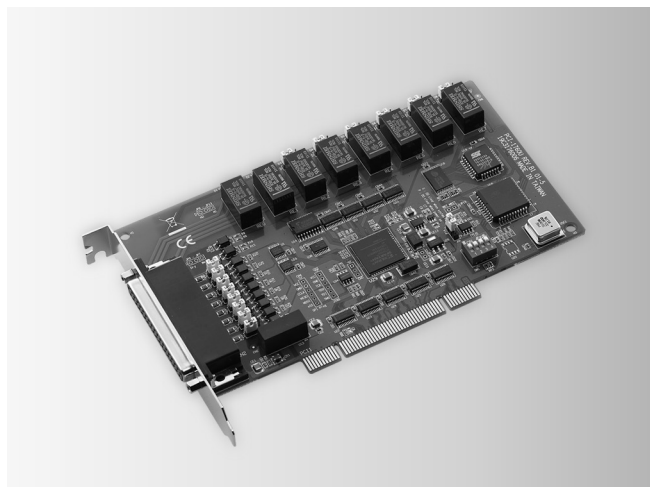


# PCI-1760U

## 8-ch Relay and 8-ch Isolated Digital Input Universal PCI Card with 8-ch Counter/Timer



### Features

- Universal PCI card, for 3.3 V and 5 V PCI slot
- 8 opto-isolated digital input channels
- 8 relay actuator output channels
- 2 opto-isolated PWM outputs
- LED indicators to show activated relays
- Jumper selectable dry contact/wet contact input signals
- Up event counters for DI
- Programmable digital filter function for DI
- Pattern match interrupt function for DI
- "Change of state" interrupt function for DI
- Universal PCI and BoardID switch

### Introduction

PCI-1760U relay actuator and isolated digital input card is a PC add-on card for the PCI bus. It meets the PCI standard Rev. 2.2 (Universal PCI expansion card), and works with both 3.3 V and 5 V PCI slots. It provides 8 opto-isolated digital inputs with isolation protection of 2,500 V<sub>DC</sub> for collecting digital inputs in noisy environments, 8 relay actuators that can be used as a on/off control devices or small power switches, and 2 isolated PWM (Pulse Width Modulation) outputs for custom applications.

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 (Sink)
- **Input Voltage** Logic 0: 1.0 V max.  
Logic 1: 4.5 V min. (12 V max.)
- **Interrupt Capable Ch.** 8 (IDI0 ~ IDI7)
- **Isolation Protection** 2,500 V<sub>DC</sub>
- **Opto-Isolator Response** 25  $\mu$ s
- **Input Resistance** 2 k $\Omega$  1/4 W

#### Counter/Timer

- **Channels** 8
- **Resolution** 16 bits
- **Compatibility** 5 V/TTL
- **Max. Input Frequency** 500 Hz
- **Isolation Protection** 2,500 V<sub>DC</sub>
- **PWM Channels** 2
- **Digital Noise Filter** Min. effective high input period  $\geq [(2 \sim 65535) \times 5 \text{ ms}] + 5 \text{ ms}$   
Min. effective low input period  $\geq [(2 \sim 65535) \times 5 \text{ ms}] + 5 \text{ ms}$

#### Relay Output

- **Channels** 8
- **Relay Type** 2 x Form C, and 6 x Form A
- **Contact Rating** 1 A @ 125 V<sub>AC</sub>, 2 A @ 30 V<sub>DC</sub>
- **Max. Switching Power** 125 VA, 60 W
- **Max. Switching Voltage** 250 V<sub>AC</sub>, 220 V<sub>DC</sub>
- **Max. Switching Current** 2 A
- **Operate/Release Time** max. 5 / 3.5 ms

- **Resistance** Contact: 50 m $\Omega$  max.  
Insulation: 100 M $\Omega$  min. @ 500 V<sub>DC</sub>
- **Life Expectancy (Electrical)** 3 x 10<sup>5</sup> cycles min.: 2 A @ 30 V<sub>DC</sub>, 1 A @ 125 V<sub>AC</sub>  
10<sup>6</sup> cycles min.: 1 A @ 30 V<sub>DC</sub>, 0.5 A @ 125 V<sub>AC</sub>

#### General

- **Bus Type** Universal PCI V2.2
- **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 @ 450 mA  
Max.: 5 V @ 850 mA
- **Operating Temperature** 0 ~ 60° C (32 ~ 140° F) (IEC 68 - 2 - 1, 2)
- **Storage Temperature** -20 ~ 70° C (-4 ~ 158° F)
- **Storage Humidity** 5 ~ 95 % RH, non-condensing (IEC 68-2-3)

### Ordering Information

- **PCI-1760U** 8-ch Relay/IDI PCI Card w/ 10-ch Counter/Timer

#### Accessories

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