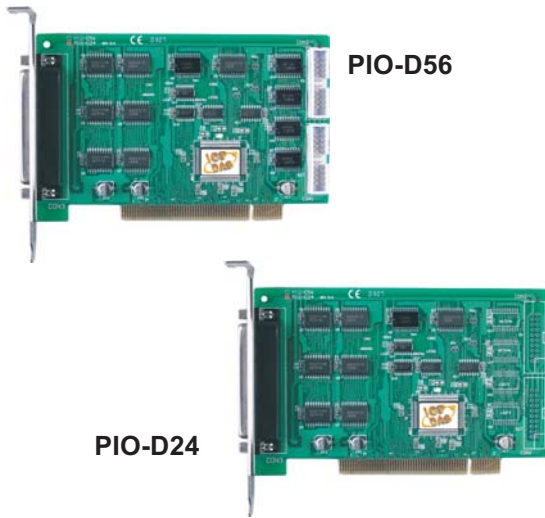


# PIO-D56/D24

PCI bus 56/24-bit DIO board



PIO-D56

PIO-D24

## Functional Description

The PIO-D56/D24 consists of one 24-bit port, one 16-bit input port and one 16-bit output port (only for PIO-D56). The 24-bit port emulate mode 0 of the industry standard 8255 programmable peripheral interface (PPI) chip. Each PPI offers three 8-bit ports, Port A, Port B and Port C. The 24-bit bi-directional ports are configured as inputs upon power-up or reset.

## Applications

- Factory automation
- Laboratory automation
- Communication switching
- Industrial automation

## Specifications

### Digital Input

- All inputs are TTL compatible
- Logic high voltage: 2.4V min
- Logic low voltage: 0.8V max

### Digital Output

- All outputs are TTL compatible
- OPTO-22 output (CON3)
  - Sink current: 64 mA max
  - Source current: 32 mA max
- 16-channel output (CN1)
  - Sink current: 8 mA max
  - Source current: 0.4 mA max

### General Specifications

- I/O connector: one D-sub 37-pin female  
two 20-pin ribbon male (PIO-D56)
- Power requirements: +5V@580 mA (PIO-D56)  
+5V@420 mA (PIO-D24)
- Operating temperature: 0 ~ 60°C
- Operating humidity: 0 ~ 90% non-condensing
- Storage temperature: -20 ~ 80°C
- Dimensions: 143 mm x 105 mm

## Features

- 32-bit +5V PCI bus, Plug & Play
- 56-bit digital I/O (PIO-D56)
- 24-bit digital I/O (PIO-D24)
- High driving capability
- Four interrupt sources: PC0, PC1, PC2, PC3
- DIO response time is about 0.77 us (1.3 MHz max.)

## Pin Assignment

CON3		CON1	
PA_0	37	19	GND
PA_1	36	18	Vcc
PA_2	35	17	GND
PA_3	34	16	N.C.
PA_4	33	15	GND
PA_5	32	14	N.C.
PA_6	31	13	GND
PA_7	30	12	N.C.
PC_0	29	11	GND
PC_1	28	10	PB_0
PC_2	27	9	PB_1
PC_3	26	8	PB_2
PC_4	25	7	PB_3
PC_5	24	6	PB_4
PC_6	23	5	PB_5
PC_7	22	4	PB_6
GND	21	3	PB_7
Vcc	20	2	N.C.
		1	N.C.

CON2	
DI0	1
DI2	3
DI4	5
DI6	7
DI8	9
DI10	11
DI12	13
DI14	15
GND	17
+5V	19

2	DI1
4	DI3
6	DI5
8	DI7
10	DI9
12	DI11
14	DI13
16	DI15
18	GND
20	+12V

DO0	1
DO2	3
DO4	5
DO6	7
DO8	9
DO10	11
DO12	13
DO14	15
GND	17
+5V	19

2	DO1
4	DO3
6	DO5
8	DO7
10	DO9
12	DO11
14	DO13
16	DO15
18	GND
20	+12V

## Ordering Information

### Standard

- PIO-D56:** PCI bus 56-bit DIO board
- PIO-D24:** PCI bus 24-bit DIO board

### Optional

- DB-24PD:** 24-channel isolated D/I board
- DB-24RD:** 24-channel relay board
- DB-24PRD:** 24-channel power relay board
- DB-16P8R:** 16-channel isolated D/I and 8-channel relay output board
- DB-24POR:** 24-channel PhotoMOS relay output board
- DB-24SSR:** 24-channel solid state relay output board
- DB-24C:** 24-channel open-collector output board
- DB-24OD:** 24-channel open-drain output board
- DB-16P:** 16-channel OPTO-isolated digital input board
- DB-16R:** 16-channel relay output board
- DN-20:** 2x20 pin header DIN-rail mounting terminal board
- DN-37:** 2x37 pin header DIN-rail mounting terminal board
- ADP-20/PCI:** 20-pin extender