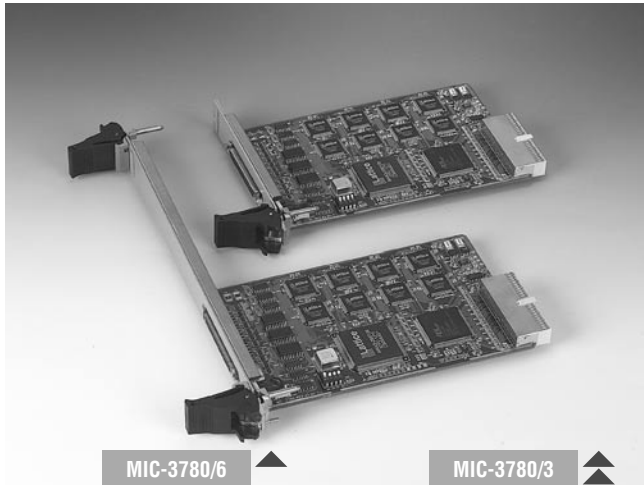


MIC-3780

8-ch Counter/Timer Card



Features

- 8 independent 16-bit counters
- 8 programmable clock source
- 8 digital TTL outputs and 8 digital TTL inputs
- Up to 20 MHz input frequency
- Multiple counter clock source selectable
- Counter output programmable
- Counter gate function
- Flexible interrupt source select
- BoardID™ switch

Introduction

The MIC-3780 is a general purpose multiple channel counter/timer card for the 3U/6U CompactPCI® system. It targets the AM9513 to implement the counter/timer function by CPLD. Plus, it provides eight 16-bit counter channels and 8 digital outputs and 8 digital inputs. Advantech has designed in powerful counter functions to fulfill your industrial or laboratory applications.

The MIC-3780 features up to 12 programmable counter modes, to provide one shot output, PWM output, periodic interrupt output, time-delay output, and to measure the frequency and the pulse width. The MIC-3780 is an ideal solution for variant counter/timer applications.

The PCL-10168 shielded cable is specially designed for the MIC-3780 to reduce noise. Its wires are all twisted pairs, and the input signals and output signals are separately shielded, providing minimal cross talk between signals and solid protection against EMI/EMC problems.

The MIC-3780 has a built-in DIP switch that helps define each card's ID when multiple cards have been installed on the same PC chassis. The board ID setting function is very useful when users build their system with multiple MIC-3780 cards. With correct BoardID settings, you can easily identify and access each card during hardware configuration and software programming.

Specifications

Counter/Timer

- **Channels** 8 (independent)
- **Resolution** 16 bits
- **Compatibility** 5 V/TTL
- **Max. Input Frequency** 20 MHz
- **Reference Clock** Internal: 20 MHz
- **Counter Modes** 12 (programmable)
- **Interrupt Capable Ch.** 8

Digital Input

- **Channels** 8
- **Compatibility** 5 V/TTL
- **Input Voltage** Logic 0: 0.8 V max.
Logic 1: 2.4 V min.
- **Interrupt Capable Ch.** 1 (channel 0)

Digital Output

- **Channels** 8
- **Compatibility** 5 V/TTL
- **Output Voltage** Logic 0: 0.5 V max. @ 24 mA
Logic 1: 2.4 V min. @ -15 mA
- **Output Capability** Sink: 0.5 V max. @ 24 mA
Source: 2.4 V min. @ -15 mA

General

- **PICMG Compliance** CompactPCI V2.0, R 3.0
Hot-Swap V2.1, R 2.0
- **Bus Type** CompactPCI V2.1

- **I/O Connectors** 68-pin SCSI-II female
- **Dimensions (L x H)** 160 x 100 mm (6.3" x 3.9") with 3U/6U Bracket
- **Power Consumption** Typical: +5 V @ 900 mA
Max: +3.3 V @ 1.2 A
- **Operating Temperature** 0 ~ 60° C (32 ~ 140° F) (refer to IEC 68-2-1, 2)
- **Storage Temperature** -20 ~ 70° C (-4 ~ 158° F)
- **Relative Humidity** 5 ~ 95 % RH non-condensing (refer to IEC 68-2-3)
- **Certifications** CE, FCC Class A

Ordering Information

- **MIC-3780/3** 3U Compact PCI 8-ch, 16bit counter/timer card
- **MIC-3780/6** 6U Compact PCI 8-ch, 16bit counter/timer card
- **MIC-3780R/3** 3U Compact PCI 8-ch, 16bit counter/timer card with Rear I/O support
- **MIC-3780R/6** 6U Compact PCI 8-ch, 16bit counter/timer card with Rear I/O support
- **PCL-10168** 68-pin SCSI-II cable with male connectors on both ends and special shielding for noise reduction, 1 and 2 m
- **ADAM-3968** 68-pin SCSI-II Wiring Terminal Board for DIN-rail mounting

Applications

- Event counting
- One shot output
- Programmable frequency output
- Frequency measurement
- Pulse width measurement
- PWM output
- Periodic interrupt generation