

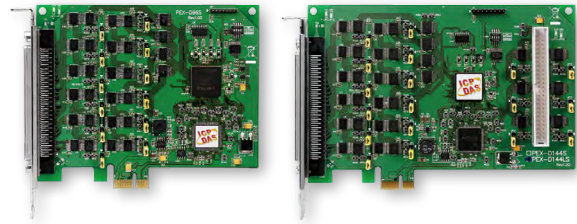
PEX-D96S/PEX-D144LS

PCI Express, 96/144-channel Digital I/O Board



PEX-D96S

PEX-D144LS



Features

- PCI Express x1 Interface, Plug & Play
- Supports Card ID (SMD Switch)
- DIO Response Time: ~2 μs (500 kHz Max.)
- DO Provides Higher Driving Capability
- 96/144 Buffered CMOS Digital Input/Output Lines
- Twelve/Eighteen 8-bit Bi-directional I/O Ports
- Supports DO Status Readback (Register Level)
- Four Interrupt Sources

Introduction

The PEX-D96S/D144LS utilizes the PCI Express bus and designed as an easy replacement for the PIO-D96U/D96SU/D144U without requiring any modification to the software or the driver.

The PEX-D96S/D144LS provides a high-density connector that reduces the amount of installation space required for the card in the computer.

The PEX-D96S/D144LS supports the 96/144 CMOS digital I/O lines that consist of twelve/eighteen 8-bit bi-direction ports: port A (PA), port B (PB) and port C (PC) in a connector. All ports are configured as input ports during power-on or after a reset.

The PEX-D96S/D144LS also includes an onboard Card ID that enables the board to be recognized via software if two or more cards are installed in the same computer.

Hardware Specifications

Model	PEX-D96S	PEX-D144LS
Programmable DI/O		
Channels	96	144
Digital Input		
Compatibility	5 V/CMOS	
Input Voltage	Logic 0: 0.8 V Max. Logic 1: 2.0 V Min.	
Response Speed	500 kHz	
Digital Output		
Compatibility	5 V/CMOS	
Output Voltage	Logic 0: 0.1 V Max. Logic 1: 4.4 V Min.	
Output Capability	Sink: 6 mA @ 0.33 V Source: 6 mA @ 4.77 V	
Response Speed	500 kHz	
General		
Bus Type	PCI Express x1	
Card ID	Yes (4-bit)	
Connectors	Female SCSI II 100-pin x 1	Female SCSI II 100-pin x 1, 50-pin Box Header x 1
Power Consumption	600 mA @ +5 V	
Operating Temperature	0°C to +60°C	
Humidity	5 to 85% RH, Non-condensing	

Ordering Information

PEX-D96S CR	PCI Express, 96-channel Digital I/O Board (RoHS)
PEX-D144LS CR	PCI Express, 144-channel Digital I/O Board (RoHS)

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
PA_00	01	PA_10
PA_01	02	PA_11
PA_02	03	PA_12
PA_03	04	PA_13
PA_04	05	PA_14
PA_05	06	PA_15
PA_06	07	PA_16
PA_07	08	PA_17
PB_00	09	PB_10
PB_01	10	PB_11
PB_02	11	PB_12
PB_03	12	PB_13
PB_04	13	PB_14
PB_05	14	PB_15
PB_06	15	PB_16
PB_07	16	PB_17
PC_00	17	PC_10
PC_01	18	PC_11
PC_02	19	PC_12
PC_03	20	PC_13
PC_04	21	PC_14
PC_05	22	PC_15
PC_06	23	PC_16
PC_07	24	PC_17
GND	25	GND
PA_20	26	PA_30
PA_21	27	PA_31
PA_22	28	PA_32
PA_23	29	PA_33
PA_24	30	PA_34
PA_25	31	PA_35
PA_26	32	PA_36
PA_27	33	PA_37
PB_20	34	PB_30
PB_21	35	PB_31
PB_22	36	PB_32
PB_23	37	PB_33
PB_24	38	PB_34
PB_25	39	PB_35
PB_26	40	PB_36
PB_27	41	PB_37
PC_20	42	PC_30
PC_21	43	PC_31
PC_22	44	PC_32
PC_23	45	PC_33
PC_24	46	PC_34
PC_25	47	PC_35
PC_26	48	PC_36
PC_27	49	PC_37
+5 V	50	+5 V

Pin Assignment	Terminal No.	Pin Assignment
GND	01	+5 V
PA_40	03	PA_50
PA_41	05	PA_51
PA_42	07	PA_52
PA_43	09	PA_53
PA_44	11	PA_54
PA_45	13	PA_55
PA_46	15	PA_56
PA_47	17	PA_57
PB_40	19	PB_50
PB_41	21	PB_51
PB_42	23	PB_52
PB_43	25	PB_53
PB_44	27	PB_54
PB_45	29	PB_55
PB_46	31	PB_56
PB_47	33	PB_57
PC_40	35	PC_50
PC_41	37	PC_51
PC_42	39	PC_52
PC_43	41	PC_53
PC_44	43	PC_54
PC_45	45	PC_55
PC_46	47	PC_56
PC_47	49	PC_57

CON2 (PEX-D144LS only)

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PCI Express Data Acquisition Boards