PCIE-1730
PCIE-1730H

32-Ch TTL, 32-Ch Isolated Digital I/O PCIe Card

32-Ch TTL, 32-Ch Isolated Digital I/O PCIe Card with Digital Filter and Interrupt Function

Features

- 32-ch isolated DI/O (16-ch digital input, 16-ch digital output)
- 32-ch TTL DI/O (16-ch digital input, 16-ch digital output)
- High output driving capacity
- Interrupt handling capability
- Selectable digital filter time
- D-type connector for isolated input and output channels
- High-voltage isolation on output channels (2,500 V_{DC})

Introduction

PCIe-1730/1730H feature 32 TTL digital I/O channels and 32 digital I/O channels with up to 2,500 V_{DC} isolation protection, making them ideal for industrial applications that require high-voltage isolation. For PCIE-1730H, all signals can be used as interrupt request signals and to disable/enable the interrupt function for every channel, as well as to support the input signal edge, which generates interrupts. All PCIE-1730 digital input channels have a digital filter to prevent inaccurate recognition of input signals that contain noise or chattering.

Specifications

Digital Input

- **Channels** 16
- **Compatibility** 5 V/TTL
- **Input Voltage** Logic 0: 0.8 V max.
  Logic 1: 2.0 V min.
- **Interruptible Channels** PCIE-1730: 2 (IDI0, IDI8)
  PCIE-1730H: 16

Isolated Digital Input

- **Channels** 16
- **Input Voltage** Logic 0: 3 V max.
  Logic 1: 10 V min. (30 V max.)
- **Interruptible Channels** PCIE-1730: 2 (IDI0, IDI8)
  PCIE-1730H: 16
- **Isolation Protection** 2,500 V_{DC}
- **Response Time** 100µs
- **Input Resistance** 2.7 kΩ @ 1 W
- **Digital Filter Time (PCIE-1730H only)**

Setting Data (n)	Digital Filter Time	Setting Data (n)	Digital Filter Time
9 (09h)	64µsec	15 (0Fh)	4.096msec
10 (0Ah)	128µsec	16 (10h)	8.192msec
11 (0Bh)	256µsec	17 (11h)	16.384msec
12 (0Ch)	512µsec	18 (12h)	32.768msec
13 (0Dh)	1.024msec	19 (13h)	65.536msec
14 (0Eh)	2.048msec	20 (14h)	131.072msec

Digital Output

- **Channels** 16
- **Compatibility** 5 V/TTL
- **Output Voltage** Logic 0: 0.5V max.
  Logic 1: 2.4V min.
- **Output Capability** Sink: 24mA @ 0.5V
  Source: 15mA @ 2.4V

Isolated Digital Output

- **Channels** 16
- **Output Type** Sink type (NPN)
- **Isolation Protection** 2,500 V_{DC}
- **Output Voltage** 5 ~ 40 V_{DC}
- **Sink Current** 500 mA max./channel
- **Response Time** 100µs

General

- **Bus Type** PCI Express V1.0
- **I/O Connectors** 1 x DB37, female
  4 x 20-pin box header
- **Dimensions (L x H)** 168 x 100 mm (6.6" x 3.9")
- **Power Consumption** Typical:3.3 V @ 280 mA, 12 V @ 330 mA
  Max.: 3.3 V @ 420 mA, 12 V @ 400 mA
- **Operating Temperature** 0 ~ 60 °C (32 ~ 140 °F)
- **Storage Temperature** -25 ~ 85 °C (-13 ~ 185 °F)
- **Storage Humidity** 5 ~ 95% RH, non-condensing

Ordering Information

- **PCIE-1730-BE** 32-ch TTL and 32-ch isolated digital I/O PCIe card
- **PCIE-1730H-BE** 32-ch TTL and 32-ch isolated digital I/O PCIe card with digital filter and interrupt function

Accessories

- **PCL-10120-1E** 20-pin flat cable, 1 m
- **PCL-10120-2E** 20-pin flat cable, 2 m
- **ADAM-3920-AE** 20-pin DIN rail flat cable wiring board
- **PCLD-782-BE** 16-ch isolated DI board w/1 m, 20-pin flat cable
- **PCLD-885-AE** 16-ch power relay board w/20-pin and 50-pin flat cables
- **PCLD-785-BE** 16-ch relay board w/1 m, 20-pin flat cable
- **ADAM-3937-BE** DB37 DIN rail wiring board
- **PCL-10137-1E** DB37 cable, 1 m
- **PCL-10137-2E** DB37 cable, 2 m
- **PCL-10137-3E** DB37 cable, 3 m