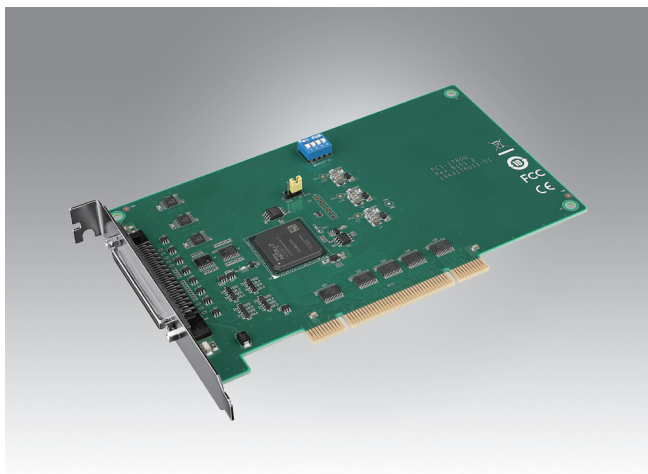


# PCI-1780U

## 8-ch, 32-bit Counter/Timer Universal PCI Card



### Features

- 8 independent 32-bit counters
- 8 programmable clock source
- 8 digital TTL outputs and 8 digital TTL inputs
- Up to 10 MHz input frequency
- Multiple counter clock source selectable
- Counter output programmable
- Counter gate function
- Flexible interrupt source select
- BoardID™ switch

### Introduction

PCI-1780U is a general purpose multi-channel counter/timer PCI card. It targets the AM9513 to implement the counter/timer function by FPGA. It provides eight 32-bit counter channels, 8 digital outputs and 8 digital inputs. Its powerful counter functions cater to a broad range of industrial and laboratory applications.

The card features 6 programmable counter modes, to provide one shot output, PWM output, periodic interrupt output, time-delay output, and to measure the frequency and the pulse width. The PCL-10168 shielded cable works well with PCI-1780U to reduce noise. Its wires are all twisted pairs, and the input signals and output signals are separately shielded, providing minimal cross talk between signals and the best protection against EMI/EMC problems.

### Specifications

#### Digital Input

- **Channels** 8
- **Compatibility** 5 V/TTL
- **Input Voltage** Logic 0: 0.8 V max.  
Logic 1: 2.0 V min.
- **Interrupt Capable Ch.** All channels

#### Digital Output

- **Channels** 8
- **Compatibility** 5 V/TTL
- **Output Voltage** Logic 0: 0.4 V  
Logic 1: 4.0 V
- **Output Capability** Sink: 2 mA @ 0.4 V  
Source: 2 mA @ 4.0 V

#### Counter/Timer

- **Channels** 8 (independent)
- **Resolution** 32 bits
- **Compatibility** 5 V/TTL
- **Max. Input Frequency** 10 MHz
- **Reference Clock** Internal: 10 MHz
- **Counter Modes** Event counting,  
Frequency measurement,  
Pulse width measurement,  
One shot,  
Timer/pulse,  
Pulse width modulation
- **Interrupt Capable Ch.** 8
- **PWM Channels** 8

#### General

- **Bus Type** Universal PCI V2.2
- **I/O Connectors** 1 x 68-pin SCSI female connector
- **Dimensions (L x H)** 175 x 100 mm (6.9" x 3.9")
- **Power Consumption** Typical: 5V @ 200mA  
Max.: 5V @ 400mA
- **Operating Temperature** 0 ~ 60°C (32 ~ 140°F)
- **Storage Temperature** -20 ~ 70°C (-4 ~ 158°F)
- **Storage Humidity** Up to 95% RH, non-condensing

### Ordering Information

- **PCI-1780U-B** 8-ch, 32-bit Counter/Timer Universal PCI Card

#### Accessories

- **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