

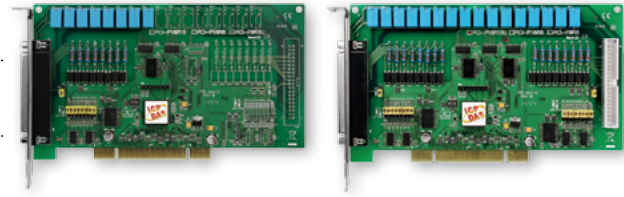
PCI-P8R8U Available soon
PCI-P16R16U Available soon

Universal PCI, 8/16-channel Isolated Digital Input and
 8/16-channel Relay Output Board



PCI-P8R8U

PCI-P16R16U



Features ▶▶▶

- Universal PCI (3.3 V/5 V) Interface, Plug & Play
- 8/16-channel Optically-isolated Digital Input
- 8/16-channel Relay Output
- Selectable DC Signal Input Filter
- AC Signal Input with Filter
- 5000 V_{rms} Photo-isolation Protection

Introduction

The PCI-P8R8U/P16R16U Universal PCI card supports the 3.3 V/5 V PCI bus and provides 8 or 16 optically-isolated Digital Input channels and 8 or 16 Relay Output channels. The DI channels provide 5000 V_{rms} isolation protection that allows the input signals to be completely floated so as to prevent ground loops and isolate the host computer from potentially damaging voltage spikes. The Relay Output channels can be used where it is necessary to control a circuit using a low-power signal, with complete electrical isolation between the control and the controlled circuits, or where several circuits need to be controlled by a single signal.

The PCI-P8R8U/P16R16U cards also includes an onboard Card ID switch that enables the board to be recognized via software if two or more boards are installed in the same computer.

PCI-P8R8U/P16R16U cards can be used in a variety of applications, such as controlling the ON/OFF state of external devices, driving external relays or small power switches, activating alarms, contact closure, or sensing external voltages or switches, etc.

Software

Drivers

- 32/64-bit Windows XP/2003/2008/Vista/7/8
- Linux DASyLab

Sample Programs

- DOS Lib and TC/BC/MSC Demo LabVIEW Toolkit
- VB/VC/Delphi/BCB/VB.NET/C#.NET/VC.NET/MATLAB Demo

Hardware Specifications

Models	PCI-P8R8U	PCI-P16R16U
Digital Input		
Channels	8	16
Isolation Voltage	5000 V _{rms} (Photocoupler)	
Input Voltage	Logic 1: AC/DC +5 ~ +24 V (AC 50 ~ 1 kHz) Logic 0: AC/DC 0 ~ +1 V	
Response Speed	Without Filter: 50 kHz (Typical) With Filter: 0.455 kHz (Typical)	
Digital Output		
Channels	8	16
Relay Type	4 SPDT, 4 SPST	8 SPDT, 8 SPST
Contact Rating	AC: 120 V @ 0.5 A DC: 24 V @ 1 A	
Operating Time	5 ms (Typical)	
Release Time	10 ms (Typical)	
Insulation Resistance	100 MΩ	
Lifetime	Mechanical: 5,000,000 ops. Electrical: 100,000 ops.	
General		
Bus Type	3.3 V/5 V Universal PCI, 32-bit, 33 MHz	
I/O Connector	Female DB37 x 1	Female DB37 x 1 40-pin Box Header x 1
Power Consumption	500 mA @ +5 V	800 mA @ +5 V
Operating Temperature	0 to +60 °C	
Humidity	5 to 85% RH, Non-condensing	

Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment	Pin Assignment	Terminal No.	Pin Assignment
NO_0	01	20	NO_3	02	NO_11
COM_0	02	21	COM_3	03	COM_11
NC_0	03	22	NC_3	04	NC_11
NO_1	04	23	NO_4	05	NO_12
COM_1	05	24	COM_4	06	COM_12
NC_1	06	25	NC_4	07	NC_12
NO_2	07	26	NO_5	08	NO_13
COM_2	08	27	COM_5	09	COM_13
NC_2	09	28	NC_5	10	NC_13
NO_7	10	29	NO_6	11	NO_14
COM_7	11	30	COM_6	12	COM_14
DIA_0	12	31	DIB_0	13	GND
DIA_1	13	32	DIB_1	14	COM_15
DIA_2	14	33	DIB_2	15	DIB_8
DIA_3	15	34	DIB_3	16	DIB_9
DIA_4	16	35	DIB_4	17	DIB_10
DIA_5	17	36	DIB_5	18	DIB_11
DIA_6	18	37	DIB_6	19	DIB_12
DIA_7	19	38	DIB_7	20	DIB_13
		39		21	DIB_14
		40		22	DIB_15
				23	N/A
				24	N/A
				25	N/A
				26	N/A
				27	N/A
				28	N/A
				29	N/A
				30	N/A
				31	N/A
				32	N/A
				33	N/A
				34	N/A
				35	N/A
				36	N/A
				37	N/A
				38	N/A
				39	N/A
				40	N/A

CON2 (PCI-P16R16 only)

Ordering Information

PCI-P8R8U CR	Universal PCI, 8-channel Isolated Digital Input and 8-channel Relay Output Board (RoHS). Includes one CA-4002 D-sub Connector.
PCI-P16R16U CR	Universal PCI, 16-ch Isolated Digital Input and 16-channel Relay Output Board (RoHS). Includes one CA-4037W Cable and two CA-4002 D-sub Connectors.