Model Number TRIAXIAL ICP® ACCELEROMETER 356A31 Performance **ENGLISH** SI 1.02 mV/(m/s²) Sensitivity(± 10 %) 10 mV/g Measurement Range ± 500 q pk ± 4905 m/s² pk Frequency Range(± 5 %)(y or z axis) 1.0 to 10,000 Hz 1.0 to 10,000 Hz Frequency Range(± 5 %)(x axis) 1.0 to 7000 Hz 1.0 to 7000 Hz Resonant Frequency ≥ 70 kHz ≥ 70 kHz Broadband Resolution(1 to 10,000 Hz) 0.002 g rms 0.02 m/s² rms Non-Linearity ≤ 1 % ≤ 1 % Transverse Sensitivity ≤ 5 % ≤ 5 % **Environmental** Overload Limit(Shock) ± 49,050 m/s² pk ± 5000 q pk Temperature Range(Operating) -65 to +250 °F -54 to +121 °C Temperature Response See Graph See Graph [1] Electrical 22 to 30 VDC 22 to 30 VDC **Excitation Voltage** Constant Current Excitation 2 to 20 mA 2 to 20 mA Output Impedance ≤ 100 Ohm ≤ 100 Ohm Output Bias Voltage 7 to 15 VDC 7 to 15 VDC Discharge Time Constant 0.2 to 1.5 sec 0.2 to 1.5 sec Settling Time(within 10% of bias) <5 sec <5 sec Spectral Noise(1 Hz) 1000 μg/√Hz 9180 (um/sec²)/√Hz Spectral Noise(10 Hz) 200 µg/√Hz 1962 (µm/sec²)/√Hz [1] Spectral Noise(100 Hz) 50 µg/√Hz [1] 491 (µm/sec²)/√Hz Spectral Noise(1 kHz) 25 µg/√Hz 245.3 ($\mu m/sec^2$)/ \sqrt{Hz} **Physical** Sensing Element Ceramic Ceramic Sensing Geometry Shear Shear Housing Material Titanium Titanium Sealing Hermetic Hermetic Size (Height x Length x Width) 11.4 mm x 11.4 mm x 11.4 mm 0.45 in x 0.45 in x 0.45 in Weight(without cable) 0.16 oz4.5 gm [1]

8-36 4-Pin

Side

Adhesive

Typical Sensitivity Deviation vs Temperature Sensitivity Deviaition(%) 20 10 0 -10 -20 -30 10 50 90 130 170 210 250 Temperature (°F)

8-36 4-Pin

Side

Adhesive

All specifications are at room temperature unless otherwise specified. In the interest of constant product improvement, we reserve the right to change specifications without notice. ICP® is a registered trademark of PCB Group, Inc.

Electrical Connector

Mounting

Electrical Connection Position

OPTIONAL VERSIONS

Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.

T - TEDS Capable of Digital Memory and Communication Compliant with IEEE P1451.4

TLA - TEDS LMS International - Free Format

TLB - TEDS LMS International - Automotive Format

TLC - TEDS LMS International - Aeronautical Format

TLD - TEDS Capable of Digital Memory and Communication Compliant with IEEE 1451.4 Excitation Voltage 23 to 30 VDC 23 to 30 VDC Output Bias Voltage 7.5 to 16 VDC 7.5 to 16 VDC

NOTES:

[1]Typical.

[2]Zero-based, least-squares, straight line method.

[3]See PCB Declaration of Conformance PS022 for details.

SUPPLIED ACCESSORIES:

Model 034K10 Cable 10FT Mini 4 Pin To (3) BNC (1)

Model 080A109 Petro Wax (1)

Model ACS-1T NIST traceable triaxial amplitude response, 10 Hz to upper 5% frequency. (1)

Entered: LK	Engineer: BAM	Sales: WDC	Approved: BAM	Spec Number:
Date: 5/17/2016	Date: 5/17/2016	Date: 5/17/2016	Date: 5/17/2016	22132



Phone: 716-684-0001 Fax: 716-684-0987 E-Mail: info@pcb.com

Revision: D

ECN #: 45488

