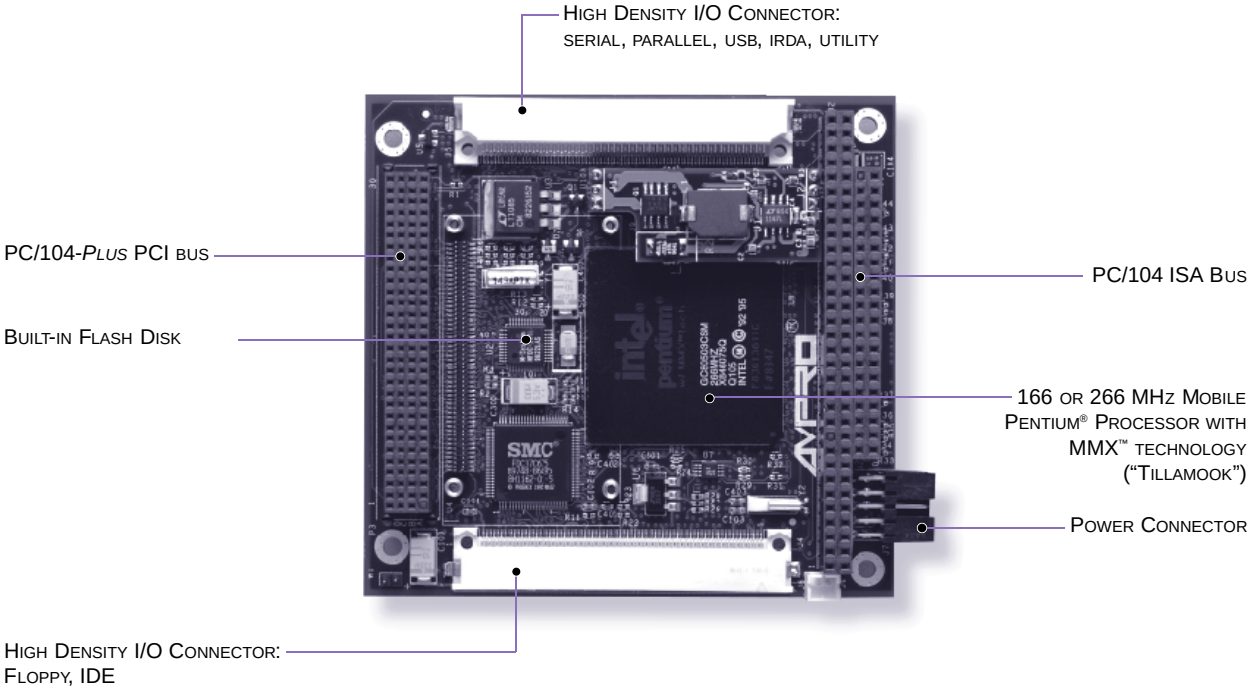
CM3-P5e

CoreModule™/P5e • *Pentium® performance PC/104-Plus™ compliant CPU module*



This Ampro Pentium® CoreModule is a perfect 'macrocomponent' for developers who want to embed true Pentium performance in their application, but who need to focus their design resources on their application's unique hardware, software, and packaging requirements.

Extensive power management, in both hardware and software, results in extremely low power operation. Intel's "ball grid aray" (BGA) Mobile Pentium processor ("Tillamook") provides superior thermal characteristics and reduces cooling requirements, while allowing the module to operate at extended temperature ranges.

To support the low voltage (3.3 and 1.9 VDC) requirements of the Pentium processor and core logic, Ampro built a highly efficient DC-to-DC converter into the CoreModule/P5*e*, resulting in single-supply (+5 VDC) system operation and minimal power consumption. The module also features a temperature sensor which can trigger clock reduction for proper CPU thermal conditioning.

Two system expansion busses—PCI and ISA—offer the ultimate in system integration flexibility.

Ampro Computers, Inc. • 4757 Hellyer Ave., San Jose, CA 95138 • Tel. (408)360-0200 • Fax (408)360-0222 • sales@ampro.com

CM3-P5e

SPECIFICATIONS

PC MOTHERBOARD FUNCTIONS

CPU
- 166 or 266 MHz Intel Mobile Pentium® processor with MMX™ technology ("Tillamook")

CHIPSET
- Intel 82439TX North Bridge/82371AB South Bridge

MEMORY
- Up to 128 MBytes via socketed DRAM module

SYSTEM CONTROLLERS
- 7 DMA channels (8237 equivalent)
- 15 interrupt channels (8259 equivalent)
- 3 programmable counter/timers (8254 equivalent)

KEYBOARD AND MOUSE
- Standard PS/2 (PC/AT) keyboard and mouse ports
- Speaker port with 0.1 watt output

REAL TIME CLOCK
- Real time clock with CMOS setup; requires external 3.0 - 3.6V battery

BIOS
- Award ROM-BIOS with Ampro enhancements

POWER MANAGEMENT
- Compliant with Intel/Microsoft APM specification (version 1.1 or higher)

ADDITIONAL ONBOARD FUNCTIONS

SERIAL
- Two RS232C serial ports with full handshaking (16550 equivalent)
- Serial port 2 supports RS232, TTL, or IRDA

PARALLEL
- IEEE-1284 compatible enhanced parallel printer port with bidirectional data lines

EIDE
- Supports 1 or 2 IDE hard disk drives
- Supports Ultra DMA/33 mode transfers (33 MB/sec burst)

FLOPPY
- Supports 1 or 2 drives

USB
- Two USB ports

IRDA
- Infrared interface port
- Normal mode supports up to 115.2K Baud
- Fast IR mode supports up to 4M bits per second

ONBOARD DISKONCHIP™ OPTION
- Hardware and firmware compatible with M-Systems DiskOnChip2000™ and Millenium
- 8 MB storage capacity
- Real-time operating system support

CONFIG EEPROM
- Supports battery-free boot capability
- 512 bits available for OEM use

WATCHDOG TIMER
- Timeout triggers system management mode interrupt

LOW VOLTAGE RESET
- Triggers when +5V power drops below +4.7V

MECHANICAL

SIZE
- 3.6 x 3.8 x 0.9 in. (90 x 96 x 23mm); PC/104-*Plus* form-factor compliant
  (Includes stackthrough pins. Please refer to PC/104-*Plus* specification for stacking and other dimensions.)

BUS
- 16-bit PC/104 ISA bus
- 32-bit PC/104-*Plus* PCI bus

POWER
- Requirements (mA typical, with 64 Mbytes DRAM and 8 Mbytes onboard DiskOnChip): +5V ±5%

	normal	doze	suspend
166 MHz	1240	660	460
266 MHz	1520	780	520

ENVIRONMENTAL
- Operating temperature: 0° to 70° C standard; –40° to +85° C extended (special order)
  Note: additional airflow or heatsinking required to maintain 95° C maximum CPU case temperature.
- 5% to 95% relative humidity, non-condensing
- Storage temperature: –55° to +85° C
- Weight: 4.1 oz. (116 gm)

DS-CMP5e 2.5K 0300

THE EMBEDDED SOLUTIONS PROVIDER™