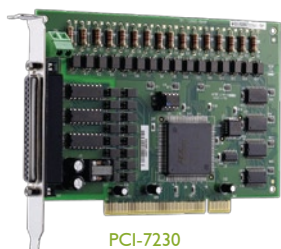


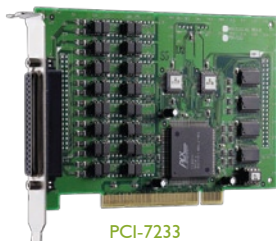
# **PCI-7230/7233/7234, LPCI/LPCle/cPCI-7230** 32-CH Isolated DIO Cards







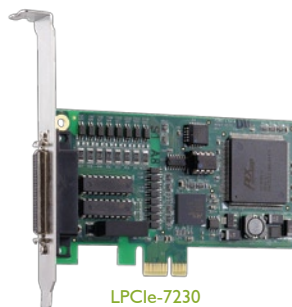
PCI-7230



PCI-7233



LPCI-7230



LPCle-7230



cPCI-7230

## Features

- Supports a 32-bit 5 V PCI bus (PCI-7230/7233/7234/7234P)
- Supports a 32-bit 3.3 V or 5 V PCI bus (LPCI-7230)
- x1 lane PCI Express Interface (LPCle-7230)
- 3U Eurocard form factor, CompactPCI compliant (PICMG 2.0 R2.1) (cPCI-7230)
- 16-CH isolated digital inputs & 16-CH isolated digital outputs (PCI-7230/LPCI-7230/LPCle-7230/cPCI-7230)
- 32-CH isolated digital inputs (PCI-7233)
- 32-CH isolated digital outputs (PCI-7234/7234P)
- 5000 V<sub>RMS</sub> optical isolation (PCI-7230 & PCI-7233/cPCI-7230)
- 2500 V<sub>RMS</sub> optical isolation (PCI-7234/7234P/LPCI-7230/LPCle-7230)
- Sink current up to 500 mA on single isolated output
- Two external interrupt sources (PCI-7230/LPCI-7230/LPCle-7230/cPCI-7230)
- Change-of-state interrupt sources (PCI-7233)
- Compact, low-profile PCI/PCI Express® size PCB (LPCI-7230/LPCle-7230)

### 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 PCI/LPCI/LPCle/cPCI-723X series are 32-CH isolated input and/or output cards which provide a 2,500 V optical isolation protection. The wide input range of the PCI/cPCI/LPCI/LPCle-7230 and PCI-7233 makes it easy to sense the status of external devices. The non-polarity characteristic is suitable for a wide variety of industry applications. The PCI/cPCI/LPCI/LPCle-7230 and PCI-7234 devices also feature a wide output range from 5 to 35 V, which is suitable for relay driving and industrial automation applications. The PCI-7234P provides current-source output capability. The PCI/cPCI/LPCI/LPCle-7230 and PCI-7233 also provide two interrupt sources on digital input channels. The PCI-7233 also features a change-of-state (COS) function that generates an interrupt when any digital input changes its state.

## Specifications

### Isolated Digital Input

- Number of channels
  - 16 (PCI-7230/LPCI-7230/LPCle-7230/cPCI-7230)
  - 32 (PCI-7233)
- Maximum input range
  - 24 V, non-polarity
  - PCI-7230/PCI-7233/LPCI-7230/LPCle-7230
- Digital logic levels
  - 0-24 V, non-polarity
  - Input high voltage: 5-24 V
  - Input low voltage: 0-1.5 V
- Input resistance: 1.2 k @ 0.5 W
- Isolation voltage
  - 2500 V<sub>RMS</sub> (LPCI-7230/LPCle-7230)
  - 5000 V<sub>RMS</sub> (PCI-7230/PCI-7233/cPCI-7230)
- Interrupt sources
  - Digital input channel 0 and 1 (PCI-7230/LPCI-7230/LPCle-7230/cPCI-7230)
  - Change-of-state (PCI-7233)
- Data transfers: programmed I/O

