PCI-P8R8U



PCI-P16R16U



PCI-P8R8U

Universal PCI, 8-ch Isolated DI and
8-ch Relay Output Board

PCI-P16R16U

Universal PCI, 16-ch Isolated DI and
16-ch Relay Output Board

Features

- Universal PCI (3.3 V/5 V) Interface
- 8/16-channel Optically-isolated Digital Input
- 8/16-channel Relay Output
- Selectable DC Signal Input Filter
- AC Signal Input with Filter
- 5000 Vrms 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 Vrms 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.

Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment
NO_0	01	
COM_0	02	
NC_0	03	
NO_1	04	
COM_1	05	
NC_1	06	
NO_2	07	
COM_2	08	
NC_2	09	
NO_7	10	
COM_7	11	
DIA_0	12	
DIA_1	13	
DIA_2	14	
DIA_3	15	
DIA_4	16	
DIA_5	17	
DIA_6	18	
DIA_7	19	
	20	NO_3
	21	COM_3
	22	NC_3
	23	NO_4
	24	COM_4
	25	NO_5
	26	COM_5
	27	NO_6
	28	COM_6
	29	GND
	30	DIB_0
	31	DIB_1
	32	DIB_2
	33	DIB_3
	34	DIB_4
	35	DIB_5
	36	DIB_6
	37	DIB_7

CON1

Pin Assignment	Terminal No.	Pin Assignment
NO_8	01	02 NO_11
COM_8	03	04 COM_11
NC_8	05	06 NC_11
NO_9	07	08 NO_12
COM_9	09	10 COM_12
NC_9	11	12 NO_13
NO_10	13	14 COM_13
COM_10	15	16 NO_14
NC_10	17	18 COM_14
NO_15	19	20 GND
COM_15	21	22 DIB_8
DIA_8	23	24 DIB_9
DIA_9	25	26 DIB_10
DIA_10	27	28 DIB_11
DIA_11	29	30 DIB_12
DIA_12	31	32 DIB_13
DIA_13	33	34 DIB_14
DIA_14	35	36 DIB_15
DIA_15	37	38 N/A
N/A	39	40 N/A

CON2

Software

Drivers

- [x] 32/64-bit Windows 10/11
- [x] Linux
- [x] DASYLab

Sample Programs

- [x] DOS Lib and TC/BC/MSC Demo
- [x] VB/VC/Delphi/VB.NET/C#.NET/VC.NET/LabVIEW/Python/MATLAB

Hardware Specifications

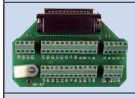
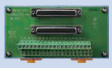
Models	PCI-P8R8U	PCI-P16R16U
Hardware		
Card ID	Yes (4-bit)	
Connector	Female DB37 x 1	Female DB37 x 1 40-pin box header x 1
Digital Input		
Channels	8	16
Type	Wet Contact , Photocoupler	
Sink/Source (NPN/PNP)	Sink/Source	
ON Voltage Level	AC/DC 5 ~ 24 V (AC 50 ~ 1 kHz)	
OFF Voltage Level	AC/DC 0 ~ 1 V	
Response Speed	Without Filter: 50 kHz (Typical) With Filter: 0.455 kHz(Typical)	
Trigger Mode	Static Update	
Isolation	5000 Vrms	
Relay Output		
Channels	8	16
Type	4 SPDT ,4 SPST	8 SPDT ,8 SPST
Contact Rating	AC: 120 V @ 0.5 A DC: 24 V @ 1 A	
Operate Time	5 ms (Typical)	
Release Time	10 ms (Typical)	
Electrical Endurance	100,000 ops.	
Mechanical Endurance	5,000,000 ops.	
PC Bus		
Type	3.3 V/5 V Universal PCI, 32-bit, 33 MHz	
Data Bus	16-bit	
Power		
Consumption	500 mA @ +5 V	800 mA @ +5 V
Mechanical		
Dimensions (mm)	105 x 183 x 22 (W x L x D)	
Environment		
Operating Temperature	0 ~ +60°C	
Storage Temperature	-20 ~ +70°C	
Humidity	5 ~ 85% RH, Non-condensing	

