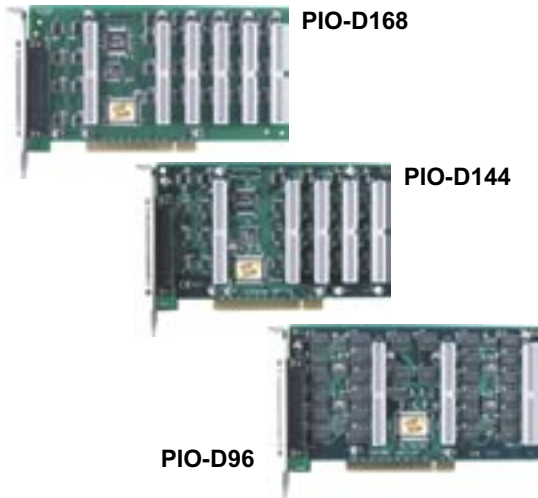


PIO-D168/D144/D96

PCI bus 168/144/96-bit OPTO-22 compatible DIO board



Functional Description

PIO-D168/D144/D96 are high density parallel digital I/O board equipped with 168/144/96-channel bi-direction I/O. The header connectors are fully compatible with industry OPTO-22 standard. The PIO-D168/D144/D96 emulate mode 0 of the industry standard 8255 programmable peripheral interface (PPI) chips. Each PPI offers three 8-bit ports, Port A, Port B and Port C. All groups are configured as inputs upon power-up or reset.

The flat cable can be connected to ADP-37/PCI or ADP-50/PCI adapter. The adapter can be fixed on the chassis. Refer to the above figure. It can be installed in a 5 V PCI bus and can support truly "Plug & Play."

Applications

- Factory Automation
- Laboratory Automation
- Communication Switching
- Industrial Automation

Features

- 32-bit +5V PCI Bus, Plug & Play
- 168/144/96-channel digital TTL/DTL I/O
- All I/O lines buffered on the board
- Emulate 7/6/4 industry standard 8255 PPI mode 0
- Direct interface with OPTO-22 compatible I/O modules
- High output driving capability
- Programmable direct-trigger interrupt source

Specifications

- All inputs & outputs are TTL compatible
- Input Logic high voltage: 2.4V min
- Input Logic low voltage: 0.8V max
- Output sink current: 64 mA max
- Output source current: 32 mA max
- Programmable Interrupt source:
 - P2C0, P2C1, P2C2, P2C3 (PIO-D168, PIO-D144)
 - P2C0, P5C0, P8C0, P11C0 (PIO-D96)

General Specifications

- I/O connector: one 37-pin D-Sub female
 - six 50-pin ribbon male (PIO-D168)
 - five 50-pin ribbon male (PIO-D144)
 - three 50-pin ribbon male (PIO-D96)
- Power requirements:

Device	PIO-D168	PIO-D144	PIO-D96
+5V	1300 mA	1100 mA	600 mA

- Operating temperature: 0 ~ 60°C
- Operating humidity: 0 ~ 90% non-condensing
- Storage temperature: -20 ~ 80°C
- Dimensions: 200 mm x 105 mm (PIO-D168)
180 mm x 105 mm (PIO-D144/D96)

PIO-D168/D144/D96/D48

PCI bus 168/144/96/48-bit OPTO-22 compatible DIO board

Pin Assignment

CN1

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.

CN2, CN3, CN4, CN5, CN6 & CN7

GND	50	○	○	○	○	49	Vcc
GND	48	○	○	○	○	47	PA_0
GND	46	○	○	○	○	45	PA_1
GND	44	○	○	○	○	43	PA_2
GND	42	○	○	○	○	41	PA_3
GND	40	○	○	○	○	39	PA_4
GND	38	○	○	○	○	37	PA_5
GND	36	○	○	○	○	35	PA_6
GND	34	○	○	○	○	33	PA_7
GND	32	○	○	○	○	31	PB_0
GND	30	○	○	○	○	29	PB_1
GND	28	○	○	○	○	27	PB_2
GND	26	○	○	○	○	25	PB_3
GND	24	○	○	○	○	23	PB_4
GND	22	○	○	○	○	21	PB_5
GND	20	○	○	○	○	19	PB_6
GND	18	○	○	○	○	17	PB_7
GND	16	○	○	○	○	15	PC_0
GND	14	○	○	○	○	13	PC_1
GND	12	○	○	○	○	11	PC_2
GND	10	○	○	○	○	9	PC_3
GND	8	○	○	○	○	7	PC_4
GND	6	○	○	○	○	5	PC_5
GND	4	○	○	○	○	3	PC_6
GND	2	○	○	○	○	1	PC_7

Ordering Information

Standard

- PIO-D168:** PCI bus 168-bit OPTO-22 DIO board
- PIO-D144:** PCI bus 144-bit OPTO-22 DIO board
- PIO-D96:** PCI bus 96-bit OPTO-22 DIO board
- PIO-D48:** PCI bus 48-bit OPTO-22 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
- DN-37:** DIN-rail mounting terminal board
- DN-50:** DIN-rail mounting terminal board
- ADP-37/PCI:** 50-pin OPTO-22 ports to DB-37 adapter
- ADP-50/PCI:** 50-pin extender