

# PCIE-1756

# PCIE-1756H

## 64-ch Isolated Digital I/O PCIe Card

## 64-ch Isolated Digital I/O PCIe card with digital filter and interrupt function



### Features

- 32-ch isolated digital input
- 32-ch isolated digital output w/ wide output range (5~40V<sub>DC</sub>)
- Interrupt handling capability
- Software-selectable Digital filter time for all DI channels (PCIE-1756H only)
- Output status read-back
- Keeps the output settings and values after system hot reset

### Introduction

The Advantech PCIE-1756/ 1756H offers 64 isolated digital input and output channels with 2,500 V<sub>DC</sub> isolation protection. They feature a wide input range (10 ~ 30 V<sub>DC</sub>), wide output range (5 ~ 40 V<sub>DC</sub>) and high sink current (500mA max./channel) can easily use in industrial automation control systems. All of the input signals of PCIE-1756H can be used as interrupt request signals and also disable or enable the interrupt in each channel and support the edge of the input signals, at which to generate an interrupt. all of PCIE-1756H DI channel has a digital filter to prevent wrong recognition of input signals from carrying noise or a chattering.

### Specifications

#### Isolated Digital Input

- **Channels** 32
- **Input Voltage** Logic 0: 3 V max.  
Logic 1: 10 V min. (30 V<sub>DC</sub> max.)
- **Input Current** 10 V<sub>DC</sub> @ 2.97 mA  
20 V<sub>DC</sub> @ 6.35 mA  
30 V<sub>DC</sub> @ 9.73 mA
- **Interrupt Capable Ch.** PCIE-1756: 2 (ID10, ID116)  
PCIE-1756H: 32
- **Isolation Protection** 2,500 V<sub>DC</sub>
- **Overvoltage Protection** 70 V<sub>DC</sub>
- **ESD Protection** 2,000 V<sub>DC</sub>
- **Opto-Isolator Response** 50 μs
- **Digital Filter Time (PCIE-1756H only)**

Setting Data (n)	Digital Filter Time	Setting Data (n)	Digital Filter Time	Setting Data (n)	Digital Filter Time
0 (00h)	The filter function is not used.	7 (07h)	16μsec	14 (0Eh)	2.048msec
1 (01h)	0.25μsec	8 (08h)	32μsec	15 (0Fh)	4.096msec
2 (02h)	0.5μsec	9 (09h)	64μsec	16 (10h)	8.192msec
3 (03h)	1μsec	10 (0Ah)	128μsec	17 (11h)	16.384msec
4 (04h)	2μsec	11 (0Bh)	256μsec	18 (12h)	32.768msec
5 (05h)	4μsec	12 (0Ch)	512μsec	19 (13h)	65.536msec
6 (06h)	8μsec	13 (0Dh)	1.024msec	20 (14h)	131.072msec

#### Isolated Digital Output

- **Channels** 32
- **Output Type** Sink (NPN)
- **Isolation Protection** 2,500 V<sub>DC</sub>
- **Output Voltage** 5 ~ 40 V<sub>DC</sub>
- **Sink Current** 500 mA max./channel
- **Opto-isolator Response** 50 μs

#### General

- **Bus Type** PCI Express V1.0
- **I/O Connectors** 1 x 100-pin SCSI female connector
- **Dimensions (L x H)** 168 x 100 mm (6.6" x 3.9")
- **Power Consumption** Typical: 3.3 V @ 385 mA  
Max.: 3.3 V @ 430 mA; 12V @ 55 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-1756-AE** 64-ch Isolated Digital I/O PCIe Card
- **PCIE-1756H-AE** 64-ch Isolated Digital I/O PCIe card with digital filter and interrupt function

#### Accessories

- **PCL-10250-1E** 100-pin SCSI to Two 50-pin SCSI Cable, 1 m
- **PCL-10250-2E** 100-pin SCSI to Two 50-pin SCSI Cable, 2 m
- **ADAM-3951-BE** 50-pin DIN-rail Wiring Board w/ LED Indicators
- **PCL-101100M-3E** 100-pin SCSI to 100-pin SCSI Cable, 3 m
- **ADAM-39100-BE** 100-pin DIN-rail Wiring Board