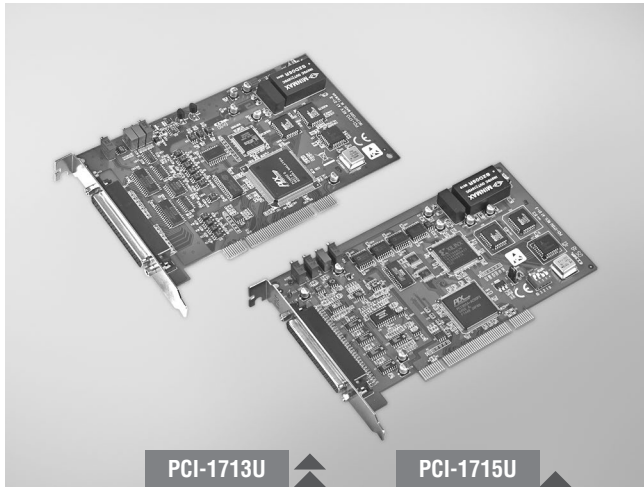


PCI-1713U

PCI-1715U

100 kS/s, 12-bit, 32-ch Isolated Analog Input Universal PCI Card

500 kS/s, 12-bit, 32-ch Isolated Analog Input Universal PCI Card



PCI-1713U

PCI-1715U



Specifications

Analog Input

- Channels** 32 single-ended/16 differential (software programmable)
- Resolution** 12 bits
- Max. Sampling Rate** PCI-1713U: 100 kS/s
PCI-1715U: 500 kS/s

Note: The sampling rate for each channels will be affected by used channel number. For example, if 4 channels of PCI-1713U are used, the sampling rate is $100k/4 = 25$ kS/s per channel.

- FIFO Size** PCI-1713U: 4,096 samples
PCI-1715U: 1,024 samples
- Overvoltage Protection** 30 Vp-p
- Isolation Protection** 2,500 V_{DC}
- Input Impedance** 1 GΩ
- Sampling Modes** Software, onboard programmable pacer and external clock (TTL level)

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)*	0.1	0.1	0.2	0.2	0.4

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

General

- Bus Type** Universal PCI V2.2
- I/O Connector** 1 x DB37 female connector
- Dimensions (L x H)** 175 x 100 mm (6.9" x 3.9")
- Power Consumption** Typical: 5 V @ 850 mA
Max.: 5 V @ 1.0 A
- Operating Temperature** 0 ~ 60°C (32 ~ 140°F)
- Storage Temperature** -20 ~ 70°C (-4 ~ 158°F)
- Storage Humidity** 5 ~ 95% RH non-condensing

Features

- 2,500 V_{DC} isolation protection
- 32-ch single-ended or 16-ch differential or a combination of analog input
- 12-bit resolution for A/D conversion
- Programmable gain for each input channel
- Onboard FIFO memory (PCI-1713U: 4,096 samples; PCI-1715U: 1,024 samples)
- Software, internal or external pacer sampling modes supported
- Universal PCI bus
- BoardID™ switch

Ordering Information

- PCI-1713U** 100 kS/s, 12-bit, 32-ch Isolated AI PCI Card
- PCI-1715U** 500 kS/s, 12-bit, 32-ch Isolated AI PCI Card

Accessories

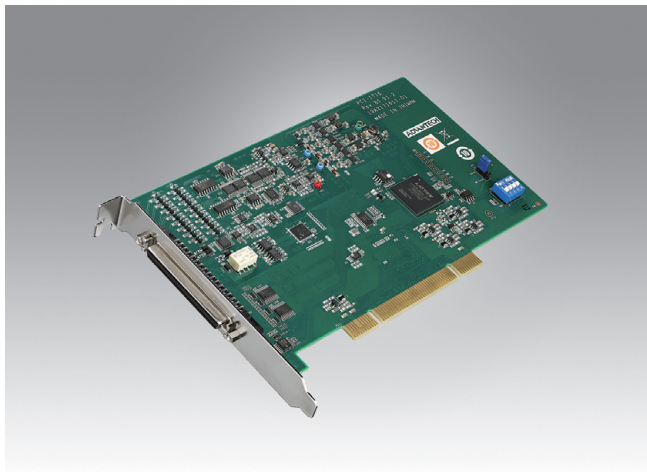
- ADAM-3937** DB37 DIN-rail Wiring Board
- PCL-10137-1E** DB37 Cable, 1 m
- PCL-10137-2E** DB37 Cable, 2 m
- PCL-10137-3E** DB37 Cable, 3 m

