

PCI-7442

64-CH Isolated DI and 64-CH Isolated DO Card

Features

- Supports universal 32-bit 3.3 V and 5 V PCI bus, Plug-and-Play
- High-density 64-CH opto-isolated digital outputs
- High-density 64-CH opto-isolated digital inputs
- Programmable Change-of-State (COS) detection for all digital input channels
- Up to 28 V voltage protection for isolated input
- Dry contact input available
- High-output driving capability
- 300 mA sink current on isolated output channels
- Digital output status read back function
- Digital output value retained after hot system reset
- Programmable power-up DO initial status
- Programmable safety DO status functions when WDT interruption occurs
- Watch Dog Timer counter prevents system from crashing
- 32-CH programmable TTL I/O function
- Board ID feature

Operating Systems

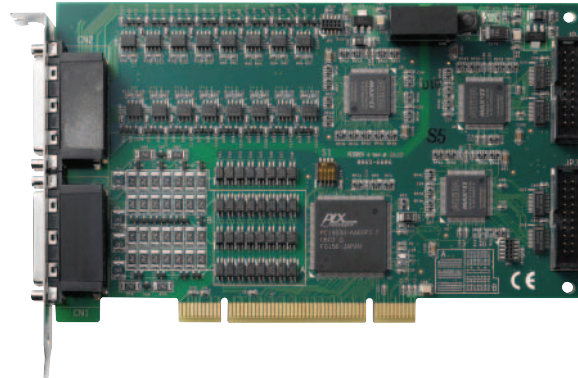
- Windows® 98/NT/2000/XP/2003
- Linux
- DOS

Recommended Software

- VB/VC++/BCB/Delphi
- DAQBench

Driver Support

- DAQ-LVIEW PnP for LabVIEW®
- DAQ-MTLB for MATLAB®
- DAQBOY for Windows®
- PCIS-DASK for Windows®
- PCIS-DASK/X for Linux



Introduction

The ADLINK PCI-7442 is an isolated 64-CH, high-density digital input/output card for PCI-based industrial applications.

The PCI-7442 comes with 64 opto-isolated digital inputs and 64 opto-isolated digital outputs, and provides a 1250 V_{RMS} (excluding cables) isolation protection from channel-to-system to prevent damage caused by accidental contact with external voltage and to eliminate the need for complicated ground connections. The entire opto-isolated inputs are identical non-polarity with each digital input line isolated and suited to collect digital inputs even in high-noise environment. Featuring a Change-of-State (COS) interrupt function, the PCI-7442 generates an interrupt request to the PCI controller when it detects a sharp change in the logical state of any of its digital inputs.

Promoting easy identification in systems with multiple PCI-7442 cards installed, the board ID design enables the user to conveniently identify the cards and to perform immediate troubleshooting, if necessary.

Specifications

Isolated Digital Input

- Number of channels: 64
- Maximum input range: 28 V, non-polarity
- Digital logic levels: 0 V ~ 28 V, non-polarity
 - Input high voltage: 5 V ~ 28 V
 - Input low voltage: 0 V ~ 1.5 V
- Input resistance: 2.4 k Ω @ 0.5 W
- ESD protection CKT switch (Forward)
- Isolation voltage: 1250 V_{RMS} channel-to-system
- Interrupt sources: 64-channel Change-of-state (COS)
- Data transfer: programmed I/O

Isolated Digital Output

- Number of channels: 64
- Output type: open drain Power MOSFET driver
- Output range: 5 V ~ 40 V
- Sink current: 250 mA for all channel @ 60°C 100% duty (300 mA max.)
- Isolation voltage: 1250 V_{RMS} channel-to-system
- Data transfer: programmed I/O

Isolation +5V Power Supply

- Output Voltage: +5 V
- Output Current: 200 mA max. (@ 40°C)

Safety Functions

- Programmable power-up DO status
- Watchdog timer
 - Base clock available: 10 MHz, fixed
 - Counter width: 32-bit

General Specifications

- I/O connector: 68-pin SCSI II female
- Operating temperature: 0°C to 60°C
- Storage temperature: -20°C to 80°C
- Relative humidity: 5 to 95%, non-condensing
- Power requirement: 800 mA
- Dimension: 175 mm x 107 mm

Termination boards

- DIN-68S

