

COMPAQ

AlphaPC 264DP Motherboard

World class performance for embedded applications

By offering unrivaled performance, the AlphaPC 264DP dual-processor motherboard provides an easy, cost-effective solution for companies developing high-performance embedded products.





performance advantage for embedded applications



Alpha motherboards are designed to use standard PC components such as synchronous DRAM (SDRAM) DIMMs and PCI option cards. The AlphaPC 264DP offers PCI and ISA slots, onboard PCI IDE, a dual-port Ultra Wide SCSI controller, and 16 SDRAM DIMMs providing access to up to 4 gigabytes of memory. The mainboard contains the system chipset, main memory, and all I/O logic. Each daughtercard contains a 500-MHz Alpha 21264 microprocessor and L2 cache. One or two daughtercards may be used for uniprocessor or dual-processor configurations.

The AlphaPC 264DP motherboard provides a dramatic performance advantage to embedded applications such as CAT, MRI, telecommunication switches, and simulators. At two times the performance of its nearest competitor, this product provides the ultimate in performance at a competitive cost. OEMs who implement the AlphaPC 264DP in their products position themselves as providers of the industry's most advanced technology solutions.

The AlphaPC 264DP motherboard integrates Compaq Computer Corporation's engineering excellence, quality, and performance, keeping Alpha products ahead of the competition.

Hardware features

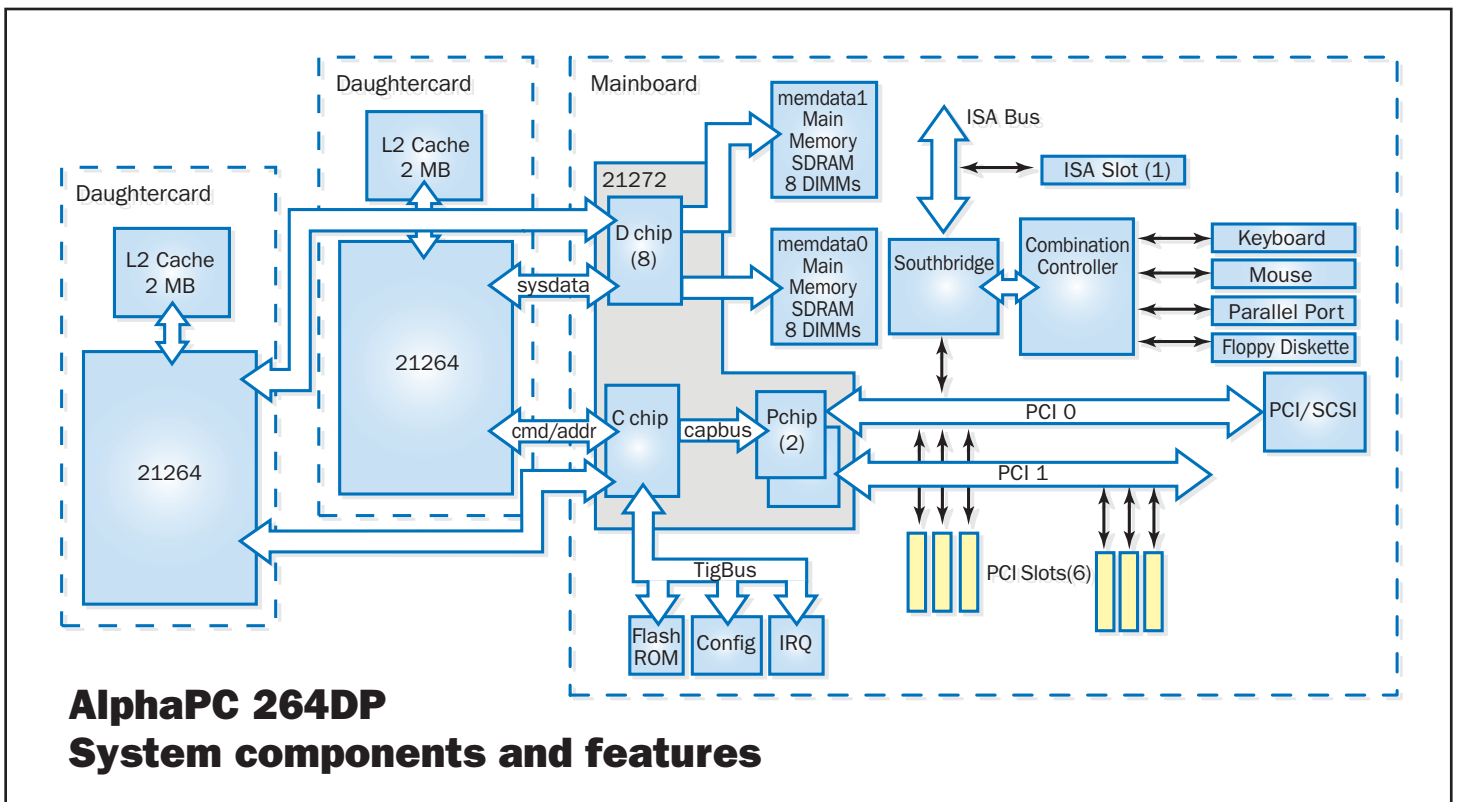
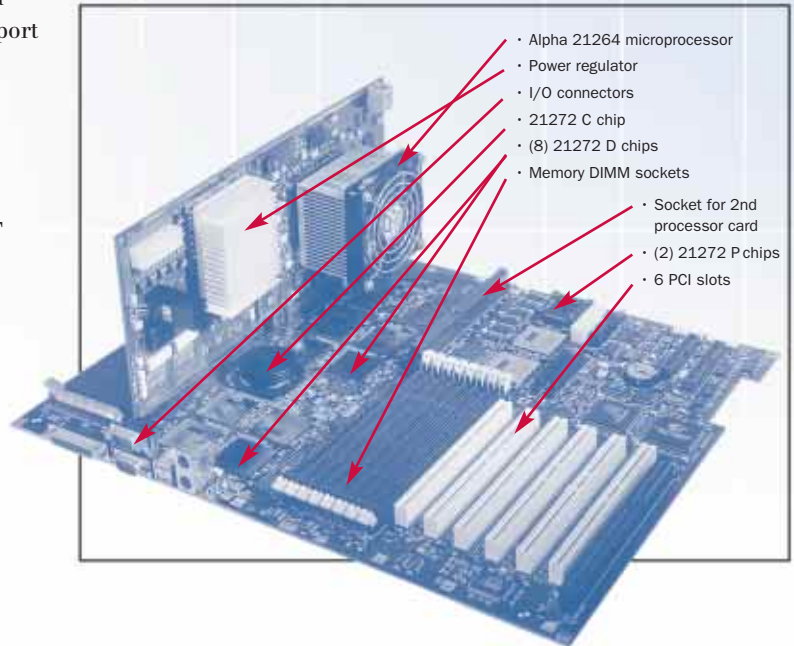
- AlphaPC 264DP mainboard supports one or two daughtercards. Each daughtercard contains:
 - One Alpha 21264 microprocessor operating at a speed of 500 MHz
 - A 2 MB, 128-bit L2 cache with late-write HSTL synchronous static RAM (SSRAM)
- The 21272 core logic chipset on the mainboard interfaces to the CPUs, main memory, and dual PCI buses
- SDRAM memory subsystem includes:
 - 128 MB to 4 GB memory complement with 72-bit ECC
 - Four memory arrays, each consisting of four 200-pin, 72-bit buffered SDRAM DIMMs
 - Memory speed support of 83.3 MHz
- PCI bus support (33 MHz):
 - Six (6) 64-bit slots (one shared with ISA slot)
- Integrated PCI peripheral support:
 - Integrated Adaptec™ AIC-7895 dual-port, Ultra Wide SCSI controller
 - PCI-to-ISA bridge using a Cypress™ 82C693UB hyperCache™ chip providing:
 - PCI IDE for two devices (PIO mode 4)
 - Keyboard/mouse control and time-of-year clock

