

Model Number  
3753A 1220G

# TRIAxIAL VC MEMS ACCELEROMETER

Revision: NR  
ECN #: 56326

Performance	ENGLISH	SI	
Sensitivity(± 10 %)	100 mV/g	10.2 mV/(m/s <sup>2</sup> )	[1]
Measurement Range	± 20 g pk	± 196.2 m/s <sup>2</sup> pk	
Frequency Range(± 5 %)	0 to 550 Hz	0 to 550 Hz	
Frequency Range(± 3 dB)	0 to 1,500 Hz	0 to 1,500 Hz	
Resonant Frequency	5.5 kHz	5.5 kHz	[2]
Phase Response(100 Hz)	< 10 °	< 10 °	
Non-Linearity	1 %	1 %	[3][2]
Broadband Resolution(0.5 to 100 Hz)	1,000 µg rms	9,810 µm/sec <sup>2</sup> rms	[2]
Transverse Sensitivity	1 %	1 %	[2]
<b>Environmental</b>			
Overload Limit(Shock)	± 5,000 g pk	± 49,050 m/s <sup>2</sup> pk	
Temperature Range(Operating)	-40 to +250 °F	-40 to +121 °C	
Temperature Coefficient of Sensitivity	± 1 %	± 1 %	[2][4]
Zero g Offset Temperature Coefficient	± 1 % FSO	± 1 % FSO	[5][2][4]
Base Strain Sensitivity	0.0006 g/µε	0.006 (m/s <sup>2</sup> )/µε	[2]
<b>Electrical</b>			
Bias Voltage	2.4 to 2.6 VDC	2.4 to 2.6 VDC	
Excitation Voltage	5 to 32 VDC	5 to 32 VDC	
Current Consumption	≤ 3 mA	≤ 3 mA	
Output Impedance	≤ 450 Ohm	≤ 450 Ohm	
Spectral Noise(1 Hz)	90 µg/√Hz	883 (µm/s <sup>2</sup> )/√Hz	[2]
Spectral Noise(10 Hz)	120 µg/√Hz	1,177 (µm/s <sup>2</sup> )/√Hz	[2]
Spectral Noise(100 Hz)	80 µg/√Hz	785 (µm/s <sup>2</sup> )/√Hz	[2]
Electrical Isolation(Case)	> 10 <sup>8</sup> Ohm	> 10 <sup>8</sup> Ohm	
<b>Physical</b>			
Housing Material	Anodized Aluminum	Anodized Aluminum	
Sealing	IP67	IP67	
Size (Length x Width x Height)	1.00 in x 0.75 in x 0.35 in	25.4 mm x 19.1 mm x 8.9 mm	
Weight(without cable)	0.42 oz	12 gm	[2]
Electrical Connector	Integral Cable	Integral Cable	
Electrical Connection Position	Side	Side	
Cable Termination	Pigtail	Pigtail	
Cable Type	6-conductor	6-conductor	
Cable Length	10 ft	3 m	
Mounting	Through Holes (2)	Through Holes (2)	

## 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.

## NOTES:

- [1] Measured at 100 Hz, 10 grms.
- [2] Typical.
- [3] Zero-based, least-squares, straight line method.
- [4] -40 to +250°F, ref. 75 °F (-40 to +121 °C, ref. 24 °C)
- [5] FSO= Full Scale Output over the Measurement Range
- [6] See PCB Declaration of Conformance PS027 for details.

## SUPPLIED ACCESSORIES:

Model 081A136 Mounting Screw Assembly 4-40 x 1/2" (2)  
 Model ACS-1T NIST traceable triaxial amplitude response, 10 Hz to upper 5% frequency. (1)  
 Model M081A136 Mounting Screw Assembly M3 x 0.5 x 14mm (2)

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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.  
 This model, designated with an RH prefix, is RoHS compliant. For further details, and to obtain PCB's RoHS Statement of Conformance, please visit <http://www.pcb.com>

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