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

Features

- Support a 32-bit 5 V PCI bus (PCI-7250/7251)
- Support a 32-bit 3.3 V or 5 V 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)
- Non-latching relays
- Onboard LED indicators for relay status
- Onboard 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)
- Onboard low-pass filtering for digital inputs
- Compact, half-size PCB (PCI-7250/7251)
- Compact, low-profile PCI size PCB (LPCI-7250)

- **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

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 onboard LED. When the relay is in SET condition, its corresponding LED will turn ON, and on the contrary, it is OFF. All digital input channels are non-polarity, optically isolated, and may be set to use 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 three PCI-7251 cards can be connected to one PCI-7250, therefore, expanding the PCI-7250's DIO from 8 DIO to maximum 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: onboard 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%, non-condensing
- 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-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 one 37-pin D-sub Male Connector

LPCI-7250:
- **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.)

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

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