

# QUAD TRON, INC.

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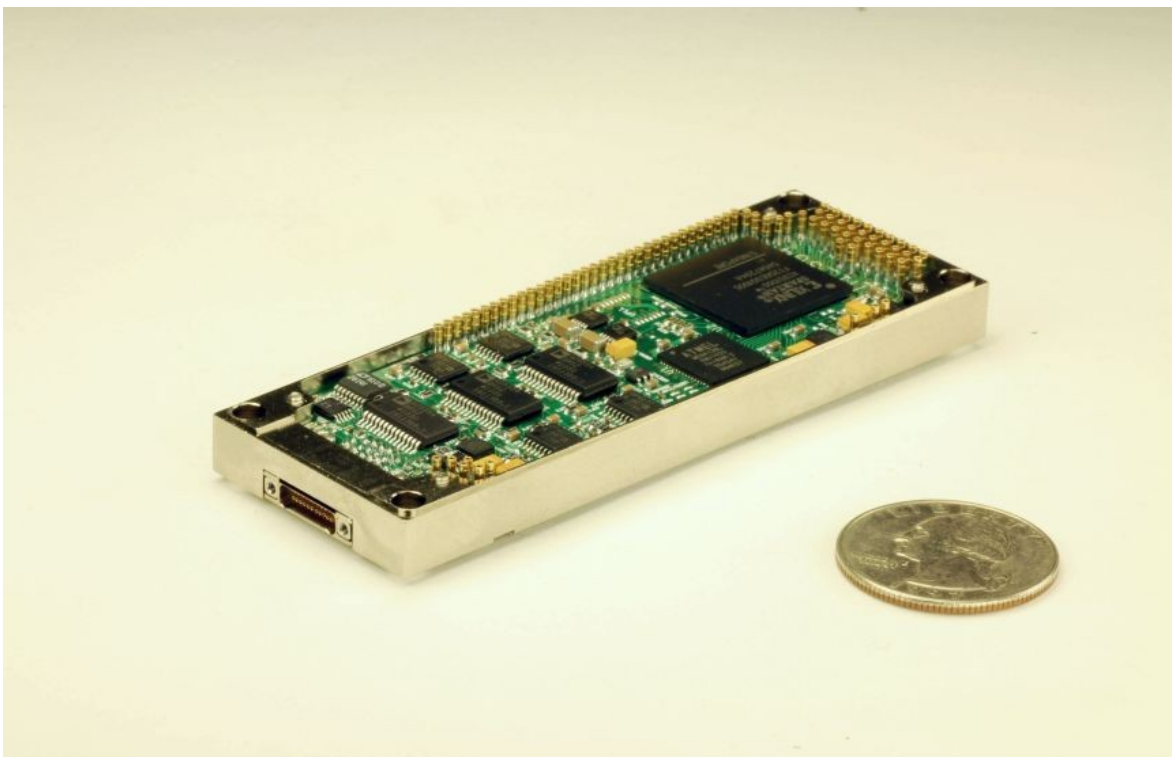
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## **MICRO PCM ENCODER SERIES**

### **MODEL MI\_SG4**

### **4 CHANNEL SIGNAL CONDITIONING MODULE**

The 4-channel differential input configuration is intended to condition transducer signals that require significant signal conditioning flexibility. The unit provides programmable anti-aliasing four-pole filtering, programmable gain and programmable offset that can be set uniquely for each channel. Each channel has its own ADC. The MI\_SG\_ADD8 module can be placed on top to increase the number of channels to 12. Voltage or current excitation can be provided by other modules.



## **Electrical Specifications:**

### **Analog Inputs:**

4 ( 12 with MI\_SG\_ADD8 module added ) Differential Inputs with full signal conditioning, programmable simultaneous sampling.

Gain: High resolution programmable with >16,000 possible gains from 0.5 to 5,000.

Offset: High resolution programmable with >8,000 offsets from -4.5V to +4.5V.

Anti Aliasing Filters: High resolution programmable 4 pole Butterworth with >8,000 cutoff frequencies from 3 Hz to 20 kHz.

Allowable input signal levels on either input from -5V to + 5V.

Maximum Input  $\pm$  40 volts will not damage any analog input.

Input Impedance: 1.0 Gig ohm (Power On)

System Gain Accuracy:  $\pm$ 0.2% maximum over the operating temperature range.

A/D: 1 per channel, 16 Bits, 0 + 5.0 Volts, DC to 1 Mega samples per second.

### **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	0.291	7.39
Weight:	25 g	
Engraving:	MI_SG4	

**MI\_SG4 PINOUT:**

**J1 CONNECTOR :** AIRBORN, NK-2F2-025-435-TH00

**MATE:** AIRBORN, NM-212-025-161-JCAC

<u>PIN</u>	<u>FUNCTION</u>	<u>PIN</u>	<u>FUNCTION</u>
13	IN1+	3	IN2+
11	IN1-	1	IN2-
12	AGND	2	AGND
16	IN4+	24	IN3+
14	IN4-	23	IN3-
15	AGND	25	AGND
6	DGND		
7	STP0		
8	STP1		
9	STP2		
21	TCK_ATMEL1	5	TMS_PROM
22	TDI_ATMEL1	4	TDO_PROM
10	TMS_ATMEL1	17	TDI_PROM
20	TDO_ATMEL1	18	TCK_PROM
19	RESET_ATMEL1_N		