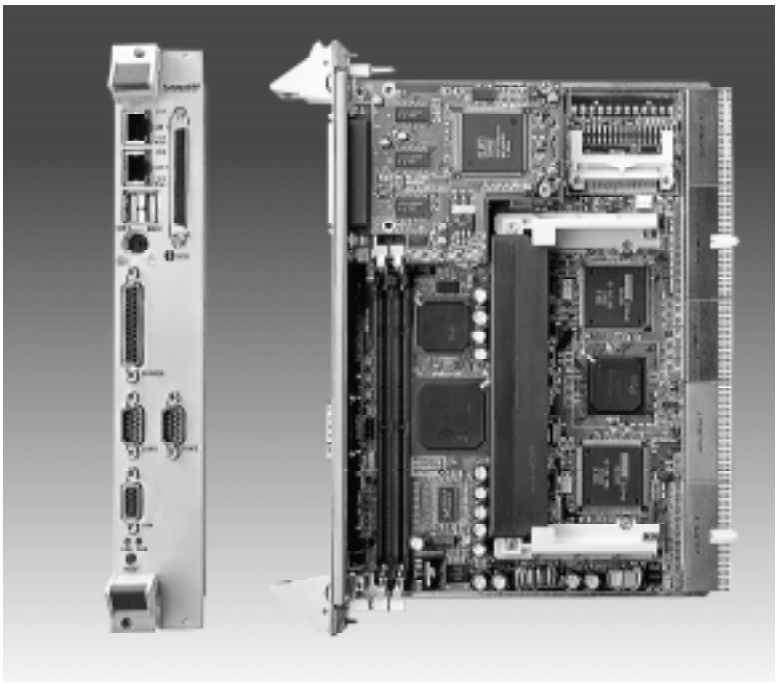
MIC-3376

6U CompactPCI Pentium® III/II SBC with SCSI/DUAL LAN/VGA



Features

- Accepts slot 1 processors, including Pentium III and Pentium II
- Intel 440BX chipset
- Single/dual PCI-to-PCI bridge drive up to 7 or 14 CompactPCI slots
- Supports Ultra2 Wide SCSI interface
- Dual on-board 10/100 Base-TX fast Ethernet with RJ-45 connectors
- On-board high-performance AGP VGA display
- Connection to four Ultra DMA/33 high speed IDE devices through J3 connector
- Accepts CompactFlash memory card
- Two DIMM sockets support up to 512 MB SDRAM, support ECC

Introduction

The MIC-3376 is a 6U CompactPCI single board computer. Targeting the performance demanding applications, the MIC-3376 accepts Pentium III/II processors up to 550 MHz to provide optimum computing capability. Based on Intel 440BX chipset, the MIC-3376 enhance its performance with 100 MHz front side bus.

High Performance Pentium III Processor

The MIC-3376 accepts an Intel® slot 1 Pentium III or Pentium II processor. With support of 66 and 100 MHz CPU bus clock and CPU's integrated 512 KB L2 cache memory, the MIC-3376 can fullfill customer's requirement on high-performance computing capability.

Compact 2-slot Design

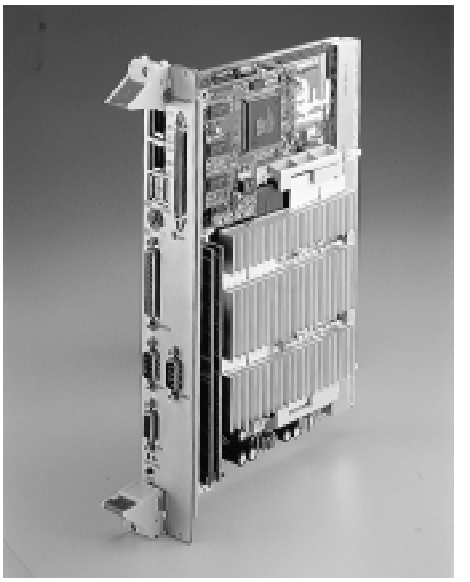
The MIC-3376 has rich functions on a single board with only two-slot width. Advantech provides a CPU heat sink specially designed for the SECC 2 Pentium III/II processor, and MIC-3376 can operate without cooling fan on the heat sink. The MIC-3376 needs only the external cooling air from the chassis fans for ventilation. This enables the MIC-3376 to use Pentium III/II CPU but still within a 2-slot wide space.

On-board SCSI, Dual LANs and Dual PCI-to-PCI Bridges

An Ultra2 wide SCSI interface is optionally available on the front panel. It provides connection to external RAID system and other SCSI devices with data transfer rate up to 80 MB/s. The dual on-board fast Ethernet channels provide teaming functions like Adapter Fault Tolerance, Adaptive Load Balancing and Fast EtherChannel® to increase transmission throughput and reliability. The MIC-3376 also provides single/dual PCI-to-PCI bridge options to drive up to 7/14 CompactPCI slots.

Complete I/O Functions

The MIC-3376 offers all I/O functions of an industrial computer with the rugged Eurocard form factor. All I/O connectors are available on the front panel containing two fast-Ethernet interfaces, two serial ports, two USB ports, one VGA connector, one SCSI



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interface, one parallel port, and one PS/2 keyboard/mouse connector. Also located on the front panel are the reset button and LEDs for power status, HDD operation, SCSI operation, and Ethernet communication.

