



5/10 Channel Counter/Timer with 16/32 Digital I/Os For IBM PC and Compatibles



IBM PC



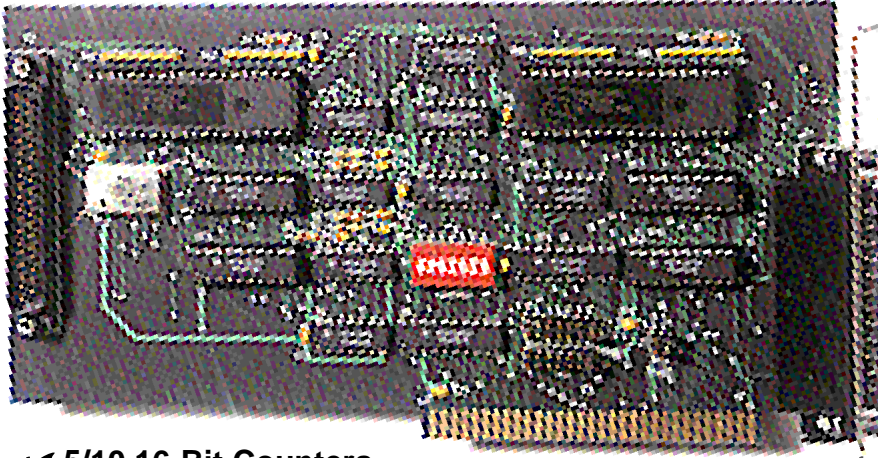
DIO



CIO-CTR05

\$149

5 Channel Counter/Timer



Shown smaller than actual size

CIO-CTR10

\$239

10 Channel Counter/Timer



- ✓ 5/10 16-Bit Counters
- ✓ Counts Frequency to 7 MHz
- ✓ Generates Frequency Output
- ✓ 16/32 Digital I/O Lines

The CIO-CTR05 and CTR10 are 5 and 10-channel counter timer boards for IBM PC and compatible computers. The boards employ a 9513 counter/timer chip, providing five counters with 16-bit count registers (the CIO-CTR10 has two 9513 chips). The 9513 is an extremely powerful and flexible component, software programmable for event counting, pulse and frequency measurement, alarm comparator and other input functions. As an output device, the 9513 can generate frequencies with complex duty cycles and provide one-shot and continuous outputs.

The 9513 counter may be chained together via software, enabling, in the CIO-CTR05, a 16, 32, 40 or 48-bit counter to be constructed within the chip. In the CIO-CTR10, a 32, 48, 64 or 80-bit counter may be constructed. In addition, the gate source and gating functions are software programmable.

The CIO-CTR05 also has 8/8 digital inputs/outputs, while the CIO-CTR10 has 16/16 digital inputs/outputs. The digital outputs may be used to switch solid state relays and the

digital input port may be used to sense contact closures. Access to the PC bus interrupts is provided via two interrupt jumpers. A 1 MHz crystal on board supplies a precise source of timing pulses.

Cabling and Connection

Cabling to the boards is via standard 37-pin D connector. The CIO-CTR05 has one connector, while the CIO-CTR10 has two. Each connector cable carries all counter inputs, outputs and gates for one 9513, 16 digital lines, +5 V and ground. Each is CTM-05 compatible.

Specifications

DIGITAL I/O

Output Low: 0.4 V max @ 3.2 mA

Output High: 2.4 V min @ -200 μ A

Input Low: -0.5 V

Input High: 2.0 V min, VCC max

Drive Capability: 5 LSTTL loads

INTERRUPT

Type: Positive edge triggered

IRQ: IRQ2 through IRQ7

Enable: Interrupt enable, pin 2

POWER CONSUMPTION

CIO-CTR10: +5 V @ 300 mA typ (500 mA max)

CIO-CTR05: +5 V @ 190 mA typ (320 mA max)

ENVIRONMENTAL

Operating Ambient: 0 to 50°C (32 to 122°F); 0 to 90% RH, non-condensing

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

To Order (<i>Specify Model Number</i>)		
Model Number	Price	Description
CIO-CTR05	\$149	5 channel counter, 16 channel digital I/O board, requires terminal panel and cable
CIO-CTR10	239	10 channel counter, 32 channel digital I/O board, requires 2 terminal panels and 2 cables
CIO-TERMINAL	99	16" x 4" screw terminal board with prototype area, requires C37FF-2 cable
CIO-MINI37	49	4" x 4" screw terminal board, requires C37FF-2 cable
C37FF-2	25	connection cable, 2 ft

Ordering Example: CIO-CTR05 digital I/O/counter board with CIO-MINI37 terminal panel and C37FF-2 cable, \$149 + 49 + 25 = **\$223.**