Pin Assignments

AI0	1	20	AI1
AI2	2	21	AI3
AI4	3	22	AI5
AI6	4	23	AI7
AI8	5	24	AI9
AI10	6	25	AI11
AI12	7	26	AI13
AI14	8	27	AI15
GND	9	28	GND
GND	10	29	GND
AI16	11	30	AI17
AI18	12	31	AI19
AI20	13	32	AI21
AI22	14	33	AI23
AI24	15	34	AI25
AI26	16	35	AI27
AI28	17	36	AI29
AI30	18	37	AI31
EXT_TRG	19		

PCI-1716/L/H

16-ch, 16-bit, 1 MS/s or 500 kS/s
Multifunction PCI Card



FCC CE RoHS

Specifications

Analog Input

- **Channels** 16 single-ended, 8 differential, or combination
- **Resolution** 16 bits
- **Sample Rate** 1 MS/s max. for PCI-1716H
500 kS/s max. for PCI-1716/L
shared by all enabled channels
- **Convert Clock Source** Internal or external
- **Overvoltage Protection** ± 15 V
- **Input Impedance** 100 M Ω
- **Integral Non-Linearity (INL)** ± 1 LSB max.
- **Differential Non-Linearity (DNL)** ± 1 LSB max.
- **Input Range & Absolute Accuracy***

Unipolar (V)		0 ~ 10	0 ~ 5	0 ~ 2.5	0 ~ 1.25
Bipolar (V)	± 10	± 5	± 2.5	± 1.25	± 0.625
Absolute Accuracy (% of FSR)	0.01	0.025	0.025	0.04	0.075

Analog Output (PCI-1716/PCI-1716H only)

- **Channels** 2
- **Resolution** 16 bits
- **Update Rate** 1 MS/s max. per channel
- **Update Clock Source** Internal or external
- **Output Range**
Internal Reference ± 10 V, ± 5 V, 0 ~ 10 V, or 0 ~ 5 V
External Reference $\pm x$ V or 0 ~ $+x$ V @ $+x$ V reference
($-10 \leq x \leq +10$)
- **Absolute Accuracy** $\pm 0.01\%$ of full-scale range max.
- **Slew Rate** 20 V/ μ s
- **Driving Capability** ± 20 mA max.
- **Output Impedance** 0.1 Ω max.

Digital Input

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

Features

- 16 single-ended or 8 differential or a combination of analog inputs
- 16-bit A/D converter, with up to 1 MS/s or 500 KS/s sampling rate
- FIFO memory (8,192 samples)
- Auto-calibration
- 2 analog output channels (PCI-1716/PCI-1716H only)
- 16-ch digital input and 16-ch digital output
- BoardID switch

Digital Output

- **Channels** 16
- **Compatibility** 5 V/TTL
- **Output Voltage** Logic 0: 0.4 V max. @ 2 mA sink
Logic 1: 4.0 V min. @ 2 mA source/5.2 V max.

Counter

- **Channels** 1
- **Resolution** 32 bits
- **Compatibility** 5 V/TTL
- **Function** Event counting, frequency measurement, one-shot, and timer/pulse
- **Input Frequency** 10 MHz max.

General

- **I/O Connector** 1 x 68-pin SCSI female connector
- **Dimensions (L x H)** 175 x 100 mm (6.9" x 3.9")
- **Power Consumption** +5 V: 500 mA typ., 800 mA max.
+12 V: 150 mA typ., 400 mA max.
- **Operating Temperature** 0 ~ 60°C (32 ~ 140°F)
- **Storage Temperature** -20 ~ 70°C (-4 ~ 158°F)
- **Operating Humidity** 10 ~ 90% RH non-condensing
- **Storage Humidity** 5 ~ 95% RH non-condensing

Ordering Information

- **PCI-1716-BE** 16-ch, 16-bit, 500 kS/s Multifunction PCI Card
- **PCI-1716L-BE** 16-ch, 16-bit, 500 kS/s Multifunction PCI Card w/o AO
- **PCI-1716H-AE** 16-ch, 16-bit, 1 MS/s Multifunction PCI Card

Accessories

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

* For detail information, please refer to user manual.