### Isolated Digital Output

- Number of channels
  - 16 (PCI-7230/LPCI-7230/LPCle-7230/cPCI-7230)
  - 32 (PCI-7234)
- Output type: Darlington transistor

- Sink current
  - 500 mA for one channel @ 100% duty (PCI-7230/LPCI-7230/LPCle-7230)
  - 370 mA for all channels @ 10% duty (PCI-7230/LPCI-7230/LPCle-7230)
  - 130 mA for all channels @ 50% duty (PCI-7230/LPCI-7230/LPCle-7230)
  - 500 mA for single channel @ 100% duty (PCI-7234)
  - 500 mA for all channels @ 20% duty (PCI-7234)
- Source current
  - 500 mA for one channel @ 100% duty cycle (PCI-7234P)
  - 260 mA for all channels @ 10% duty cycle (PCI-7234P)
- Power dissipation
  - Max. 1.47 W per chip (8 DO channels) (PCI-7230/PCI-7234P/LPCI-7230/LPCle-7230)
  - Max. 2.25 W per chip (8 DO channels) (PCI-7234)
- Supply voltage: 5-35 V<sub>DC</sub>
- Isolation voltage: 2500 V<sub>RMS</sub>
- Data transfers: programmed I/O

### General Specifications

- I/O connector
  - PCI-7230/7233/7234/7234P
    - 37-pin D-sub female
  - PCI-7230/LPCI-7230/cPCI-7230
    - One 50-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     | Power Consumption                                     |
|------------|-------------------------------------------------------|
| PCI-7230   | + 5 V @ 150 mA typical<br>(needs external DC power)   |
| PCI-7233   | + 5 V @ 300 mA typical                                |
| PCI-7234   | + 5 V @ 180 mA typical<br>(with internal DC-DC power) |
| PCI-7234P  | + 5 V @ 150 mA typical                                |
| LPCI-7230  | + 3.3 V @ 279 mA                                      |
| LPcLe-7230 | + 1.2 V @ 133 mA                                      |
| cPCI-7230  | + 5 V @ 270 mA typical                                |

- Dimensions (not including connectors)
  - 153 mm X 107 mm (PCI-7230)
  - 158 mm X 107 mm (PCI-7233)
  - 175 mm X 107 mm (PCI-7234 & PCI-7234P)
  - 120 mm X 65 mm (LPCI-7230)
  - 119.9 mm(L) x 68.9 mm(H) (LPcLe-7230)
  - 160 mm x 100 mm (cPCI-7230)

## Terminal Boards & Cables

### PCI-7230/7233/7234/7234P:

#### DIN-37D-01

Terminal Board with One 37-pin D-sub Connector and DIN-Rail Mounting (Cables are not included.)

#### ACL-D-9137-01

General-Purpose Terminal Board with One 37-pin D-sub Male Connector

#### ACL-10137-1MM

37-pin D-sub male/male cable, 1 M

### LPcLe-7230/LPcLe-7230/cPCI-7230:

#### DIN-50S-01

Terminal Board with One 50-pin SCSI-II Connector and DIN-Rail Mounting (Cables are not included.)

