

PEX-P8POR8i/PEX-P16POR16i

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



Features ▶▶▶▶

- PCI Express x1, Plug & Play
- Supports DO status Readback (Register Level)
- Selectable DC signal input filter
- 2000 V_{oc} photo-isolation protection
- LED power indicator
- Low leakage current when PhotoMos relay is off
- High speed DIO operation
- Supports Card ID (SMD Switch)
- 8/16-ch PhotoMos Relay output, 8/16-ch isolated digital input
- AC signal input with filter
- 0.05 ms release time
- Long life and high reliability PhotoMos relay
- No contact bounce, no sparking

Introduction

The PEX-P8POR8i/PEX-P16POR16i is a PCI Express card with programmable digital I/O interface. It provides 8/16 photocouple digital inputs with 2000 V_{oc} isolation protection, allows the input signals to be completely floated to prevent the ground loops. It is also equipped with 8/16 PhotoMos relay outputs for controlling ON/OFF of external devices, driving external relays or small power switches, and activating alarms... etc.

The PEX-P8POR8i/PEX-P16POR16i is designed as easy replacement for the PCI-P8POR8/P16POR16, and users can replace the PCI-P8POR8/P16POR16 with the PEX-P8POR8i/PEX-P16POR16i directly without any software/driver modification.

Hardware Specifications

Models	PEX-P8POR8i	PEX-P16POR16i
Digital Input		
Isolation Voltage	2000 V _{oc} (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	PhotoMos, Form A	
Contact Rating (Voltage)	300 V (AC peak or DC)	
Contact Rating (Current)	130 mA	
Operate Time	0.7 ms (typical)	
Release Time	0.05 ms (typical)	
On-state Resistance	24 Ω Max.	
Off-state Leakage Current	1 uA Max.	
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	

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
- Supports LabVIEW and Linux
- VB/VC/Delphi/BCB/VB.NET/C#.NET sample programs with source codes

Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment	Pin Assignment	Terminal No.	Pin Assignment
NO_0	01	20	CM_0	NO_8	01
NO_1	02	21	CM_1	NO_9	03
NO_2	03	22	CM_2	NO_10	05
NO_3	04	23	CM_3	NO_11	07
NO_4	05	24	CM_4	NO_12	09
NO_5	06	25	CM_5	NO_13	11
NO_6	07	26	CM_6	NO_14	13
NO_7	08	27	CM_7	NO_15	15
N/A	09	28	N/A	N/A	17
N/A	10	29	N/A/GND	N/A	19
N/A	11	30	DIB_0	N/A	21
DIA_0	12	31	DIB_1	DIA_8	23
DIA_1	13	32	DIB_2	DIA_9	25
DIA_2	14	33	DIB_3	DIA_10	27
DIA_3	15	34	DIB_4	DIA_11	29
DIA_4	16	35	DIB_5	DIA_12	31
DIA_5	17	36	DIB_6	DIA_13	33
DIA_6	18	37	DIB_7	DIA_14	35
DIA_7	19			DIA_15	37
				N/A	39

CON2 (PEX-P16POR16i only)

Ordering Information

PEX-P8POR8i CR	PCI Express, 8-ch Isolated Digital Input, 8-ch PhotoMos Relay Output Board Includes one CA-4002 D-Sub connector.
PEX-P16POR16i CR	PCI Express, 16-ch Isolated Digital Input, 16-ch PhotoMos Relay Output Board Includes one CA-4037W cable and two CA-4002 D-Sub connectors.

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