



## MIP-PrecADC Ipack Precision A/D

### Specifications

**Analog Inputs** – 4 Dedicated Single-ended  
8 Differential, shared with  
16 Single-ended  
(All software selectable)

**Analog Output** – 2 DAC Outputs

**Resolution** – 16 bits

**Input Range** – Gain=1; -5V to 5V  
Gain=5; -1V to 1V  
Gain=50; -100mV to 100mV  
Gain=500; -10mV to 10mV

**Output Range** – 0V to +5V, jumper select

**Accuracy** -  $\pm 1$  LSB

**Conversion Time** – 2  $\mu$ sec

**Throughput** - >500 ksamples/sec

**Input Options** – Floating, Differential, 1M $\Omega$ ,  
Single-ended

**Input Bias Current** -  $\pm 30$ nA typical @ 25 $^{\circ}$ C

**Input Capacitance** – 55pF typical

**Bridge Drive** -  $\pm 5$ V @ 100mA

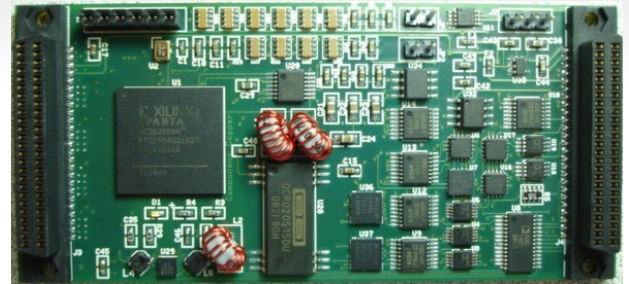
**Access Modes** – Instant Conversion or Pipelined

**Calibration** - On board 3 ppm/ $^{\circ}$ C Reference.  
Offset and Gain factory calibrated  
all ranges, to NBS traceable accuracy  
of  $\pm 1/4$  LSB. On board calibration  
voltages provided for all ranges

**Initialization** – Reset forces gain = 1 with no  
input channel selected

**Access Modes** – Word access in I/O or memory  
space

**Wait States** - No wait states on control register  
access. No wait state on DAC output.  
One wait state Pipelined ADC reads. 13 to 14  $\mu$ sec  
Instant ADC conversion



The precision A-to-D converter module provides for a drop-in-replacement to the obsolete GE-IP SBS IP-PREC-ADC.

The module provides 20 single-ended or 8 differential input channels and 2 single-ended analog outputs. The Merlin product improves on the older SBS product by offering 16 bit resolution and faster conversion times.

**DMA** - DMA Basic DMA read in the memory space for pipelined conversion

**Overvoltage** -  $\pm 22$  V with power on  
 $\pm 10$  V with power off

**Correction** - Supplied software performs auto-calibration and auto-correction of all readings

### Power Requirements

+5 Volts @ 60mA  
+12Volts @ 40mA

### Environmental

**Dimensions** – 1.8" x 3.9" x 0.344"

**Operating Temperature** - -40 to 85  $^{\circ}$ C

**Storage Temperature** - -40 to 125  $^{\circ}$ C

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