



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

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



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

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	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	
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)	
Environmental		
Operating Temperature	0 ~ +60°C	
Storage Temperature	-20 ~ +70°C	
Humidity	5 ~ 85% RH, Non-condensing	

Accessories

	CA-3710	DB-37 Male-Male D-sub cable 1 M (Cable for Daughter Board (45°))
	CA-3710D	DB-37 Male-Male D-sub cable 1 M (Cable for Daughter Board (180°))
	CA-3715DM-H	DB-37 Male-Male Cable, 1.5 M, 180°. (RoHS)
	CA-3730DM-H	DB-37 Male-Male Cable, 3.0 M, 180°. (RoHS)
	CA-3750DM	DB-37 Male-Male Cable, 5.0 M, 180°. (RoHS)
	CA-3750DM-H	DB-37 Male-Male Cable, 5.0 M, 180°. (RoHS)
	CA-4002	37-pin Male D-sub connector with plastic cover.
	CA-4037W	40-pin flat & D-sub 37-pin Female cable 24 cm.
	DB-37	Directly connect signal to D-sub 37-pin connector
	DN-37	DIN Rail Mounting 37-pin Connector

