Model Number 621B40

## **VERY HIGH FREQUENCY ICP® ACCELEROMETER**

Revision: N ECN #: 46615

Performance	<u>ENGLISH</u>	<u>SI</u>	
Sensitivity(± 10 %)	10 mV/g	1.02 mV/(m/s²)	[2]
Measurement Range	± 500 g	± 4905 m/s <sup>2</sup>	
Frequency Range(± 10 %)	204 to 1,080,000 cpm	3.4 to 18,000 Hz	[3][4]
Frequency Range(± 3 dB)	96 to 1,800,000 cpm	1.6 to 30,000 Hz	[3][4]
Resonant Frequency	5100 kcpm	85 kHz	[1][5]
Broadband Resolution(1 to 10,000 Hz)	1.2 mg rms	1176 µm/sec <sup>2</sup>	[1]
Non-Linearity	± 1 % ± 1 %		[6]
Transverse Sensitivity	≤ 5 % ≤ 5 %		
Environmental			
Overload Limit(Shock)	10,000 g pk	98,100 m/s <sup>2</sup> pk	
Temperature Range	-65 to +250 °F -54 to +121 °C		
Temperature Response	See Graph	See Graph	[1]
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	
Spectral Noise(10 Hz)	100 μg/√Hz	980 (µm/sec <sup>2</sup> )/√Hz	[1]
Spectral Noise(100 Hz)	30 μg/√Hz	294 (µm/sec <sup>2</sup> )/√Hz	[1]
Spectral Noise(1 kHz)	10 μg/√Hz	98.1 (µm/sec <sup>2</sup> )/√Hz	[1]
Physical	. •	()	
Size (Hex x Height)	3/8 in x 0.66 in	9.6 mm x 16.8 mm	
Weight	0.10 oz 2.8 gm		
Mounting Thread	5-40 Male M3 x 0.50 Male		
Mounting Torque	18 to 20 in-lb 203 to 226 N-cm		
Sensing Element	Ceramic Ceramic		
Sensing Geometry	Shear Shear		
Housing Material	Titanium Titanium		
Sealing	Welded Hermetic Welded Hermetic		
Electrical Connector	5-44 Coaxial Jack 5-44 Coaxial Jack		
Electrical Connection Position	Тор	Тор	
	Typical Sensitivity [	Deviation vs Temperature	
	Sensitivity Deviation(%)		
	Sensitivity 0.12		
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[7]			_

## **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

## NOTES:

- [1] Typical value.
- [2] Conversion Factor 1g = 9.81 m/s<sup>2</sup>.
- [3] The high frequency tolerance is accurate within ±10% of the specified frequency.
- [4] Frequency response with adhesive base.
- [5] Mounted resonance (nominal) without magnet.
- [6] Zero-based, least-squares, straight line method.
- [7] 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)

Entered: LK	Engineer: NJF	Sales: MC	Approved: NJF	Spec Number:
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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.

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-65 -15 35 85 135 185 235 Temperature (°F)