONE, 5000 mV/PSI 00020670

Notes:

1. This document certifies that the subject item(s) have been manufactured, repaired (if applicable), tested, or inspected in accordance with referenced purchase order and conform(s) to applicable specifications per PCB Quality Policy Manual.
2. Equipment used in validation is traceable to NIST and appropriate records are on file. The results stated on the calibration certificate relate only to the item referenced on the calibration certificate.
3. Calibrations comply with ISO 17025:2017 and ANSI/NCSS Z540.3-2006 except as noted on associated calibration certificate(s). Order placement is an acknowledgement and acceptance of measurement capability. Product is compliant with specification if measured value is within or equal to the specification tolerance. Product is not compliant with specification if measured value falls outside the specification tolerance. When a statement of conformity appears on a calibration certificate only the specification values listed are covered by the conformity statement. Out of tolerance conditions are noted on the calibration certificate. See Manufacturer's Specification Sheet for a detailed listing of performance specifications.
4. Calibrations are performed using processes having a test uncertainty ratio (TUR) of four or more times greater than the unit calibrated, unless otherwise noted on the calibration certificate. Calibration at 4:1 TUR provides reasonable confidence that the instrument is within product specifications

Logistics Associate:  _____

Date: 01/05/24

PCB PIEZOTRONICS, INC.
3425 WALDEN AVENUE, DEPEW, NY 14043 UNITED STATES
Phone: (716) 684-0001, Fax: (716) 684-0987

~ Calibration Report ~

Model : 106B52
Serial : 20670
Description : ICP® Pressure Sensor

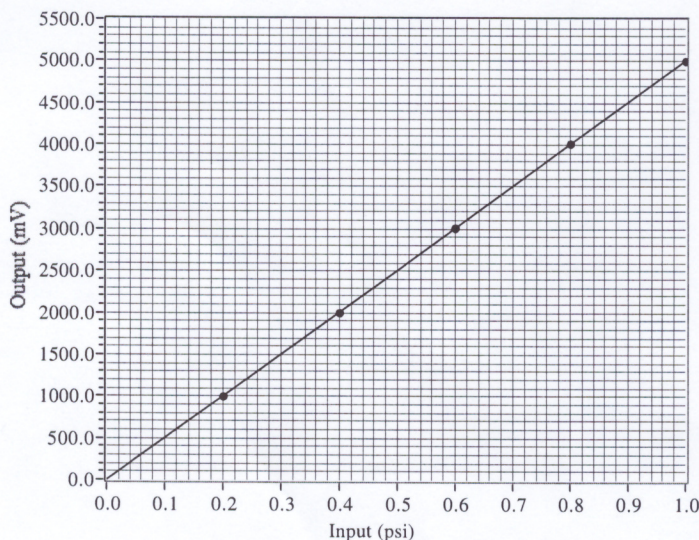
Manufacturer : PCB Piezotronics
Test Method : Pulse Calibrator
Test Procedure : AT601-6

Calibration Data

Sensitivity : 5010.46 mV/psi
0.726705 mV/Pa
Time Constant : 0.29 s
Bias : 11.89 V
Non-Linearity : 0.09 % FS

Temperature: 72 °F (22 °C)

Relative Humidity: 40 %



Test Data

Input (psi)	Output (mV)
0.200	999
0.400	2000
0.600	3011
0.800	4013
1.000	5007

Condition of Unit

As Found : n/a

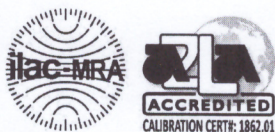
As Left : New Unit, In Tolerance

Notes

1. Calibration is traceable to NIST and is in compliance with ISO 17025 and ANSI/NC SL Z540.3.
2. This certificate shall not be reproduced, except in full, without written approval from PCB Piezotronics, Inc.
3. Zero-based, least-squares straight line used in sensitivity calculation.
4. Non-linearity is calculated relative to the test data range on this page.
5. Measurement results relate only to the items tested. Refer to Manufacturer's Specification Sheet for performance details.
6. Product is compliant with specification if measured value is within or equal to the specification tolerance. Product is not compliant with specification if measured value falls outside of the specification tolerance.
7. Measurement uncertainty (95% confidence level with coverage factor of 2) for sensitivity is +/- 1.00 %.
8. NIST traceability through PCB control #CA1950B.

Technician: William Swanson

Date: 12/18/2023



PCB PIEZOTRONICS
AN AMPHENOL COMPANY

3425 WALDEN AVENUE - DEPEW, NY 14043
TEL: +1 (888) 684-0013 - FAX: +1 (716) 685-3886 - www.pcb.com



~ Calibration Certificate ~

per ISA-S37.10

Model Number: 106B52

Serial Number: 20670

Description: ICP® Microphone

Manufacturer: PCB

Method: Sinusoidal Excitation (AT-601-1)

Calibration Data

Output @124 dB SPL 66.08 mV (pk/pk)

Reference Freq.: 250 Hz.

Sensitivity: 5082.8 mV/psi 737.17 mV/kPa

Acceleration Sens.: 0.0013 psi/g 0.0009 kPa/ms⁻²

Temperature: 71.9 °F 22 °C

Relative Humidity: 40.9 %

Condition of Unit

As Found: n/a

As Left: New unit, in tolerance

Notes

1. Calibration is N.I.S.T. Traceable through Control No. CA2603
2. Reference 0 dB = 20 µPa.
3. This certificate shall not be reproduced, except in full, without written approval from PCB Piezotronics, Inc.
4. Calibration is performed in compliance with ISO 9001, ISO 10012-1, ANSI/NCSL Z540.3 and ISO 17025.
5. Measurement results relate only to the items tested. Refer to Manufacturer's Specification Sheet for performance details.
6. Product is compliant with specification if measured value is within or equal to the specification tolerance;
Product is not compliant with specification if measured value falls outside of the specification tolerance.
7. Measurement uncertainty (95% confidence level with coverage factor of 2) for reference frequency is +/-0.45 dB.

Technician: Peter Groblewski

Date: 12/18/2023



CALIBRATION CERT # 1862.01

PCB PIEZOTRONICSTM
PRESSURE DIVISION

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Depew, New York 14043

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