

PCI-7432/7433/7434, cPCI-7432/7433/7434

64-CH Isolated Digital I/O Cards



cPCI-7432



cPCI-7433



cPCI-7434

Features

- Supports a 32-bit 5 V PCI bus (PCI-7432/7433/7434)
- 3U Eurocard form factor, CompactPCI compliant (PICMG 2.0 R2.1) (cPCI-7432/7433/7434)
- 32-CH isolated digital inputs & 32-CH isolated digital outputs (PCI-7432/7432HIR, cPCI-7432)
- 64-CH isolated digital inputs (PCI-7433/7433HIR, cPCI-7433)
- 64-CH isolated digital outputs (PCI-7434, cPCI-7434/7434P)
- Isolation Voltage:
 - 2500 V_{RMS}: PCI-7432/7433/7434
 - 5000 V_{RMS}: cPCI-7432/7433/7434/7434P
- Sink current up to 500 mA on single isolated output
- Isolated input voltage up to 24 V (PCI-7432/7433, cPCI-7432/7433)
- Isolated input voltage up to 50 V (PCI-7432HIR/7433HIR)
- Two external interrupt sources (PCI-7432/7432HIR/7433/7433HIR, cPCI-7432/7432RP/7433)
- Operating Systems
 - Windows 7/Vista/XP/2000/2003 Server
 - Linux
- Recommended Software
 - AD-Logger
 - VB.NET/VC.NET/VB/VC++/BCB/Delphi
 - DAQBench
- Driver Support
 - DAQPilot for LabVIEW™
 - DAQ-MTLB for MATLAB®
 - PCIS-DASK for Windows
 - PCIS-DASK/X for Linux

Introduction

ADLINK's cPCI/PCI-743X series cards are 64-CH high-density digital input and/or output cards that provide a robust 2,500 V isolation protection and are suitable for most industrial applications. The wide input range of the cPCI/PCI-7432 and cPCI/PCI-7433 makes it easy to sense the status of external devices. There are several options for PCI-743X series, such as normal version with input range from 0 to 24 V, as well as HIR version with high input range from 0 to 50 V. The PCI-7433ALC is specifically designed for AC power test system.

The cPCI/PCI-7432 and cPCI/PCI-7434 feature a wide output range from 5 to 35 V, suitable for relay driving and industrial automation applications. The cPCI/PCI-7432 and cPCI/PCI-7433 also provide two interrupt sources on digital input channels, which are easily configurable.

Specifications

Isolated Digital Input

- Number of channels
 - 32 (PCI-7432/7432HIR, cPCI-7432)
 - 64 (PCI-7433/7433HIR, cPCI-7433)
- Maximum input range (Non-polarity)
 - 24 V, non-polarity (PCI-7432/7433, cPCI-7432/7433)
- Digital logic levels: 0 V to 24 V, non-polarity
 - Input high voltage: 5 V to 24 V
 - Input low voltage: 0 V to 1.5 V
- Input resistance
 - 2.4 kΩ @ 0.5 W (PCI-7432, cPCI-7432, cPCI-7433)
 - 2.4 kΩ @ 1 W (PCI-7433)
 - 4.7 kΩ @ 0.5 W (PCI-7432HIR)
 - 4.7 kΩ @ 1 W (PCI-7433HIR)
- Isolation voltage: 2500 V_{RMS}: PCI-7432/7432HIR/7433/7433HIR
5000 V_{RMS}: cPCI-7432/7433
- Interrupt sources: digital input channel 0 & 1
- Data transfers: programmed I/O

Isolated Digital Output

- Number of channels
 - 32 (PCI-7432/7432HIR, cPCI-7432)
 - 64 (PCI-7434, cPCI-7434)
- Output type: open collector Darlington transistor
- Sink current (PCI-7432/7432HIR/7434, cPCI-7434)
 - 500 mA for single channel @ 100% duty cycle
 - 500 mA for all channels @ 20% duty cycle
- Source current (cPCI-7434P)
 - 500 mA for single channel @ 100% duty cycle
 - 260 mA for all channels @ 10% duty

- Power dissipation: Max. 2.25 W per chip (8 DO channels) (PCI-7432/7432HIR/7434, cPCI-7432/7434)
Max. 1.47 W per chip (8 DO channels) (cPCI-7434P)
- Supply voltage: 5-35 V
- Isolation voltage: 2500 V_{RMS}
- Data transfers: programmed I/O

General Specifications

- I/O connector: 100-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 requirements

| Device | +5 V |
|-----------------------------|----------------|
| PCI-7432/7432HIR, cPCI-7432 | 530 mA typical |
| PCI-7433/7433HIR, cPCI-7433 | 500 mA typical |
| PCI-7434, cPCI-7434P | 560 mA typical |

- Dimensions (not including connectors)
 - 156 mm x 106 mm (PCI-7432 & PCI-7432HIR)
 - 175 mm x 107 mm (PCI-7433, PCI-7433HIR)
 - 156 mm x 106 mm (PCI-7434)
 - 156 mm x 106 mm (PCI-7434P)
 - 160 mm x 100 mm (cPCI-7432/7433/7434)



PCI-7433



PCI-7434



PCI-7432

Terminal Boards & Cables

DIN-100S-01

Terminal Board with One 100-pin SCSI-II Connector and DIN-Rail Mounting (Cables are not included.)