PCI-1730U

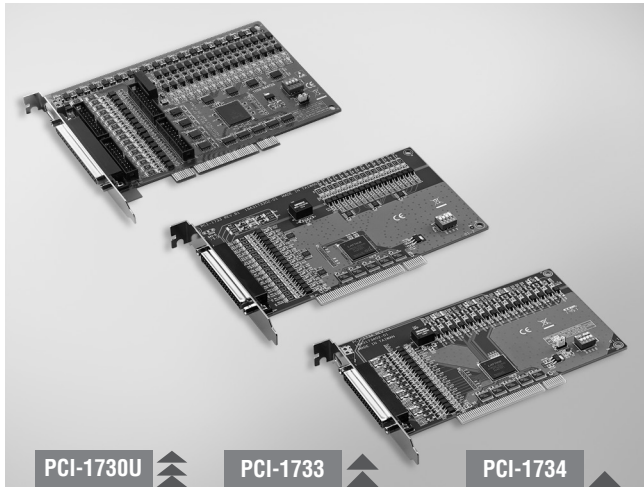
PCI-1733

PCI-1734

32-ch Isolated Digital I/O Universal PCI Card

32-ch Isolated Digital Input PCI Card

32-ch Isolated Digital Output PCI Card



PCI-1730U

PCI-1733

PCI-1734



Features

- ISA-compatible with PCL-730/733/734
- 32-ch isolated DI/O (16-ch digital input, 16-ch digital output) (PCI-1730U only)
- 32-ch TTL DI/O (16-ch digital input, 16-ch digital output) (PCI-1730U only)
- High output driving capacity
- Interrupt handling capability
- 2 x 20-pin connectors for isolated DI/O channels (PCI-1730U only)
- 2 x 20-pin connectors for TTL DI/O channels (PCI-1730U only)
- D-type connector for isolated input and output channels
- High-voltage isolation on output channels

Introduction

PCI-1730U, PCI-1733, and PCI-1734 offer isolated digital input channels as well as isolated digital output channels with isolation protection up to 2,500 V_{DC}, which makes them ideal for industrial applications where high-voltage isolation is required. There are also 32 TTL digital I/O channels on PCI-1730U.

Specifications

Digital Input (PCI-1730U only)

- **Channels** 16
- **Compatibility** 5 V/TTL
- **Input Voltage** Logic 0: 0.8 V max.
Logic 1: 2.0 V min.
- **Interrupt Capable Ch.** 2 (ID10, ID11)

Isolated Digital Input (PCI-1730U/ PCI-1733)

- **Channels** 16,32
- **Input Voltage** Logic 0: 1 V max. (2 V max.)
Logic 1: 5V min. (30 V max.)
- **Interrupt Capable Ch.** PCI-1730U: 2 (ID10, ID11)
PCI-1733: 4 (ID10, ID11, ID116, ID117)
- **Isolation Protection** 2,500 V_{DC}
- **Opto-Isolator Response** 100 us

Digital Output (PCI-1730U only)

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

Isolated Digital Output (PCI-1730U/ PCI-1734)

- **Channels** 16,32
- **Output Type** Sink type (NPN)
- **Isolation Protection** 2,500 V_{DC}
- **Output Voltage** 5 ~ 40 V_{DC}
- **Sink Current** PCI-1730U: 300 mA max./channel
PCI-1734: 200 mA max./channel
- **Opto-Isolator Response** 100 us

General

- **Bus Type** PCI V2.2 (Universal PCI V2.2 for PCI-1730U)
- **I/O Connectors** 1 x DB37 female connector
4 x 20-pin box header (PCI-1730U only)
- **Dimensions (L x H)** 175 x 100 mm (6.9" x 3.9")
- **Power Consumption** Typical: 5 V @ 250 mA, 12 V @ 35 mA
Max.: 5 V @ 400 mA, 12 V @ 60 mA
- **Operating Temperature** 0 ~ 60°C (32 ~ 140°F)
- **Storage Temperature** -25 ~ 85°C (-4 ~ 185°F)
- **Storage Humidity** 5 ~ 95% RH, non-condensing

Ordering Information

- **PCI-1730U** 32-ch Isolated Digital I/O Univ. PCI Card
- **PCI-1733** 32-ch Isolated Digital Input PCI Card
- **PCI-1734** 32-ch Isolated Digital Output PCI Card

Accessories

- **PCL-10120-1E** 20-pin Flat Cable, 1 m
- **PCL-10120-2E** 20-pin Flat Cable, 2 m
- **ADAM-3920** 20-pin DIN-rail Flat Cable Wiring Board
- **PCLD-782** 16-ch Isolated DI Board w/ 1m 20-pin Flat Cable
- **PCLD-885** 16-ch Power Relay Board w/ 20p & 50p Flat Cables
- **PCLD-785** 16-ch Relay Board w/ One 1m 20-pin Flat Cable
- **ADAM-3937** DB37 DIN-rail Wiring Board
- **PCL-10137-1E** DB37 Cable, 1 m
- **PCL-10137-2E** DB37 Cable, 2 m
- **PCL-10137-3E** DB37 Cable, 3 m

