




The PCI-DIO is a PCI-compatible half-card which provides isolated digital inputs, outputs and counter/timers. There are 16 galvanically isolated, current-limited digital inputs available on the board, which will accept up to 50 volts DC or AC peak, and which switch at nominally 3.5 volts DC or AC peak. There are 16 open collector digital outputs which are isolated from the digital inputs and the host PC but share a common ground connection. There are also three programmable counter/timers, the enable and clock inputs being available, isolated externally, if required, and the outputs being accessible isolated, externally and as interrupt sources.

Options

-  1 metre cable with IDC and D type connector (P/N 1371 0071)
-  50 way screw terminal adapter (P/N 1981-0004)
-  Windows® 98/2000, NT® and XP® drivers

A 4Mhz crystal oscillator is available on board to allow the counter/timers to act as accurate timebases. All Input/Output lines are available at an industry standard 50 way D-type plug connector. One PCI interrupt line may be selectively driven by the five interrupt sources on the board, the interrupting source being readily identified by software interrogation of the on-board registers. The five interrupt sources are the three counter/timer outputs and a change of state detector on each byte of the digital inputs.

Key Features

Wide input voltage range suitable for industrial applications up to 50VDC or peak AC

3 on-board 16 bit Counter Timers (8254 compatible)

Individually opto-isolated inputs

Opto-isolated outputs

Individually opto-isolated counter timer inputs and outputs

Software configurable

Supplied with demonstration software examples

Technical Specification

Number Of Input Channels	16
Maximum input voltage	±50 Volt DC or AC peak
Input Threshold (Vth)	2.4 volts minimum. 4.4 volts maximum
Input current	1mA ±200mA for Vth < Vin < 50 V DC, +5 mA (max) for -50 V DC < Vin < Vth
Input bandwidth	10kHz
Number Of Output Channels	16
Maximum ON state current	0mA
ON state voltage	1.6 volts (max.) @ Iout = 350mA
Max board output dissipation	2 watts for each group of 8 outputs (Outputs 1 to 8 and 9 to 16)
Maximum OFF state voltage	80 volts DC
Output latency	2.4 mS max
Maximum Isolation Voltage	350 volts DC or AC peak
Counters/Timers	3 x 16 Bit. Counter/timers 0,1 and 2 may be cascaded to provide a single 48 bit Counter/timer. All Counter/timers may be clocked externally at a maximum rate of 10 kHz
Onboard Oscillator	Frequency 4MHz. Stability ± 100ppm 0 - 70°C
Interrupt Sources	Register selectable to 3 Counter/timer outputs, and 2 input change state detection groups
Interrupt Levels Supported	All PCI interrupts
Address Overhead	12 contiguous addresses in 12 byte block
Board Power Requirement	+3.3 Volts, 0.5 W maximum, +5 Volts, 0.4 W maximum
Signal Connections	1 x 50 way male 'D-type' plug
Dimensions	125 (L) x 91 (H) board only, 135 (L) x 122 (H) x 22 (W) including bracket



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