

MICRO PCM ENCODER SERIES

MODEL MI_AC12

12 CHANNEL ACCELEROMETER SIGNAL CONDITIONING MODULE WITH CONSTANT CURRENT EXCITATION

The 12-channel module, MI_AC12 is intended to condition accelerometer transducer signals that require constant current excitation and AC coupling with significant signal conditioning flexibility with industry leading channel density, weight and low power. The unit provides for each of the 12 channels, programmable analog anti-aliasing six-pole filtering, programmable gain, programmable constant current excitation and analog to digital conversion. Each channel has its own programmable FIR filter that can be turned on or off.

Features per Channel

- Accelerometer Conditioner with 12 Channels per Card
- AC Input Coupling
- Constant current excitation programmable from 0 to 20 milliamp with 4096 current settings
- One A/D per channel, 0 to 1 mega samples per second sample rate, 16 bits resolution, 12 A/D's total
- 6-pole Low Pass Analog Butterworth Filter with 16384 Programmable 3 db frequency cutoffs from 5 Hz to 20 KHz
- Programmable FIR Filter from 16 taps to 1024 taps, per channel
- Software Programmable Gain with 65536 gains from 0.25 to 2500
- Active Offset and Gain Temperature error Correction

- Zero and Voltage Substitution Calibration
- >1 Giga ohms Input Impedance
- +/- 55 volt over voltage protection

Fir Filters:

Each channel has its own independent programmable FIR filter with programmable tap length from 16 to 1024. These filters can be turned on or off on an individual channel basis. Independent oversampling rates are programmable for each channel. Canned FIR filters are provided or the user can design FIR filters and download with PC design SW included.

Environmental:

Operating Temperature:	-40°C to +85°C
Storage Temperature:	-55°C to +125°C
Humidity:	Relative humidity of 85% for two hours at 65°C
Altitude:	Unlimited
Vibration:	20g's RMS from 5 to 2000Hz in each major axis
Acceleration:	Constant acceleration of 100g's in each axis
Shock:	100g's for 10m second in each major axis

Mechanical:

Size:		
	inches	mm
Length	3.50	88.9
Width	1.25	31.75
Height	0.725	18.45

Weight: 50 g

Engraving: MI_AC12

J1 CONNECTOR : AIRBORN, NK-2F2-037-435-TH00

MATE: AIRBORN, NM-212-037-161-JCAC