PCI-1752U

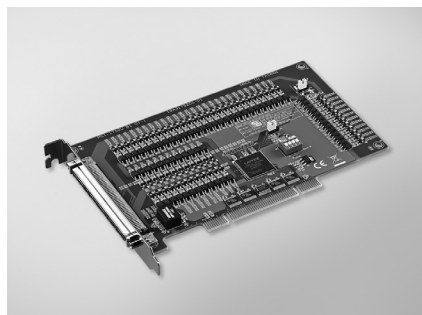
PCI-1754

PCI-1756

64-ch Isolated Digital Output Universal PCI Card

64-ch Isolated Digital Input PCI Card

64-ch Isolated Digital I/O PCI Card



PCI-1752U



Features

- 64 isolated digital output channels
- High-voltage isolation on output channels (2,500 V_{DC})
- Wide output range (5 ~ 40 V_{DC})
- High-sink current on isolated output channels (200 mA max./channel)
- Output status readback
- Keeps the output settings and values after system hot reset
- Channel-freeze function
- High-density 100-pin SCSI connector

Specifications

Isolated Digital Output

- Channels** 64 (16-ch/group)
- Output Type** Sink (NPN)
- Isolation Protection** 2,500 V_{DC}
- Output Voltage** 5 ~ 40 V_{DC}
- Sink Current** 200 mA max./channel
- Opto-isolator Response** 100 µs

General

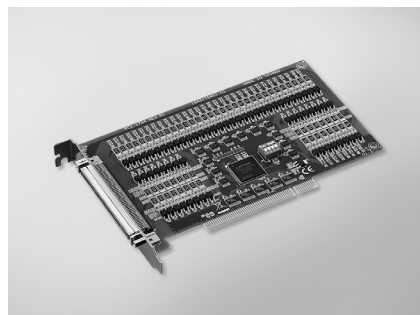
- Bus Type** Universal PCI V2.2
- I/O Connectors** 1 x 100-pin SCSI female connector
- Dimensions (L x H)** 175 x 100mm (6.9" x 3.9")
- Power Consumption** Typical: 5 V @ 230 mA
Max.: 5 V @ 500 mA
- Operating Temperature** 0 ~ 60°C (32 ~ 140°F)
- Storage Temperature** -20 ~ 70°C (-4 ~ 158°F)
- Storage Humidity** 5 ~ 95%, RH non-condensing

Ordering Information

- PCI-1752U** 64-ch Isolated Digital Output Universal PCI Card

Accessories

- PCL-10250-1E** 100-pin SCSI to Two 50-pin SCSI Cable, 1 m
- ADAM-3951** 50-pin DIN-rail Wiring Board w/ LED Indicators



PCI-1754



Features

- 64 isolated digital input channels
- Either ± voltage input for DI by group
- High-voltage isolation on input channels (2,500 V_{DC})
- High over-voltage protection (70 V_{DC})
- Wide input range (10 ~ 50 V_{DC})
- 2,000 V_{DC} ESD protection
- Interrupt handling capability
- High-density 100-pin SCSI connector

Specifications

Isolated Digital Input

- Channels** 64 (16-ch/group)
- Input Voltage** Logic 0: 3 V max.
Logic 1: 10 V min. (50 V max.)
- Input Current (Typical)** 10 V_{DC} @ 1.7 mA
12 V_{DC} @ 2.1 mA
24 V_{DC} @ 4.4 mA
48 V_{DC} @ 9.0 mA
50 V_{DC} @ 9.4 mA
- Interrupt Capable Ch.** 4 (ID10, ID116, ID132, ID148)
- Isolation Protection** 2,500 V_{DC}
- Overvoltage Protection** 70 V_{DC}
- ESD** 2,000 V_{DC}
- Opto-isolator Response** 100 µs

General

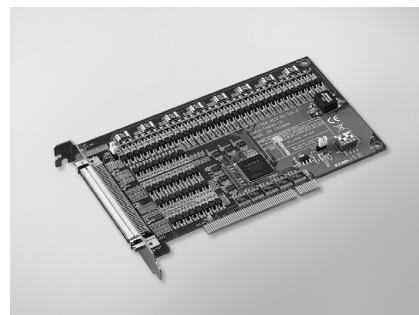
- Bus Type** PCI V2.2
- I/O Connectors** 1 x 100-pin SCSI female connector
- Dimensions (L x H)** 175 x 100mm (6.9" x 3.9")
- Power Consumption** Typical: 5 V @ 340 mA
Max.: 5 V @ 450 mA
- Operating Temperature** 0 ~ 60°C (32 ~ 140°F)
- Storage Temperature** -20 ~ 70°C (-4 ~ 158°F)
- Storage Humidity** 5 ~ 95% RH, non-condensing

