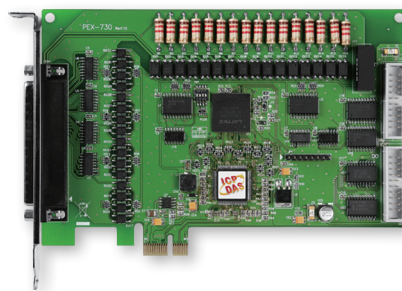


PEX-730

Available soon

PCI Express, 32-ch Isolated Digital I/O and 32-ch TTL Digital I/O (Sink, NPN) Board



Features ▶▶▶▶

- PCI Express x1, Plug & Play
- 16-channel optically isolated digital input
- 16-channel optically isolated digital output (Sink, NPN)
- 16-channel 5 V/TTL digital output
- 16-channel 5 V/TTL digital input
- Supports Card ID (SMD Switch)
- 3750 V_{rms} photo-isolation protection
- Internal power (3000 V_{DC} isolation) for dry-contact input
- Supports output status Readback
- Two interrupt sources

Introduction

PEX-730 cards provide 32 isolated digital I/O channels (16 x DI and 16 x DO) and 32 TTL-level digital I/O channels (16 x DI and 16 x DO). Both the isolated DI and DO channels use a short optical transmission path to transfer an electronic signal between the elements of a circuit and keep them electrically isolated. With 3750 V_{rms} isolation protection, these DIO channels allow the input signals to be completely floated so as to prevent ground loops and isolate the host computer from damaging voltages. Each digital output offers a Darlington (NPN) transistor and integrated suppression diode for the inductive load. The open collector outputs (DO channels) are typically used for alarm and warning notification, signal output control, control for external circuits that require a higher voltage level, and signal transmission applications, etc.

The PEX-730 also adds a Card ID switch. Users can set Card ID on a board and recognize the board by the ID via software when using two or more PEX-730 cards in one computer. The PEX-730 is designed as easy replacement for the PISO-730U without any software/driver modification.

Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment
IDI_0	01	20 IDI_1
IDI_2	02	21 IDI_3
IDI_4	03	22 IDI_5
IDI_6	04	23 IDI_7
IDI_8	05	24 IDI_9
IDI_10	06	25 IDI_11
IDI_12	07	26 IDI_13
IDI_14	08	27 IDI_15
EI.COM1	09	28 EI.COM2
EO.COM1	10	29 IGND
IDO_0	11	30 IDO1
IDO_2	12	31 IDO3
IDO_4	13	32 IDO5
IDO_6	14	33 IDO7
IDO_8	15	34 IDO9
IDO_10	16	35 IDO11
IDO_12	17	36 IDO13
IDO_14	18	37 IDO15
EO.COM2	19	

Pin Assignment	Terminal No.	Pin Assignment
DI 0	01	02 DI 1
DI 2	03	04 DI 3
DI 4	05	06 DI 5
DI 6	07	08 DI 7
DI 8	09	10 DI 9
DI 10	11	12 DI 11
DI 12	13	14 DI 13
DI 14	15	16 DI 15
GND	17	18 GND
+5V	19	20 +12V

Pin Assignment	Terminal No.	Pin Assignment
DO 0	01	02 DO 1
DO 2	03	04 DO 3
DO 4	05	06 DO 5
DO 6	07	08 DO 7
DO 8	09	10 DO 9
DO 10	10	12 DO 11
DO 12	12	14 DO 13
DO 14	14	16 DO 15
GND	16	18 GND
+5V	18	20 +12V

Software

- Driver**
- 32/64-bit Windows XP/2003/2008/Vista/7/8
 - 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

Digital Input		
Isolation Voltage		3750 V _{rms}
Channels	Isolated	16
	Non-Isolated	16
Compatibility	Isolated	Optical
	Non-Isolated	5 V/TTL
Input Voltage	Isolated	Logic 0: 0 ~ 1 V Logic 1: 9 ~ 24 V
	Non-Isolated	Logic 0: 0.8 V max. Logic 1: 2.0 V min.
Impedance		1.2 KΩ, 1W
Digital Output		
Isolation Voltage		3750 V _{rms}
Channels	Isolated	16
	Non-Isolated	16
Compatibility	Isolated	Sink, Open Collector
	Non-Isolated	5 V/TTL
Output Capability	Isolated	100 mA/+30 V for one channel @ 100% duty
	Non-Isolated	Sink: 2.4 mA @ 0.8 V Source: 0.8 mA @ 2.0 V
General		
Bus Type		PCI Express x1
Card ID		Yes (4-bit)
Connectors		Female DB-37 x 1, 20-pin Male box header x 2
Power Consumption		400 mA @ +5 V
Operating Temperature		0 °C ~ +60 °C
Humidity		5 ~ 85% RH, non-condensing

Ordering Information

PEX-730 CR	PCI Express, 32-ch isolated digital I/O and 32-ch TTL digital I/O board. (current sinking) (RoHS) Includes one CA-4002 D-Sub connector.
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