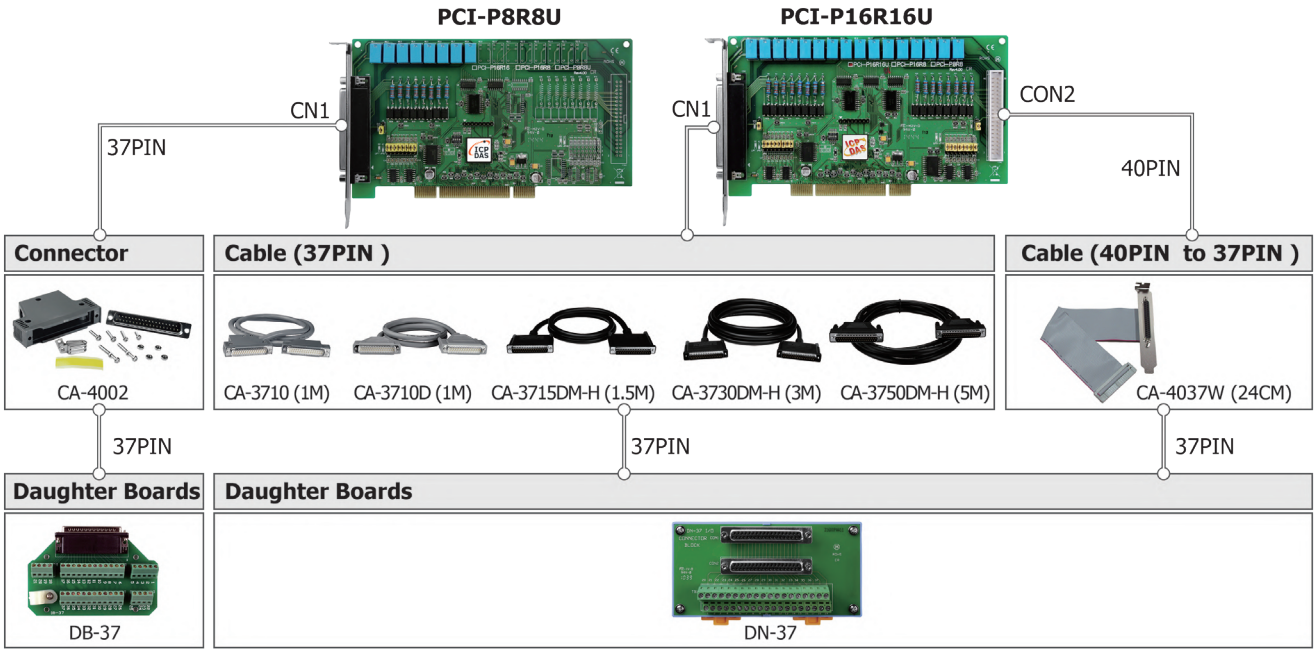
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Ordering Information

PCI-P8R8U CR	Universal PCI, 8-ch Isolated DI and 8-ch Relay Output Board (RoHS) Includes one CA-4002 D-Sub connector
PCI-P16R16U CR	Universal PCI, 16-ch isolated DI and 16-ch Relay Output (RoHS) Includes one CA-4037W cable and two CA-4002 D-Sub connectors

Accessories

 CA-3710 CR	DB-37 Male-Male D-sub cable 1 M (Cable for Daughter Board (45°)) (RoHS)
 CA-3710D CR	DB-37 Male-Male D-sub cable 1 M (Cable for Daughter Board (180°)) (RoHS)
 CA-3715DM-H CR	DB-37 Male-Male Cable, 1.5 M, 180° (RoHS)
 CA-3730DM-H CR	DB-37 Male-Male Cable, 3.0 M, 180° (RoHS)
 CA-3750DM CR	DB-37 Male-Male Cable, 5.0 M, 180° (RoHS)
 CA-3750DM-H CR	DB-37 Male-Male Cable, 5.0 M, 180° (RoHS)
 DB-37 CR	Directly connect signal to D-sub 37-pin connector (RoHS)
 DN-37 CR	DIN Rail Mounting 37-pin Connector (RoHS)



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