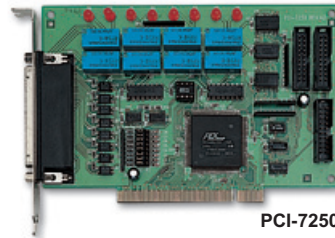# PCI-7250/7251, LPCI-7250
8-CH Relay Outputs & 8-CH Isolated DI Cards / Low Profile PCI Card

Features

- Support a 32-bit 5V PCI bus (PCI-7250/7250)
- Support a 32-bit 3.3V or 5V PCI bus (LPCI-7250)
- 4-CH SPDT & 4-CH SPST relays (PCI-7250)
- 8-CH SPDT & 8-CH SPST relays (PCI-7250 + 1 x PCI-7251)
- 12-CH SPDT & 12-CH SPST relays (PCI-7250 + 2 x PCI-7251)
- 16-CH SPDT & 16-CH SPST relays (PCI-7250 + 3 x PCI-7251)
- 8-CH SPDT (LPCI-7250)
- Nonlatching relays
- On-board LED indicators for relay status
- On-board relay driving circuits
- Relay output status read back
- 8-CH isolated digital inputs (PCI-7250/LPCI-7250)
- 16-CH isolated digital inputs (PCI-7250 + 1 x PCI-7251)
- 24-CH isolated digital inputs (PCI-7250 + 2 x PCI-7251)
- 32-CH isolated digital inputs (PCI-7250 + 3 x PCI-7251)
- On-board low-pass filtering for digital inputs
- Compact, half size PCB (PCI-7250/7251)
- Compact, low-profile PCI size PCB (LPCI-7250)

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
- DAQBOY for Windows
- PCIS-DASK for Windows
- PCIS-DASK/X for Linux

PCI-7250

PCI-7251

LPCI-7250

Introduction

ADLINK PCI-7250/7251 provides 4-CH SPDT (Form C) & 4-CH SPST (Form A) relay outputs and 8-CH isolated digital inputs. The LPCI-7250 provides 8-CH SPDT (Form C) relay outputs and 8-CH isolated digital inputs. The status of each relay output is represented by an on-board LED. When the relay is in SET condition, its corresponding LED will turn ON, and on the contrary, it is OFF. All of the digital input channels are non-polarity and optically isolated. You can set for each digital input by using RC filter or not. The devices are suitable for collecting digital inputs in noisy environments.

The PCI-7251 is an 8-CH relay outputs and 8-CH isolated DI extension card of the PCI-7250. All the I/O functions of PCI-7251 are the same as those of the PCI-7250. The PCI-7251 has to be connected with PCI-7250 and the bus interface is controlled by the PCI-7250. Up to 3 PCI-7251 cards can be connected to one PCI-7250, therefore, expanding the PCI-7250's DIO from 8 DIO to at most 32 DIO.

Specifications

Relay Output
- Number of channels: 8
- Relay types
  - PCI-7250/7251:
    - Channel 0-3: SPDT (normal open)
    - Channel 4-7: SPST (normal open)
  - LPCI-7250:
    - Channel 0-7: SPDT (normal open)
- Contact rating
  - PCI-7250/7251
    - AC: 120 V @ 0.5 A
    - DC: 24 V @ 1 A
  - LPCI-7250
    - DC: 30 V @ 2 A
- Breakdown voltage: 1000 V_{RMS}
- Contact resistance: 100 mΩ
- Relay ON/OFF time
  - Operate time: 8 ms
  - Release time: 8 ms
- LED indicators: on-board LEDs for relay status
- Expected life
  - PCI-7250/7251:
    - >5x10^5 operations @ 1 A, 24 V_{DC}
    - >2x10^5 operations @ 0.5 A, 120 V_{AC}
  - LPCI-7250:
    - >10^5 operations @ 2 A, 30 V_{DC}
    - >5x10^5 operations @ 1 A, 30 V_{DC}
- Data transfers: programmed I/O

Isolated Digital Input
- Number of channels: 8
- Maximum input range: 24 V, non-polarity
- Digital logic levels
  - 0-24 V, non-polarity
    - Input high voltage: 5-24 V
    - Input low voltage: 0-1.5 V
- Input resistance: 2.2 kΩ @ 0.33 W

- Isolation voltage: 5000 V_{RMS}
- Data transfers: programmed I/O

General Specifications
- I/O connector
  - PCI-7250/7251
    - 37-pin D-sub female
  - LPCI-7250
    - 50-pin SCSI-II 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-7250	140 mA typical
PCI-7251	125 mA typical
LPCI-7250	200 mA typical

- Dimensions (not including connectors)
  - 162 mm x 107 mm (PCI-7250)
  - 141 mm x 102 mm (PCI-7251)
  - 120 mm x 65 mm (LPCI-7250)

Termination Boards

PCI-7250/7251:
- **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

LPCI-7250:
- **DIN-50S**
  Termination Board with a 50-pin SCSI-II Connector and DIN-Rail Mounting (Including One 1-meter ACL-10250 Cable)

Pin Assignment

PCI-7250

NO0	1	20	NO3
COM0	2	21	COM3
NC0	3	22	NC3
NO1	4	23	NO4
COM1	5	24	COM4
NC1	6	25	NO5
NO2	7	26	COM5
COM2	8	27	NO6
NC2	9	28	COM6
NO7	10	29	N/C
COM7	11	30	DI0_H
DI0_L	12	31	DI1_H
DI1_L	13	32	DI2_H
DI2_L	14	33	DI3_H
DI3_L	15	34	DI4_H
DI4_L	16	35	DI5_H
DI5_L	17	36	DI6_H
DI6_L	18	37	DI7_H
DI7_L	19		

LPCI-7250

NO0	1	26	NO4
COM0	2	27	COM4
NC0	3	28	NC4
NO1	4	29	NO5
COM1	5	30	COM5
NC1	6	31	NC5
NO2	7	32	NO6
COM2	8	33	COM6
NC2	9	34	NC6
NO3	10	35	NO7
COM3	11	36	COM7
NC3	12	37	NC7
N/C	13	38	N/C
N/C	14	39	N/C
N/C	15	40	N/C
N/C	16	41	N/C
N/C	17	42	N/C
IDI_0H	18	43	IDI_0L
IDI_1H	19	44	IDI_1L
IDI_2H	20	45	IDI_2L
IDI_3H	21	46	IDI_3L
IDI_4H	22	47	IDI_4L
IDI_5H	23	48	IDI_5L
IDI_6H	24	49	IDI_6L
IDI_7H	25	50	IDI_7L

Ordering Information

- **PCI-7250**
  8-CH Relay Outputs & 8-CH Isolated DI Card
- **PCI-7251**
  8-CH Relay Outputs & 8-CH Isolated DI Extension Card for PCI-7250
- **LPCI-7250**
  8-CH Relay Outputs & 8-CH Isolated DI Low-Profile PCI Card