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_{DC} 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_{DC} 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.

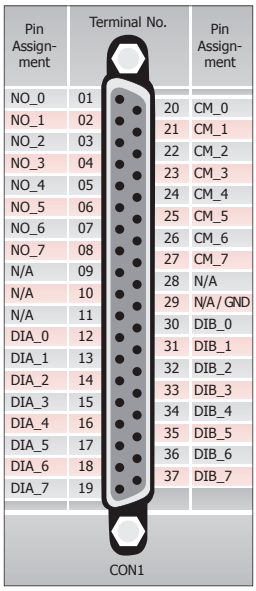
Hardware Specifications

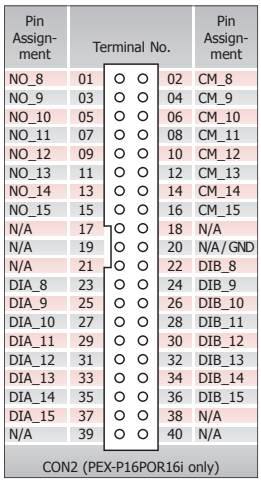
Models	PEX-P8POR8i	PEX-P16POR16i
Digital Input		
Isolation Voltage	2000 V_{DC} (Photo-couple)	
Channels	8	16
Input Voltage	Logic 1: AC/DC 5 ~ 24 V (AC 50 ~ 1 kHz) Logic 0: AC/DC 0 ~ 1 V	
Response Speed	Without Filter: 50 kHz (Typical) With Filter: 0.455 kHz (Typical)	
Relay Output		
Channels	8	16
Relay Type	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





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.