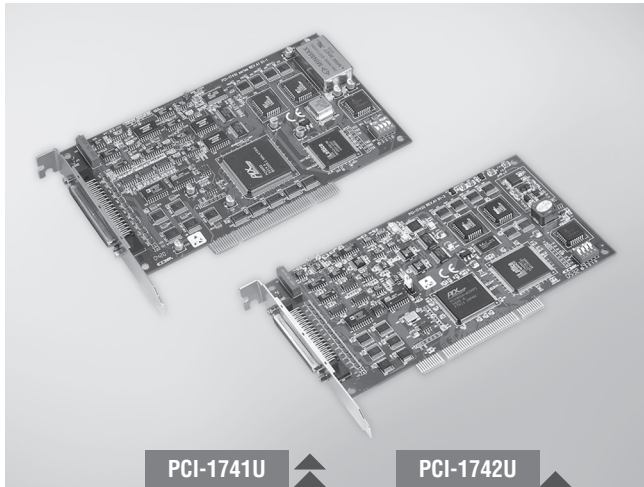


PCI-1741U PCI-1742U

**200 kS/s, 16-bit, 16-ch Universal PCI
Multifunction DAQ Card**

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



FCC CE RoHS

Features

- 16-ch single-ended or 8-ch differential analog input
- 16-bit A/D converter, with up to 200 kHz sampling rate for PCI-1741U and 1 MHz sampling rate for PCI-1742U
- Onboard FIFO memory (1,024 samples)
- Auto calibration
- PCI-1741U: 1 x 16-bit analog output channel
PCI-1742U: 2 x 16-bit analog output channels
- 16-ch digital input and 16-ch digital output
- Universal PCI bus (support 3.3 V or 5 V PCI bus signal)
- Onboard programmable counter
- BoardID switch

Specifications

Analog Input

- **Channels** 16 single-ended/8 differential (software programmable)
- **Resolution** 16 bits
- **Max. Sampling Rate** PCI-1741U: 200 kS/s
PCI-1742U: Single-channel: 1 MS/s
All unipolar or bipolar: 800 kS/s
Unipolar and bipolar mixed: 250 kS/s

Note: The sampling rate for each channels will be affected by used channel number. For example, if 4 channels of PCI-1742U are used, the sampling rate is $800k/4 = 200$ kS/s per channel (without unipolar and bipolar mixed).

- **FIFO Size** 1,024 samples
- **Overvoltage Protection** 30 Vp-p
- **Input Impedance** 100 M Ω /10pF (Off); 100 M Ω /100pF (On)
- **Sampling Mode** Software, onboard programmable pacer and external
- **Input Range* (V, software programmable) & Absolute Accuracy**

Unipolar	N/A	0 ~ 10	0 ~ 5	0 ~ 2.5	0 ~ 1.25
Bipolar	± 10	± 5	± 2.5	± 1.25	± 0.625
Absolute Accuracy (% of FSR)**	0.02	0.02	0.02	0.03	0.04

* All channels should be set to the same range

** ± 1 LSB is added as the derivative for absolute accuracy

Analog Output

- **Channels** PCI-1741U: 1
PCI-1742U: 2
- **Resolution** 16 bits
- **Output Rate** Static update
- **Output Range** (Software programmable)

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

- **Slew Rate** PCI-1741U: 20 V/us
PCI-1742U: 40 V/us
- **Driving Capability** ± 20 mA
- **Output Impedance** 0.1 Ω max.
- **Operation Mode** Static update
- **Accuracy** INLE: ± 2 LSB

Digital Input

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

Digital Output

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

Counter/Timer

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

General

- **Bus Type** Universal PCI V2.2
- **I/O Connector Type** 1 x 68-pin SCSI female connector
- **Dimensions (L x H)** 175 x 100 mm (6.9" x 3.9")
- **Power Consumption** Typical: 5 V @ 850 mA, 12 V @ 600 mA
Max.: 5 V @ 1 A, 12 V @ 700 mA
- **Operating Temperature** 0 ~ 60°C (32 ~ 140°F)
- **Storage Temperature** -20 ~ 70°C (-4 ~ 158°F)
- **Storage Humidity** 5 ~ 95% RH, non-condensing

Ordering Information

- **PCI-1741U** 200 kS/s, 16-bit, 16-ch Univ. PCI Multi. Card
- **PCI-1742U** 1 MS/s, 16-bit, 16-ch Univ. PCI Multi. Card

Accessories

- **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
- **PCLD-8710** DIN-rail Wiring Board w/ CJC