

PEX-P8R8i/PEX-P16R16i

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



Features ▶▶▶▶

- PCI Express x1, Plug & Play
- 8/16-ch Relay output, 8/16-ch isolated digital input
- AC signal input with filter
- 7 ms relay release time
- Supports Card ID (SMD Switch)
- Selectable DC signal input filter
- 2000 V_{dc} photo-isolation protection

Introduction

The PEX-P8R8i/PEX-P16R16i is a PCI Express card with programmable digital I/O interface. It provides 8/16 photocoupler digital inputs with 2000 V_{dc} isolation protection, allows the input signals to be completely floated to prevent the ground loops. It is also equipped with 8/16 relay outputs for controlling ON/OFF of external devices, driving external relays or small power switches, and activating alarms... etc.

The PEX-P8R8i/PEX-P16R16i is designed as easy replacement for the PISO-P16R16U, and users can replace the PISO-P16R16U with the PEX-P8R8i/PEX-P16R16i directly without any software/driver modification.

Software

- DOS Lib and TC/BC/MSC sample program (with source codes)
- DLL and OCX SDK for 32-bit and 64-bit Windows XP/2003/ Vista/2008/7
- VB/VC/Delphi/BCB/VB.NET/C#.NET sample programs with source codes
- Supports LabVIEW and Linux

Hardware Specifications

Models	PEX-P8R8i	PEX-P16R16i
Digital Input		
Isolation Voltage	2000 V _{dc} (Photo-couple)	
Channels	8	16
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)	
Relay Output		
Channels	8	16
Relay Type	4 SPDT, 4 SPST	8 SPDT, 8 SPST
Contact Rating (Voltage)	120 V _{ac} /24 V _{dc}	
Contact Rating (Current)	1 A	
Operate Time	1 ms (typical)	
Release Time	7 ms (typical)	
Life	Mechanical: 5,000,000 ops. Electrical: 100,000 ops.	
Insulation Resistance	1000 MΩ	
General		
Bus Type	PCI Express x1	
Card ID	Yes (4-bit)	
Connectors	Female DB-37 x 1	Female DB-37 x 1, 40-pin box header x 1
Power Consumption	800 mA @ +5 V	
Operating Temperature	0 °C ~ +60 °C	
Humidity	5 ~ 85% RH, non-condensing	

Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment
NO_0	01	NO_3
COM_0	02	20 NO_3
NC_0	03	21 COM_3
NO_1	04	22 NC_3
COM_1	05	23 NO_4
NC_1	06	24 COM_4
NO_2	07	25 NO_5
COM_2	08	26 COM_5
NC_2	09	27 NO_6
NO_7	10	28 COM_6
COM_7	11	29 GND
DIA_0	12	30 DIB_0
DIA_1	13	31 DIB_1
DIA_2	14	32 DIB_2
DIA_3	15	33 DIB_3
DIA_4	16	34 DIB_4
DIA_5	17	35 DIB_5
DIA_6	18	36 DIB_6
DIA_7	19	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 (PEX-P16R16i only)

Ordering Information

PEX-P8R8i CR	PCI Express, 8-ch Isolated Digital Input, 8-ch Relay Output Board Includes one CA-4002 D-Sub connector.
PEX-P16R16i CR	PCI Express, 16-ch Isolated Digital Input, 16-ch Relay Output Board Includes one CA-4037W cable and two CA-4002 D-Sub connectors.