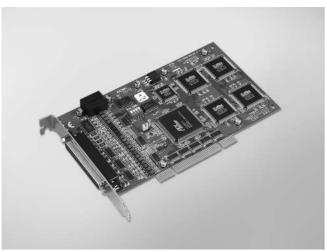
PCI-1784U

4-ch, 32-bit Encoder Counter Universal PCI Card with 8-ch Isolated Digital I/O



Features

- Four 32-bit encoder counters
- Single-ended or differential inputs
- Quadrature (x1, x2, x4), pulse/direction, and up/down counting modes
- Optically isolated up to 2,500 VDC
- 4-stage digital filter with selectable sampling rate
- On-board 8-bit timer with wide range time-base selector
- Multiple interrupt sources for precision applications
- 4 isolated digital inputs and 4 isolated digital outputs
- BoardIDTM switch





Introduction

PCI-1784U is a 4-ch encoder counter universal PCI card. It includes four 32-bit encoder counters, 8-bit timer with multiple range time-base selector, 4 isolated digital inputs, and 4 isolated digital outputs. Its flexible interrupt sources are suitable for motor control and position monitoring.

Specifications

Encoder Counter

Channels Resolution 32 bits

Counting Modes Quadrature, pulse/direction, or up/down 8 MHz for pulse/direction and up/down modes Max. Input Frequency

2 MHz for quadrature mode without digital filter

1 MHz for quadrature mode with digital filter

 Digital Filter 4 stages Isolation 2,500 V_{DC} Sample Clock Frequency 8, 4, 2, or 1 MHz

 Interrupt Sources Overflow, underflow, index status, counter over

compare, counter under compare

Input Voltage Single-ended: Logic 0: 0.8 V max.

Logic 1: 2.8 V min. (12 V max.)

Differential:

Logic 0: -0.2 V max. (-12 V min.) Logic 1: 0.2 V min. (12 V max.)

Isolated Digital input

Channels

 Input Voltage Logic 0: 3 V max

Logic 1: 10 V min. (30 V max.)

 Interrupt Capable All 4 channels Isolation 2,500 V_{DC} Opto-Isolator Response 100 µs Overvoltage Protection 70 V_{DC}

Isolated Digital Output

Channels

Logic 0: 0.8 V max. Output Voltage

Logic 1: 2.0 V min.

 Output Capability 50 mA @ 0.8 V

-50 mA @ 2.0 V

Isolation 2,500 V_{DC}

- Opto-Isolator Response 2 μs

General

Bus Type Universal PCI V2.2 Connector 37-pin D-sub female 175 x 100 mm² (6.9" x 3.9") Dimension (L x H) Power Consumption Typical: +5 V @ 200 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 (refer to IEC 68-2-3)

Certification

Ordering Information

 PCI-1784U 4-ch encoder counter universal PCI card

PCL-10137H-3E High-speed DB37 cable, 3 m ADAM-3937 DB37 DIN-rail wiring board