Model Number	TRIAXIAL HIGH AMPLITUDE MEMS SHOCK ACCELEROMETER	Revision: B
3503A1020KG		ECN #: 37043

Performance	**ENGLISH**	**SI**	
Sensitivity(± 50 %)(at 10 VDC excitation)	0.010 mV/g	0.001 mV/(m/s²)	[2]
Sensitivity	0.001 mV/V/g	0.0001 mV/V/(m/s²)	[7]
Measurement Range	± 0 to 20,000 g	± 0 to 196,100 m/s² pk	
Frequency Range(± 1 dB)	0 to 10,000 Hz	0 to 10,000 Hz	
Resonant Frequency	>60 kHz	>60 kHz	
Damping Ratio	5 % Critical	5 % Critical	[1]
Non-Linearity	± 1 %	± 1 %	
Transverse Sensitivity	≤ 3 %	≤ 3 %	
Environmental			
Overload Limit(Shock)	± 60,000 g pk	± 588,000 m/s² pk	[5][4]
Overload Limit(Mechanical Stops)	≥ 30 kg	≥ 294,200 m/s² pk	
Temperature Range(Operating)	-65 to 250 ℉	-54 to 121 ℃	
Temperature Coefficient of Sensitivity	-0.11 %/℉	-0.20 %/℃	[1]
Zero g Offset Temperature Shift	± 10 mV	± 10 mV	[6]
Base Strain Sensitivity	0.10 g/με	0.98 (m/s²)/με	[1]
Electrical			
Excitation Voltage(Maximum)	15.0 VDC	15.0 VDC	
Current Consumption	<12 mA	<12 mA	
Input Resistance(± 700 ohm)	2000 ohm	2000 ohm	[1][2]
Output Resistance(± 2000 ohm)	6000 ohm	6000 ohm	[1][2]
Offset Voltage	± 40 mVDC	± 40 mVDC	[2]
Settling Time	0.01 sec	0.01 sec	[3]
Electrical Isolation(Base)	≥ 10^8 ohm	≥ 10^8 ohm	[4]
Physical			
Sensing Element	Piezoresistive MEMS	Piezoresistive MEMS	
Sensing Geometry	Full Active	Full Active	
Housing Material	Titanium	Titanium	
Sealing	Epoxy	Epoxy	
Size (Height x Length x Width)	0.25 in x 0.47 in x 0.47 in	6.35 mm x 11.81 mm x 11.81 mm	
Weight(without cable)	0.1 oz	2.83 gm	[1]
Electrical Connector	Integral Cable	Integral Cable	
Electrical Connection Position	Side	Side	
Cable Type	026 8-conductor cable, shielded Teflon®	026 8-conductor cable, shielded Teflon®	
Cable Termination	Pigtail Ends	Pigtail Ends	
Cable Length	10 ft	3.05 m	
Mounting	Through Holes (2)	Through Holes (2)	
Mounting Torque	8 in-lb	90 N-cm	

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.

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] Typical.
[2] Verified with test data provided on supplied calibration certificate.
[3] Settling Time is the maximum time after power-up for the Offset Voltage to be within +/-2% of Measurement Range output of the final offset value. Mounting surface must be at thermal equilibrium.
[4] Individually tested to ensure compliance with specified value.
[5] Half-sine pulse duration, ≥ 20 µsec.
[6] -65 to +250 ℉, ref. 75 ℉ (-54 to +121 ℃, ref. 24 ℃)
[7] Sensitivity is proportional to excitation voltage, and at other excitation values, sensitivity can be predicted from the 10VDC calibrated value with a small (<~.5%) increase in uncertainty.

SUPPLIED ACCESSORIES:

Model 081A114 MOUNTING SCREW AND WASHER(4-40 x 3/8" SHCS) (2)
Model ACS-62T CALIBRATION OF HIGH G PR ACCCELEROMETER (1)

Entered: DMW	Engineer: TCJ	Sales: RWM	Approved: BAM	Spec Number:
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