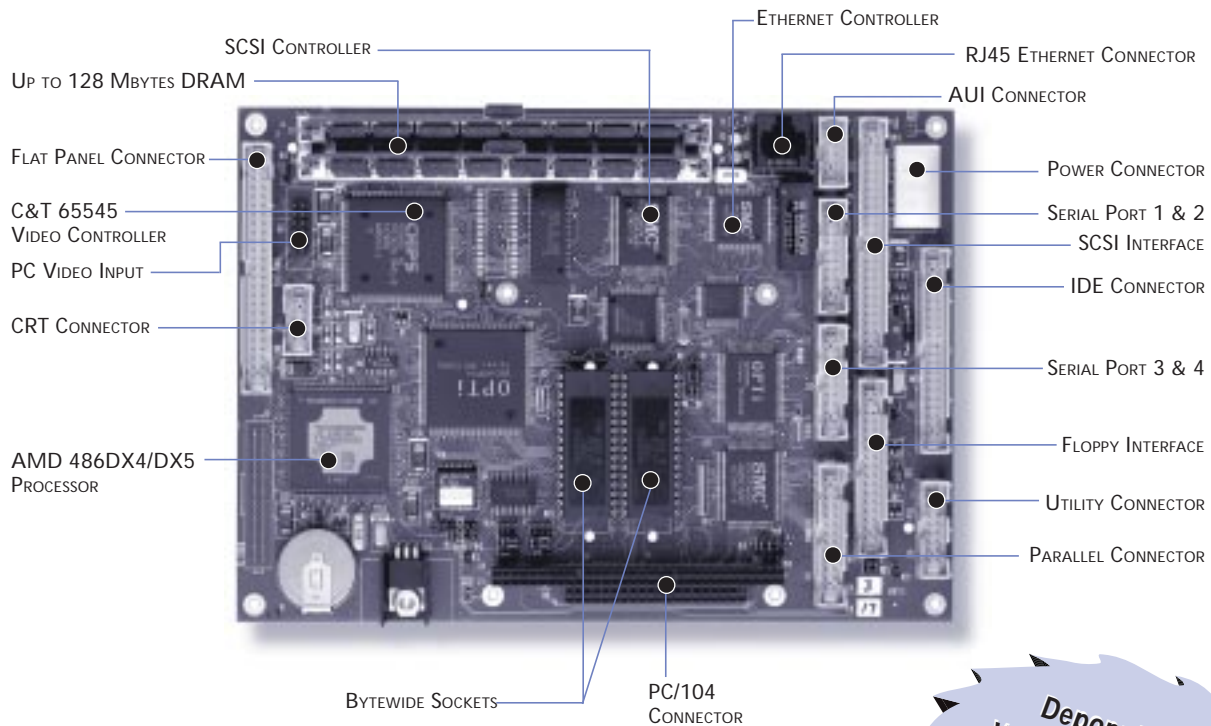


# LB3-486

Little Board™/486i • Exceptional performance, high integration PC/AT compatible single board system



The Little Board/486i is an exceptionally high integration, high performance, 486DX-based PC/AT compatible *system*, in the footprint of a 5-1/4 inch disk drive. This rugged, high quality single-board system contains all the component subsystems of a PC/AT motherboard plus the equivalent of six PC/AT expansion cards.

Key functions included on the Little Board/486i are a 3.3V CPU, DRAM, embedded-PC BIOS, keyboard and speaker interfaces, four buffered serial ports, IEEE-1284 enhanced parallel port, floppy and fast IDE drive controllers, an LCD/CRT local bus display interface, a SCSI-II bus, and an Ethernet LAN interface. In addition, the Little Board/486i includes a comprehensive

set of embedded system extensions and enhancements, plus it is designed to meet the size, power consumption, temperature range, quality, and reliability demands of embedded applications.

Among the many embedded-PC enhancements that ensure fail-safe embedded system operation are a watchdog timer, a powerfail NMI generator, and an onboard bootable Solid State Disk (SSD) capability. System operation requires a single +5V power source and offers "green PC" power-saving modes under support of special Advanced Power Management (APM) BIOS functions.

