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) .

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 AI 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 differ	ential			
•	Resolution	16 bits				
•	Max. Sampling rate	250 kS/s per channel				
•	FIFO Size	8K samples (shared by all AI channels)				
•	Overvoltage Protection	30 Vp-р				
•	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 Autout (DCL_170611 only)

Analog output (PGI-17000 only)						
 Channels 	2					
 Resolution 	12 bits					
 Output Rate 	Static update					
 Output Rang 	ge (V/A, software programmable)					
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 Cap 	ability 10 mA					

- Output impedance 5 Ω (max) Operation Mode Software polling
- Accuracy

Digital Input

 Channels 	16 (Share with Output)
 Compatibility 	5 V/TTL
 Input Voltage 	Logic 0: 0.8V max: Logic 1: 2.0V min

±1LSB

Digital Output

- Channels
- Compatibility
- Output Voltage Output Capability

5 V/TTL Logic 0: 0.4V max: Logic 1: 2.4V min Sink: 0.8 mA @ 0.4V Source: -0.4mA @ 2.4V

IN:Event Counting, Frequency In, PWM In OUT:OneShot, Pulse Out, PWM Out

16 (Share with Input)

Timer/Counter

- Channels
- Resolution
- Mode
- Compatibility
- Max. Input Frequency
- Reference Clock
 - External Clock Frequency: 1 Hz ~ 10 MHz

2

32 bits

5 V/TTL

10 MHz

Internal: 20 MHz

- General
- Bus Type I/O Connector
- Dimensions (L x H)
- Power Consumption
- Operating Temperature 0 ~ 60°C (32 ~ 140°F) (refer to IEC 60068-2-1,2)
- Storage Temperature -20 ~ 70°C (-4 ~ 158°F)
- Storage Humidity

Ordering Information

- PCI-1706U **PCI-1706UL**
- PCL-10168-1 PCL-10168-2
- ADAM-3968
- 250 KS/s, 16-bit Simultaneous Multi. Card w/o AO 68-pin SCSI Shielded Cable, 1 m 68-pin SCSI Shielded Cable, 2 m 68-pin DIN-rail SCSI Wiring Board

250 KS/s. 16-bit Simultaneous Multi. Card

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Energy Automation

- Universal PCI V2.2 1 x 68-pin SCSI female connector 175 x 100 mm (6.9" x 3.9")
- Typical: 5 V @ 850 mA: Max.: 5 V @ 1 A,