

PCI-DIO24 and PCI-DIO24H

24-Bit Digital I/O Board for PCI Bus

\$109
Basic Unit



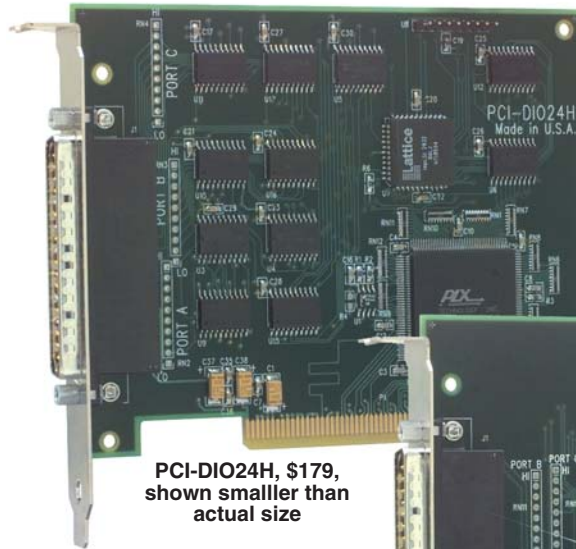
- ✓ 24 Digital I/O Bits
- ✓ High Current Output for PCI-DIO24H
- ✓ Connector and Software Compatible with CIO-DIO24
- ✓ Fully Plug-and-Play

The PCI-DIO24 and PCI-DIO24H are low cost, 24-bit, logic level digital I/O boards for the PCI bus for IBM or compatible PC's. The PCI-DIO24 is based on the industry standard 82C55 chip, and the 82C55 I/O pins are brought directly to the board's I/O connector.

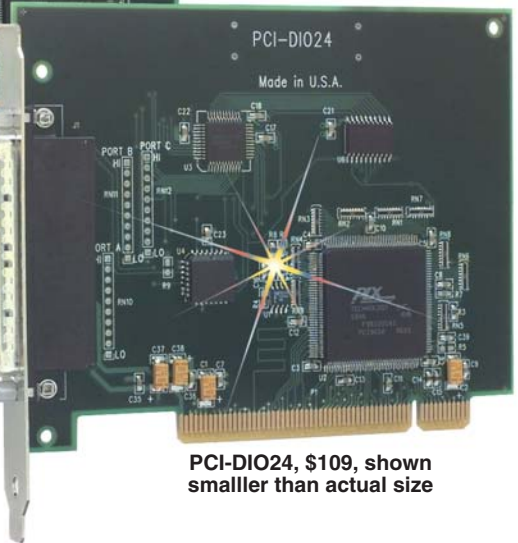
The 82C55 is a powerful 24-bit chip which functions as two 8-bit ports (Ports A and B) and a third 8-bit port (Port C) that may be further divided into two 4-bit ports (Ports C-HI and C-LO). The CMOS outputs of the 82C55 are suitable for driving a wide array of logic devices, although the chip's ± 2.5 mA drive capability may not be enough for some applications.

The PCI-DIO24H board provides a discrete logic emulation of the 82C55 mode 0, but offers significantly higher output drive capability (64 mA sink, 15 mA source). This mode 0 emulation is fully compatible with the 82C55, and all codes written for 82C55-mode based boards will function perfectly on the PCI-DIO24H.

The PCI-DIO24 series boards are connector and software compatible with OMEGA's highly popular ISA based CIO-DIO24 board, as well as with a host of 82C55-based boards from other vendors.



PCI-DIO24H, \$179, shown smaller than actual size



PCI-DIO24, \$109, shown smaller than actual size

The boards are also supported by the same wide variety of external relay and solid state I/O module racks as are the CIO-DIO24 boards.

The PCI-DIO24 is completely plug-and-play. There are no switches or jumpers on the board. All board addresses, interrupt channels, etc., are set by your computer's plug-and-play software.

Connectors and Cables

All I/O signals are brought through a 37-pin male "D" connector. The (optional) C37FF-XX series cable brings all of the pins out and is suitable for use with all compatible screw terminal and signal conditioning accessory boards.

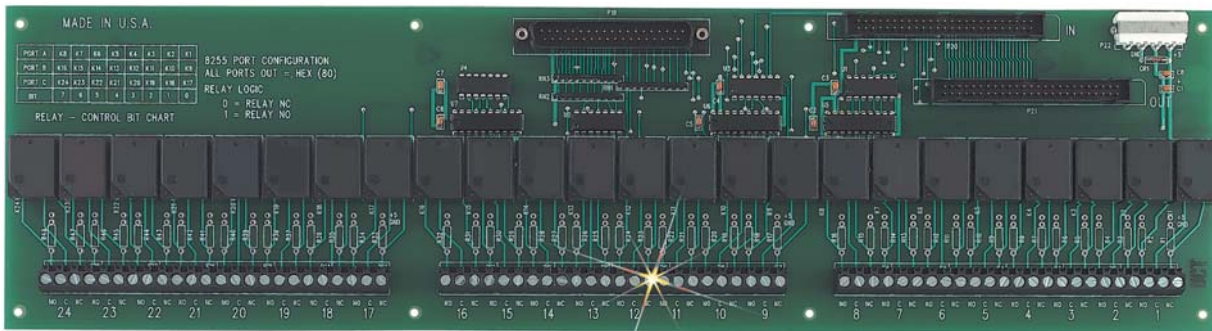
The PCI-DIO24 and PCI-DIO24H connector pin-out is identical to the standard ISA bus CIO-DIO24 boards and is fully compatible with the same wide assortment of signal conditioning accessory boards.

