

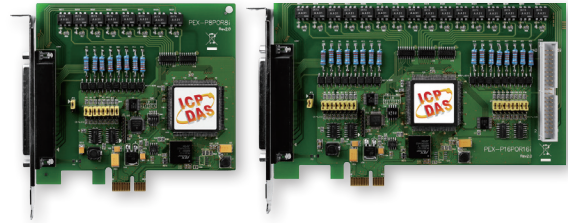
PEX-P8POR8i/PEX-P16POR16i

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



PEX-P8POR8i

PEX-P16POR16i



Features

- PCI Express x1 Interface
- Supports Card ID (SMD Switch)
- LED Power Indicator
- 8/16-channel Isolated Digital Input
 - Selectable DC Signal Input Filter
 - AC Signal Input with Filter
 - 2000 V_{DC} Photo-isolation Protection
- 8/16-channel PhotoMOS Relay Output
 - Supports DO Status Readback (Register Level)
 - 0.05 ms Release Time
 - Long Life and High Reliability PhotoMos Relay
 - Low Leakage Current when PhotoMos Relay is OFF
 - No Contact Bounce, No Sparking

Introduction

The PEX-P8POR8i/PEX-P16POR16i series utilizes the PCI Express bus and designed as an easy replacement for the PCI-P8POR8/P16POR16 series without requiring any modification to either the software or the driver.

The PEX-P8POR8i/PEX-P16POR16i provides 8/16 photocoupler Digital Input channels with 2000 V_{DC} isolation protection, and allows the input signals to be completely floated to prevent ground loops. It is also equipped with 8/16 PhotoMOS Relay Outputs channels that can be used for controlling the ON/OFF state of external devices, for driving external relays or small power switches, or for activating alarms, etc.

Hardware Specifications

Model	PEX-P8POR8i	PEX-P16POR16i
Digital Input		
Isolation Voltage	2000 V _{DC} (Photocoupler)	
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)
	Current	130 mA
Operating Time	0.7 ms (Typical)	
Insulation Resistance	1000 MΩ @ 500 V _{DC}	
Electrical Endurance	Long Life and No Spike	
General		
Bus Type	PCI Express x1	
Card ID	Yes (4-bit)	
Connectors	Female DB37 x 1	Female DB37 x 1, 40-pin Box Header x 1
Power Consumption	550 mA @ +3.3 V 250 mA @ +12 V	600 mA @ +3.3 V 300 mA @ +12 V
Operating Temperature	0°C to +60°C	
Humidity	5 to 85% RH, Non-condensing	

Software

- Drivers**
- 32/64-bit Windows XP/2003/2008/7/8/10
 - Linux
- Sample Programs**
- DOS Lib and TC/BC/MSC Demo
 - LabVIEW Toolkit
 - VB/VC/Delphi/BCB/VB.NET/C#.NET/VC.NET/MATLAB Demo

Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment	Terminal No.	Pin Assignment
NO_0	01	CM_0	20	02
NO_1	02	CM_1	21	04
NO_2	03	CM_2	22	06
NO_3	04	CM_3	23	08
NO_4	05	CM_4	24	10
NO_5	06	CM_5	25	12
NO_6	07	CM_6	26	14
NO_7	08	CM_7	27	16
N/A	09	N/A	28	18
N/A	10	N/A	29	20
N/A	11	N/A	30	22
DIA_0	12	DIB_0	31	24
DIA_1	13	DIB_1	32	26
DIA_2	14	DIB_2	33	28
DIA_3	15	DIB_3	34	30
DIA_4	16	DIB_4	35	32
DIA_5	17	DIB_5	36	34
DIA_6	18	DIB_6	37	36
DIA_7	19	DIB_7	38	38
			39	N/A
			40	N/A

CON2 (PEX-P16POR16i only)

Ordering Information

PEX-P8POR8i CR	PCI Express, 8-channel Isolated Digital Input, 8-channel PhotoMos Relay Output Board (RoHS). Includes one CA-4002 D-sub Connector.
PEX-P16POR16i CR	PCI Express, 16-channel Isolated Digital Input, 16-channel PhotoMos Relay Output Board (RoHS). Includes one CA-4037W Cable and two CA-4002 D-sub Connectors.

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PCI Express Data Acquisition Boards