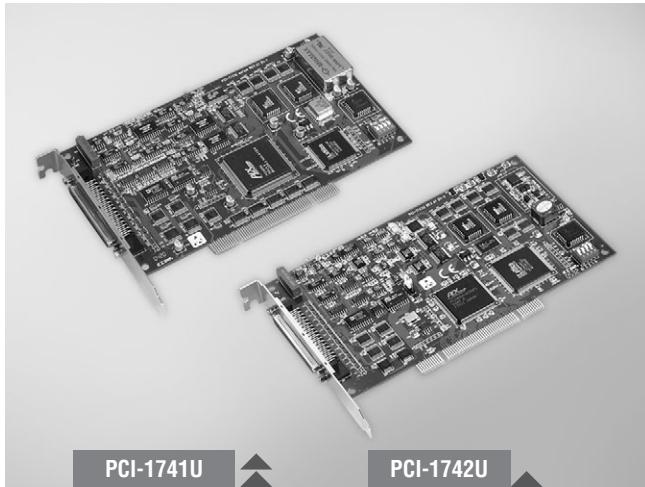


# PCI-1741U PCI-1742U

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

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



RoHS  
FCC CE

## Features

- 16-ch single-ended or 8-ch differential analog input
- PCI-1741U: 16-bit A/D converter, with up to 200 kHz sampling rate  
PCI-1742U: 16-bit A/D converter, with up to 1 MHz sampling rate
- 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  
multi-channel - 800 kS/s  
unipolar bipolar mixed - 250 kS/s
- FIFO Size** 1,024 samples
- Overvoltage Protection** 20 Vp-p
- Input Impedance** 100 M $\Omega$ /10pF (Off); 100 M $\Omega$ /100pF (On)
- Sampling Mode** Software, onboard programmable pacer and external
- Input Range\*** (V, software programmable)

<b>Unipolar</b>	N/A	0 ~ 10	0 ~ 5	0 ~ 2.5	0 ~ 1.25
<b>Bipolar</b>	$\pm 10$	$\pm 5$	$\pm 2.5$	$\pm 1.25$	$\pm 0.625$
<b>Accuracy (% of FSR <math>\pm 1</math>LSB)</b>	0.02	0.02	0.02	0.03	0.04

\* **Note:** All channels should be set to the same range

### Analog Output

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

<b>Internal Reference</b>	<b>Bipolar</b>	$\pm 5, \pm 10$
	<b>Unipolar</b>	0 ~ 5, 0 ~ 10
<b>External Reference</b>		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**  $\pm 20$  mA
- Output Impedance** 0.1 W max.
- Operation Mode** Software polling
- Accuracy** INLE:  $\pm 2$ 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.
- Output Capability** Sink: 24 mA @ 0.8 V  
Source: -15 mA @ 2.0 V

### 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) (refer to IEC 68-2-1, 2)
- Storage Temperature** -20 ~ 70° C (-4 ~ 158° F)
- Storage Humidity** 5 ~ 95% RH, non-condensing (refer to IEC 68-2-3)

## 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-10168-1** 68-pin SCSI Shielded Cable, 1 m
- PCL-10168-2** 68-pin SCSI Shielded Cable, 2 m
- ADAM-3968** 68-pin DIN-rail SCSI Wiring Board
- PCLD-8710** DIN-rail Wiring Board w/ CJC