



PEX-P8POR8i

PCI Express, 8-ch Isolated DI and 8-ch PhotoMOS Relay Output Board

PEX-P16POR16i

PCI Express, 16-ch Isolated DI 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.

The cards support various OS versions, such as Linux, DOS, Windows. DLL and Active X control together with various language sample program based on Turbo C++, Borland C++, Microsoft C++, Visual C++, Borland Delphi, Borland C++ Builder, Visual Basic, C#.NET, Visual Basic.NET and LabVIEW are provided in order to help users to quickly and easily develop their own applications.

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

Ordering Information

PEX-P8POR8i CR	PCI Express, 8-ch Optically Isolated Digital Input and 8-ch PhotoMOS Relay Output Board (RoHS) Includes one CA-4002 D-Sub connector
PEX-P16POR16i CR	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



Hardware Specifications

Model	PEX-P8POR8i	PEX-P16POR16i
Hardware		
Card ID	Yes (4-bit)	
Connector	Female DB37 x 1	Female DB37 x 1 40-pin box header x 1
Digital Input		
Channels	8	16
Type	Wet Contact , Photocoupler	
Sink/Source (NPN/PNP)	Sink/Source	
ON Voltage Level	AC/DC 5 ~ 24 V (AC 50 ~ 1 kHz)	
OFF Voltage Level	AC/DC 0 ~ 1 V	
Response Speed	Without Filter: 50 kHz (Typical) With Filter: 0.455 kHz(Typical)	
Trigger Mode	Static Update	
Isolation	2000 VDC	
Relay Output		
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	
PC Bus		
Type	PCI Express x 1	
Data Bus	16-bit	
Power		
Consumption	550 mA @ +3.3 V 250 mA @ +12 V	600 mA @ +3.3 V 300 mA @ +12 V
Mechanical		
Dimensions (mm)	113 x 173 x 22 (W x L x D)	113 x 118 x 22 (W x L x D)
Environment		
Operating Temperature	0 ~ +60°C	
Storage Temperature	-20 ~ +70°C	
Humidity	5 ~ 85% RH, Non-condensing	

Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment	Terminal No.	Pin Assignment
NO_0	01	CM_0	02	CM_8
NO_1	02	CM_1	03	CM_9
NO_2	03	CM_2	04	CM_10
NO_3	04	CM_3	05	CM_11
NO_4	05	CM_4	06	CM_12
NO_5	06	CM_5	07	CM_13
NO_6	07	CM_6	08	CM_14
NO_7	08	CM_7	09	CM_15
N/A	09	N/A	10	N/A
N/A	10	N/A	11	N/A / GND
N/A	11	N/A	12	N/A
DIA_0	12	DIB_0	13	N/A
DIA_1	13	DIB_1	14	N/A
DIA_2	14	DIB_2	15	N/A
DIA_3	15	DIB_3	16	N/A
DIA_4	16	DIB_4	17	N/A
DIA_5	17	DIB_5	18	N/A
DIA_6	18	DIB_6	19	N/A
DIA_7	19	DIB_7	20	N/A
CON1			21	N/A

Pin Assignment	Terminal No.	Pin Assignment	Terminal No.	Pin Assignment
NO_8	01	CM_8	02	CM_8
NO_9	03	CM_9	04	CM_9
NO_10	05	CM_10	06	CM_10
NO_11	07	CM_11	08	CM_11
NO_12	09	CM_12	10	CM_12
NO_13	11	CM_13	12	CM_13
NO_14	13	CM_14	14	CM_14
NO_15	15	CM_15	16	CM_15
N/A	17	N/A	18	N/A
N/A	19	N/A	20	N/A / GND
N/A	21	N/A	22	DIB_8
DIA_8	23	DIB_9	24	DIB_9
DIA_9	25	DIB_10	26	DIB_10
DIA_10	27	DIB_11	28	DIB_11
DIA_11	29	DIB_12	30	DIB_12
DIA_12	31	DIB_13	32	DIB_13
DIA_13	33	DIB_14	34	DIB_14
DIA_14	35	DIB_15	36	DIB_15
DIA_15	37	N/A	38	N/A
N/A	39	N/A	40	N/A

CON2 (PEX-P16POR16i only)

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)