The built-in high speed PCI IDE controller provides two seperate IDE channels with Ultra DMA/33 mode. The user defined J3 connector is defined to support up to four IDE devices and two FDDs. These drives can simply be connected to the backplane or to the rear transition board for easy service and maintenance.

An optional rear transition board (MIC-3301) can be used to connect a keyboard, a mouse and one serial port from the rear panel. It also can carry a 2.5" hard disk drive and one CompactFlash disk.

Meets Industrial Applications Requirements

The MIC-3376 is designed for use in mission critical applications. It accepts a CompactFlash memory card to eliminate fragile rotating hard drive. A watchdog timer can automatically reset the system or generate an interrupt if the system stops due to a program bug or EMI. The two-layer front panel design complies with IEEE 1101.10. Connectors are firmly screwed to the front panel, and the replaceable shielding gasket is attached to the panel edge. This reduces emissions and gives better protection against external interference.

Specifications

Standard SBC Functions

- **CPU**: Intel® Pentium® III up to 550 MHz, Pentium® II up to 450 MHz.
- **BIOS**: Award 2 MB Flash memory.
- **Chipset**: Intel 440BX.
- **Front side bus clock:** 100/66 MHz.
- **Bus interface:** 32-bit, 33 MHz, PICMG 2.0 compliant.
- **2nd level cache**: CPU built-in 512 KB.
- **RAM**: Two 168-pin DIMM sockets. Supports up to 512 MB SDRAM, supports ECC.
- **Enhanced IDE interface**: Handles up to 4 IDE devices. Supports PIO mode 4 and DMA/33 mode. Available through J3 connector.
- **Floppy disk drive interface**: Supports up to two floppy disk drives. available through J3 connector.
- **CompactFlash interface**: Accepts one CompactFlash card on primary IDE channel, master or slave selectable by a jumper.
- **Parallel port**: Configured to LPT1, LPT2, LPT3 or disabled. Supports multimode parallel (SPP/EPP/ECP) port.
- **Ethernet:** Two Intel 82559 Fast Ethernet controller chips, 10/100Base-TX with RJ-45 connectors.
- **Serial ports**: Two RS-232 ports with 16550 UARTs
- **USB interface**: Two USB ports.
- **Watchdog timer**: Can generate a system reset or IRQ 15. Software enabled/disabled. Time interval is from 1 to 63 seconds. Jumperless with run-time setup.
- **Keyboard/mouse connector**: One 6-pin mini-DIN connector on the front panel.
- **PCI-to-PCI bridge:** One or two Intel DEC 21150 controller chips, drive up to seven or fourteen bus master peripherals.

AGP VGA Interface

- **Controller**: Intel C&T 69000
- AGP 1.0 compliant, 66MHz.
- **Display memory:** 2 MB on-chip SDRAM.
- **Display resolution:** Supports non-interlaced CRT monitor resolutions up to 1280 x 1024 @ 256 colors, 16 million colors up to 800 x 600

Ultra2 Wide SCSI Interface (MIC-3376S/MIC-3376F)

- **Controller:** Symbios SYM53C895
- Performs Ultra2 wide SCSI LVD synchronous transfers as fast as 80 MB/s
- 68-pin connector on front panel

Rear Transition Board (MIC-3301)

- Front panel I/O connectors: PS/2 keyboard and mouse, COM 1
- On-board connectors: One floppy disk connector (34-pin 2.54 mm pitch box header), primary IDE connectors (includes one 40-pin 2.54 mm pitch box header, one 44-pin 2.0 mm pitch box header for 2.5" hard disk drive, one CompactFlash socket, and one secondary IDE connector (40-pin 2.54 mm pitch box header))
- On-board brackets to carry a 2.5' hard disk drive
- Size: 6U high, two-slot wide (8 TE)

Mechanical and Environmental Specifications

- **Operating temperature:** 0° to 60° C (32° to 140° F)
- **Storage temperature:** -20° C ~ 70° C (-4° F ~ 158° F)
- **Humidity (operating and storage):** 5 ~ 95% (non-condensing)
- **Size:** 233.35 x 160 mm (6U), 2-slot (8 TE) wide
- **Weight:** 0.8 kg (1.8 lb)
- **Shock:** 20 G (operating); 50 G (storage/transit)

Ordering Information

- ❑ **MIC-3376**: 6U CompactPCI Pentium® III/II processor board with single PCI-to-PCI bridge, dual LAN, VGA, utility CD-ROM disc, manual, and heat sink
- ❑ **MIC-3376S**: 6U CompactPCI Pentium® III/II processor board with single PCI-to-PCI bridge, SCSI, dual LAN, VGA, utility CD-ROM, manual, and heat sink
- ❑ **MIC-3376D**: 6U CompactPCI Pentium® III/II processor board with dual PCI-to-PCI bridge, dual LAN, VGA, utility CD-ROM disc, manual, and heat sink
- ❑ **MIC-3376F**: 6U CompactPCI Pentium® III/II processor board with dual PCI-to-PCI bridge, SCSI, dual LAN, VGA, utility CD-ROM disc, manual, and heat sink
- ❑ **MIC-3301**: 6U Rear transition board, provides connection to COM1, keyboard, and mouse on rear panel. Connectors for two IDE channels on board. (for use in a chassis with rear I/O support)