Ordering Information

- PCI-1754** 64-ch Isolated Digital Input PCI Card

Accessories

- PCL-10250-1E** 100-pin SCSI to Two 50-pin SCSI Cable, 1 m
- ADAM-3951** 50-pin DIN-rail Wiring Board w/ LED Indicators



PCI-1756



Features

- Either ± voltage input for DI by group
- High-voltage isolation input/output channels (2,500 V_{DC})
- 2,000 V_{DC} ESD protection for DI
- High over-voltage protection (70 V_{DC}) for DI
- High-sink current on isolated output channels (200 mA max./channel)
- Output status readback
- Keeps output settings/ values after system hot reset
- Interrupt handling capability
- High-density 100-pin SCSI connector

Specifications

Isolated Digital Input

- Channels** 32 (16-ch/group)
- Input Voltage** Logic 0: 3 V max.
Logic 1: 10 V min. (50 V max.)
- Interrupt Capable Ch.** 2 (ID10, ID116)
- Isolation Protection** 2,500 V_{DC}
- Overvoltage Protection** 70 V_{DC}
- Opto-isolator Response** 100 µs
- Input Current** 10 V_{DC} @ 1.7 mA
12 V_{DC} @ 2.1 mA
24 V_{DC} @ 4.4 mA
48 V_{DC} @ 9.0 mA
50 V_{DC} @ 9.4 mA

Isolated Digital Output

- Channels** 32 (16-ch/group)
- Output Type** Sink (NPN)
- Isolation Protection** 2,500 V_{DC}
- Output Voltage** 5 ~ 40 V_{DC}
- Sink Current** 200 mA max./channel
- Opto-isolator Response** 100 µs

General

- Bus Type** PCI V2.2
- I/O Connectors** 1 x 100-pin SCSI female connector
- Dimensions (L x H)** 175 x 100mm (6.9" x 3.9")
- Power Consumption** Typical: 5 V @ 285 mA
Max.: 5 V @ 475 mA
- Operating Temperature** 0 ~ 60°C (32 ~ 140°F)
- Storage Temperature** -20 ~ 70°C (-4 ~ 158°F)
- Storage Humidity** 5 ~ 95%, non-condensing

Ordering Information

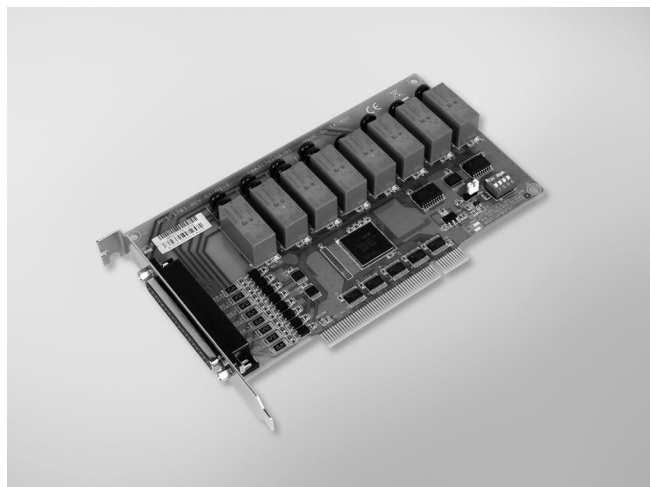
- PCI-1756** 64-ch Isolated Digital I/O PCI Card

Accessories

- PCL-10250-1E** 100-pin SCSI to Two 50-pin SCSI Cable, 1 m
- ADAM-3951** 50-pin DIN-rail Wiring Board w/ LED Indicators

PCI-1761

8-ch Relay and 8-ch Isolated Digital Input PCI Card



Features

- 8 opto-isolated digital input channels
- 8 relay actuator output channels
- LED indicators to show activated relays
- BoardID switch

Introduction

The PCI-1761 provides 8 opto-isolated digital inputs with isolation protection of 2,500 V_{DC} for collecting digital inputs in noisy environments, 8 relay actuators that can be used as a on/off control devices or small power switches.

For easy monitoring, each relay is equipped with one red LED to show its on/off status. Each isolated input supports both dry contact and wet contact so that it can easily interface with other devices when no voltage is present in the external circuit.

