VMIOMAX-8451
Embedded PC

Features

- Highly integrated embedded PC with x86-compatible 32-bit processor for applications that require low power, small footprint and fanless operation
- 8 to 28VDC 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
- Fast Ethernet controller supporting 10BaseT and 100BaseTX interfaces
- Two high performance 16550-compatible serial ports
- 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 KB of nonvolatile SRAM, real time clock and remote Ethernet booting
- All aluminum case that has optional DIN rail or wall mount mounting options

Operating System Support

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

INTRODUCTION — The VMIOMAX-8451 is a low power, small footprint PC that brings the features and functionality of an x86-based PC to the embedded marketplace. The VMIOMAX-8451 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-8451 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-8451.
- Fieldbuses such as Genius®, DeviceNet, and Profibus-DP can be supported via third party PC/104-*Plus* modules.

DIN Rail Mount PC Controller System Broad Family Offering:

- 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.
- The VMIOMAX-8451 works with virtually any component that is compatible with MS-DOS, Windows NT, Linux or VxWorks operating systems.

Ordering Options

June 13, 2003 800-318451-000 C		A	B	C	D	E	F
VMIOMAX-8451	–						

A = Processor Speed
0 = Reserved
1 = Reserved
2 = Reserved
3 = 333 MHz

B = SDRAM Memory
0 = Reserved
1 = 32 MB
2 = 64 MB
3 = 128 MB
4 = 256 MB

C = CompactFlash
0 = None
1 = 16 MB Flash Memory
2 = 64 MB Flash Memory
3 = 256 MB Flash Memory
4 = 512 MB Flash Memory

D = Case-Style (Mounting Options)
0 = None
1 = Wall Mount (DIN Rail Only)
2 = With Wings for Wall Mount

E = Hard Drive
0 = None
1 = Reserved
2 = 10 GB
3 = 20 GB
4 = Reserved
5 = 40 GB

For Ordering Information, Call:
1-800-322-3616 or 1-256-880-0444 • FAX (256) 882-0859
E-mail: info@vmic.com Web Address: www.vmic.com
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FUNCTIONAL CHARACTERISTICS

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

Operating Systems: MS-DOS, Windows (NT, 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 25W DC-to-DC autoranging type with the following specifications:

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

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 either CompactFlash memory or an IBM Microdrive unit.

Ports: Two (16550) 9-pin serial ports, 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.

PHYSICAL/ENVIRONMENTAL

Temperature: -20 to 55 ºC 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 CPU: Less than 10W

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

TRADEMARKS

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