

## PCI Digital I/O Board

# PIO-D48

PCI bus 48-bit OPTO-22 compatible DIO board



### Features

- 32-bit +5V PCI Bus, Plug & Play
- 48-channel digital TTL/DTL I/O
- All I/O lines buffered on the board
- Emulate 2 industry standard 8255 PPI mode 0
- Direct interface with OPTO-22 compatible I/O modules
- High output driving capability
- Programmable direct-trigger interrupt source
- On-board 8254 timer/counter chip
- Interrupt source: timer, event, direct trigger
- Pull-up or pull-down resistors on I/O lines
- DIO response time is about 0.77 us (1.3 MHz max.)

### Functional Description

The PIO-D48 provides 48 TTL digital I/O lines. The PIO-D48 consists of two 24-bit bi-direction ports. Each 24-bit port supports three of 8-bit groups (A, B, C) and the port C can be divided into 2 nibble\_wide (4-bit) ports. Each 8-bit group can be configured to function as either inputs or latched outputs. All groups are configured as inputs upon power-up or reset. Outputs of the I/O buffers are pulled up through 10K resistors to +5VDC. Outputs can be changed to pull-down by jumper selection on the board. This pull-up / pull-down mechanism assures that there are no erroneous outputs at power-up until the board is initialized by application software.

The PIO-D48 has one D-sub connector and one 50-pin flat-cable header. The header can be connected to a 50-pin flat-cable. The flat-cable can be connected to ADP-37 / PCI or ADP-50 / PCI adapters. The adapter can be fixed on the chassis. 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

### 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: P2C3, P2C7, P5C3, P5C7 (PIO-D48)

### General Specifications

- I/O connector: one 37-pin D-Sub female  
one 50-pin ribbon male
- Power requirements: +5V / 500 mA
- Operating temperature: 0 ~ 60°C
- Operating humidity: 0 ~ 90% non-condensing
- Storage temperature: -20 ~ 80°C
- Dimensions: 156 mm x 105 mm