



AlphaPC 164 Motherboard DIGITAL UNIX



Digital Semiconductor AlphaPC 164 Motherboard DIGITAL UNIX Product Brief

The Digital Semiconductor AlphaPC 164 motherboard is the highest performing motherboard available in the UNIX market today. The AlphaPC 164 motherboard provides an easy, cost-effective solution for companies entering the high-performance system market.

Applications

- CAD/CAM
- Software development/CASE
- Engineering
- Accounting/Financial services
- Graphics/Imaging
- Transaction processing
- Data warehousing
- Office automation
- Internet commerce
- Process control/Simulation

Benefits

AlphaPC 164 Motherboard

- Yields highest performance in the UNIX market
- Offers delivery of a high-performance system having:
 - Microprocessor speed up to 500 MHz
 - Superscalar 4-way instruction issue
 - High-bandwidth interface
 - 0.35- μ m CMOS technology
 - 1MB, board-level, L3 cache
- Is the perfect platform for performance-focused applications
- Allows OEMs to quickly develop UNIX-based systems

DIGITAL UNIX

- Complies with numerous standards and industry specifications, including:
 - LP64, the industry's new 64-bit UNIX standard and programming interface
 - Common Desktop Environment (CDE)
 - X/Open branding for UNIX 95
 - POSIX
 - X/Open XPG4 and XTI
- Runs FreePort Express, the free software binary translator that converts user executables and shared libraries from SunOS Version 4.1.n SPARC into functionally-equivalent user executables and shared libraries for Alpha systems running DIGITAL UNIX

Description

The AlphaPC 164 motherboard kit for DIGITAL UNIX (21A04-B2) includes an AlphaPC 164 motherboard, a DIGITAL UNIX license for two users, an oscillator kit for 366 MHz to 500 MHz, the Alpha SRM Console firmware, user documentation, and a 3-year warranty.

Additional items required for a working system are an Alpha microprocessor and the DIGITAL UNIX Alpha V4.0B Media Kit. Optionally, you may want to order the DIGITAL UNIX Full Documentation Kit and the DIGITAL UNIX Reference Pages Documentation Kit.

Hardware Features

- AlphaPC 164 motherboard supports the Digital Semiconductor 21164 Alpha microprocessor running at speeds up to 500 MHz
- Digital Semiconductor 21172 core logic chipset interfaces to the CPU, system memory, L3 cache, and PCI bus
- DRAM memory subsystem includes:
 - 128-bit or 256-bit data bus
 - 16MB-to-512MB memory array
 - One bank of either 4- or 8-commodity, 36-bit, 70-ns SIMMs
- L3 cache subsystem supports:
 - 128-bit data path
 - Synchronous SRAMs
 - 1MB (32K × 36) cache size
- PCI bus support:
 - 32-bit and 64-bit, 33-MHz PCI
 - PCI-to-ISA bridge through an Intel 82378ZB Saturn I/O chip
 - Four dedicated PCI slots (two 64-bit)
 - Two dedicated ISA expansion slots

- ISA provides an expansion bus and supports diskette control, two UARTs with modem control, parallel port, mouse control, keyboard control, and TOY clock
 - 1MB of flash ROM

21A04-B2 Kit Features

- The 21A04-B2 kit contains:
 - AlphaPC 164 motherboard (no CPU)
 - Alpha SRM Console firmware for DIGITAL UNIX V4.0 or higher
 - Oscillator kit (366 MHz to 500 MHz)
 - DIGITAL UNIX license for two users
 - *AlphaPC 164 Motherboard DIGITAL UNIX User's Manual*
 - 3-year warranty
- Additional items required for a working system are:
 - Alpha microprocessor
 - DIGITAL UNIX Alpha V4.0B Media Kit

For More Information

To learn more about the availability of the AlphaPC 164 motherboard, contact your local semiconductor distributor. To learn more about Digital Semiconductor's product portfolio, contact the Digital Semiconductor Information Line:

United States and Canada
1-800-332-2717
 Outside North America
1-510-490-4753

or contact the Digital Semiconductor Technology Center:

Phone (U.S. and international)
1-508-568-7474
 Fax
1-508-568-6698

or visit the following World Wide Web Internet sites:

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

AlphaPC 164 Motherboard Characteristics

Characteristic	Specification
Power supply	Standard ATX 3.3-V 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)

Ordering Digital Semiconductor Products

Product	Order Number
AlphaPC 164 Motherboard with 1MB L3 cache	21A04-B2
DIGITAL UNIX Alpha V4.0B Media Kit	QA-MT4AA-H8
DIGITAL UNIX Full Documentation Kit (excluding Reference Pages)	QA-MT4AA-GZ
DIGITAL UNIX Reference Pages Documentation Kit	QA-MT4AG-GZ
DIGITAL UNIX Concurrent User License	QL-MT7AM-3*

* Denotes variant fields. To increase the number of licensed users (default is two), you need to purchase additional user licenses. For information on available licenses, please refer to the appropriate price book.

While DIGITAL believes the information in this publication is correct as of the date of publication, it is subject to change without notice.

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