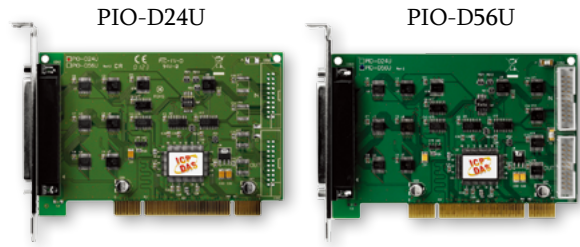


PIO-D24U/PIO-D56U

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



Features >>>

- Universal PCI (3.3 V/5 V) Interface, Plug & Play
- 24/56 Buffered TTL Digital I/O Lines
- Three 8-bit Bi-directional Programmable I/O Ports
- Emulates two Industrial-standard 8255 PPI Ports (Mode 0)
- 4-channel Interrupt Source
- Supports Card ID (SMD Switch)
- Supports DO Status Readback (Register Level)
- DI/O Response Time is about 1 μ s (1 MHz)

Introduction

The PIO-D24U/D56U cards are designed to be fully compatible with PIO-D24/D56 boards. The PIO-D24U/D56U series can be used as a direct replacement for PIO-D24/D56 boards without requiring any modification to the software or the driver.

The PIO-D24U/D56U supports the 3.3 V/5 V PCI bus, and contains three 8-bit bi-directional I/O ports, referred to as Port A (PA), Port B (PB) and Port C (PC), respectively. Each port is configured as an input on power-up or after a reset. In addition, the PIO-D56U also provides 16 Digital Input channels and 16 Digital Output channels.

The PIO-D24U/D56U cards also include an onboard Card ID switch that enables the board to be recognized via software if two or more boards are installed in the same computer.

Software

- Drivers**
- 32/64-bit Windows XP/2003/2008/Vista/7/8
 - Linux DASyLab
- 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 +5 V
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
+5 V	18	37 PA_0
GND	19	

CON3

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 (PIO-D56U 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 (PIO-D56U only)

Hardware Specifications

Model	PIO-D24U	PIO-D56U				
Programmable DIO						
Channels	24					
Digital Input						
Channels	-	16				
Compatibility	5V/TTL					
Input Voltage	Logic 0: 0.8 V Max. Logic 1: 2.0 V Min.					
Response Speed	1 MHz					
Digital Output						
Channels	-	16				
Compatibility	5V/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	<table border="1"> <tr> <td>CN1</td> <td>Sink: 2.4 mA @ 0.8 V Source: 0.8 mA @ 2.0 V</td> </tr> <tr> <td>CN3</td> <td>Sink: 64 mA @ 0.8 V Source: 32 mA @ 2.0 V</td> </tr> </table>	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
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	1 MHz					
General						
Bus Type	3.3 V/5 V Universal PCI, 32-bit, 33 MHz					
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					

Ordering Information

PIO-D24U CR	Universal PCI, 24-channel Digital I/O Board (RoHS).
PIO-D56U CR	Universal PCI, 56-channel Digital I/O Board (RoHS).