Specifications

Isolated Digital Input

- **Channels** 8
- **Input Voltage** Logic 0: 3.0 V max.
Logic 1: 10 V min. (50 V max.)
- **Interrupt Capable Ch.** 8 (IDIO ~ IDI7)
- **Isolation Protection** 2,500 V_{DC}
- **Opto-Isolator Response** 100 μ s
- **Input Resistance** 5.7 k Ohm @ 1 W

Relay Output

- **Channels** 8
- **Relay Type** 4 x Form C, and 4 x Form A
- **Contact Rating** 2 A @ 250 V_{AC}, 2 A @ 30 V_{DC}
- **Max. Switching Power** 500 VA, 60 W
- **Max. Switching Voltage** 400 V_{AC}, 300 V_{DC}
- **Operating Time** Typical: 7 ms, Max: 15 ms
- **Release Time** Typical: 2 ms, Max: 6 ms
- **Resistance** Contact: 100 m Ohm max.
- **Life Expectancy** 2 x 10⁵ cycles min. @ 2A/ 250V_{AC}

General

- **I/O Connectors** 1 x DB37 female connector
- **Dimensions (L x H)** 175 x 100 mm (6.9" x 3.9")
- **Power Consumption** Typical: 5 V @ 220 mA
Max.: 5 V @ 750 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

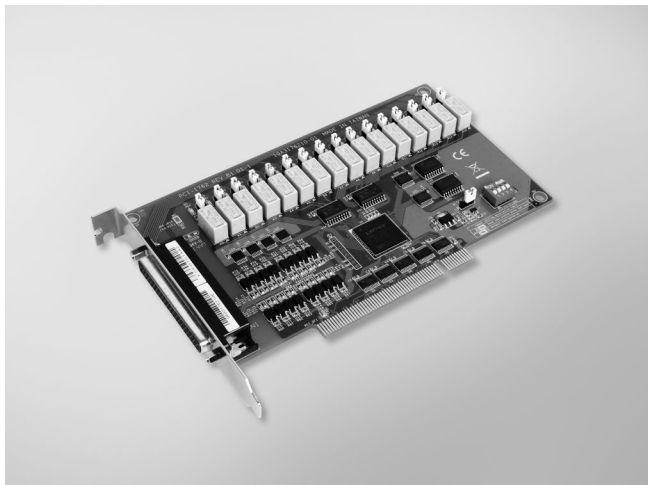
- **PCI-1761** 8-ch Relay and 8-ch Isolated Digital Input PCI Card

Accessories

- **PCL-10137-1E** DB37 Cable, 1 m
- **PCL-10137-2E** DB37 Cable, 2 m
- **PCL-10137-3E** DB37 Cable, 3 m
- **ADAM-3937** DB37 DIN-rail Wiring Board

PCI-1762

16-ch Relay and 16-ch Isolated Digital Input PCI Card



FCC CE

Features

- 16 opto-isolated digital input channels
- 16 relay actuator output channels
- LED indicators to show activated relays
- Jumper selectable dry contact/wet contact input signals
- BoardID switch

Introduction

The PCI-1762 provides 16 opto-isolated digital inputs with isolation protection of 2,500 V_{DC} for collecting digital inputs in noisy environments, 16 relay actuators that can be used as a on/off control devices or small power switches.

For easy monitoring, each relay is equipped with one red LED to show its on/off status. Each isolated input supports both dry contact and wet contact so that it can easily interface with other devices when no voltage is present in the external circuit.

Specifications

Isolated Digital Input

- **Channels** 16
- **Input Voltage** Logic 0: 3.0 V max.
Logic 1: 10 V min. (50 V max.)
- **Interrupt Capable Ch.** 2 (ID10, ID18)
- **Isolation Protection** 2,500 V_{DC}
- **Opto-Isolator Response** 100 μ s
- **Input Resistance** 5.7 k Ohm 1 W

Relay Output

- **Channels** 16
- **Relay Type** Form A or Form B (Jumper selectable)
- **Contact Rating** 0.5 A @ 250 V_{AC}, 0.5 A @ 30 V_{DC}
- **Max. Switching Power** 125 VA, 15 W
- **Max. Switching Voltage** 250 V_{AC}, 220 V_{DC}
- **Operate Time** Typical: 3 ms, Max.: 5 ms
- **Release Time** Typical: 2 ms, Max.: 4 ms
- **Resistance** Contact: 50 m Ohm max.
- **Life Expectancy** 2 x 10⁵ cycles min. @ 0.5A/ 250V_{AC}

General

- **I/O Connectors** 1 x DB62 female connector
- **Dimensions (L x H)** 175 x 100 mm (6.9" x 3.9")
- **Power Consumption** Typical: 5 V @ 250 mA
Max.: 5 V @ 620 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-1762** 16-ch Relay and 16-ch Isolated Digital Input PCI Card

Accessories

- **PCL-10162-1E** DB62 Cable, 1 m
- **PCL-10162-3E** DB62 Cable, 3 m
- **ADAM-3962** DB62 DIN-rail Wiring Board