#### ACL-10250-1

50-pin SCSI-II cable (mating with AMP-787082-5), 1 M

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

## Ordering Information

### PCI-7230

16-CH Isolated DI & 16-CH Isolated DO Card

### PCI-7233

32-CH Isolated DI Card with inversed input logic

### PCI-7234

32-CH Isolated DO Card

### PCI-7234P

32-CH Isolated DO Card with Source Current Transistor

### LPcLe-7230

16-CH Isolated DI & 16-CH Isolated DO Low-Profile PCI Card

### LPcLe-7230

16-CH Isolated DI & 16-CH Isolated DO Low-Profile PCI Express® Card

### cPCI-7230

16-CH Isolated DI & 16-CH Isolated DO Module

## Pin Assignment

### PCI-7230

|        |    |    |        |
|--------|----|----|--------|
| IDI_0  | 1  | 20 | IDI_1  |
| IDI_2  | 2  | 21 | IDI_3  |
| IDI_4  | 3  | 22 | IDI_5  |
| IDI_6  | 4  | 23 | IDI_7  |
| IDI_8  | 5  | 24 | IDI_9  |
| IDI_10 | 6  | 25 | IDI_11 |
| IDI_12 | 7  | 26 | IDI_13 |
| IDI_14 | 8  | 27 | IDI_15 |
| EICOM  | 9  | 28 | EOGND  |
| EOGND  | 10 | 29 | EOGND  |
| IDI_0  | 11 | 30 | IDO_1  |
| IDO_2  | 12 | 31 | IDO_3  |
| IDO_4  | 13 | 32 | IDO_5  |
| IDO_6  | 14 | 33 | IDO_7  |
| IDO_8  | 15 | 34 | IDO_9  |
| IDO_10 | 16 | 35 | IDO_11 |
| IDO_12 | 17 | 36 | IDO_13 |
| IDO_14 | 18 | 37 | IDO_15 |
| VDD    | 19 |    |        |

### PCI-7234

|        |    |    |        |
|--------|----|----|--------|
| IDO_0  | 1  | 20 | IDO_1  |
| IDO_2  | 2  | 21 | IDO_3  |
| IDO_4  | 3  | 22 | IDO_5  |
| IDO_6  | 4  | 23 | IDO_7  |
| IGND   | 5  | 24 | IDO_8  |
| IDO_9  | 6  | 25 | IDO_10 |
| IDO_11 | 7  | 26 | IDO_12 |
| IDO_13 | 8  | 27 | IDO_14 |
| IDO_15 | 9  | 28 | IGND   |
| IDO_16 | 10 | 29 | IDO_17 |
| IDO_18 | 11 | 30 | IDO_19 |
| IDO_20 | 12 | 31 | IDO_21 |
| IDO_22 | 13 | 32 | IDO_23 |
| IGND   | 14 | 33 | IDO_24 |
| IDO_25 | 15 | 34 | IDO_26 |
| IDO_27 | 16 | 35 | IDO_28 |
| IDO_29 | 17 | 36 | IDO_30 |
| IDO_31 | 18 | 37 | IGND   |
| VDD    | 19 |    |        |

### PCI-7233

|        |    |    |        |
|--------|----|----|--------|
| IDI_0  | 1  | 20 | IDI_1  |
| IDI_2  | 2  | 21 | IDI_3  |
| IDI_4  | 3  | 22 | IDI_5  |
| IDI_6  | 4  | 23 | IDI_7  |
| IGND   | 5  | 24 | IDI_8  |
| IDI_9  | 6  | 25 | IDI_10 |
| IDI_11 | 7  | 26 | IDI_12 |
| IDI_13 | 8  | 27 | IDI_14 |
| IDI_15 | 9  | 28 | IGND   |
| IDI_16 | 10 | 29 | IDI_17 |
| IDI_18 | 11 | 30 | IDI_19 |
| IDI_20 | 12 | 31 | IDI_21 |
| IDI_22 | 13 | 32 | IDI_23 |
| IGND   | 14 | 33 | IDI_24 |
| IDI_25 | 15 | 34 | IDI_26 |
| IDI_27 | 16 | 35 | IDI_28 |
| IDI_29 | 17 | 36 | IDI_30 |
| IDI_31 | 18 | 37 | IGND   |
| IGND   | 19 |    |        |

