



## 104-DIO-24E & 104-DIO-48E

### Features

- 48 or 24 Parallel Bits of Digital I/O, Type 82C55 PPI (Mode 0)
  - Compatible with Opto-22 type Solid State Module Racks
  - One or two 24 parallel bit groups (two 8 bit port) and two 4 bit ports each group.
  - All bits are buffered, 64mA sink, 32mA source
  - I/O pulled up to 5V for Contact Monitoring, pulldowns are available by request
  - 5V available on pin 49 of each group (0.5A Resettable Fuse on each)
  - I/O connectors: Two Industry Standard 50 pin headers plus one ten-pin header for the counter/timer
  - Timer/Counter Type 82C54
- Native Modes:
- Pulse and square wave generator
  - Re-triggered one-shot
  - S/W or H/W triggered strobe
  - Rate generator



### Description

The circuits use an 82C55A PPI with mode 0 supported. Ports A, B and C are buffered with 74ABT245 transceivers and pulled up to 5V (standard).

The optional 82C54 has three-sixteen bit down-counters within one chip. These counters are useful for generating square waves, strobos, and pulses (PWM). Also, the frequency of square waves and strobos or the width of pulses or the number of events can be measured. Software is provided.

Low power circuits are used with an overall consumption as low as 0.25 Watts.

Software Package includes a setup program detailing all jumper settings, also IRQ drivers and samples for DOS and Windows (including NT/2000 and NT/XP). A Linux Sample is also provided.

### Ordering Information

Item code	Part #	Description
104-DIO24E	310240	PC/104-Analog I/O Board
104-DIO 48E	310480	PC/104-Analog I/O Board



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## Technical Specifications

Features	Functions	Remarks
<b>Digital Input/Output</b>		
Interface Chip	82C55A	Programmable
Channels	24 (2 x 8bit; 2 x 4bit); pulled up to 5V on 10kOhm	24 buffered (Ports A,B,C)
Modes Supported	0	
Sink/Source Current	64mA/32mA	
<b>Counter/Timer</b>		
Interface Chip	82C54	
Counters	3 x 16bit down counters	
Clock	8MHz	on-board
Modes	Event, Freq. Output, Freq. & Pulse Measurement	
<b>General</b>		
Dimensions	3.8" x 3.6" x 0.6"	Height from surface of board
Power Supply	+5V/50 mA	Typical
Interrupt Requests	IRQ 3-7,9-12,14,15	Selectable
Operating Temperature	-20°C to +70C	
Enhanced Temperature (opt.)	-40°C to +85°C	
Interrupt Status Register	Yes	