

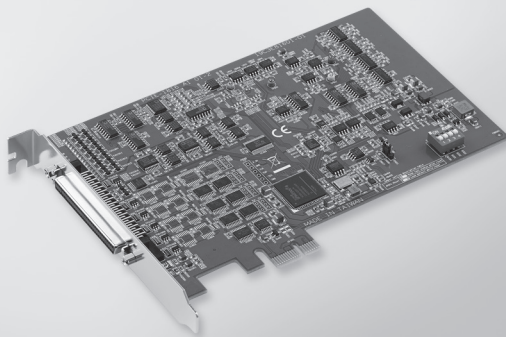
PCIE-1816

PCIE-1816H

1 MS/s, 16-bit, 16-ch PCI Express
Multifunction DAQ Card

5 MS/s, 16-bit, 16-ch PCI Express
Multifunction DAQ Card

NEW



FCC CE RoHS

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
- Support Analog and Digital Trigger for AI/O
- Support Waveform generation for AO
- 24 programmable digital I/O lines
- Two 32-bit programmable counter/timers
- Onboard FIFO memory (4k samples)
- Support for Microsoft Windows 8 (desktop mode only)/7/XP

Introduction

PCIE-1816/1816H is a 16-ch, up to 5 MS/s multi-function DAQ card and integrates digital I/O, analog I/O, and counter functions. The PCIE-1816/1816H also features analog and digital triggering, 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-ended	16-ch
	Differential	8-ch
Resolution	16 bits	
Sample Rate	PCIE-1816	Single Channel 1 MS/s max. Multi-Channel 500 kS/s max.
	PCIE-1816H	Single Channel 5 MS/s max. Multi-Channel 1 MS/s max.

Note: The sampling rate for each channels will be affected by used channel number. For example, if 4 channels of PCIE-1816H are used, the sampling rate is $1M/4 = 250$ kS/s per channel.

Trigger Reference	Analog Trigger, Digital Trigger
FIFO Size	4k samples
Overvoltage Protection	30 Vp-p
Input Impedance	1 G Ω
Sampling Mode	Software and external clock
Input Range	Software programmable

PCIE-1816					
Gain	0.5	1	2	4	8
Bipolar	$\pm 10V$	± 5	± 2.5	± 1.25	± 0.625
Unipolar	N/A	0 ~ 10	0 ~ 5	0 ~ 2.5	0 ~ 1.25
Absolute Accuracy (% of FSR)	0.0075	0.0075	0.0075	0.008	0.008

Analog Output

Channels	2
Resolution	16 bits
Output Rate	3 MS/s max.
Output Range	Software programmable

Internal Reference	Unipolar	0 ~ 5 V 0 ~ 10 V
	Bipolar	-5 V ~ 5 V -10 V ~ 10 V
External Reference	0 ~ +x V @ -x V (-10 \leq x \leq 10)	

Slew Rate	20 V/ μ s
Driving Capability	5 mA
Operation Mode	Static update, Waveform Generation
Accuracy	INLE: ± 4 LSB, 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

Counter

Channels	2
Resolution	32 bits
Compatibility	5 V/TTL
Max. Input Frequency	10 MHz
Pulse Generation	Yes
Timebase Stability	50 ppm

General

Form factor	PCI Express x 1
Triggering	16 bits Analog x 2 / Digital x 2
I/O Connector	68-pin SCSI female connector
Dimensions (L x W)	167 x 100 mm
Power Consumption	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)
Storage Temperature	-40 ~ 70°C (-40 ~ 158°F)
Storage Humidity	5 ~ 95% RH non-condensing

Ordering Information

PCIE-1816	1 MS/s, 16-bit Multifunction Card
PCIE-1816H	5 MS/s, 16-bit Multifunction Card

Accessories

PCL-10168H-1E	68-pin SCSI Shielded Cable with Noise Rejecting, 1 m
PCL-10168H-2E	68-pin SCSI Shielded Cable with Noise Rejecting, 2 m
PCL-10168-1E	68-pin SCSI Shielded Cable, 1 m
PCL-10168-2E	68-pin SCSI Shielded Cable, 2 m
ADAM-3968	68-pin DIN-rail SCSI Wiring Board