PCIE-1816 PCIE-1816H

500 KS/s, 16-Bit, 16-Ch PCI Express **Multifunction DAQ Card**

1 MS/s, 16-Bit, 16-Ch PCI Express **Multifunction DAO Card**



Features

PCIE-1816

16 analog inputs, up to 1 MS/s, 16-bit resolution

PCIE-1816H

16 analog inputs, up to 5 MS/s, 16-bit resolution

PCIE-1816/1816H

- 2 analog outputs, up to 3 MS/s, 16-bit resolution
- Supports analog and digital triggers for analog I/O
- Supports waveform generation for analog output
- 24 programmable digital I/O lines
- Two 32-bit programmable counter/timers
- Onboard FIFO memory (4,000 samples)

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Introduction

PCIE-1816/1816H is a 16-ch (up to 5 MS/s) multifunction DAQ card with integrated digital I/O, analog I/O, and counter functions. PCIE-1816/1816H also features analog and digital triggering support, 2-ch 16-bit analog outputs with waveform generation capability, 24-ch programmable digital I/O lines, and two 32-bit general purpose timer/counters.

Specifications

Analog Input

 Channels 	Single end	16
	Differential	8
 Resolution 	16 bits	
Sample Rate	PCIE-1816	Single channel 1 MS/s max.
		Multiple channels 500 kS/s r
	PCIE-1816H	Single channel 5 MS/s max.

S/s max. nax. Multiple channels 1 MS/s max.

Note: The sampling rate of each channel is influenced by the number of used channels. For example, if 4 channels are used, the sampling rate will be 1M/4 = 250 kS/s per channel.

Trigger ReferenceFIFO Size Digital and analog triggers 4,000 samples

2

16 bits

1GΩ

- Overvoltage Protection 30 Vp-p Input Impedance
- Sampling Mode
- Software and external clock Software programmable Input Range

0.5	1	2	4	8
±10V	±5	±2.5	±1.25	±0.625
N/A	0~10	0~5	0~2.5	0~1.25
0.0075	0.0075	0.0075	0.008	0.008
	±10V N/A	±10V ±5 N/A 0~10	±10V ±5 ±2.5 N/A 0~10 0~5	±10V ±5 ±2.5 ±1.25 N/A 0~10 0~5 0~2.5

Analog Output

- Channels
- Resolution
- **Output Rate**
- 3 MS/s max. **Output Range** Software programmable

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Internal Reference	Unipolar	0 ~ 5 V 0 ~ 10 V
	Bipolar	-5 V ~ 5 V -10 V ~ 10 V
External Reference		$0 \sim +x \lor @ -x \lor (-10 \le x \le 10)$
 Slew Rate Driving Capability Operation Mode Accuracy 		te, waveform generation SB, DNLE: ± 1 LSB

Digital I/O

 Channels 	24
 Compatibility 	5 V/TTL
Input Voltage	Logic 0: 0.8 V max.
	Logic 1: 2.0 V min.
 Output Voltage 	Logic 0: 0.8 V max.
	Logic 1: 2.0 V min.
 Output Capability 	Sink: 15 mA @ 0.8 V
	Source: 15 mA @ 2.0 V

2

Counter

Channels	
Recolution	

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Resolution	32 bits
Compatibility	5 V/TTL
Max. Input Frequency	10 MHz
Pulse Generation	Yes
T1 1 01 1 111	50

Timebase Stability 50 ppm

General

- Form Factor
- Triggering I/O Connector
- Dimensions (L x W)
- Power Consumption

2 x Analog/2 x digital (16 bits) 68-pin SCSI, female 167 x 100 mm (6.6" x 3.9") Typical: 3.3 V @ 488 mA 12 V @ 112 mA Max.: 3.3 V @ 2.25 A 12 V @ 390 mA Operating Temperature 0 ~ 60 °C (32 ~ 140 °F) -40 ~ 70 °C (-40 ~ 158 °F)

1 MS/s, 16-bit multifunction card

5 MS/s. 16-bit multifunction card

PCI Express x1

- Storage Temperature
- 5~95% RH non-condensing Storage Humidity

Ordering Information

PCIE-1816-AE PCIE-1816H-AE

Accessories

PCL-10168H-1E	68-pin SCSI shielded cable with noise rejection, 1 m
PCL-10168H-2E	68-pin SCSI shielded cable with noise rejection, 2 m
PCL-10168-1E	68-pin SCSI shielded cable, 1 m
PCL-10168-2E	68-pin SCSI shielded cable, 2 m
ADAM-3968-AE	68-pin DIN rail SCSI wiring board
PCLD-8810E-AE	68-pin SCSI DIN-rail Wiring Board for PCIE-1800 series

PCLD-8811-AE Low-Pass Active Filter Boar

AD\ANTECH Industrial I/O

All product specifications are subject to change without notice.