

# ~ Calibration Certificate ~

Per ISO 16063-21

Model Number: 356A01

Serial Number: LW248198 (x axis)

Description: ICP® Triaxial Accelerometer

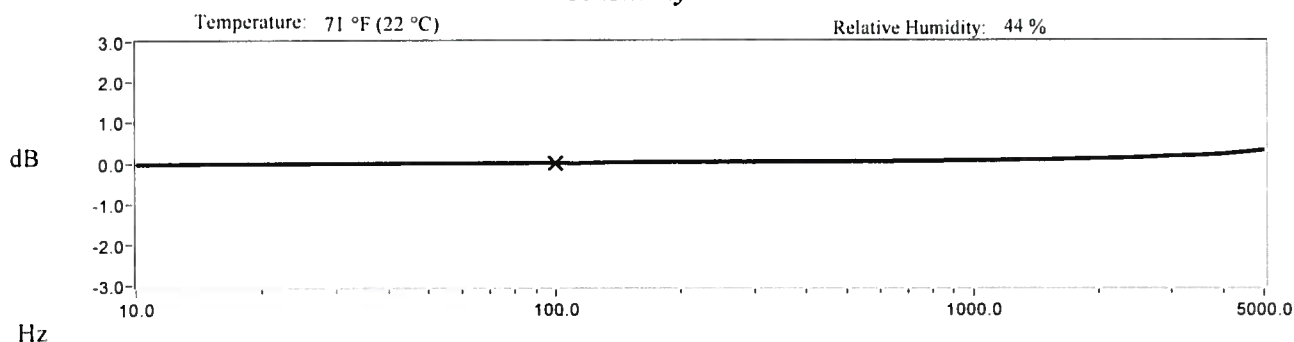
Manufacturer: PCB

Method: Back-to-Back Comparison AT401-3

## Calibration Data

Sensitivity @ 100 Hz      4.67 mV/g  
(0.476 mV/m/s<sup>2</sup>)      Output Bias      9.9 VDC  
Discharge Time Constant      0.39 seconds      Transverse Sensitivity      1.9 %

## Sensitivity Plot



## Data Points

Frequency (Hz)	Dev. (%)	Frequency (Hz)	Dev. (%)
10	-0.4	300	0.4
15	-0.2	500	0.5
30	-0.1	1000	0.7
50	0.0	3000	2.0
REF. FREQ.	0.0	5000	3.7

Mounting Surface: Tungsten Adapter    Fastener: Adhesive    Fixture Orientation: Inverted Vertical  
Acceleration Level (pk): 10.0 g (98.1 m/s<sup>2</sup>)

<sup>1</sup>The acceleration level may be limited by shaker displacement at low frequencies. If the listed level cannot be obtained, the calibration system uses the following formula to set the vibration amplitude: Acceleration Level (g) = 0.008 x (freq)<sup>2</sup>. <sup>2</sup>The gravitational constant used for calculations by the calibration system is: 1 g = 9.80665 m/s<sup>2</sup>.

## Condition of Unit

As Found: n/a

As Left: New Unit, In Tolerance

## Notes

1. Calibration is NIST Traceable thru Project 683/287323 and PTB Traceable thru Project 17014.
2. This certificate shall not be reproduced, except in full, without written approval from PCB Piezotronics, Inc.
3. Calibration is performed in compliance with ISO 10012-1, ANSI Z540.3 and ISO 17025.
4. See Manufacturer's Specification Sheet for a detailed listing of performance specifications.
5. Measurement uncertainty (95% confidence level with coverage factor of 2) for frequency ranges tested during calibration are as follows: 5-9 Hz: +/- 2.0%, 10-99 Hz: +/- 1.5%, 100-1999 Hz: +/- 1.0%, 2-10 kHz: +/- 2.5%.

Technician: Gary Oatis

Date: 8/24/2018



CALIBRATION CERT #1862.02



Headquarters: 3425 Walden Avenue, Depew, NY 14043

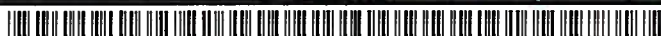
Calibration Performed at: 10869 Highway 903, Halifax, NC 27839

TEL: 888-684-0013

FAX: 716-685-3886

www.pcb.com

CAL57-3617928004.640+0



# ~ Calibration Certificate ~

Per ISO 16063-21

Model Number: 356A01

Serial Number: LW248198 (y axis)

Description: ICP® Triaxial Accelerometer

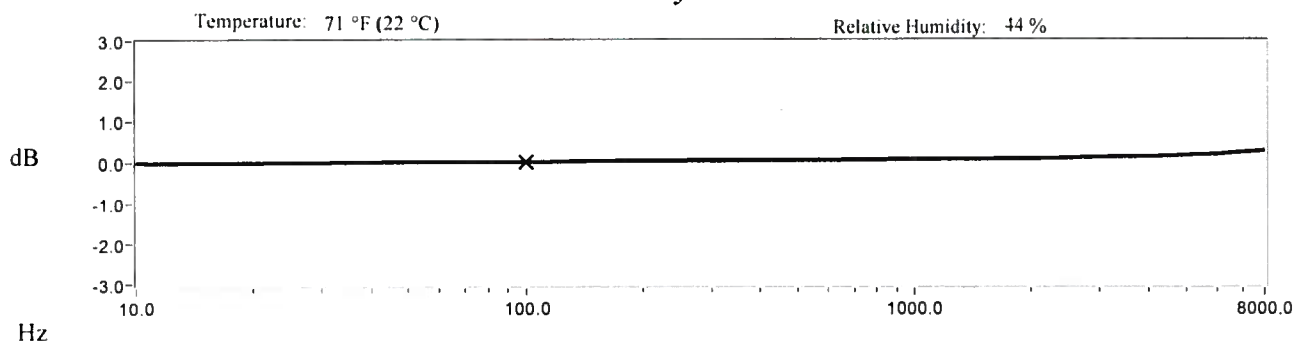
Manufacturer: PCB

Method: Back-to-Back Comparison AT401-3

## Calibration Data

Sensitivity @ 100 Hz      4.73 mV/g  
(0.482 mV/m/s<sup>2</sup>)      Output Bias      9.9 VDC  
Discharge Time Constant      0.40 seconds      Transverse Sensitivity      1.4 %

