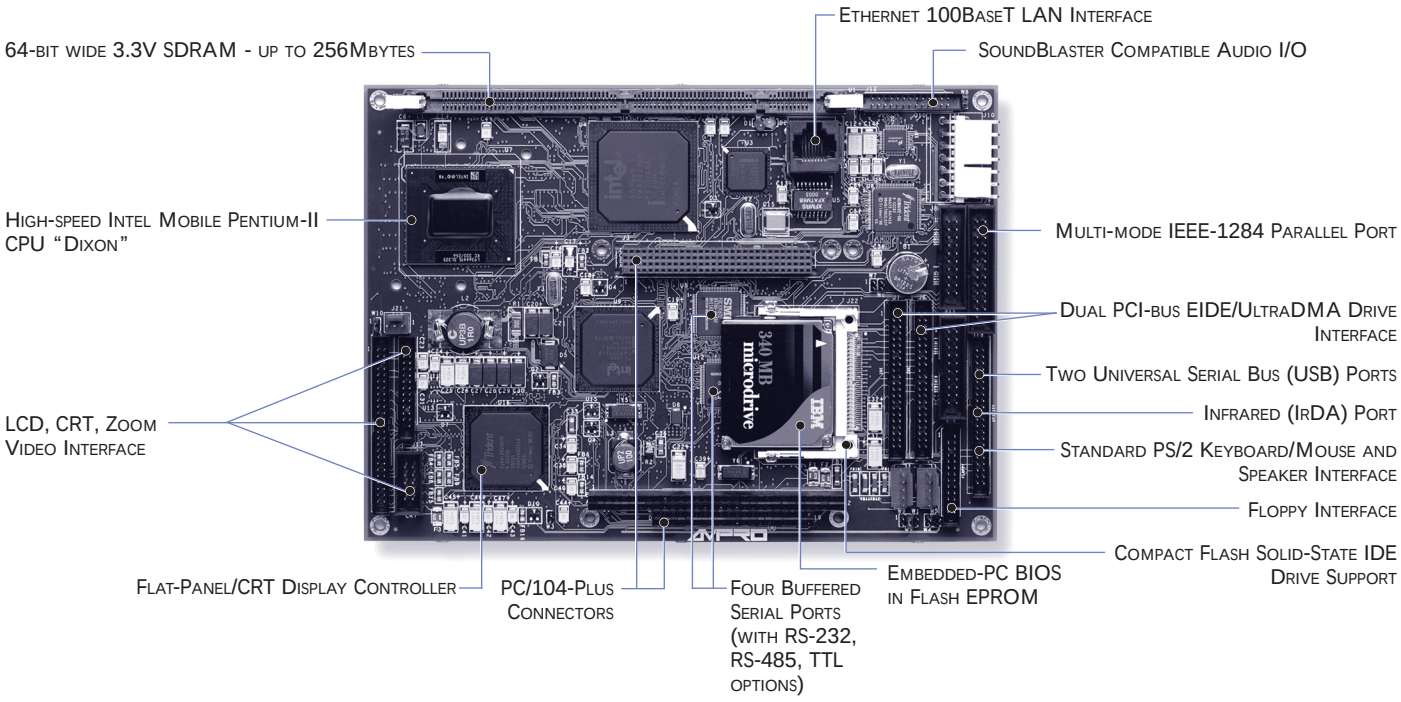
LB-P6d

Little Board™ P6d • *Pentium II, high integration single board system*



The highly integrated Little Board™ P6d EBX-compatible SBC features a powerful 333 MHz Mobile Pentium II "Dixon" processor, advanced networking, high-performance graphics, SoundBlaster™-compatible sound and ECC memory option. Ideal for ruggedized embedded designs with demanding multimedia performance requirements, it also provides 10/100BaseT Ethernet and 3D graphics for both CRTs and flat panel displays.

This high-integration, high-performance PC-compatible system is a rugged and high quality single-board system that contains all the component subsystems of a PCI motherboard plus the equivalent of several expansion boards. The Little Board/P6d is designed to meet the size, power consumption, temperature range, quality, and reliability demands of embedded system applications.

100 MB/s ETHERNET LAN INTERFACE

The Ethernet subsystem is based on the Intel 82559ER Base-T PCI Ethernet Controller. It fully supports IEEE 802.3 Ethernet standards—10BaseT and 100BaseT. Features of this Ethernet controller include chained memory structure, full duplex support and Auto-negotiable support.