PCIE-1730 PCIE-1730H

32-Ch TTL, 32-Ch Isolated Digital I/O PCIe Card

32-Ch TTL, 32-Ch Isolated Digital I/O PCIe Card with Digital Filter and Interrupt Function



Features

- 32-ch isolated DI/O (16-ch digital input, 16-ch digital output)
- 32-ch TTL DI/O (16-ch digital input, 16-ch digital output)
- High output driving capacity
- Interrupt handling capability
- Selectable digital filter time
- D-type connector for isolated input and output channels
- High-voltage isolation on output channels (2,500 V_{DC})

Introduction

PCIE-1730/1730H feature 32 TTL digital I/O channels and 32 digital I/O channels with up to 2,500 V_{DC} isolation protection, making them ideal for industrial applications that require high-voltage isolation. For PCIE-1730H, all signals can be used as interrupt request signals and to disable/enable the interrupt function for every channel, as well as to support the input signal edge, which generates interrupts. All PCIE-1730 digital input channels have a digital filter to prevent inaccurate recognition of input signals that contain noise or chattering.

Specifications

Digital Input

- **Channels** 16
- **Compatibility** 5 V/TTL
- **Input Voltage** Logic 0: 0.8 V max.
Logic 1: 2.0 V min.
- **Interruptible Channels** PCIE-1730: 2 (IDIO, IDI8)
PCIE-1730H: 16

Isolated Digital Input

- **Channels** 16
- **Input Voltage** Logic 0: 3 V max.
Logic 1: 10 V min. (30 V max.)
- **Interruptible Channels** PCIE-1730: 2 (IDIO, IDI8)
PCIE-1730H: 16
- **Isolation Protection** 2,500 V_{DC}
- **Response Time** 100µs
- **Input Resistance** 2.7 kΩ @ 1 V
- **Digital Filter Time (PCIE-1730H only)**

Setting Data (n)	Digital Filter Time	Setting Data (n)	Digital Filter Time
9 (09h)	64µsec	15 (0Fh)	4.096msec
10 (0Ah)	128µsec	16 (10h)	8.192msec
11 (0Bh)	256µsec	17 (11h)	16.384msec
12 (0Ch)	512µsec	18 (12h)	32.768msec
13 (0Dh)	1.024msec	19 (13h)	65.536msec
14 (0Eh)	2.048msec	20 (14h)	131.072msec

Digital Output

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

Isolated Digital Output

- **Channels** 16
- **Output Type** Sink type (NPN)
- **Isolation Protection** 2,500 V_{DC}
- **Output Voltage** 5 ~ 40 V_{DC}
- **Sink Current** 500 mA max./channel
- **Response Time** 100µs

General

- **Bus Type** PCI Express V1.0
- **I/O Connectors** 1 x DB37, female
4 x 20-pin box header
- **Dimensions (L x H)** 168 x 100 mm (6.6" x 3.9")
- **Power Consumption** Typical: 3.3 V @ 280 mA, 12 V @ 330 mA
Max.: 3.3 V @ 420 mA, 12 V @ 400 mA
- **Operating Temperature** 0 ~ 60 °C (32 ~ 140 °F)
- **Storage Temperature** -25 ~ 85 °C (-13 ~ 185 °F)
- **Storage Humidity** 5 ~ 95% RH, non-condensing

Ordering Information

- **PCIE-1730-BE** 32-ch TTL and 32-ch isolated digital I/O PCIe card
- **PCIE-1730H-BE** 32-ch TTL and 32-ch isolated digital I/O PCIe card with digital filter and interrupt function

Accessories

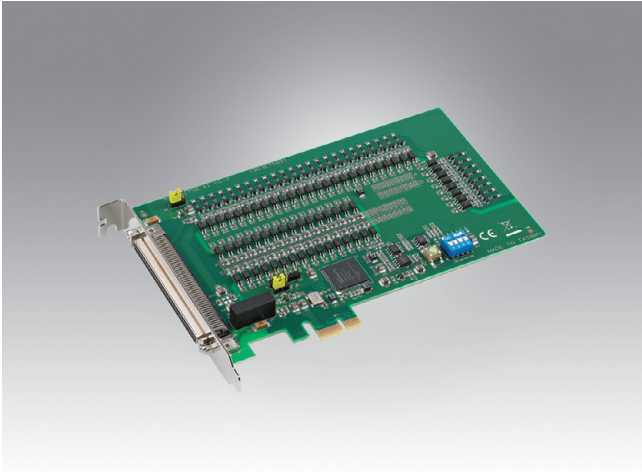
- **PCL-10120-1E** 20-pin flat cable, 1 m
- **PCL-10120-2E** 20-pin flat cable, 2 m
- **ADAM-3920-AE** 20-pin DIN rail flat cable wiring board
- **PCLD-782-BE** 16-ch isolated DI board w/1 m, 20-pin flat cable
- **PCLD-885-AE** 16-ch power relay board w/20-pin and 50-pin flat cables
- **PCLD-785-BE** 16-ch relay board w/1 m, 20-pin flat cable
- **ADAM-3937-BE** DB37 DIN rail wiring board
- **PCL-10137-1E** DB37 cable, 1 m
- **PCL-10137-2E** DB37 cable, 2 m
- **PCL-10137-3E** DB37 cable, 3 m

