VMIOMAX-8450
DIN Rail Mount PC Controller System

Features
- A DIN rail mount PC controller system with an x86 integrated high-performance processor for embedded PC applications with compactness, low power consumption, and fanless operation as key operating requirements
- Power input is 8 to 30 VDC standard
- NSC Geode GX1 300 MHz processor (minimum) with 32 Mbyte SDRAM (minimum) and 16 Mbyte CompactFlash card (minimum)
- Includes 100/10BaseT Fast Ethernet port (Intel® 82559), two serial ports, a mouse/keyboard port, and a video port at the bottom of the case. It has internal connections for HDD (both 40 and 44 pins), LPT, FDD, USB, sound (I/O AC97), infrared, EIDE ports, LCD, TV-out, and panel link interface.
- Contains graphics from an Intel SXGA 69000 controller with resolutions up to 1,280 x 1,024 x 8 bpp with standard graphics memory of 2 Mbyte
- Three programmable counter/timers (8254 equivalent) are standard
- The chassis is a custom all aluminum case approximately 6 1/8 inches (L) x 5 inches (W) x 2 3/8 inches (H) with a removable front cover and available with either DIN rail mounting brackets or extended case flanges for wall mount applications

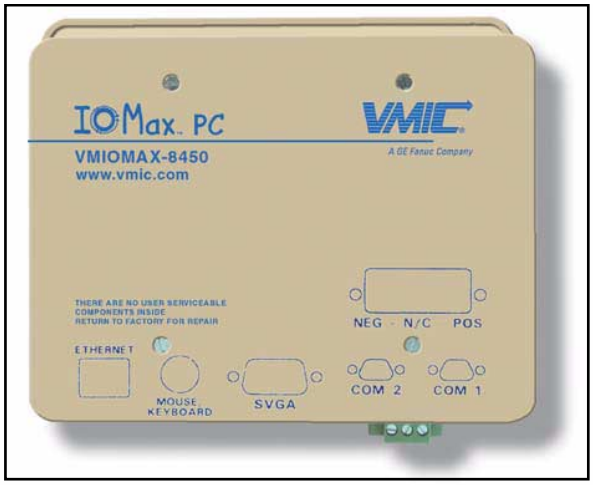
Operating System Support
- Windows NT®/Windows® 2000/9X
- VxWorks
- Linux
- MS-DOS®

INTRODUCTION — The VMIC VMIOMAX-8450 PC-based controller represents a new generation of high-performance controllers. It is the choice for system integrators, VARs, or turnkey vendor solutions that demand high-performance computing. This system provides customers with turnkey solutions for applications ranging from high-speed process control to data acquisition to industrial automation.

The VMIOMAX-8450 is a universal controller that takes advantage of the PC's power and connectivity. You can connect to a wide variety of host controllers using RS-232 and Ethernet communications protocols. The VMIOMAX-8450 can be used in a distributed control system, much like PLCs. Unlike typical PLCs, this system is extremely fast.

THE VMIOMAX-8450 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 (a) to a wall, (b) inside any enclosure or cabinet with a rigid back panel, or (c) in a standard, 19-inch industrial-class rack.
- Modular, scalable architecture provides easy system expansion. This expansion capability allows third-party devices to be used with the VMIOMAX-8450.
- Open fieldbuses such as Genius®, DeviceNet, and Profibus-DP are supported. IOWorks® provides drivers to integrate third-party modules so that a VMIOMAX-8450 controller can adapt to customer needs.



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-8450 works with virtually any component that is compatible with MS-DOS, Windows NT, Linux, or VxWorks operating systems

Ordering Options

April 15, 2002 800-318450-000 C		A	B	C	D	E	F
VMIOMAX-8450	–		0			0	

A = Processor Speed/Memory
0 = 300 MHz (Minimum) with 32 Mbyte SDRAM
1 = 300 MHz (Minimum) with 64 Mbyte SDRAM
2 = 300 MHz (Minimum) with 128 Mbyte SDRAM
3 = Reserved

B = Power Supply Option
0 = DC/DC 25 W Power Supply Unit
1 = Reserved

C = Case-Style (Mounting Options)
0 = Without Wings for Wall Mount (DIN Rail Only)
1 = With Wings for Wall Mount

D = Storage Options
0 = 16 Mbyte Flash Memory
1 = 32 Mbyte Flash Memory
2 = 64 Mbyte Flash Memory
3 = 128 Mbyte Flash Memory
4 = 512 Mbyte Microdrive
5 = 1.0 Gbyte Microdrive

E = 0 (Option reserved for future use)

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

FUNCTIONAL CHARACTERISTICS

CPU: A 300 MHz (minimum) high-performance NSC Geode GX1 CPU processor, an integrated x86 solution.

Operating Systems: MS-DOS, Windows (9X, NT, 2000), Linux, and VxWorks.

Graphics: On-board Intel 69000 SXGA video controller with up to 1,280 x 1,024 x 8 bpp (2 Mbyte SGRAM). Supports MS-DOS, Windows 95, Windows 98, Windows NT 4.0, and Linux.

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 30 VDC
- Output voltage/current: +5 VDC with 5 A
- Temperature range: 0 to 70 ºC

Disk Drives:

IBM Microdrive: Two sizes are available, 512 Mbyte and 1.0 Gbyte, in lieu of flash memory.

System Disk Drive: None (standard). Both 40- and 44-pin headers are available for an external device.

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

NOTE: There is one board socket that holds either compact flash memory or an IBM Microdrive unit.

Ports: Two (16550) 9-pin serial ports, one ECP/EPP 25-pin bidirectional parallel port header, a mini-DIN PS/2 connector for keyboard and mouse, and a PCI IDE hard disk interface. This IDE interface supports two enhanced IDE hard disks or CD-ROM drives up to mode 4 PIO and mode 2 DMA master. It also supports Ultra DMA/33. Headers are available (internally) for connections to sound, infrared FDD, LCD, USB, TV-out, and panel link interfaces.

PHYSICAL/ENVIRONMENTAL

Temperature: 0 to 55 ºC operating range

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

Chassis Dimensions:

Width: 5 in.
Length: 6 3/8 in.
Height: 2 3/8 in.
Weight: 2.0 lb
All aluminum (Type 3003 H14) case

Power Requirements:

300 MHz CPU: +5 V at 2.0 A (maximum)

Vibration: 2 Gs constant acceleration from 57 to 500 Hz, with a constant peak-to-peak displacement of 0.012 inches 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

NOTE: Both “UL” and “CE” testing is in progress. Call for details.

TRADEMARKS