



PEX-P8POR8i

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

PEX-P16POR16i

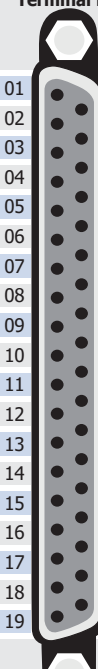
PCI Express, 16-ch Optically Isolated Digital Input and 16-ch PhotoMOS Relay Output Board

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	Terminal No.		Pin Assignment	
NO_0	01		CM_0	NO_8	01	CM_8	
NO_1	02		20	CM_1	NO_9	03	CM_9
NO_2	03		21	CM_2	NO_10	05	CM_10
NO_3	04		22	CM_3	NO_11	07	CM_11
NO_4	05		23	CM_4	NO_12	09	CM_12
NO_5	06		24	CM_5	NO_13	11	CM_13
NO_6	07		25	CM_6	NO_14	13	CM_14
NO_7	08		26	CM_7	NO_15	15	CM_15
N/A	09		27	N/A	N/A	17	N/A
N/A	10		28	N/A	N/A	19	N/A / GND
N/A	11		29	N/A / GND	DIA_8	21	DIB_8
DIA_0	12		30	DIB_0	DIA_9	23	DIB_9
DIA_1	13		31	DIB_1	DIA_10	25	DIB_10
DIA_2	14		32	DIB_2	DIA_11	27	DIB_11
DIA_3	15		33	DIB_3	DIA_12	29	DIB_12
DIA_4	16		34	DIB_4	DIA_13	31	DIB_13
DIA_5	17		35	DIB_5	DIA_14	33	DIB_14
DIA_6	18		36	DIB_6	DIA_15	35	DIB_15
DIA_7	19		37	DIB_7	N/A	37	N/A
				N/A	39	N/A	
CON1				CON2 (PEX-P16POR16i only)			

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 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)