PCIE-1756

PCIE-1756H

64-Ch Isolated Digital I/O PCIe Card

64-Ch Isolated Digital I/O PCIe Card with Digital Filter and Interrupt Function



Features

- 32-ch isolated digital input
- 32-ch isolated digital output with wide output range (5 ~ 40 V_{DC})
- Interrupt handling capability
- Software-selectable digital filter time for all DI channels (PCIE-1756H only)
- Output status read back
- Retains the output settings and values after system hot reset

Introduction

PCIE-1756 and PCIE-1756H are isolated DI/O cards that offer 64 isolated digital input/output channels with up to 2,500 V_{DC} isolation protection. Featuring a wide input (10 ~ 30 V_{DC})/output (5 ~ 40 V_{DC}) range and high sink current (500mA max./channel), PCIE-1756 and PCIE-1756H are ideal for use in industrial automation control systems. For PCIE-1756, all signals can be used as interrupt request signals and to disable/enable the interrupt function for every channel, as well as to support the input signal edge, which generates interrupts. All PCIE-1756H digital input channels have a digital filter to prevent inaccurate recognition of input signals that contain noise or chattering.

Specifications

Isolated Digital Input

- **Channels** 32
- **Input Voltage** Logic 0: 3 V max.
Logic 1: 10 V min. (30 V_{DC} max.)
- **Input Current** 10 V_{DC} @ 2.97 mA
20 V_{DC} @ 6.35 mA
30 V_{DC} @ 9.73 mA
- **Interruptible Channels** PCIE-1756: 2 (ID10, ID116)
PCIE-1756H: 32
- **Isolation Protection** 2,500 V_{DC}
- **Overvoltage Protection** 70 V_{DC}
- **ESD Protection** 2,000 V_{DC}
- **Opto-Isolator Response** 50 µs
- **Digital Filter Time (PCIE-1756H only)**

Setting Data (n)	Digital Filter Time	Setting Data (n)	Digital Filter Time	Setting Data (n)	Digital Filter Time
				14 (0Eh)	2.048msec
				15 (0Fh)	4.096msec
		9 (09h)	64µsec	16 (10h)	8.192msec
		10 (0Ah)	128µsec	17 (11h)	16.384msec
		11 (0Bh)	256µsec	18 (12h)	32.768msec
		12 (0Ch)	512µsec	19 (13h)	65.536msec
		13 (0Dh)	1.024msec	20 (14h)	131.072msec

Isolated Digital Output

- **Channels** 32
- **Output Type** Sink (NPN)
- **Isolation Protection** 2,500 V_{DC}
- **Output Voltage** 5 ~ 40 V_{DC}
- **Sink Current** 500 mA max./channel
- **Opto-isolator Response** 50 µs

General

- **Bus Type** PCI Express V1.0
- **I/O Connectors** 1 x 100-pin SCSI, female
- **Dimensions (L x H)** 168 x 100 mm (6.6" x 3.9")
- **Power Consumption** Typical: 3.3 V @ 385 mA
Max.: 3.3 V @ 430 mA; 12V @ 55 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

- **PCIE-1756-BE** 64-ch isolated digital I/O PCIe card
- **PCIE-1756H-BE** 64-ch isolated digital I/O PCIe card with digital filter and interrupt function

Accessories

- **PCL-10250-1E** 100-pin SCSI to 2 x 50-pin SCSI cable, 1 m
- **PCL-10250-2E** 100-pin SCSI to 2 x 50-pin SCSI cable, 2 m
- **ADAM-3951-BE** 50-pin DIN rail wiring board w/ LED indicators
- **PCL-10250R-1E** SCSI100 Pin Type to SCSI 50 Pin Ribbon, 1m
- **PCL-10250R-2E** SCSI100 Pin Type to SCSI 50 Pin Ribbon, 2m
- **ADAM-3951R-AE** Screw-Terminal Board w/ Ribbon connector