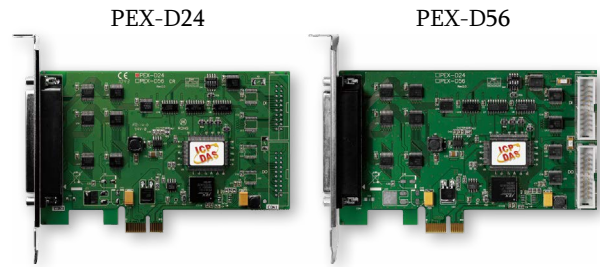


PEX-D24/PEX-D56

PCI Express, 24/56-channel Digital I/O Board



Features

- PCI Express x1 Interface, Plug & Play
- Supports Card ID (SMD Switch)
- DIO Response Time: ~2 μs (500 kHz Max.)
- Emulates two Industrial-standard 8255 PPI Ports (Mode 0)
- 24/56 Buffered TTL Digital Input/Output Lines
- Three 8-bit Bi-directional I/O Ports
- DO Provides Higher Driving Capability
- Four Interrupt Sources

Introduction

The PEX-D24/D56 utilizes the PCI Express bus and designed as an easy replacement for the PIO-D24/PIO-D24U/PIO-D56/PIO-D56U without requiring any modification to the software or the driver.

The PEX-D24/D56 provides 24/56 buffered TTL Digital Input/Output lines, which are grouped into three 8-bit bi-directional ports: Port A (PA), Port B (PB) and Port C (PC), and are configured as input ports during power-on or after a reset.

The PEX-D24/D56 also includes an onboard Card ID that enables the board to be recognized via software if two or more PEX-D24/D56 cards are installed in the same computer.

Hardware Specifications

Model	PEX-D24	PEX-D56
Programmable DI/O		
Channels	24	
Digital Input		
Channels	-	16
Compatibility	5 V/TTL	
Input Voltage	Logic 0: 0.8 V Max. Logic 1: 2.0 V Min.	
Response Speed	500 kHz	
Digital Output		
Channels	-	16
Compatibility	5 V/TTL	
Output Voltage	Logic 0: 0.4 V Max. Logic 1: 2.4 V Min.	
Output Capability	Sink: 64 mA @ 0.8 V Source: 32 mA @ 2.0 V	CN1 Sink: 2.4 mA @ 0.8 V Source: 0.8 mA @ 2.0 V
		CN3 Sink: 64 mA @ 0.8 V Source: 32 mA @ 2.0 V
Response Speed	500 kHz	
General		
Bus Type	PCI Express x1	
Card ID	Yes (4-bit)	
Connectors	Female DB37 x 1	Female DB37 x 1, 20-pin Male Box Header x 2
Power Consumption	420 mA @ +5 V	580 mA @ +5 V
Operating Temperature	0°C to +60°C	
Humidity	5 to 85% RH, Non-condensing	

Software

Drivers

- ✓ 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

Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment
N.C	01	20 +5V
N.C	02	21 GND
PB_7	03	22 PC_7
PB_6	04	23 PC_6
PB_5	05	24 PC_5
PB_4	06	25 PC_4
PB_3	07	26 PC_3
PB_2	08	27 PC_2
PB_1	09	28 PC_1
PB_0	10	29 PC_0
GND	11	30 PA_7
N.C	12	31 PA_6
GND	13	32 PA_5
N.C	14	33 PA_4
GND	15	34 PA_3
N.C	16	35 PA_2
GND	17	36 PA_1
+5V	18	37 PA_0
GND	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
+5 V	19	20 +12 V

CON2 (PEX-D56 only)

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
+5 V	18	20 +12 V

CON1 (PEX-D56 only)

Ordering Information

PEX-D24 CR	PCI Express, 24-channel Digital I/O Board (RoHS)
PEX-D56 CR	PCI Express, 56-channel Digital I/O Board (RoHS)

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PCI Express Data Acquisition Boards