Software Support

The PCI-DIO24 series is supplied with InstaCal software for configuration and testing. In addition, it is also supported by the optional Universal Library. The Universal Library is a set of I/O libraries and drivers for users creating their own custom programs.

The Universal Library is compatible with most Windows (32-bit) based languages and supports the PCI-DIO, PCI-DAS and CIO families of boards.

The Library includes an extensive set of programming examples written in Visual Basic, C and Pascal for Windows 95 and Windows NT. An optional driver for LabVIEW is also available.



The optional CIO-ERB24, \$249, relay rack, shown smaller than actual size, (see Section H for details)

Specifications

PCI-DIO24

Number of Channels: 24 I/O
Configuration: 2 banks of 8, 2 banks of 4, programmable by bank as input or output

I/O Device Type: 82C55

Output High: 3.7 volts min @ -2.5 mA

Output Low: 0.4 volts max @ 2.5 mA

Input High: 2.2 volts min, VCC +0.3 volts absolute max

Input Low: 0.8 volts max, -0.3 volts absolute min

Power-Up/Reset State: Input mode (high impedance)

Interrupts: INTA# - mapped to IRQn via PCI BIOS at boot-time

Interrupt Enable: External (IR ENABLE, active low, programmable through PCI9050-1; 0 = disabled, 1 = enabled (default))

Interrupt Sources: External source (IR INPUT), polarity programmable through PCI9050-1; 1 = active high, 0 = active low (default)

Power Consumption:

+5 V Operating: 240mA typical, 350mA max

+12, -12: not used, but supplied to I/O connector

ENVIRONMENTAL

Operating Temperature: 0 to 50°C (32 to 122°F)

Storage Temperature: -20 to 70°C (-4 to 158°F)

Humidity: 0 to 90% non-condensing

PCI-DIO24H

Number of Channels: 24 I/O

Configuration: 2 banks of 8, 2 banks of 4, programmable by bank as input or output

I/O Device Type : TTL based 82C55 mode 0 emulation

Output: 74S244

Input: 74LS373

Output High: 2.4 volts min @ -15 mA

Output Low: 0.5 volts max @ 64 mA

Input High: 2.0 volts min, 7 volts absolute max

Input Low: 0.8 volts max, -0.5 volts absolute min

Power-Up/Reset State: Input mode (high impedance)

Interrupts: INTA# - mapped to IRQn via PCI BIOS at boot-time

Interrupt Enable: External (IR ENABLE, active low, programmable through PCI9050-1; 0 = disabled,

1 = enabled (default))

Interrupt Sources: External source (IR INPUT), polarity

programmable through PCI9050-1; 1 = active high, 0 = active low (default)

POWER CONSUMPTION

+5 V Operating: 625 mA typical, 960 mA max

+12, -12: not used, but supplied to I/O connector

ENVIRONMENTAL

Operating Temperature: 0 to 50°C (32 to 122°F)

Storage Temperature: -20 to 70°C (-4 to 158°F)

Humidity: 0 to 90% non-condensing

AVAILABLE FOR FAST DELIVERY!

To Order (Specify Model Number)		
Model No.	Price	Description
PCI-DIO24	\$109	24-bit, logic level digital I/O board for PCI bus
PCI-DIO24H	179	24-bit, high current, logic level digital I/O board for PCI bus
CIO-ERB24	249	24-channel relay rack with 6 Amp, Form C relays (see Section H for details)
CIO-MINI37	69	Screw terminal panel, 4" x 4" (102 x 102 mm) (requires cable)
ENC-MINI37	29	Plastic enclosure for the CIO-MINI37
C37FF-2	25	2-foot, 37-pin ribbon cable
C37FFS-5	35	5-foot shielded cable, molded female connectors, 37-pin
C37FFS-10	45	10-foot shielded cable, molded female connectors, 37-pin
UNIV-DRVR	49	Universal Software Library (DOS, Windows 3.1, Windows 95, Windows 98 and Windows NT)
CIO-LABVIEW-DRVR	49	LabVIEW driver

The PCI-DIO24 series comes with InstaCal testing software and complete operator's manual.

Note: The SSR-RACK24 solid state switch I/O card, CIO-ERB08 or any compatible relay accessory card can be used instead of the CIO-ERB24.

OMEGACARESM extended warranty is available for models shown on this page. Ask your sales representative for full details when placing order.

Ordering example: PCI-DIO24H digital I/O card, C37FF-2 cable, CIO-MINI37 terminal panel, ENC-MINI37 enclosure, OMEGACARESM 1-year extended warranty for PCI-DIO24H (adds 1 year to 3-year standard warranty) and UNIV-DRVR Universal Software Library, \$179 + 25 + 69 + 29 + 25 + 49 = \$376.



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