AGP FLAT-PANEL/CRT DISPLAY CONTROLLER

The Asiliant CT69030 3D video display controller supports both flat panels and CRTs, and offers full software compatibility with all popular PC video standards (VGA, Super VGA, and VESA). All standard resolutions up to 1280 x 1024 pixels and up to 16.7 million colors are supported. 4MB of embedded SDRAM video memory are standard.

PCI AUDIO INTERFACE

The SoundBlaster-compatible audio interface is implemented using the Trident 4DWAVE-NX PCI DirectSound Accelerator.

An extensive set of PC BIOS enhancements ensures robust operation in unpredictable real-world environments. System operation requires a single +5 Volt power source (and 3.3 Volts for low-voltage PCI expansion cards, if required) and offers "green PC" power-saving modes under support of Advanced Power Management (APM) BIOS functions.

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LB-P6d

SPECIFICATIONS

PC FUNCTIONS

CPU	• Intel Mobile Pentium-II "Dixon", 333 MHz
MEMORY	• DIMM module, utilizing 3.3V SDRAM memory chips
	• Supports from 32MB to 256MB total RAM
	• ECC option
DMA INTERNAL	• 15 interrupt channels (8259-equivalent)
	• 7 DMA channels (8237-equivalent)
COUNTER TIMER	• 3 programmable counter/timers (8254-equivalent)
KEYBOARD/MOUSE	• Standard PC/AT keyboard port and PS2 mouse
	• Standard PC speaker port with .1 watt output drive
REAL TIME CLOCK	• Battery-backed real-time clock and CMOS RAM
BIOS	• Award ROM-BIOS with Ampro enhancements (See Ampro Embedded-PC Enhancements section)

ADDITIONAL ONBOARD FUNCTIONS

SERIAL	• Four FIFO-buffered serial ports, two with full handshaking (16550-equivalent)
	• On-board generation of RS232C signal levels
	• All support either RS232C, RS485, or RS422
PARALLEL	• EPP/ECP compliant, bi-directional
FLOPPY	• Supports 1 or 2 drives
FAST IDE	• Two PCI Extended IDE disk controllers
	• Supports up to 4 drives
	• Supports high-speed PIO modes with fast ATA-compatible interface
CONFIG EEPROM	• 4KB available for OEM use
WATCHDOG TIMER	• Timeout triggers SMI or hardware reset
POWERFAIL NMI	• Triggers when +5V power drops below +4.7V

PCI BUS DISPLAY CONTROLLER

CONTROLLER	• Uses state-of-the-art Asiliant CT69030 HiQVideo Accelerator
ONBOARD DISPLAY RAM	• 4 MB embedded 83MHz SDRAM
FLAT PANEL SUPPORT	• Supports CRT, LCD, EL and video (PanelLink, LVDS, NTSC) displays
	• Supports 24-bit true color at 800 x 600 VGA resolution
	• GUI accelerator for enhanced graphic function performance
	• Sequenced LCD power to protect display
	• Standard model supports 3.3V flat panels; 5V LCD I/F, LCD bias power supply.
	• Supports Zoom Video Port

PCI AUDIO INTERFACE

- SoundBlaster Pro/16 compatibility
- Trident 4DWAVE-NX controller
- National LM4549 AD97 Codec
- National LM4663 2W Audio Amplifier

ETHERNET LAN INTERFACE

	• Complies with IEEE-802.3 (ANSI 8802-3) MII
	• 32-bit PCI host for fast operation
CONTROLLER	• Intel 82559ER 10/100Mbps Ethernet controller
MEDIA INTERFACE OPTIONS	• 10/100 BaseT (twisted pair), via onboard RJ45 connector
DATA RATE	• Automatic arbitration for 10/10 Mbits/sec

MECHANICAL

SIZE	• 5.75 x 8.0 in. (146 x 203 mm)
ENVIRONMENTAL	• 0° to 70° C standard temperature, –55° C to +85° C storage temperature
	• –40° to +85° C extended operating temperature available by special order
	• 5% to 95% relative humidity, non-condensing
	• Weight: 11.6 oz. (329 gm), no DRAM installed

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