ACL-102100-1

100-pin SCSI-II cable (mating with AMP-787082-9), 1 M

* For more information on mating cables, please refer to P2-61/62.

Note:

Legacy DIN-502S can be replaced by two DIN-50S-01 and ACL-10252-1 (100-Pin to two 50-Pin Cable, 1 M)

Ordering Information

PCI-7432

32-CH Isolated DI & 32-CH Isolated DO Card

PCI-7432HIR

32-CH Isolated DI & 32-CH Isolated DO Card with High Input Range

PCI-7433

64-CH Isolated DI Card

PCI-7433HIR

64-CH Isolated DI Card with High Input Range

PCI-7434

64-CH Isolated DO Card

cPCI-7433

64-CH Isolated DI Card

cPCI-7434

64-CH Isolated DO Card

cPCI-7434P

64-CH Isolated DO Card with Source Current Transistor

Pin Assignment

**PCI-7432/7432HIR,
cPCI-7432**

| | | | |
|--------|----|-----|--------|
| IDI_0 | 1 | 51 | IDI_8 |
| IDI_1 | 2 | 52 | IDI_9 |
| IDI_2 | 3 | 53 | IDI_10 |
| IDI_3 | 4 | 54 | IDI_11 |
| IDI_4 | 5 | 55 | IDI_12 |
| IDI_5 | 6 | 56 | IDI_13 |
| IDI_6 | 7 | 57 | IDI_14 |
| IDI_7 | 8 | 58 | IDI_15 |
| COM1 | 9 | 59 | COM2 |
| COM1 | 10 | 60 | COM2 |
| COM1 | 11 | 61 | COM2 |
| COM1 | 12 | 62 | COM2 |
| IDI_16 | 13 | 63 | IDI_24 |
| IDI_17 | 14 | 64 | IDI_25 |
| IDI_18 | 15 | 65 | IDI_26 |
| IDI_19 | 16 | 66 | IDI_27 |
| IDI_20 | 17 | 67 | IDI_28 |
| IDI_21 | 18 | 68 | IDI_29 |
| IDI_22 | 19 | 69 | IDI_30 |
| IDI_23 | 20 | 70 | IDI_31 |
| COM3 | 21 | 71 | COM4 |
| COM3 | 22 | 72 | COM4 |
| COM3 | 23 | 73 | COM4 |
| COM3 | 24 | 74 | COM4 |
| N/C | 25 | 75 | N/C |
| IDO_0 | 26 | 76 | IDO_8 |
| IDO_1 | 27 | 77 | IDO_9 |
| IDO_2 | 28 | 78 | IDO_10 |
| IDO_3 | 29 | 79 | IDO_11 |
| IDO_4 | 30 | 80 | IDO_12 |
| IDO_5 | 31 | 81 | IDO_13 |
| IDO_6 | 32 | 82 | IDO_14 |
| IDO_7 | 33 | 83 | IDO_15 |
| VDD1 | 34 | 84 | VDD2 |
| IGND | 35 | 85 | IGND |
| IGND | 36 | 86 | IGND |
| IGND | 37 | 87 | IGND |
| IDO_16 | 38 | 88 | IDO_24 |
| IDO_17 | 39 | 89 | IDO_25 |
| IDO_18 | 40 | 90 | IDO_26 |
| IDO_19 | 41 | 91 | IDO_27 |
| IDO_20 | 42 | 92 | IDO_28 |
| IDO_21 | 43 | 93 | IDO_29 |
| IDO_22 | 44 | 94 | IDO_30 |
| IDO_23 | 45 | 95 | IDO_31 |
| VDD3 | 46 | 96 | VDD4 |
| IGND | 47 | 97 | IGND |
| IGND | 48 | 98 | IGND |
| IGND | 49 | 99 | IGND |
| +5Vout | 50 | 100 | +5Vout |

