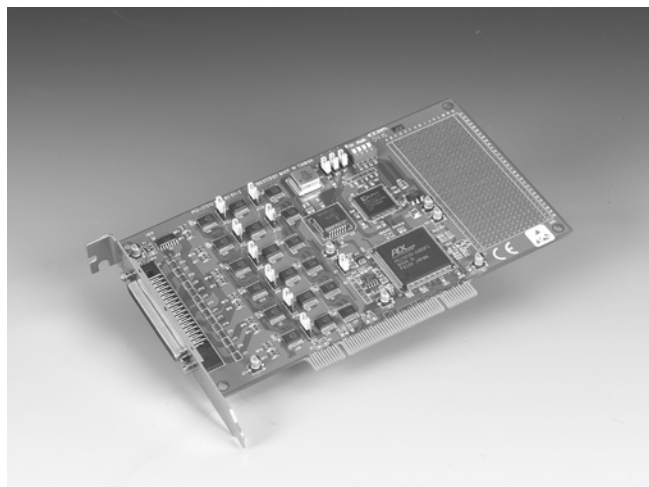


# PCI-1751U

## 48-bit Universal Digital I/O and Counter Card



CE

### Features

- 48 TTL digital I/O lines
- Emulates mode 0 of 8255 PPI
- Buffered circuits for higher driving capacity than 8255
- Interrupt handling
- Timer/Counter interrupt capability
- Supports both dry and wet contact
- Keeps the I/O port setting and DO state after system reset
- Universal PCI & BoardID switch

### Introduction

PCI-1751U is a 48-bit digital I/O card for the PCI bus. Its 48 bits are divided into six 8-bit I/O ports and users can configure each port as input or output via software. PCI-1751U also provides one event counter and two 16-bit timers, which can be cascaded to become a 32-bit timer. PCI-1751U adds a universal PCI interface for 3.3 V compatibility.

#### Fulfilling the True Requirements of Industrial Applications

With two practical functions, the PCI-1751U fulfills the true requirements of industrial applications. When the system is hot reset, (power is not shut off), the PCI-1751U can either retain the last I/O port setting and output value, or reset to its default configuration, depending on jumper settings. This function protects the system from wrong operations during unexpected system resets. Additionally, the PCI-1751U supports both dry and wet contacts so that it can easily interface with other devices.

#### Interrupt Handling Capability

Two lines in each I/O port (CO) and two of the three counter outputs (Timer 1 and Counter 2) are connected to the interrupt circuitry. Two interrupt request signals can be generated at the same time and the software can service the two request signals by ISR. Moreover, a pin in the connector can output a digital signal simultaneously with the card generating an interrupt, and users can utilize this function to trigger external devices with the interrupt.

### Specifications

#### Digital Input

- **Channels** 48 (shared with output)
- **Compatibility** 5 V/TTL
- **Input Voltage** Logic 0: 0.8 V max.  
Logic 1: 2 V min.
- **Interrupt Capable Ch.** 2

#### Digital Output

- **Channels** 48 (shared with input)
- **Compatibility** 5 V/TTL
- **Output Voltage** Logic 0: 0.4 V max.  
Logic 1: 2.4 V min.
- **Output Capability** Sink: 0.4 V @ 24 mA  
Source: 2.4 V @ 15 mA

#### Counter/Timer

- **Channels** 3
- **Resolution** 2 x 16-bit counters, or 1 x 32-bit counter (Jumper selectable)  
1 x 16-bit event counter
- **Compatibility** 5 V/TTL
- **Max. Input Frequency** 10 MHz
- **Reference Clock** Internal: 10 MHz  
External Clock Frequency: 10 MHz  
External Voltage Range: 5 V/TTL

#### General

- **Bus Type** PCI-1751U: Universal PCI V2.2
- **I/O Connectors** 68-pin SCSI-II female connector (Centronics type)
- **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 ~ 70° C (32 ~ 158° F)
- **Storing Temperature** -20 ~ 80° C (-4 ~ 176° F)
- **Storing Humidity** 5 ~ 95% RH, non-condensing (refer to IEC 68-2-3)

### Applications

- Industrial AC/DC I/O monitoring and controlling
- Relay and switch monitoring and controlling
- TTL, DTL and CMOS logic signal sensing
- Indicator LED driving

### Ordering Information

- **PCI-1751U** 48-bit universal digital I/O card and Counter Card, user's manual and driver CD-ROM. (cable not included)
- **PCL-10168** 68-pin SCSI cable, 1 and 2m
- **ADAM-3968** 68-pin SCSI cable wiring terminal for DIN-rail mounting
- **ADAM-3968/20** 68-pin SCSI-II to three 20-pin Wiring Terminal Module for DIN-Rail Mounting
- **ADAM-3968/50** 68-pin SCSI to 2 x 50-pin box headers converter module
- **PCLD-8751** 48-ch Isolated DI Board
- **PCLD-8761** 24-ch Replay and 24-IDI Board