Model Number
621C40

# **VERY HIGH FREQUENCY ICP® ACCELEROMETER**

Revision: C ECN #: 53296

62 IC40			
Performance	ENGLISH	SI	
Sensitivity(± 10 %)	10 mV/g	1.02 mV/(m/s²)	[1]
Measurement Range	± 500 g	± 4,905 m/s <sup>2</sup>	
Frequency Range(± 10 %)	204 to 1,080,000 cpm	3.4 to 18,000 Hz	[2][3]
Frequency Range(± 3 dB)	96 to 1,800,000 cpm	1.6 to 30,000 Hz	[2][3]
Resonant Frequency	5,100 kcpm	85 kHz	[4][5]
Broadband Resolution(1 to 10,000 Hz)	1.2 mg rms	1,176 µm/sec <sup>2</sup>	[4]
Non-Linearity	± 1 %	± 1 %	[6]
Transverse Sensitivity	≤ 5 %	≤ 5 %	
Environmental			
Overload Limit(Shock)	10,000 g pk	98,100 m/s² pk	
Temperature Range	-65 to +250 °F	-54 to +121 ℃	
Temperature Response	See Graph	See Graph	[4]
Electrical			
Settling Time (within 1% of bias)	≤ 3.0 sec	≤ 3.0 sec	
Discharge Time Constant	≥ 0.1 sec	≥ 0.1 sec	
Excitation Voltage	18 to 28 VDC	18 to 28 VDC	
Constant Current Excitation	2 to 20 mA	2 to 20 mA	
Output Impedance	< 100 Ohm	< 100 Ohm	
Output Bias Voltage	8 to 12 VDC	8 to 12 VDC	F 43
Spectral Noise(10 Hz)	100 μg/√Hz	980 (µm/sec <sup>2</sup> )/√Hz	[4]
Spectral Noise(100 Hz)	30 μg/√Hz	294 (µm/sec <sup>2</sup> )/√Hz	[4]
Spectral Noise(1 kHz)	10 μg/√Hz	98.1 (µm/sec <sup>2</sup> )/√Hz	[4]
Physical			
Size (Hex x Height)	3/8 in x 0.70 in	9.6 mm x 17.78 mm	
Weight	0.167 oz	4.75 gm	[7]
Mounting Thread	5-40 Male	5-40 Male	
Mounting Torque	7 to 8 in-lb	79 to 90 N-cm	
Sensing Element	Ceramic	Ceramic	
Sensing Geometry	Shear	Shear	
Housing Material	Stainless Steel	Stainless Steel	
Sealing	Welded Hermetic	Welded Hermetic	
Electrical Connection Position	Тор	Тор	
Electrical Connections	5-44 Coaxial Jack	5-44 Coaxial Jack	

### 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.

M - Metric Mount Mounting Thread M3 x 0.50 Male M3 x 0.50 Male

## NOTES: [1]Conver

- [1]Conversion Factor  $1g = 9.81 \text{ m/s}^2$ .
- [2] The high frequency tolerance is accurate within  $\pm 10\%$  of the specified frequency.
- [3] Frequency response with adhesive base.
- [4]Typical value.
- [5] Mounted resonance (nominal) without magnet.
- [6]Zero-based, least-squares, straight line method.
- [7]Typical.
- [8] See PCB Declaration of Conformance PS023 for details.

#### OPTIONAL ACCESSORIES:

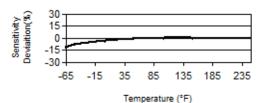
Model ICS-6 NIST traceable single axis amplitude response calibration from 10 Hz to upper +/- 3dB point. (1)

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#### Typical Sensitivity Deviation vs Temperature



CE

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.  $ICP^{\otimes}$  is a registered trademark of PCB Piezotronics, Inc.