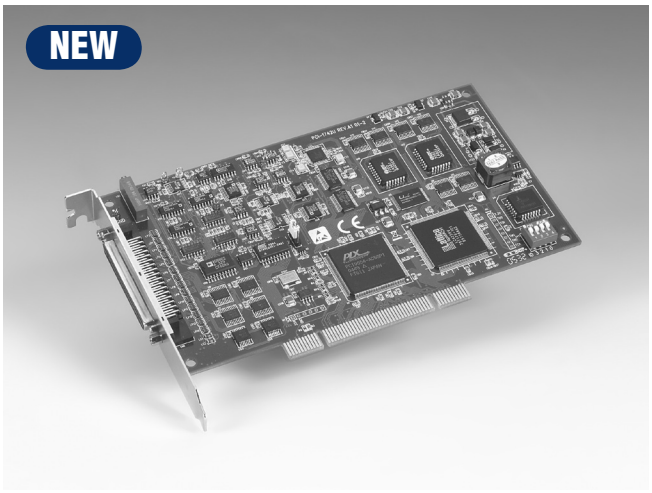
PCI-1742U

1 MS/s, 16-bit, 16-ch High-Resolution Multifunction Card



Features

- 16 single-ended, 8 differential or a combination of analog inputs
- 16-bit DAC with max. 1 MS/s sampling rate
- 1024 samples for AI
- Two 16-bit analog output channels
- 16DI/ 16DO TTL channels.
- One 16-bit/ 10 MHz counter
- Auto calibration function
- Universal PCI Bus (Support 3.3/5 V PCI Bus signal)
- Board ID switch

Introduction

PCI-1742U is a powerful high-resolution multifunction DAS card for the PCI bus. Its sampling rate of up to 1 MS/s and 16-bit resolution, fulfill the needs of most data acquisition applications. PCI-1742U provides 16 single-ended or 8 differential analog input channels, two 16-bit D/A output channels, 16 digital input/output channels, and one 10 MHz 16-bit counter channel.

Specifications

Analog Input

- **Channels** 16 single-ended /8 differential (SW programmable)
- **Resolution** 16 bits
- **Max. Sampling Rate** 1 MS/s single-channel
800kS/s multi-channel
250kS/s unipolar bipolar mixed
- **FIFO Size** 1024 samples
- **Overvoltage Protection**
- **Input Impendence** 100 MΩ/10pF(Off); 100 MΩ/100pF(On)
- **Sampling Mode** Software, on-board programmable pacer or external
- **Trigger Mode**
- **Input Range** (V, Software programmable)

Unipolar	N/A	0~10	0~5	0~2.5	0~1.25
Bipolar	±10	±5	±2.5	±1.25	±0.625

Analog Output

- **Channels** 2
- **Resolution** 16 bits
- **Output Rate** Static Update
- **Reference Clock**
- **Output Range** (V, Software programmable)

Internal Reference	**Bipolar**	0~+5,0~+10
	Unipolar	-5~+5, -10~+10
External Reference		0 ~ +x V @ +x V (-10 < x <10) -x ~ +x V @ +x V (-10 < x < 10)

- **Slew Rate** 40 V/μs
- **Driving Capability** ±20mA
- **Output Impendence** 0.1 Ω max.
- **Operation Mode** Single Output

Digital Input

- **Channels** 16
- **Capability** 5 V/TTL
- **Input Voltage** Logic 0: 0.8 V max.
Logic 1: 2.0 V min.

Digital Output

- **Channels** 16
- **Capability** 5 V/TTL
- **Output Voltage** Logic 0: 0.8 V max.
Logic 1: 2.0 V min.
- **Output Capability** Sink: 0.5 V max. @ +24 mA
Source: 2.4 V min. @ -15 mA

Counter/Timer

- **Channels** 1
- **Compatibility** 5V/TTL
- **Resolution** 16 bits
- **Max. Input Frequency** 10MHz
- **Reference Clock**

General

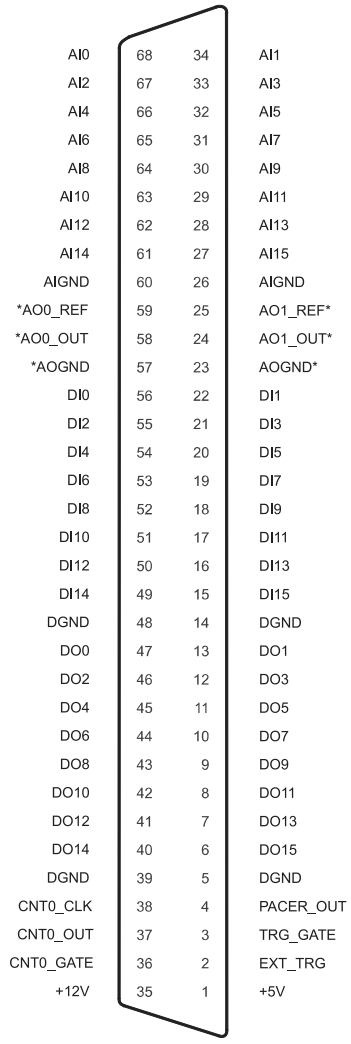
- **Bus Type** Universal PCI 2.2
- **I/O connector Type** 68-pin SCSI-II female
- **Dimensions** 175 mm × 100 mm (6.9" × 3.9")
- **Power Consumption** Typical: +5 V @ 850 mA, +12 V @ 600 mA
Max.: +5 V @ 1 A, +12 V @ 700m A
- **Operating Temperature** 0~+60°C (32~158°F) (refer to IEC 68-2-1,2)
- **Storing Temperature** -20~+85°C (-4~185°F)
- **Storing Humidity** 5~95%RH non-condensing (refer to IEC 68-2-3)
- **Certificates** CE

All product specifications are subject to change without notice

Ordering Information

- **PCI-1742U** 16-bit, 1MS/s Multifunction Card
- **PCL-10168** SCSI-68 Shielded Cable, 1m
- **PCL-10168-2** SCSI-68 Shielded Cable, 2m
- **ADAM-3968** SCSI-68 Wiring Terminal, DIN-rail Mount
- **PCLD-8710** SCSI-68 Wiring Terminal w/CJC, DIN-rail Mount
- **PCLD-8710BNC** SCSI-68 Wiring Terminal w/CJC and BNC connectors, DIN-rail Mount

Pin Assignment



*: Pins 23~25 and pins 57~59 are not defined for the PCI-1742U