## Sensitivity Plot



## Data Points

Frequency (Hz)	Dev. (%)	Frequency (Hz)	Dev. (%)	Frequency (Hz)	Dev. (%)
10	-0.3	300	0.5	7000	2.9
15	-0.3	500	0.5	8000	3.3
30	-0.1	1000	0.7		
50	0.0	3000	1.3		
REF. FREQ.	0.0	5000	1.9		

Mounting Surface: Tungsten Adapter Fastener: Adhesive Fixture Orientation: Vertical  
Acceleration Level (pk): 10.0 g (98.1 m/s<sup>2</sup>)

<sup>1</sup>The acceleration level may be limited by shaker displacement at low frequencies. If the listed level cannot be obtained, the calibration system uses the following formula to set the vibration amplitude. Acceleration Level (g) = 0.008 x (freq)<sup>2</sup>. <sup>2</sup>The gravitational constant used for calculations by the calibration system is: 1 g = 9.80665 m/s<sup>2</sup>


## Condition of Unit

As Found: n/a

As Left: New Unit, In Tolerance

## Notes

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5. Measurement uncertainty (95% confidence level with coverage factor of 2) for frequency ranges tested during calibration are as follows: 5-9 Hz; +/- 2.0%, 10-99 Hz; +/- 1.5%, 100-1999 Hz; +/- 1.0%, 2-10 kHz; +/- 2.5%.

Technician: Gary Oatis 

Date: 8/23/2018



CALIBRATION CERT #1862.02



Headquarters: 3425 Walden Avenue, Depew, NY 14043

Calibration Performed at: 10869 Highway 903, Halifax, NC 27839

TEL: 888-684-0013

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CAL57-3617925139.357+0



# ~ Calibration Certificate ~

Per ISO 16063-21

Model Number: 356A01

Serial Number: LW248198 (z axis)

Description: ICP® Triaxial Accelerometer

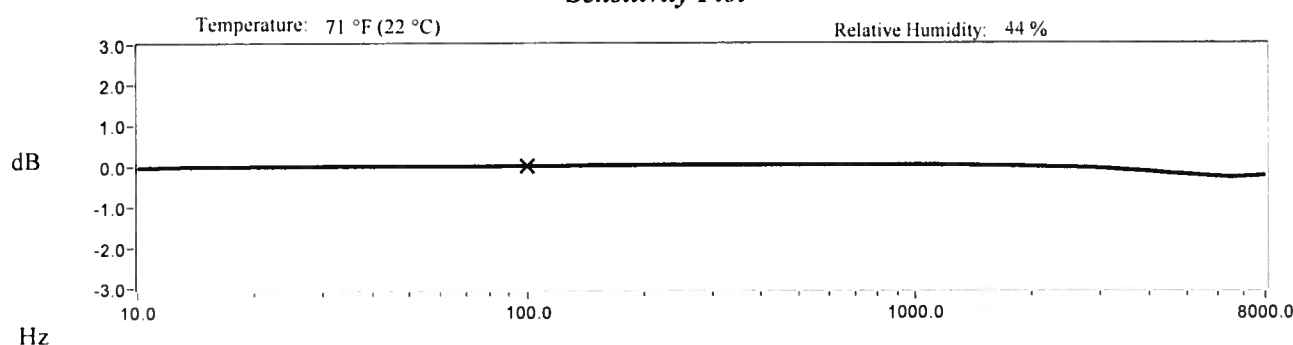
Manufacturer: PCB

Method: Back-to-Back Comparison AT401-3

## Calibration Data

Sensitivity @ 100 Hz      **4.88 mV/g**      Output Bias      9.9 VDC  
(0.498 mV/m/s<sup>2</sup>)      Transverse Sensitivity      2.4 %  
Discharge Time Constant      0.39 seconds

## Sensitivity Plot



## Data Points

Frequency (Hz)	Dev. (%)	Frequency (Hz)	Dev. (%)	Frequency (Hz)	Dev. (%)
10	-0.5	300	0.3	7000	-3.1
15	-0.3	500	0.3	8000	-2.7
30	-0.1	1000	0.2		
50	-0.0	3000	-0.7		
REF. FREQ.	0.0	5000	-2.4		

Mounting Surface: Tungsten Adapter    Fastener: Adhesive    Fixture Orientation: Vertical  
Acceleration Level (pk): 10.0 g (98.1 m/s<sup>2</sup>)

<sup>1</sup>The acceleration level may be limited by shaker displacement at low frequencies. If the listed level cannot be obtained, the calibration system uses the following formula to set the vibration amplitude: Acceleration Level (g) = 0.008 \* (freq)<sup>1/2</sup>. <sup>2</sup>The gravitational constant used for calculations by the calibration system is: 1 g = 9.80665 m/s<sup>2</sup>.

## Condition of Unit

As Found: n/a

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Technician: Gary Oatis

Date: 8/23/2018



CALIBRATION CERT #1862 02

**PCB PIEZOTRONICS**  
VIBRATION DIVISION

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