PCI-7230/7233/7234

32-CH Isolated DIO Cards

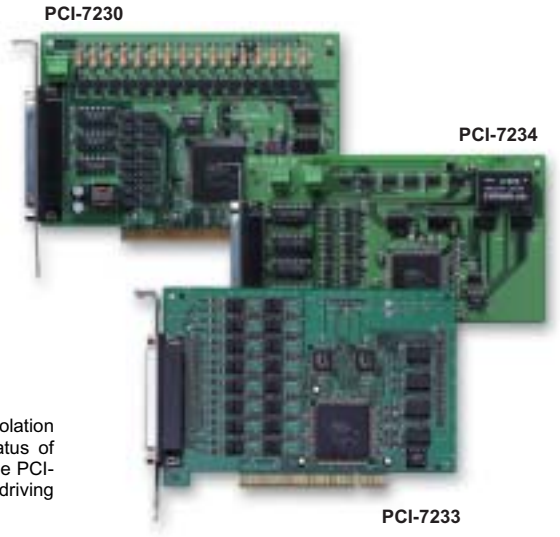
Features

- Supports a 32-bit 5 V PCI bus
- 16-CH isolated digital inputs & 16-CH isolated digital outputs (PCI-7230)
- 32-CH isolated digital inputs (PCI-7233)
- 32-CH isolated digital outputs (PCI-7234)
- 32-CH Isolated high speed digital inputs (PCI-7233H)
- 5000 Vrms optical isolation (PCI-7230 & PCI-7233)
- 2500 Vrms optical isolation (PCI-7233H)
- Sink current up to 500mA on each isolated output
- Two external interrupt sources (PCI-7230)
- Change-of-state interrupt sources (PCI-7233 & PCI-7233H)
- Compact, half-size PCB

Operating Systems
- Windows 2000/NT/XP/9x
- DOS
- Red Hat Linux
- Windows CE (call for availability)

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

Driver Support
- PCIS-DASK for Windows 2000/NT/XP/9x
- PCIS-DASK/X for Red Hat Linux
- PCIS-OCX ActiveX controls
- PCIS-LVIEW/PnP for LabVIEW ***NEW!***



Introduction

ADLINK PCI-723X 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 and PCI-7233(H) 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 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-7230 and PCI-7233(H) also provide two interrupt sources on digital input channels. The PCI-7233(H) devices also feature the change-of-state (COS) interrupt. It means when any of these digital inputs changes its state, an interrupt will be generated for user to handle this external event.

Specifications

Isolated Digital Input
- Number of channels
  - 16 (PCI-7230)
  - 32 (PCI-7233 and PCI-7233H)
- Maximum input range
  - 24 V, non-polarity
  (PCI-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 Vrms (PCI-7233H)
  - 5000 Vrms (PCI-7230 and PCI-7233)
- Interrupt sources
  - Digital input channel 0 and 1 (PCI-7230)
  - Change-of-state (PCI-7233 and PCI-7233H)
- Data transfers: programmed I/O

Isolated Digital Output
- Number of channels
  - 16 (PCI-7230)
  - 32 (PCI-7234)
- Output type: open collector Darlington transistor
- Sink current
  - 500 mA for one channel @ 100% duty (PCI-7230)
  - 370 mA for all channels @ 10% duty (PCI-7230)
  - 130 mA for all channels @ 50% duty (PCI-7230)
  - 500 mA for one channel @ 100% duty (PCI-7234)
  - 500 mA for all channels @ 20% duty (PCI-7234)
- Power dissipation
  - Max. 1.47 W per chip (8 DO channels) (PCI-7230)
  - Max. 2.25 W per chip (8 DO channels) (PCI-7234)
- Supply voltage: 5-35 VDC
- Isolation voltage: 5000 Vrms
- Data transfers: programmed I/O

General Specifications
- I/O connector: 37-pin D-sub female
- Operating temperature: 0 to 60 ˚C
- Storage temperature: -20 to 80 ˚C
- Relative humidity: 5 to 95%, noncondensing
- 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 (with internal DC-DC power)

- 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)

Termination Boards

- **DIN-37D**
  Termination Board with a 37-pin D-sub Connector and DIN-Rail Mounting (Including One 1-meter ACL-10137 Cable)

- **ACLD-9137**
  General-Purpose Termination Board with a 37-pin D-sub Male Connector

- **ACLD-9138**
  General-Purpose Termination Board with a 37-pin D-sub Connector (Including One 1-meter ACL-10237 Cable)

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

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
EIGND	9	28	EOGND
EOGND	10	29	EOGND
IDO_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-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-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		