

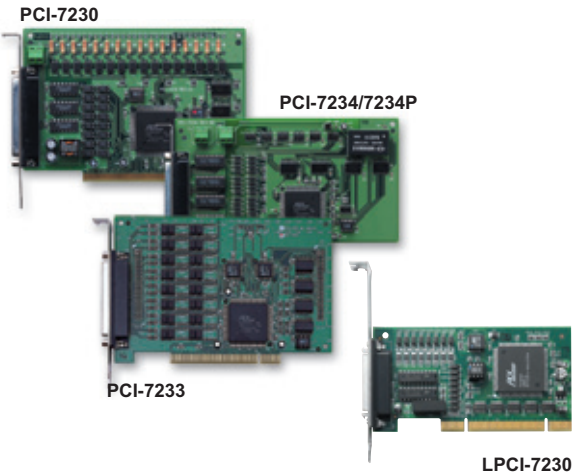
PCI-7230/7233/7234/7234P, LPCI-7230

32-CH Isolated DIO Cards/Low-Profile PCI Card

Features

- Support a 32-bit 5 V PCI bus (PCI-7230/7233/7234/7234P)
- Support a 32-bit 3.3 V or 5 V PCI bus (LPCI-7230)
- 16-CH isolated digital inputs & 16-CH isolated digital outputs (PCI-7230/LPCI-7230)
- 32-CH isolated digital inputs (PCI-7233)
- 32-CH isolated digital outputs (PCI-7234/7234P)
- 5000 VRMS optical isolation (PCI-7230 & PCI-7233)
- 2500 VRMS optical isolation (LPCI-7230/PCI-7234/7234P)
- Sink current up to 500 mA on each isolated output
- Two external interrupt sources (PCI-7230/LPCI-7230)
- Change-of-state interrupt sources (PCI-7233)
- Compact, half-size PCB (PCI-7230 & PCI-7233 & PCI-7234/7234P)
- Compact, low-profile PCI size PCB (LPCI-7230)

- Operating Systems**
 - Windows Vista/XP/2000/2003
 - Linux
 - Windows CE (call for availability)
- Recommended Software**
 - VB.NET/VC.NET/VB/VC++/BCB/Delphi
 - DAQBench
- Driver Support**
 - DAQPilot for Windows
 - DAQ-LVIEW PnP for LabVIEW™
 - DAQ-MTLB for MATLAB®
 - PCIS-DASK for Windows
 - PCIS-DASK/X for Linux



Introduction

ADLINK PCI/LPCI-723x series are 32-CH isolated input and/or output cards. They provide a 2,500 V optical isolation protection. The wide input range of the PCI-7230/7233 and LPCI-7230 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-7230/7234 and LPCI-7230 devices also feature a wide output range from 5 to 35 V, which is suitable for relay driving and industrial automation applications. PCI-7234P provides current-source output capability.

The PCI-7230/7233 and LPCI-7230 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)
 - 32 (PCI-7233)
- Maximum input range
 - 24 V, non-polarity (PCI-7230/LPCI-7230, PCI-7233)
- 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 kΩ @ 0.5 W
- Isolation voltage
 - 2500 VRMS (LPCI-7230)
 - 5000 VRMS (PCI-7230 and PCI-7233)
- Interrupt sources
 - Digital input channel 0 and 1 (PCI-7230/LPCI-7230)
 - Change-of-state (PCI-7233)
- Data transfers: programmed I/O

- Operating temperature: 0 to 60 °C
- Storage temperature: -20 to 80 °C
- Relative humidity: 5 to 95%, non-condensing
- Power requirements

Device	+5 V
PCI-7230	150 mA typical (needs external DC power)
PCI-7233	300 mA typical
PCI-7234	180 mA typical (with internal DC-DC power)
PCI-7234P	180 mA typical (with internal DC-DC power)
LPCI-7230	150 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)

Termination Boards

PCI-7230/7233/7234/7234P:

DIN-37D-01

Termination Board with a 37-pin D-sub Connector and DIN-Rail Mounting (Cables are not included. For information on mating cables, refer to Section 12.)

