

AIIS-1750

32-ch Isolated Digital I/O Card



Features

- 32-ch isolated DI/O (16-ch digital input w/ Digital filter, 16-ch digital output)
- High output driving capacity
- Interrupt handling capability
- Connector for isolated input and output channels
- High-voltage isolation on output channels (2,500 V_{DC})

Introduction

The AIIS-1750 offers isolated digital input channels as well as isolated digital output channels with isolation protection up to 2,500 V_{DC}, which makes them ideal for industrial applications where high-voltage isolation is required. All of the input signals 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 AIIS-1750 DI channel has a digital filter to prevent wrong recognition of input signals from carrying noise or a chattering.

Specifications

General

- **Bus Type** PCI Express V1.0
- **I/O Connectors** 1 x DB37 female connector
- **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 ~ 50°C (32 ~ 122°F)
- **Storage Temperature** -25 ~ 85°C (-13 ~ 185°F)
- **Storage Humidity** 5 ~ 95% RH, non-condensing

Isolated Digital Input

- **Channels** 16
- **Input Voltage** Logic 0: 2 V max.
Logic 1: 5 V min. (50 V max.)
- **Interrupt Capable Ch.** 16
- **Isolation Protection** 2,500 V_{DC}
- **Opto-Isolator Response** 100 µs

Digital Filter Time

- **Digital Filter Time[sec.]** = $2^n / (8 \times 10^6)$ n: = setting data(0 - 20)

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)	16 µsec	14 (0Eh)	2.048 msec
1 (01h)	0.25 µsec	8 (08h)	32 µsec	15 (0Fh)	4.096 msec
2 (02h)	0.5 µsec	9 (09h)	64 µsec	16 (10h)	8.192 msec
3 (03h)	1 µsec	10 (0Ah)	128 µsec	17 (11h)	16.384 msec
4 (04h)	2 µsec	11 (0Bh)	256 µsec	18 (12h)	32.768 msec
5 (05h)	4 µsec	12 (0Ch)	512 µsec	19 (13h)	65.536 msec
6 (06h)	8 µsec	13 (0Dh)	1.024 msec	20 (14h)	131.072 msec

Isolated Digital Output

- **Channels** 16
- **Output Type** Sink type (NPN)
- **Isolation Protection** 2,500 V_{DC}
- **Opto-Isolator Response** 50 µs
- **Output Voltage** 5 ~ 40 V_{DC}
- **Sink Current** 500 mA max./channel

Ordering Information

- **AIIS-1750-AE** 32-ch Isolated Digital I/O Card

Accessories

- **ADAM-3937** 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