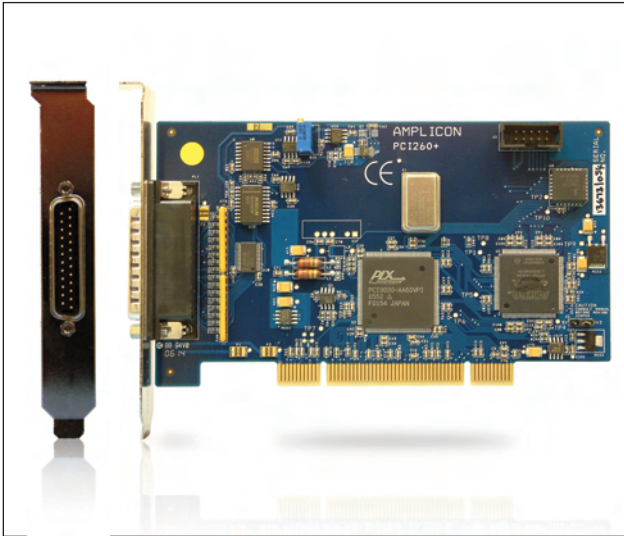


## AMPLICON PCI260+



### Features

- 500kS/s with 16-bit resolution
- Universal PCI compatible, 3.3V or 5V
- 16 single-ended or 8 differential inputs
- 4096 sample FIFO buffer
- Flexible analog triggering three 16-bit counter/timers
- High speed data transfer
- Windows 95, 98, NT, 2000, XP, 2003, Vista and Linux support
- Drivers for C/C++, VB/VB.NET, C#, Delphi, VEE & LabVIEW

### Description

#### General

The PCI260+ is a high performance data acquisition board with 16 single-ended or eight true differential analog inputs and three counter/timers. The board offers high speed and high-accuracy, combined without compromise.

#### Architecture

Analog input channels are connected through a multiplexer to the 16-bit A/D converter. Single-ended inputs are referenced to a common ground, whereas differential inputs use two input channels to make a measurement. A software selectable gain controller allows the user to set the input voltage range to three ranges for unipolar signals, or four ranges for bipolar signals. A 4096 sample FIFO buffer coupled to advanced acquisition control logic, allows seamless acquisition of analog signals.

#### Sampling modes

The PCI260+ provides several acquisition modes to suit a variety of applications. These include software controlled single or multiple sampling, and triggered sampling from digital inputs.

**Software control** - For single channel data acquisition, simply select the desired channel and initialise a sample. When you select multiple channels, the card automatically samples each channel in ascending number order and places the sample in the FIFO.

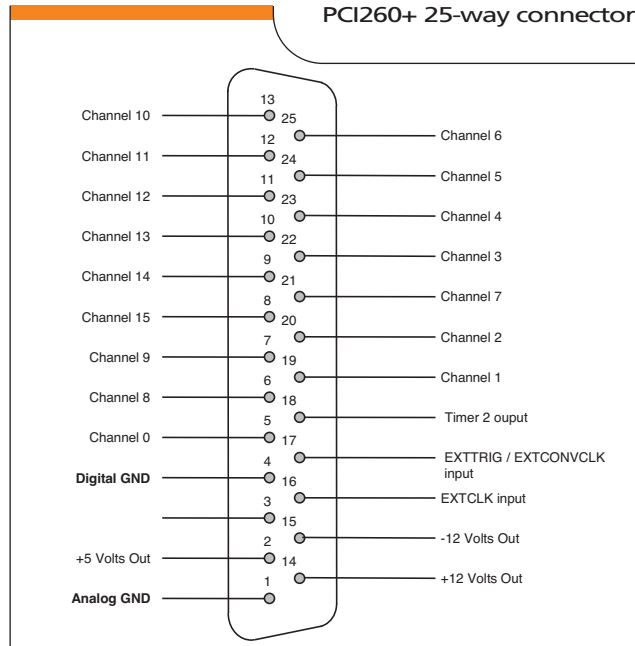
**Analog triggering** - In this mode the PCI260+ will monitor all selected analog input channels, and start placing samples in the FIFO when an input signal crosses a pre-programmed threshold. It can be used as a level trigger or an edge trigger, as found on many oscilloscopes. A pre-trigger function is also available that uses the FIFO to store a number of samples before an identified trigger.

#### Software support

The PCI260+ may be used in 32-bit Windows or Linux operating systems. Drivers are available for all popular high-level programming languages. The Amplicon programming library, AMPDIO32, provides example programs with source code which can be modified as required.

DAX software allows non-programmers to set up and control the input channels in an Excel environment

PCI260+ 25-way connector



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## AMPLICON PCI260+

### Specifications

Analog input	
<b>A/D channels</b>	16 single-ended or 8 differential
<b>A/D resolution</b>	16-bit
<b>Sampling speed</b>	500kS/s (maximum)
<b>Multiple channel sampling</b>	Two channels @ 125kS/s/channel 16 channels @ 15.6kS/s/channel
<b>Input ranges</b>	Bipolar $\pm 1.25V$ , $\pm 2.5V$ , $\pm 5.0V$ , $\pm 10.0V$ Unipolar 0 to $+2.5V$ , 0 to $+5.0V$ , 0 to $+10.0V$
<b>Maximum input voltage</b>	$\pm 20Vdc$
<b>Input impedance</b>	1.0Mohm/ $<100pF$ each channel
<b>Sampling modes</b>	Software polled, interrupt controlled, external trigger
<b>External triggers</b>	Analog level threshold
<b>Input FIFO</b>	4096 samples (user programmable threshold)
<b>Input slew rate</b>	2.5V/ $\mu s$ for all gain ranges
<b>Reference temp. coefficient</b>	3ppm/°C
Counter/Timer	
<b>Number of counters</b>	Three 16-bit counter/timers (82C54)
<b>Clock source</b>	Internal 10MHz clock with dividers to 1MHz, 100kHz, 10kHz, 1kHz External up to 10MHz square wave
<b>Counter input</b>	Low: -0.3 to 0.8V High: 2.2 to 5.3V
<b>Counter output</b>	Low: 0.3V max. at 2.0mA High: 3.8V min. at -2.0mA
<b>Counter timer intervals</b>	2.0 $\mu s$ to 10 minutes

General	
<b>Connector</b>	25-way male D-sub
<b>PC interface</b>	Universal PCI, 3.3V or 5V
<b>Dimensions</b>	153 x 91mm (length x height)
<b>Operating temp.</b>	0 to $+60^{\circ}C$
<b>Storage temp.</b>	$-20$ to $+70^{\circ}C$
<b>Humidity</b>	5 to 95% RH, non-condensing
<b>Power consumption</b>	3.3V @ 500mA or 5V @ 300mA $\pm 12V$ @ 50 to 150mA
<b>MTBF</b>	598 khours
<b>Compliance</b>	CE, EMC EN55022, EN550242

### Accessories and Ordering information

**96052513** PCI260+ Low cost 16-bit PCI analog input board with counter timers

**90956179** 25 way screened cable male D to female D 1m long

**90891952** 25 way screw terminal panel, DIN rail mounting

