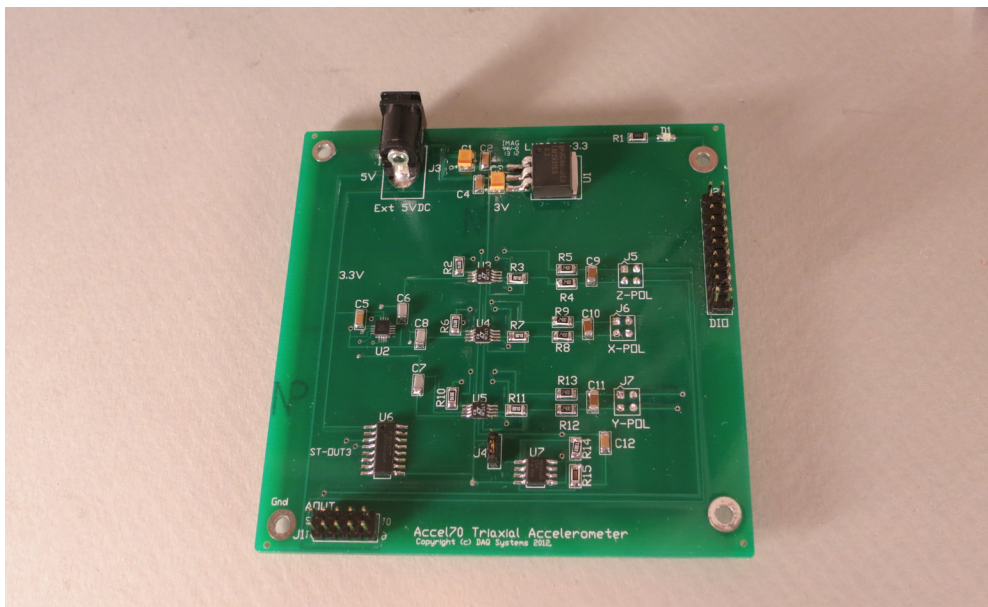


Accel70

Very low-cost analog accelerometer

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Accel70 is a MEMS (Micro Electro Mechanical System) tri-axial analog accelerometer offering good performance, very low cost, robustness, immunity to electromagnetic interference and small size. Accel70 is compatible with the NetDAS data acquisition system and runs from USB power.



Accel70 OEM Printed Circuit Card

Applications and Highlights

- Structural monitoring and strong-motion arrays
- +/- 3.6g range (typical)
- Rugged MEMS design (10,000g shock rating)
- 70 dB dynamic range (X-Y), 65dB (Z)
- Reliable triggering down to 50mg
- Power consumption of 35 milliwatts
- CMOS self-test input
- Pin-compatible with NetDAS
- 5VDC power input (USB power compatible)
- PC/104-size for OEM applications

Accel70 Specifications

Accel70 is a tri-axial accelerometer offering good dynamic range, high electro-magnetic radiation immunity, robustness and frequency response from DC to 50Hz/100 Hz. Accel70's dynamic range makes it a good choice for strong-motion seismic monitoring with reliable triggering down to 50mg allowing for the recording of all earthquakes of interest. Applications include recording systems for tall buildings, seismic safety and tilt, motion and intrusion detection. Accel70 low power consumption makes it an ideal choice for battery operation as it can run off USB (5VDC) power eliminating the need for an external power supply. For most engineering applications Accel70 offers the best price/performance ratio. The Accel70 is also available inside an industrial enclosure as a special order.

Dynamic range	70 dB (Z), 65 dB (X and Y)
Linearity	0.3% FS
Range	+/-3.6g (typical), +/-3g min
Noise, RMS	1.4 mg (Z), 0.7mg (X, Y)
Noise, peak-to-peak	20 – 25 mg
Sensitivity	0.65 volts/g (273000 counts/g NetDAS)
Output voltage	Differential, 0 to +/- 1.8 volts (nominal)
Bias level (typical)	< 75mg (X and Y), +1g (Z)
Cross-axis sensitivity	1%
Temperature sensitivity	0.01% per degree C
Frequency response	DC – 50 Hz (100 Hz option)
Output impedance	480 ohms
Self-test	CMOS 5V logic input
Size, cm (inches)	9.02(3.55) X 9.58(3.77) X 1.27(0.5)
Environmental	-30 to +60 degrees C
Shock limit	10,000g (accelerometer chip)
Power	7 mA @ 5 VDC (USB via 10p header or 2.5mm jack)

Sales and Contact Information

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