

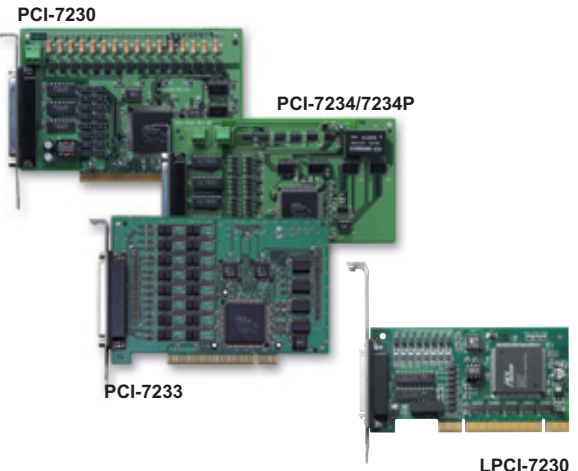
PCI-7230/7233/7234/7234P, LPCI-7230

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)
- 32-CH Isolated high-speed digital inputs (PCI-7233H)
- 5000 V_{RMS} optical isolation (PCI-7230 & PCI-7233)
- 2500 V_{RMS} optical isolation (PCI-7233H/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 & PCI-7233H)
- Compact, half-size PCB (PCI-7230 & PCI-7233 & PCI-7234/7234P)
- Compact, low-profile PCI size PCB (LPCI-7230)

- Operating Systems**
 - Windows 98/NT/2000/XP/2003
 - Linux
 - DOS
 - Windows CE (call for availability)
- Recommended Software**
 - VB/VC++/BCB/Delphi
 - DAQBench
- Driver Support**
 - 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(H) 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(H) and LPCI-7230 also provide two interrupt sources on digital input channels. The PCI-7233(H) 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 and PCI-7233H)
- Maximum input range
 - 24 V, non-polarity (PCI-7230/LPCI-7230, PCI-7233 and PCI-7233H)
- 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 V_{RMS} (PCI-7233H/LPCI-7230)
 - 5000 V_{RMS} (PCI-7230 and PCI-7233)
- Interrupt sources
 - Digital input channel 0 and 1 (PCI-7230/LPCI-7230)
 - Change-of-state (PCI-7233 and PCI-7233H)
- Data transfers: programmed I/O

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 Vdc
- Isolation voltage: 2500 V_{RMS}
- 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

- 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-7233H	550 mA typical
PCI-7234	180 mA typical
PCI-7234P	(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 & PCI-7233H)
 - 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**
 - 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 9.)
- ACLD-9137**
 - General-Purpose Termination Board with a 37-pin D-sub Male Connector

LPCI-7230:

- DIN-50S**
 - 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 9.)

Ordering Information

- PCI-7230**
 - 16-CH Isolated DI & 16-CH Isolated DO Card
- PCI-7233**
 - 32-CH Isolated DI Card
- PCI-7233H**
 - 32-CH High-Speed 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

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		VDD	19	
			+5V	27	
			EICOM	28	EICOM
			EICOM	29	EICOM
			IDO_7	5	IDO_14
			IDO_6	6	IDO_15
			IDO_5	7	IDO_12
			IDO_4	8	IDO_13
			IDO_3	9	IDO_10
			IDO_2	10	IDO_11
			IDO_1	11	IDO_8
			IDO_0	12	IDO_9
			IDL_3H	13	IDL_7L
			IDL_3L	14	IDL_7H
			IDL_2H	15	IDL_6L
			IDL_2L	16	IDL_6H
			IDL_1H	17	IDL_5L
			IDL_1L	18	IDL_5H
			IDL_0H	19	IDL_4L
			IDL_0L	20	IDL_4H
			IDL_11	21	IDL_15
			IDL_10	22	IDL_14
			IDL_9	23	IDL_13
			IDL_8	24	IDL_12
			EOGND	25	EOGND

- Software Solutions
- PXI/CompactPCI Platforms
- PXI-Based Instruments
- PXI/CompactPCI Modules
- PXI/PCI Express® DAQ Cards
- PCI DIO Cards
- PC/104-Plus Products
- ISA DAS/DIO Cards
- Wiring Termination Boards
- Motion, HSL, Vision, COM & GEME
- Remote I/O Modules
- Industrial Computers