

## Features

- Highly integrated embedded PC with x86-compatible 32-bit processor for applications that require low power, small footprint and fanless operation
- 8 to 28 VDC operating input range
- NSC Geode GX1 333 MHz integrated x86-compatible processor
- Up to 256 MB of PC133 SDRAM via SODIMM
- Up to 512 MB of CompactFlash
- Up to 40 GB of hard disk storage
- On-board Fast Ethernet controller supporting 10BaseT and 100BaseTX interfaces
- One high-performance 16550-compatible serial port
- Two USB ports
- Accommodates one or two additional PC/104-Plus modules (depending on hard drive configuration)
- Integrated 2D graphics (16 bpp at 1,280 x 1,024) with MMX™
- Real time features including Watchdog timer, three 16-bit user programmable timers, 32 Kbyte of nonvolatile SRAM, real-time clock and remote Ethernet booting
- All aluminum case
- Optional Industrial Networking support (Canopen, DeviceNet® and Profibus)

## Operating System Support

- Windows NT®/Windows® 2000/Windows CE
- VxWorks®
- Linux®
- MS-DOS®

**INTRODUCTION** — The VMIOMAX-8452 is a low power, small footprint PC that brings the features and functionality of an x86-based PC to the embedded marketplace. The VMIOMAX-8452 packages an x86-based PC/104-Plus single board computer along with a power supply and optional hard drive in a form factor that is suitable for industrial settings.

**THE VMIOMAX-8452 ADVANTAGE** — Here are just a few of the benefits customers receive from this high performance DIN rail system:

### Affordability:

- The specially designed system enclosure is an industrial-class chassis that can be DIN rail mounted to a wall or inside any enclosure or cabinet with a rigid back panel.
- Modular, scalable architecture provides easy system expansion via PC/104-Plus. This expansion capability allows third-party devices to be used with the VMIOMAX-8452.
- Canopen, DeviceNet\* and Profibus can be supported via third party PC/104-Plus modules.

### DIN Rail Mount PC Controller System:

- Customers can purchase the controller, software, I/O modules and other add-ons from a single vendor —VMIC. This **one-stop** shopping makes ordering, integration and technical support easy and convenient. If you have a question about the controller or its components, call VMIC for assistance.

\* Contact VMIC for availability.

PHOTO NOT AVAILABLE

- The VMIOMAX-8452 works with virtually any component that is compatible with MS-DOS, Windows NT/2000/CE, Linux or VxWorks operating systems.

Ordering Options						
June 11, 2003 800-318452-000 A	A	B	C	D	E	F
<b>VMIOMAX-8452</b>	—					
<b>A = Processor Speed</b> 0 = Reserved 1 = Reserved 2 = Reserved 3 = 333 MHz <b>B = SDRAM Memory</b> 0 = Reserved 1 = 32 MB 2 = 64 MB 3 = 128 MB 4 = 256 MB <b>C = CompactFlash</b> 0 = None 1 = 16 MB Flash Memory 2 = 64 MB Flash Memory 3 = 256 MB Flash Memory 4 = 512 MB Flash Memory <b>D = Industrial Networking</b> 0 = Reserved 1 = Profibus 2 = DeviceNet* 3 = Canopen <b>E = Hard Drive</b> 0 = None 1 = Reserved 2 = 10 GB 3 = 20 GB 4 = Reserved 5 = 40 GB						
<b>For Ordering Information, Call:</b> 1-800-322-3616 or 1-256-880-0444 • FAX (256) 882-0859 E-mail: <a href="mailto:info@vmic.com">info@vmic.com</a> Web Address: <a href="http://www.vmic.com">www.vmic.com</a> Copyright © May 2003 by VMIC Specifications subject to change without notice.						

## FUNCTIONAL CHARACTERISTICS

**Microprocessor:** A 333 MHz high performance NSC Geode GX1 Microprocessor, an integrated x86 solution with MMX support

**Operating Systems:** MS-DOS, Windows (NT, CE and 2000), Linux, and VxWorks

**Graphics:** Integrated 2D graphics accelerator provides pixel processing and rendering functions. The video output is provided through a standard SVGA connector with 1,280 x 1,024 x 16 bpp resolution.

**Power Supply:** The following units are available:

DC/DC Unit: The standard power supply is a 25 W DC-to-DC autoranging type with the following specifications:

- Input voltage range: 8 to 28 VDC
- Output voltage: +5 VDC, up to 5 A Current

### Disk Drives:

System Disk Drive: Multiple sizes are available, up to 40 GB.

Floppy Disk Drive: None (standard). 34-pin connector is available for an external device.

**NOTE:** There is one board socket that holds the CompactFlash memory unit.

**Ports:** One (16550) 9-pin serial port, one ECP/EPP 25-pin bidirectional parallel port header, two mini-DIN PS/2 connectors for keyboard and mouse, and an IDE hard disk interface. This IDE interface supports two enhanced IDE hard disks or CD-ROM drives. It also supports Ultra DMA/33.

**Industrial Networking:** Support for Canopen, DeviceNet\* and Profibus provided via PC/104-Plus modules.

\* Contact VMIC for availability.

## PHYSICAL/ENVIRONMENTAL

**Temperature:** -20 to 55 °C operating range  
0 to 35 °C operating range with hard drive

**Relative Humidity:** 50 percent (noncondensing); 10 to 95 percent (noncondensing) recommended operating range

### Chassis Dimensions:

Width: 4 3/4 in.  
Length: 6 3/4 in.  
Height: 4 3/4 in.  
Weight: 2.0 lb  
All aluminum (Type 3003 H14) case

### Power Requirements:

333 MHz microprocessor: Less than 10 W

**Vibration:** 2 Gs constant acceleration from 57 to 500 Hz, with a constant peak-to-peak displacement of 0.012 in. from 10 to 57 Hz

**Shock:** 15 Gs each for three positive and three negative shocks at a raise time of 11 m/s

**NOTE:** Both the vibration and shock tests are performed on each of the three major axes (x, y, and z).

**Radiated Emissions:** FCC Part 15 Class "A" (EMI) certified compliance

**CE and UL Approved:** <TBD>

## TRADEMARKS

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