

# PCIE-1760

## 8-Ch Relay and 8-Ch Isolated Digital Input PCI Express Card



### Features

- 8 opto-isolated digital input channels with counter/timer function
- 8 relay actuator output channels
- 2 opto-isolated PWM outputs
- LED indicators to show activated relays
- Jumper-selectable dry/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
- Board ID switch

### Introduction

The PCIE-1760 relay actuator and isolated digital input card is a PC add-on card for the PCI Express bus that satisfies the PCI Express (Revision 1.0) standard. PCIE-1760 features 8 opto-isolated digital inputs with up to 2,500 V<sub>DC</sub> isolation protection for collecting digital inputs in noisy environments, 8 relay actuators that can be used as 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 a single red LED that indicates the on/off status. Each isolated input supports both dry and wet contact to enable easy interfacing with other devices when no voltage is present in the external circuit.

### Specifications

#### Isolated Digital Input

- **Channels** 8
- **Input Voltage** Logic 0: 1.0 V max.  
Logic 1: 4.5 V min. (12 V max.)
- **Interruptible Channels** 8
- **Isolation Protection** 2,500 V<sub>DC</sub>
- **Opto-isolator Response** 25 µs
- **Input Resistance** 2 kΩ 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 ≥ [(2 ~ 65535) x 5 ms] + 5 ms  
Min. effective low input period ≥ [(2 ~ 65535) x 5 ms] + 5 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** 5 / 3.5 ms max
- **Resistance** Contact: 50 mΩ max.  
Insulation: 100 MΩ min. @ 500 V<sub>DC</sub>
- **Life Expectancy (Electrical)** 3 x 10<sup>6</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** PCI Express V1.0
- **I/O Connectors** 1 x DB37, female
- **Dimensions (L x H)** 168 x 100 mm (6.6" x 3.9")
- **Power Consumption** Typical: 5 V @ 450 mA  
Max.: 5 V @ 850 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-1760-AE** 8-ch relay/IDI PCIe card w/10-ch counter/timer

#### Accessories

- **PCL-10137-1E** DB37 cable, 1 m
- **PCL-10137-2E** DB37 cable, 2 m
- **PCL-10137-3E** DB37 cable, 3 m
- **ADAM-3937-AE** DB37 DIN rail wiring board