RUGGEDIZED PC/104 48-Channel High Drive DIO and Counter/Timer Module

TRACER-E

October 6, 2011

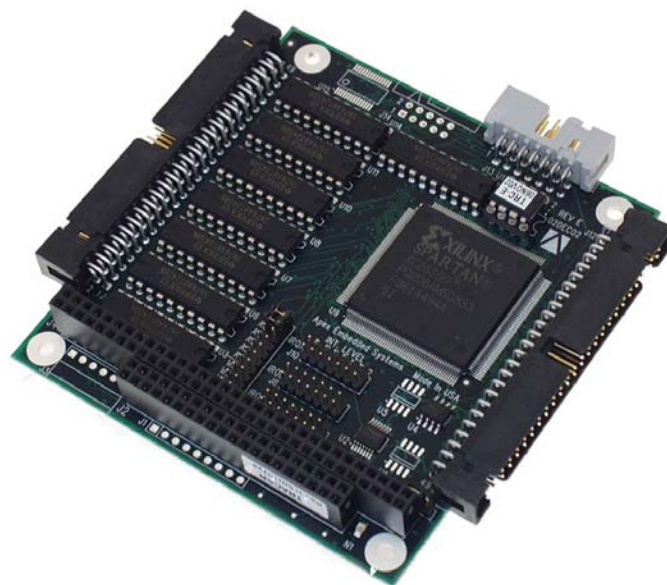The TRACER-E is the toughest low power PC/104 DIO module on the market today!

The Tracer-E is a high current PC/104 digital I/O and counter/timer module. It is designed for use in systems where high reliability is of utmost importance while operating in harsh environments. The module provides 48-lines of 8255 compatible general purpose I/O and three 16-bit 8254 compatible counter/timers.

Digital Inputs/Outputs

- **Interface:** Two 8255s.
- **Channels:** 48 total, with three groups of 8 channels per connector.
- **Inputs:** Each input has a 10K pull up resistor.
- **High-Current Outputs** can sink 64 milliamps, and source 18 milliamps. This is true even while operating at high temperatures.
- **Direct Interfacing to OPTO-22's isolated I/O racks.** Digital I/O connector is organized to allow direct connection to OPTO-22's isolated I/O racks that use the G4 series of I/O modules: the PB16-H, PB16-J, PB16-K, PB16-L, PB8H and the PB24HQ.

General

- **Environmental:** Wide operating temperature from -40ºC to +85ºC.
- **Out-gassing and fire avoidance:** no tantalum or electrolytic capacitors used in any products.
- **Reliability:** MTBF of 760,610 hours per MIL-HDBK-217F ground benign at 40ºC.
- **Polarized Connectors** prevent incorrect cable installations.
- **LED Status:** An LED displays valid card activity which is useful for both product development and field status. A wide variety of signals can be routed to the LED via software selection.
- **Single +5V Operation:** Power 500 milliwatts typical.

Support

- **Long Term Commitment:** We are committed to delivering long product life and dedicated to ongoing product updates and improvements to enhance product longevity.
- **Customer Service:** We are committed to serving our customers. We offer 24/7 online ordering with a variety of payment and shipping options for quick and hassle free ordering.
- **Production:** Designed and Manufactured in Wisconsin, USA, utilizing an ISO 9001 manufacturing facility.
- **Software Drivers:** Linux, Windows and DOS drivers are available as well as other third party software tools (legacy compatibility with many other cards).
- **Individual Customer Assistance:** We will do whatever we can to assist you in designing in our products.

Accessories

- Cable. Flat ribbon cable, 50-pin w/3M polarized IDC sockets and pull tab, 18-inches in length. SKU: CBL50MCR18IN.
- 50-Pin Terminal Breakout Board. SKU: AES-50.

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Technical Specifications

Digital I/O

Functionality: 82C55A compatible, mode 0 only.
Number of Digital I/O: 24 TTL compatible, grouped into three 8-bit registers. All digital I/O have 10K pull up resistors to +5V.
Input Voltage: Logic 0: 0.0V min, 0.8V max; Logic 1: 2.0V min, 5.5V max
Input Current: Input current due to 10K pull-up resistor to +5V. Logic 0: -0.5mA at 0.8V, and Logic 1: -260uA at 2.4V.
Output Voltage: Logic 0: 0.0V min, 0.4V max; Logic 1: 2.4V min, 3.3V max.
Output Current: Logic 0: sink 64 mA; Logic 1: source 18mA.

Software Compatibility

Software compatibility providing additional third party support. The Tracer-E is compatible with many 8255 compatible DIO cards.

General

Operating temperature range: -40°C to +85°C
Storage temperature range: -55°C to 125°C
Humidity: 0 to 95% non-condensing
Power Supply: 5VDC ± 5%; 500 milliwatts (inputs/outputs unloaded) **improved!**
Interface: PC/104 8-bit.
Weight: 0.2 lbs (91 grams), excluding spacers.

Ordering Information

Description: RUGGEDIZED PC/104 High Drive 48 Line DIO and Counter/Timer Module.
  SKU: TRACER-E
  Order Link: apexembeddedsystems.com

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