ACLD-9137-01

General-Purpose Termination Board with a 37-pin D-sub Male Connector

LPCI-7230:

DIN-50S-01

Termination Board with a 50-pin SCSI-II Connector and DIN-Rail Mounting (Cables are not included. For information on mating cables, refer to Section 12.)

Ordering Information

- PCI-7230**
16-CH Isolated DI & 16-CH Isolated DO Card
- PCI-7233**
32-CH Isolated DI Card
- PCI-7234**
32-CH Isolated DO Card
- PCI-7234P**
32-CH Isolated DO Card with Source Current Transistor
- LPCI-7230**
16-CH Isolated DI & 16-CH Isolated DO Low-Profile PCI Card

Isolated Digital Output

- Number of channels
 - 16 (PCI-7230/LPCI-7230)
 - 32 (PCI-7234)
- Output type: Darlington transistor
- Sink current
 - 500 mA for one channel @ 100% duty (PCI-7230/LPCI-7230)
 - 370 mA for all channels @ 10% duty (PCI-7230/LPCI-7230)
 - 130 mA for all channels @ 50% duty (PCI-7230/LPCI-7230)
 - 500 mA for one 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/LPCI-7230, PCI-7234P)
 - Max. 2.25 W per chip (8 DO channels) (PCI-7234)
- Supply voltage: 5-35 V_{DC}
- Isolation voltage: 2500 VRMS
- Data transfers: programmed I/O

General Specifications

- I/O connector
 - PCI-7230/7233/7234/7234P
 - 37-pin D-sub female
 - LPCI-7230
 - 50-pin SCSI-II female

Pin Assignment

PCI-7230			PCI-7233		
IDL_0	1	20	IDL_1	1	20
IDL_2	2	21	IDL_3	2	21
IDL_4	3	22	IDL_5	3	22
IDL_6	4	23	IDL_7	4	23
IDL_8	5	24	IDL_9	5	24
IDL_10	6	25	IDL_11	6	25
IDL_12	7	26	IDL_13	7	26
IDL_14	8	27	IDL_15	8	27
EICOM	9	28	EOGND	9	28
EOGND	10	29	EOGND	10	29
IDO_0	11	30	IDO_1	11	30
IDO_2	12	31	IDO_3	12	31
IDO_4	13	32	IDO_5	13	32
IDO_6	14	33	IDO_7	14	33
IDO_8	15	34	IDO_9	15	34
IDO_10	16	35	IDO_11	16	35
IDO_12	17	36	IDO_13	17	36
IDO_14	18	37	IDO_15	18	37
VDD	19		IGND	19	

PCI-7234			LPCI-7230		
IDO_0	1	20	IDO_1	1	20
IDO_2	2	21	IDO_3	2	21
IDO_4	3	22	IDO_5	3	22
IDO_6	4	23	IDO_7	4	23
IGND	5	24	IDO_8	5	24
IDO_9	6	25	IDO_10	6	25
IDO_11	7	26	IDO_12	7	26
IDO_13	8	27	IDO_14	8	27
IDO_15	9	28	IGND	9	28
IDO_16	10	29	IDO_17	10	29
IDO_18	11	30	IDO_19	11	30
IDO_20	12	31	IDO_21	12	31
IDO_22	13	32	IDO_23	13	32
IGND	14	33	IDO_24	14	33
IDO_25	15	34	IDO_26	15	34
IDO_27	16	35	IDO_28	16	35
IDO_29	17	36	IDO_30	17	36
IDO_31	18	37	IGND	18	37
VDD	19		IGND	19	

PCI-7234P		
IDO_0	1	20
IDO_2	2	21
IDO_4	3	22
IDO_6	4	23
IDO_8	5	24
IDO_9	6	25
IDO_11	7	26
IDO_13	8	27
IDO_15	9	28
IDO_16	10	29
IDO_18	11	30
IDO_20	12	31
IDO_22	13	32
VDD	14	33
IDO_25	15	34
IDO_27	16	35
IDO_29	17	36
IDO_31	18	37
IGND	19	