



Jaguar –

PC/104 Plus Pentium 3 - Processor Module

Description

The Jaguar is designed for projects requiring fast processing, compact size, flexible memory options, high reliability, and long product lifespan / availability.

This compact two-board set is a complete computer system. It may be used alone or with PC/104 or PC/104-*Plus* expansion modules and is fully compatible with a wide selection of popular operating systems, including most Windows and Real Time OSs.

Up to 256 MB of low power system RAM can be used in the high-reliability latching 144-pin SODIMM socket. Bootable DiskOnChip Flash allows non-volatile program and data file storage without mechanical disk drives.

The high reliability design and construction of this board features latching I/O connectors, watchdog timer, voltage sensing reset circuit, spread spectrum frequency generation for lower EMI, industrial long-life battery, and self-resetting fuse on the 5V supply to the keyboard, mouse, USB ports, and Transient Voltage Suppressors (TVS) on user I/O to reduce risk of ESD damage. An onboard programmable CPU temperature sensor permits use in difficult thermal situations. The sensor output can be used to turn on additional fans, create local or remote warnings, or take other action through software triggers.

The Jaguar delivers both full performance and product longevity by utilizing only standardized components in its design. Features such as full Socket 370 compatibility were made possible by its unique two-board design with PC/104-*Plus* interconnect. It is designed to mount at the top of a PC/104 stack due to fan / heat sink height. Other configurations are possible depending on the environmental characteristics of the application.

This exceptional processor card was designed from the ground up for OEM applications with longevity and reliability as the focus. It is fully supported by the VersaLogic design team. Both hardware and software (BIOS) customization are available in 100 unit quantities. Each board is subjected to burn-in and complete functional testing and backed by a limited two-year warranty.

Ordering Information

EPM-CPU-10b Low power, fanless Intel Celeron 350 MHz (equivalent) Jaguar
EPM-CPU-10c Intel Celeron 566 MHz Jaguar
EPM-CPU-10d Intel Pentium III 850 MHz Jaguar
EPM-CPU-10e Intel Celeron 350 MHz (equivalent) extended temperature Jaguar

Accessories

VL-CBL-0501.....Dual USB transition cable
[VL-CFA-1c](#).....Type I/II CompactFlash adapter
[VL-DEV-CPU-6](#).....Complete development cable kit
VL-DOC-xxx.....xxx MB DiskOnChip Flash module*
[VL-ENCL-3](#) (VersaBox).....Development enclosure
[VL-ENCL-4](#) (VersaTainer).....Ruggedized enclosure
[VL-FFD-144](#).....Floppy drive (black face)
[VL-HDD-1000](#).....3.5" IDE hard disk drive
VL-HDW-20.....PC/104 extractor tool
VL-MM4S-xxx.....32-256 MB SDRAM module
VL-PS200-ATX.....Development power supply

Refer to our [partners page](#) for third party accessories.



Specifications

[Specifications are typical at 25°C with 5.0V supply unless otherwise noted]

Board Size:

3.95" x 3.775" PCB dimensions. 4.23" x 3.775" including connectors as pictured.
Two board set height: 2.4" from bottom of PC/104-Plus shroud to top of fan.

Storage Temperature:

- 40° C to +85° C

Operating Temperature: (free air, no airflow)

0° C to +50° C free air, no airflow (EPM-CPU-10b, c, d)
0° C to +60° C 100 FPM airflow (EPM-CPU-10b, c, d)
- 40° C to +75° C free air, no airflow (EPM-CPU-10e)
- 40° C to +85° C free air, 100 FPM airflow (EPM-CPU-10e)

Bus Speed:

CPU External: 66/100 MHz
PCI, PC/104-Plus: 33 MHz
PC/104: 8 MHz

System Reset:

Vcc sensing, resets below 4.70V typ.
Watchdog timeout

Humidity:

Less than 95%, noncondensing

Power Requirements: (with keyboard, mouse, running Windows 95 with Ethernet)

To be determined
3.3V or ±12V required by some expansion modules

DRAM Interface:

One 144-pin SODIMM socket, 32 to 256 MB or 3.3V SDRAM (PC100).

Flash Interface:

One 32-pin JEDEC DIP socket. Accepts M-Systems DiskOnChip.
Height limit of 0.330".) Chip accessed in 64K blocks.

Chipset:

Intel 440BX

Video Interface:

69030 chip with 4 MB VRAM. Resolutions to 1600x1200.
44-pin flat panel display interface compatible with common panels.

IDE Interface:

One channel PCI-based. Supports up to two IDE devices.
Supports high speed Mode 4 and Ultra DMA drives.

Floppy Disk Interface:

Supports two floppy drives.

Ethernet Interface:

Autodetect 10BaseT / 100BaseTX based on Intel 82559ER. 12K transmit / receive buffer.

COM 1 Interface:

RS-232, 16C550 compatible, 115K baud max.

COM 2 Interface:

RS-232/422/485, 16C550 compatible, 460K baud max.

LPT Interface:

Bi-directional/EPP/ECP compatible.

Connectors:

I/O: Two high-density 80-pin

Video: 10-pin 2mm analog connector, 44-pin 2mm FPD connector

Power: 10-pin 0.1"

BIOS:

General Software embedded BIOS with OEM enhancements including customizable splash screen. Field upgradable.

Compatibility:

PC/104 – Full compliance, except board width

PC/104-Plus – Full compliance, 3.3V or 5V modules