**PCI-7433/7433HIR,
cPCI-7433**

| | | | |
|--------|----|-----|--------|
| IDI_0 | 1 | 51 | IDI_8 |
| IDI_1 | 2 | 52 | IDI_9 |
| IDI_2 | 3 | 53 | IDI_10 |
| IDI_3 | 4 | 54 | IDI_11 |
| IDI_4 | 5 | 55 | IDI_12 |
| IDI_5 | 6 | 56 | IDI_13 |
| IDI_6 | 7 | 57 | IDI_14 |
| IDI_7 | 8 | 58 | IDI_15 |
| COM1 | 9 | 59 | COM2 |
| COM1 | 10 | 60 | COM2 |
| COM1 | 11 | 61 | COM2 |
| COM1 | 12 | 62 | COM2 |
| IDI_16 | 13 | 63 | IDI_24 |
| IDI_17 | 14 | 64 | IDI_25 |
| IDI_18 | 15 | 65 | IDI_26 |
| IDI_19 | 16 | 66 | IDI_27 |
| IDI_20 | 17 | 67 | IDI_28 |
| IDI_21 | 18 | 68 | IDI_29 |
| IDI_22 | 19 | 69 | IDI_30 |
| IDI_23 | 20 | 70 | IDI_31 |
| COM3 | 21 | 71 | COM4 |
| COM3 | 22 | 72 | COM4 |
| COM3 | 23 | 73 | COM4 |
| COM3 | 24 | 74 | COM4 |
| N/C | 25 | 75 | N/C |
| IDI_32 | 26 | 76 | IDI_40 |
| IDI_33 | 27 | 77 | IDI_41 |
| IDI_34 | 28 | 78 | IDI_42 |
| IDI_35 | 29 | 79 | IDI_43 |
| IDI_36 | 30 | 80 | IDI_44 |
| IDI_37 | 31 | 81 | IDI_45 |
| IDI_38 | 32 | 82 | IDI_46 |
| IDI_39 | 33 | 83 | IDI_47 |
| COM5 | 34 | 84 | COM6 |
| COM5 | 35 | 85 | COM6 |
| COM5 | 36 | 86 | COM6 |
| COM5 | 37 | 87 | COM6 |
| IDI_48 | 38 | 88 | IDI_56 |
| IDI_49 | 39 | 89 | IDI_57 |
| IDI_50 | 40 | 90 | IDI_58 |
| IDI_51 | 41 | 91 | IDI_59 |
| IDI_52 | 42 | 92 | IDI_60 |
| IDI_53 | 43 | 93 | IDI_61 |
| IDI_54 | 44 | 94 | IDI_62 |
| IDI_55 | 45 | 95 | IDI_63 |
| COM7 | 46 | 96 | COM8 |
| COM7 | 47 | 97 | COM8 |
| COM7 | 48 | 98 | COM8 |
| COM7 | 49 | 99 | COM8 |
| N/C | 50 | 100 | N/C |

**PCI-7434,
cPCI-7434**

| | | | |
|--------|----|-----|--------|
| IDO_0 | 1 | 51 | IDO_8 |
| IDO_1 | 2 | 52 | IDO_9 |
| IDO_2 | 3 | 53 | IDO_10 |
| IDO_3 | 4 | 54 | IDO_11 |
| IDO_4 | 5 | 55 | IDO_12 |
| IDO_5 | 6 | 56 | IDO_13 |
| IDO_6 | 7 | 57 | IDO_14 |
| IDO_7 | 8 | 58 | IDO_15 |
| VDD1 | 9 | 59 | VDD2 |
| IGND | 10 | 60 | IGND |
| IGND | 11 | 61 | IGND |
| IGND | 12 | 62 | IGND |
| IDO_16 | 13 | 63 | IDO_24 |
| IDO_17 | 14 | 64 | IDO_25 |
| IDO_18 | 15 | 65 | IDO_26 |
| IDO_19 | 16 | 66 | IDO_27 |
| IDO_20 | 17 | 67 | IDO_28 |
| IDO_21 | 18 | 68 | IDO_29 |
| IDO_22 | 19 | 69 | IDO_30 |
| IDO_23 | 20 | 70 | IDO_31 |
| VDD3 | 21 | 71 | VDD4 |
| IGND | 22 | 72 | IGND |
| IGND | 23 | 73 | IGND |
| IGND | 24 | 74 | IGND |
| N/C | 25 | 75 | N/C |
| IDO_32 | 26 | 76 | IDO_40 |
| IDO_33 | 27 | 77 | IDO_41 |
| IDO_34 | 28 | 78 | IDO_42 |
| IDO_35 | 29 | 79 | IDO_43 |
| IDO_36 | 30 | 80 | IDO_44 |
| IDO_37 | 31 | 81 | IDO_45 |
| IDO_38 | 32 | 82 | IDO_46 |
| IDO_39 | 33 | 83 | IDO_47 |
| VDD5 | 34 | 84 | VDD6 |
| IGND | 35 | 85 | IGND |
| IGND | 36 | 86 | IGND |
| IGND | 37 | 87 | IGND |
| IDO_48 | 38 | 88 | IDO_56 |
| IDO_49 | 39 | 89 | IDO_57 |
| IDO_50 | 40 | 90 | IDO_58 |
| IDO_51 | 41 | 91 | IDO_59 |
| IDO_52 | 42 | 92 | IDO_60 |
| IDO_53 | 43 | 93 | IDO_61 |
| IDO_54 | 44 | 94 | IDO_62 |
| IDO_55 | 45 | 95 | IDO_63 |
| VDD7 | 46 | 96 | VDD8 |
| IGND | 47 | 97 | IGND |
| IGND | 48 | 98 | IGND |
| IGND | 49 | 99 | IGND |
| +5Vout | 50 | 100 | +5Vout |



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

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- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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