



## Xtreme I/O ADC-DAC

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

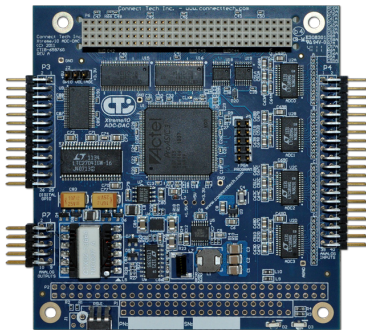
**Product Name:** Xtreme I/O ADC-DAC

**Part Numbers:**

**Analog Input & Output Model:** DAG003

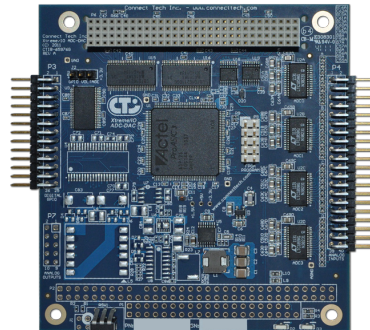
**Analog Input Model:** DAG004/DAG005

**Analog Input & Output Model**

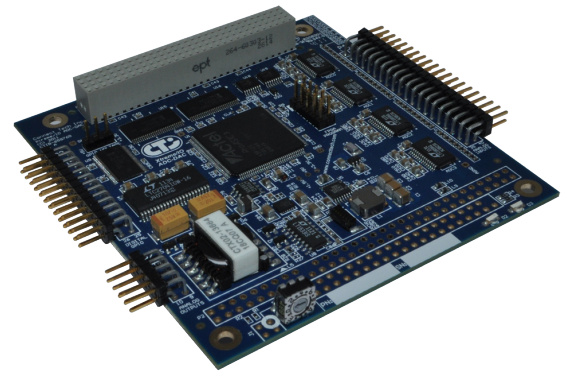


32 SE/16 Dif Channels of 16 bit analog input  
4 Channels 16 bit analog output, 16 bit GPIO

**Analog Input Model**



32 SE/16 Dif Channels of 16/12 bit analog input,  
16 bit GPIO



## FEATURES

- ✓ 32 single ended / 16 differential analog inputs with 16-bit resolution, 100ksps sampling rate and a wide input voltage range up to  $\pm 10V$
- ✓ 4 analog output channels with 16-bit resolution and a wide output voltage range up to  $\pm 10V$
- ✓ 16-bit bi-directional digital I/O with selectable voltage ranges
- ✓ Built-in temperature auto-calibration
- ✓ PCI-104 and PC/104-Plus options

## Specifications

<b>Form Factor</b>	PCI-104 Fully PCI 2.0 bus compliant Jumpers not required for configuration or board detection
<b>Analog Inputs</b>	
<b>Channels</b>	32 Single Ended / 16 Differential
<b>Resolution</b>	<ul style="list-style-type: none"> <li>• DAG003: 16-bit</li> <li>• DAG004: 16-bit</li> <li>• DAG005: 12-bit (low cost option)</li> </ul>
<b>Sampling Rate</b>	100,000 samples per second
<b>Calibration</b>	Built in temperature Auto calibration
<b>Protection</b>	$\pm 25V$
<b>Input Ranges</b>	<b>Software-Programmable Input Ranges:</b> 0-5V, 0-10V, $\pm 5V$ , $\pm 10V$
<b>Temperature Range</b>	1LSB INL and DNL over full $-40^{\circ}C$ to $85^{\circ}C$ ( $-40^{\circ}F$ to $185^{\circ}F$ )
<b>Signal-to-Noise Ratio</b>	87dB
<b>Analog Outputs</b>	DAG003 only
<b>Channels</b>	4
<b>Resolution</b>	16-bit
<b>Output Ranges</b>	<b>Six Programmable Output Ranges:</b> <ul style="list-style-type: none"> <li>• Unipolar: 0V to 5V, 0V to 10V</li> <li>• Bipolar: <math>\pm 5V</math>, <math>\pm 10V</math>, <math>\pm 2.5V</math>, <math>-2.5V</math> to <math>7.5V</math></li> </ul>
<b>Temperature Range</b>	1LSB INL and DNL over full $-40^{\circ}C$ to $85^{\circ}C$ ( $-40^{\circ}F$ to $185^{\circ}F$ )
<b>Outputs Drive</b>	$\pm 5mA$
<b>Digital I/O</b>	16-bit bidirectional I/O
<b>Input/Output Ranges</b>	Hardware selectable +3.3V or +5V (TTL/CMOS)
<b>High Current</b>	24mA
<b>Dimensions</b>	Fully PCI-104 compliant: 3.775" x 3.550"
<b>Temperature</b>	Operating Temperature: $-40^{\circ}C$ to $85^{\circ}C$ ( $-40^{\circ}F$ to $185^{\circ}F$ )
<b>Operating Systems</b>	Windows, Linux, QNX
<b>Warranty and Support</b>	Lifetime warranty and free technical support

**RoHS**

Specifications subject to change without notice.  
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**Connect Tech Inc.**  
42 Arrow Road, Guelph ON Canada  
**Tel:** 519.836.1291 **Fax:** 519.836.4878  
**Toll:** 800.426.8979 (North America)  
**Email:** sales@connecttech.com  
**www.connecttech.com**



Authorized Distributor

[wdsystems.com](http://wdsystems.com)

[sales@wdsystems.com](mailto:sales@wdsystems.com)

800-548-2319

919-545-2500

220 Chatham Business Drive  
Pittsboro, NC 27312