



AlphaPC 164SX



Digital Semiconductor AlphaPC 164SX Motherboard Product Brief

The AlphaPC 164SX provides original equipment manufacturers (OEMs) with a platform for performance-oriented business applications.

Alpha PCs are designed with standard PC components such as SDRAM DIMMs, PCI option cards, power supplies, enclosures, and the Windows NT operating system. The AlphaPC 164SX offers PCI and ISA slots, onboard PCI IDE, and memory support for up to 512MB of SDRAM in an ATX form factor.

The AlphaPC 164SX is perfect for performance-focused business applications such as CAD, desktop publishing, multimedia presentations and training, and financial analysis. Alpha provides a rich complement of over 2500 committed Windows NT applications.

The AlphaPC 164SX motherboard integrates Digital Semiconductor's engineering excellence, quality, and performance, creating the best solution for today's business desktop.

Features

Hardware Features

- AlphaPC 164SX supports the Digital Semiconductor 21164PC Alpha micro-processor that operates at speeds of 400, 466, and 533 MHz.
- Digital Semiconductor 21174 core logic chip interfaces to the CPU, system memory, L2 cache, and PCI bus.
- Synchronous DRAM (SDRAM) memory subsystem includes:
 - 32MB to 512MB memory
 - Two banks of 128-bit memory
 - 168-pin unbuffered SDRAM DIMMs
- L2 cache subsystem supports:
 - 128-bit data path
 - 1MB cache size, using synchronous SRAMs (SSRAMs)
- PCI bus support (33 MHz):
 - Four dedicated PCI slots
 - *Two 32-bit slots
 - *Two 64-bit slots
 - Cypress CY82C693U–NC I/O chip
 - *PCI-to-ISA bridge
 - *PCI IDE
 - *PCI USB
 - *Keyboard control, mouse control, and time-of-year clock

- ISA provides an expansion bus with two dedicated ISA expansion slots and the following system support functions:
 - SMC FDC37C669 combination controller chip provides diskette control, two UARTs with modem control, and parallel port
 - 1MB of flash ROM
- Standard ATX power supply

Software Features

- Windows NT Alpha BIOS firmware, which supports installation of Windows NT 4.0. (Windows NT operating system purchased separately.)

Documentation

- *Digital Semiconductor AlphaPC 164SX Motherboard User's Manual*

Warranty

- Three years



AlphaPC 164SX Kit includes:

Product	Order Number
AlphaPC 164SX Motherboard with 1MB L2 cache for Windows NT (no CPU)	21A05-A0
AlphaPC 164SX Documentation	
Windows NT Alpha BIOS Firmware	

Alpha Microprocessor Options

Product	Order Number
21164PC Alpha microprocessors:	
• 400 MHz	• 211PC-01
• 466 MHz	• 211PC-02
• 533 MHz	• 211PC-03

AlphaPC 164SX Characteristics

Characteristic	Specification
Power supply	Standard ATX PC power supply
Operating temperature range	10°C to 40°C (50°F to 104°F)
Storage temperature range	-55°C to 125°C (-67°F to 257°F)
Size	30.48 cm × 24.38 cm (12.0 in × 9.6 in)

Other Digital Semiconductor Products

Product	Order Number
Motherboard Software Developer's Kit (SDK) and Firmware Update	Available Summer, 1997

For More Information

To learn more about the availability of the AlphaPC 164SX, contact your local semiconductor distributor. To learn more about Digital Semiconductor's product portfolio, visit the Digital Semiconductor World Wide Web Internet site:

<http://www.digital.com/semiconductor>

or you can contact the Digital Semiconductor Information Line:

United States and Canada

1-800-332-2717

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1-510-490-4753

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