# LB3-486

## SPECIFICATIONS

FOR A COMPLETE LIST OF  
PANELS SUPPORTED,  
PLEASE VISIT OUR WEBSITE  
[www.ampro.com/support](http://www.ampro.com/support)

### PC FUNCTIONS

#### CPU MEMORY

- AMD 486DX4/DX5, 66 or 100/133 MHz
- Supports up to 64 Mbytes, Fast Page or EDO DRAM
- Supports two 72-pin SIMMs (1 bank) with or without parity
- Shadow RAM support provides fast system/video BIOS execution
- 15 interrupt channels (8259 equivalent)
- 7 DMA channels (8237 equivalent)
- 3 programmable counter/timers (8254 equivalent)
- Standard PC/AT keyboard port
- Speaker port with 0.1 watt output
- Battery backed real-time clock and CMOS setup
- Award ROM-BIOS with Ampro enhancements (See Ampro Embedded-PC Enhancements section)

#### DMA INTERNAL

#### COUNTER TIMER KEYBOARD

#### REAL TIME CLOCK BIOS

### ADDITIONAL ONBOARD FUNCTIONS

#### SERIAL

- Four FIFO-buffered serial ports with full handshaking (16550 equivalent)
- Each channel supports either RS232C (direct connection) or RS485 (via the Ampro RS485 Adapter)
- EPP/ECP compatible, bidirectional

#### PARALLEL FLOPPY FAST IDE

- Supports 1 or 2 drives
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- Supports "fast" IDE data transfer modes, up to PIO mode 4

#### SCSI-II

#### BYTEWIDE SOCKET

- Adaptec AIC-6360
- Supports SCSI I/II, synchronous or asynchronous transfers
- Two 32-pin byte-wide memory sockets: usable with 32K-1M byte EPROMs, 32K-512K byte Flash EPROMs, 32K-512K byte SRAMs, or 32K-512K byte NOVRAMs
- Onboard battery converts SRAM into NOVRAM
- Usable with DiskOnChip2000™ read/write flash SSD device (only one socket usable with DiskOnChip)
- 512 bits available for OEM use
- Utilizes real time clock alarm function
- Timeout triggers NMI or hardware reset
- Triggers when +5V power drops below +4.7V

#### CONFIG EEPROM WATCHDOG TIMER

#### POWERFAIL NMI

### VL BUS DISPLAY CONTROLLER

#### CONTROLLER ONBOARD DISPLAY RAM FLAT PANEL SUPPORT

- Supports CRT, LCD, and EL displays
- C&T 65545
- 512 K or 1 MByte (soldered)
- Supports 24-bit "true color" (640 x 480)
- "GUI accelerator" for enhanced graphic function performance
- Software programmable flat panel interface signal timing
- Sequenced LCD power to protect display
- Supports DPMS-compatible displays
- Optional plug-in LCD bias supply: supplies ±15 to ±35 VDC @ 30 mA; voltage level adjusted via onboard or external potentiometer

### ETHERNET LAN INTERFACE

#### CONTROLLER MEDIA INTERFACE OPTIONS

#### DATA RATE REMOTE BOOT ROM

- Complies with IEEE-802.3 (ANSI 8802-3)
- SMC 9000 series
- 10Base-T (twisted pair), via onboard RJ45 connector
- AUI, via onboard header connector: DB15F transition cable available
- 10Base2 (thin coax), via external MAU connected to AUI interface
- 10M bits/sec
- Can be installed in byte-wide SSD socket

### MECHANICAL

#### SIZE POWER ENVIRONMENTAL

- 5.75 x 8.0 x 1.2 in. (146 x 203 x 30 mm)
- Power requirements (Please refer to the *Ampro Ordering Guide*.)
- 0° to 70° C standard temperature
- -40° to +85° C extended operating temperature (available by special order)  
Note: additional airflow or heatsinking required to maintain 85° C maximum CPU case temperature.
- 5% to 95% relative humidity, non-condensing
- Storage temperature: -55° C to +85° C
- Weight: 9.5 oz. (270 gm)

NOTE: Contact Ampro regarding custom configurations and special order options.

*For ordering information  
and pricing please refer  
to Ampro Ordering  
Guide.*



THE EMBEDDED SOLUTIONS PROVIDER™

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