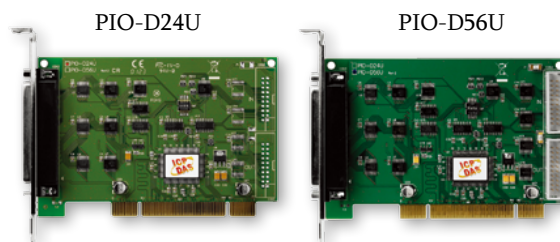


PIO-D24U/PIO-D56U

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	

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

CN2 (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

CN1 (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	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).