



## Ampro CoreModule™ 420

### 486 PC/104 Single Board Computer

Highly Integrated, RoHS-Compliant



## CoreModule 420

### Choose Ampro CoreModule™ 420 for...

Rugged, space-constrained, full-featured embedded systems with modest CPU performance requirements.

### Description

Based on STMicroelectronics™ 133MHz STPC® Atlas processor, the Ampro CoreModule™ 420 provides 4 serial ports (two with RS422/485 capability), 10/100BaseT Ethernet, CRT and Flat Panel Video, USB, IDE, floppy and GPIO support in a PC/104 form factor.

*(Not recommended for new designs.)*



- -40° to +85°C
- 10/100 Ethernet, 3D Video
- 4 Serial, 1 USB, 8 GPIOs
- PC/104 expansion

**For more information, pricing, and details on volume discounts, please call us at 1. 800. 966. 5200 or +1. 408. 360. 0200.**

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### Ordering Information

MODEL	DESCRIPTION
CM2-420-R-01	CoreModule™ 420, 133MHz STPC Atlas CPU, 64MB RAM, Video, Ethernet
CM2-420-L-01	133MHz QuickStart Kit (R-01 SBC, Cable Kit, Software, Documentation)
CM2-420-X-01	CoreModule™ 420 Cable Kit

### Specifications

#### PROCESSOR

- 133MHz STPC Atlas
- Cache – 8kB Level 1
- System Controllers – PC-compatible DMA and interrupt controller and timers
- Real Time Clock – Battery-backed RTC/CMOS
- Watchdog Timer
- Powerfail Reset – Triggers when key voltage drops below predetermined thresholds

#### MEMORY

- 64MB soldered SDRAM
- 1MB Flash Memory, 768kB for OEM use

#### BUS INTERFACE

- PC/104 (ISA)

#### I/O

- EIDE – Enhanced DMA 33 Synchronous IDE interface supports up to two hard drives
- Byte-wide Socket for DiskOnChip™ 2000
- Compact Flash Socket on primary IDE
- Serial – 4 ports, two are RS232/422/485
- Parallel – EPP/ECP bidirectional port, shared with floppy interface
- Floppy – Supports 1 to 2 drives, shared with parallel port
- USB – 1 USB 1.1 port (one root hub)
- Keyboard/Mouse – PS/2 interface
- GPIO – Eight general-purpose digital I/O pins

#### NETWORK INTERFACE

- Ethernet – Intel 82551ER 10/100BaseT

#### VIDEO INTERFACE

- Controller – Integrated
  - 64-bit single-cycle 100MHz 2D graphics engine
  - Supports resolutions to 1024x768
  - 4MB UMA Frame Buffer
  - Supports TFT panels
  - Supports 3.3V, 5V flat panels

#### SOFTWARE & DEVELOPMENT TOOLS

- OS Support – VxWorks™ v5.4, QNX™ v6.2.1, Windows™ CE 5.0 (See Web site for details)
- BIOS – General Software 5.2 with Ampro extensions

#### MECHANICAL

- Size – 90x96mm (3.6x3.8"); PC/104 form factor
- Power Requirements (with 64MB RAM, 100% Loaded) – 1.3A @5V
- Environmental
  - Temperature (100 CFM system air flow)
    - Standard: -20° to +70°C
    - Optional: -40° to +85°C
    - Storage: -55° to +85°C
- Board Thickness – .062" (1.6mm)



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