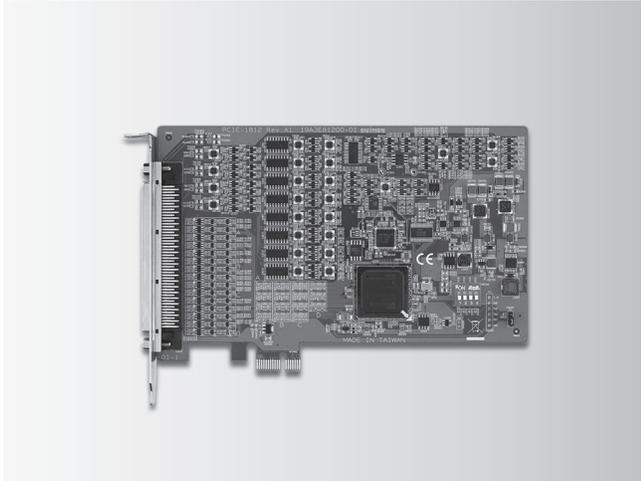


PCIE-1812

250 kS/s, 16-bit, 8-ch, Simultaneous Sampling Multi-function PCI Express DAQ Card



FCC CE RoHS

Features

- 8 differential simultaneous sampling analog inputs, up to 250 kS/s, 16-bit resolution
- 2 analog outputs, up to 3 MS/s, 16-bit resolution
- Full auto-calibration
- 2 analog triggers and 2 digital triggers for AI/O
- 32 programmable DI/Os with interrupt functions
- Four 32-bit programmable counters/timers/encoders
- Board ID switch
- Support for Microsoft Windows 10, 8 and 7

Introduction

The PCIE-1812 is a simultaneous-sampling multifunction DAQ card to meet a wide range of application requirements. The device can simultaneously sample 8 AI channels with differential input configuration in order to achieve maximum noise elimination. It also provides 2-CH 16-bit analog outputs and with waveform generation capability, which can be performed together with analog input functions.

Specifications

Analog Input

- **Channels** Differential 8-ch
- **Resolution** 16 bits
- **Sample Rate** 250 kS/s max.
- **Input Impedance** 100G Ω /350pF
- **Sampling Mode** Software and external clock
- **Input Range** Software programmable

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)*	0.01	0.01	0.01	0.01	0.01

Analog Output

- **Channels** 2
- **Resolution** 16 bits
- **Output Rate** 3 M 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 ~ +xV @ -xV (-10 \leq x \leq 10)	

- **Slew Rate** 20 V/ μ s
- **Driving Capability** 5 mA
- **Operation Mode** Static update, Waveform Generation
- **Accuracy** 0.01%

Analog Trigger

- **Channels** 2
- **Resolution** 16 bits
- **Input Range** -10 V ~ +10 V
- **Hysteresis** Yes. Hysteresis range is configurable
- **Trigger Edge** Rising edge or falling edge, selected by software

Digital Trigger

- **Channels** 2
- **Input Voltage** Logic 0: 1.5 V max.
Logic 1: 3.5 V min.
- **Trigger Edge** Rising edge or falling edge, selected by software

Digital I/O

- **Channels** 32 (shared)
- **Input Voltage** Logic 0: 1.5 V max.
Logic 1: 3.5 V min.
- **Output Voltage** Low 0.5 V max. @ +20 mA (sink)
High 4.5 V min. @ -20 mA (source)

Counter/ Timer/ Encoder

- **Channels** 4
- **Resolution** 32 bits
- **Compatibility** 5 V/TTL
- **Max. Input Frequency** 10 MHz
- **Counter/Timer Functions** Frequency measurement, pulse width measurement, pulse output, PWM output
- **Encoder Functions** Quadrature (X1, X2, X4), dual pulse (CW/CCW), signed pulse (OUT/DIR)

General

- **Form factor** PCI Express x 1
- **I/O Connector** 100-pin SCSI female connector
- **Dimensions (L x W)** 167 x 100 mm
- **Operating Temperature** 0 ~ 60°C (32 ~ 140°F) (refer to IEC 68-2-1, 2)
- **Storage Temperature** -40 ~ 70°C (-40 ~ 158°F)
- **Storage Humidity** 5 ~ 95% RH non-condensing (refer to IEC 68-2-3)
- **BoardID** TM Switch

Ordering Information

- **PCIE-1812-AE** 250 kS/s, 16-bit, 8-ch simultaneous sampling multifunction card

Accessories

- **PCL-101100R-1E** 100-pin SCSI shielded cable, Female to Male, 1m
- **PCL-101100R-2E** 100-pin SCSI shielded cable, Female to Male, 2m
- **ADAM-39100-BE** 100-pin DIN-rail SCSI wiring board