



## PEX-P8POR8i

PCI Express, 8-ch Optically Isolated Digital Input and 8-ch PhotoMOS Relay Output Board

## PEX-P16POR16i

PCI Express, 16-ch Optically Isolated Digital Input and 16-ch PhotoMOS Relay Output Board

### 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 Vdc 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

### Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment	Pin Assignment	Terminal No.	Pin Assignment
NO_0	01	20	CM_0	01	CM_8
NO_1	02	21	CM_1	03	CM_9
NO_2	03	22	CM_2	05	CM_10
NO_3	04	23	CM_3	07	CM_11
NO_4	05	24	CM_4	09	CM_12
NO_5	06	25	CM_5	11	CM_13
NO_6	07	26	CM_6	13	CM_14
NO_7	08	27	CM_7	15	CM_15
N/A	09	28	N/A	17	18
N/A	10	29	N/A / GND	19	20
N/A	11	30	DIB_0	21	22
DIA_0	12	31	DIB_1	23	24
DIA_1	13	32	DIB_2	25	26
DIA_2	14	33	DIB_3	27	28
DIA_3	15	34	DIB_4	29	30
DIA_4	16	35	DIB_5	31	32
DIA_5	17	36	DIB_6	33	34
DIA_6	18	37	DIB_7	35	36
DIA_7	19	38		37	38
		39		39	40
				CON2 (PEX-P16POR16i only)	
				CON1	

### Ordering Information

<b>PEX-P8POR8i CR</b>	PCI Express, 8-ch Optically Isolated Digital Input and 8-ch PhotoMOS Relay Output Board (RoHS) Includes one CA-4002 D-Sub connector
<b>PEX-P16POR16i CR</b>	PCI Express x1, 16-ch isolated digital input and 16-ch PhotoMOS Relay output (RoHS) Includes one CA-4037W cable and two CA-4002 D-Sub connectors

### 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 Vdc 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



### Software

#### Drivers

- 32/64-bit Windows 10/11
- Linux








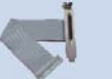


#### Sample Programs

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

### Hardware Specifications

Model	PEX-P8POR8i	PEX-P16POR16i
<b>Hardware</b>		
Card ID	Yes (4-bit)	
Connector	Female DB37 x 1	Female DB37 x 1 40-pin box header x 1
<b>Digital Input</b>		
Channels	8	16
Type	Photocoupler (Sink or Source)	
Response Speed	Without Filter: 50 kHz (Typical) With Filter: 0.455 kHz(Typical)	
Trigger Mode	Static Update	
Wet Contact, ON Voltage Level	AC/DC 5 ~ 24 V (AC 50 ~ 1 kHz)	
Wet Contact, OFF Voltage Level	AC/DC 0 ~ 1 V	
Isolation	2000 VDC	
<b>Relay Output</b>		
Channels	8	16
Type	PhotoMos Relay (Form A)	
Contact Rating	Load Voltage: 300 V (AC peak or DC) Load Current: 130 mA	
Operate Time	0.7 ms (Typical)	
Release Time	0.05 ms (Typical)	
Electrical Endurance	Long Life and No Sparking	
<b>PC Bus</b>		
Type	PCI Express x 1	
Data Bus	16-bit	
<b>Power</b>		
Consumption	550 mA @ +3.3 V 250 mA @ +12 V	600 mA @ +3.3 V 300 mA @ +12 V
<b>Mechanical</b>		
Dimensions (mm)	113 x 173 x 22 (W x L x D)	
<b>Environmental</b>		
Operating Temperature	0 ~ +60°C	
Storage Temperature	-20 ~ +70°C	
Humidity	5 ~ 85% RH, Non-condensing	

## 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)
	CA-4002 CR	37-pin Male D-sub connector with plastic cover (RoHS)
	CA-4037W CR	40-pin flat & D-sub 37-pin Female cable 24 cm (RoHS)
	DB-37 CR	Directly connect signal to D-sub 37-pin connector (RoHS)
	DN-37 CR	DIN Rail Mounting 37-pin Connector (RoHS)