### PCI-7234P

|        |    |    |        |
|--------|----|----|--------|
| IDO_0  | 1  | 20 | IDO_1  |
| IDO_2  | 2  | 21 | IDO_3  |
| IDO_4  | 3  | 22 | IDO_5  |
| IDO_6  | 4  | 23 | IDO_7  |
| VDD    | 5  | 24 | IDO_8  |
| IDO_9  | 6  | 25 | IDO_10 |
| IDO_11 | 7  | 26 | IDO_12 |
| IDO_13 | 8  | 27 | IDO_14 |
| IDO_15 | 9  | 28 | VDD    |
| IDO_16 | 10 | 29 | IDO_17 |
| IDO_18 | 11 | 30 | IDO_19 |
| IDO_20 | 12 | 31 | IDO_21 |
| IDO_22 | 13 | 32 | IDO_23 |
| VDD    | 14 | 33 | IDO_24 |
| IDO_25 | 15 | 34 | IDO_26 |
| IDO_27 | 16 | 35 | IDO_28 |
| IDO_29 | 17 | 36 | IDO_30 |
| IDO_31 | 18 | 37 | VDD    |
| IGND   | 19 |    |        |

### LPcLe-7230/LPcLe-7230

|        |    |    |        |
|--------|----|----|--------|
| VDD    | 1  | 26 | VDD    |
| EICOM  | 2  | 27 | +5V    |
| EICOM  | 3  | 28 | EICOM  |
| EICOM  | 4  | 29 | EICOM  |
| IDO_7  | 5  | 30 | IDO_14 |
| IDO_6  | 6  | 31 | IDO_15 |
| IDO_5  | 7  | 32 | IDO_12 |
| IDO_4  | 8  | 33 | IDO_13 |
| IDO_3  | 9  | 34 | IDO_10 |
| IDO_2  | 10 | 35 | IDO_11 |
| IDO_1  | 11 | 36 | IDO_8  |
| IDO_0  | 12 | 37 | IDO_9  |
| IDI_3H | 13 | 38 | IDI_7H |
| IDI_3L | 14 | 39 | IDI_7L |
| IDI_2H | 15 | 40 | IDI_6H |
| IDI_2L | 16 | 41 | IDI_6L |
| IDI_1H | 17 | 42 | IDI_5H |
| IDI_1L | 18 | 43 | IDI_5L |
| IDI_0H | 19 | 44 | IDI_4H |
| IDI_0L | 20 | 45 | IDI_4L |
| IDI_11 | 21 | 46 | IDI_15 |
| IDI_10 | 22 | 47 | IDI_14 |
| IDI_9  | 23 | 48 | IDI_13 |
| IDI_8  | 24 | 49 | IDI_12 |
| EOGND  | 25 | 50 | EOGND  |

### cPCI-7230

|        |    |    |        |
|--------|----|----|--------|
| VDD    | 1  | 26 | VDD    |
| EOGND  | 2  | 27 | EOGND  |
| EOGND  | 3  | 28 | EOGND  |
| EOGND  | 4  | 29 | EOGND  |
| IDO_7  | 5  | 30 | IDO_14 |
| IDO_6  | 6  | 31 | IDO_15 |
| IDO_5  | 7  | 32 | IDO_12 |
| IDO_4  | 8  | 33 | IDO_13 |
| IDO_3  | 9  | 34 | IDO_10 |
| IDO_2  | 10 | 35 | IDO_11 |
| IDO_1  | 11 | 36 | IDO_8  |
| IDO_0  | 12 | 37 | IDO_9  |
| IDI_3H | 13 | 38 | IDI_7L |
| IDI_3L | 14 | 39 | IDI_7H |
| IDI_2H | 15 | 40 | IDI_6L |
| IDI_2L | 16 | 41 | IDI_6H |
| IDI_1H | 17 | 42 | IDI_5L |
| IDI_1L | 18 | 43 | IDI_5H |
| IDI_0H | 19 | 44 | IDI_4L |
| IDI_0L | 20 | 45 | IDI_4H |
| IDI_11 | 21 | 46 | IDI_15 |
| IDI_10 | 22 | 47 | IDI_14 |
| IDI_9  | 23 | 48 | IDI_13 |
| IDI_8  | 24 | 49 | IDI_12 |
| EICOM  | 25 | 50 | EICOM  |

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

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- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
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- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
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