Connect Tech Inc.
Embedded Computing Experts

Xtreme I/O Express ADC-DAC

Product Name: Xtreme I/O Express ADC-DAC
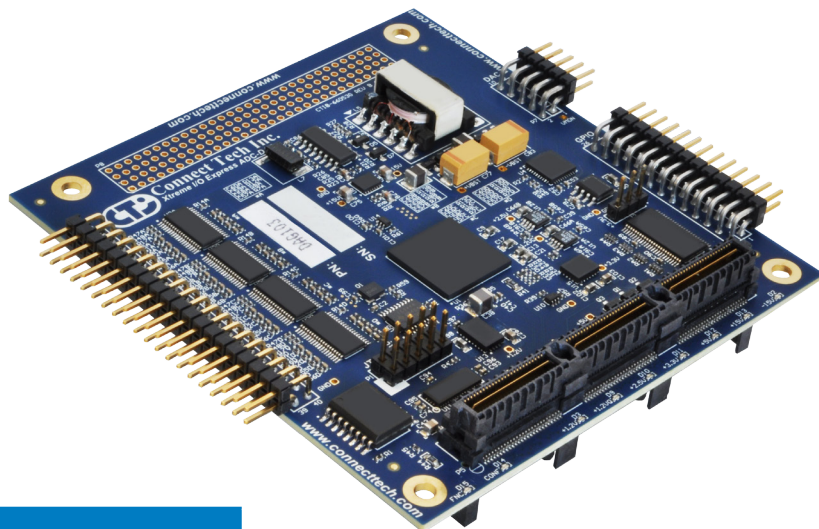**Part Number:** DAG103

Connect Tech's Xtreme I/O Express ADC-DAC is an analog and digital peripheral board for the PCIe/104 small form factor embedded market place. This product is ideal for data acquisition, measurement and control applications.

The Xtreme I/O Express ADC-DAC supports harsh environments with demanding conditions with an extended temperature range of -40°C to +85°C.

Specifications

Form Factor	PCIe/104
Analog Inputs	
Channels	32 Single Ended, split into 4 groups of 8
Resolution	16-bit
Sampling Rate	500 Ksps (per channel) 62.5 Ksps (per group)
Sample & Hold	N/A
Protection	±20V
Impedance	1 MΩ
Ranges	Bipolar: ±10.24V, ±5.12V and ±2.56V Unipolar: 0 - 10.24V and 0 - 5.12V
Accuracy	DNL: ±0.5 LSB, INL; ±0.75
Signal-to-Noise Ratio	92 dB; TDH: -102 dB
Analog Outputs	
Channels	4
Resolution	16-bit
Settling Time	6 μs
Ranges	Unipolar: 0V to 15V Bipolar: ±10V
Accuracy	1LSB INL and DNL
Drive	±3mA
Digital I/O	16-bit bidirectional I/O
Input/Output Ranges	Hardware selectable +3.3V or +5V(TTL/CMOS)
High Current	24mA
Dimensions	Fully PCIe/104 compliant: 3.775" x 3.550"
Temperature	-40ºC to 85ºC (-40ºF to 185ºF)
Operating Systems	Windows, Linux
Warranty and Support	Limited two-year warranty and free technical support

FEATURES

✓ 32 single ended / 16 differential analog inputs with 16-bit resolution, 500ksps sampling rate and a wide input voltage range up to ±10V

✓ 4 analog output channels with 16-bit resolution and a wide output voltage range up to ±10.24V

✓ 16-bit bi-directional digital I/O with selectable voltage ranges

✓ ADC static and FIFO waveform capturing modes

✓ DAC static, waveform and PWM output configuration modes

RoHS

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