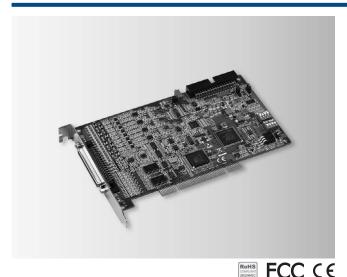
PCI-1706U/UL 250 kS/s, 16-bit, Simultaneous 8-ch Universal PCI Multifunction Card



Features

- 8 differential analog inputs
- 8 A/D converters simultaneously sampling
- 16-bit A/D converter, with up to 250kHz sampling rate for each channel
- Programmable gain
- Onboard FIFO memory up to 8K Sample
- Multiple A/D triggering modes
- Programmable pacer/counter
- BoardID™ switch
- Universal PCI Bus (supports 3.3V or 5V PCI bus signals)

Energy Automation

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0 Industrial Monitors

Introduction

PCI-1706U is an advanced high-performance multifunction card based on the Universal PCI Bus. With a large FIFO of 8K Sample, the maximum sampling rate of PCI-1706U is up to 250 kS/s with 8 A/D converters simultaneously sampling on each channel. If more than 8 analog input channels are required, multiple cards can be synchronized through the Device-to-Device Bus to support more Al channels simultaneously sampling. The PCI-1706U has two 12-bit D/A output channels, 16 digital input/output channels, and two 32-bit Time/counter channels so that it can provide specific functions for different application requirements.

Specifications

Analog Input

Channels 8 differential 16 bits Resolution

 Max. Sampling rate 250 kS/s per channel

 FIFO Size 8K samples (shared by all Al channels)

• Overvoltage Protection 30 Vp-p

 Sampling Mode Delay to Start, Delay to Stop, None Trigger Source Software, Digital, Analog

Input Range (V, software programmable) & Absolute Accuracy

Bipolar	±10	±5	±2.5	±1.25
Absolute Accuracy (% of FSR)*	0.04	0.04	0.06	0.08

^{* ±1} LSB is added as the derivative for absolute accuracy

Analog Output (PCI-1706U only)

Channels Resolution 12 bits Output Rate Static update

(V/A, software programmable) Output Range

Voltage	0 ~ +10V, 0 ~ +5 V, -5V~+5V -10V~+10V
Current	0~20mA.0~24mA.4~20mA

Slew Rate 1 V/µs, 2 mA/µs Driving Capability 10 mA Output impedance $5 \Omega (max)$ Operation Mode Software polling Accuracy ±1LSB

Digital Input

Channels 16 (Share with Output)

 Compatibility 5 V/TTL

 Input Voltage Logic 0: 0.8V max: Logic 1: 2.0V min

Digital Output

Channels 16 (Share with Input)

Compatibility 5 V/TTL

 Output Voltage Logic 0: 0.4V max: Logic 1: 2.4V min

Sink: 0.8 mA @ 0.4V Output Capability Source: -0.4mA @ 2.4V

Timer/Counter

Channels 2 Resolution 32 bits

Mode IN:Event Counting, Frequency In, PWM In OUT: One Shot, Pulse Out, PWM Out

 Compatibility 5 V/TTL Max. Input Frequency 10 MHz Reference Clock Internal: 20 MHz

External Clock Frequency: 1 Hz ~ 10 MHz

General

Bus Type Universal PCI V2.2

I/O Connector 1 x 68-pin SCSI female connector Dimensions (L x H) 175 x 100 mm (6.9" x 3.9")

 Power Consumption Typical: 5 V @ 850 mA: Max.: 5 V @ 1 A, • Operating Temperature $0 \sim 60^{\circ}\text{C}$ (32 ~ 140°F) (refer to IEC 60068-2-1,2)

-20 ~ 70°C (-4 ~ 158°F) Storage Temperature

5 ~ 95% RH non-condensing (refer to IEC 60068-2 -3) Storage Humidity

Ordering Information

PCI-1706U 250 KS/s. 16-bit Simultaneous Multi. Card PCI-1706UL 250 KS/s, 16-bit Simultaneous Multi. Card w/o AO

PCL-10168-1 68-pin SCSI Shielded Cable, 1 m PCL-10168-2 68-pin SCSI Shielded Cable, 2 m ADAM-3968 68-pin DIN-rail SCSI Wiring Board