cost-effective solutions

- ISA bus support:
 - One dedicated ISA expansion slot (shared with the 32-bit PCI slot)
- Integrated ISA peripheral support:
 - SMSC™ FDC37C665 combination controller chip provides diskette control (2.88 MB), two serial port UARTs with modem control, and a parallel port
- Daughtercard has onboard 5.0-V to 2.0-V voltage regulation for CPU, and 5.3-V to 1.5-V voltage regulation for SSRAM:
 - The mainboard supplies +3.3 V
 - A separate power connector supplies +5.0 V

- Daughtercard has onboard Flash ROM for 21264 Alpha microprocessor SROM support
- **Software features**
 - Windows NT™ Alpha BIOS firmware, which supports installation of Windows NT Server 4.0 (Windows NT Server operating system purchased separately)

- **Warranty**
 - One year





**The AlphaPC 264DP consists of the mainboard and one or two daughtercards.
Documentation and firmware are available separately.**

Ordering information	
<i>Product</i>	<i>Order number</i>
AlphaPC 264DP mainboard	21A06-B0
AlphaPC 264DP daughtercard with 500-MHz CPU and 2 MB L2 cache	21A06-M0
AlphaPC 264DP characteristics	
<i>Characteristic</i>	<i>Specification</i>
Power supply	650-W minimum PC power supply providing +3.3 V, +12.0 V, -12.0 V and +5.0 V
Operating temperature range	10°C to 35°C (50°F to 95°F)
Storage temperature range	-55°C to 125°C (-67°F to 257°F)
Board sizes	
Mainboard	42.11 cm x 33.02 cm (16.58 in x 13.0 in)
Daughtercard	30.48 cm x 14.99 cm (12.0 in x 5.9 in)
Related products and documentation	
<i>Product</i>	<i>Order number</i>
Motherboard Software Developer's Kit (SDK) and Firmware Update	QR-21B02-04
<i>AlphaPC 264DP User's Manual</i>	EC-RBOBA-TE
<i>AlphaPC 264DP Technical Reference Manual</i>	EC-RB0DA-TE

For more information

To learn more about the availability of the AlphaPC 264DP, contact your local sales office. To learn more about Compaq Computer Corporation's portfolio of Alpha board products, visit the Alpha OEM World Wide Web Internet site:
www.digital.com/alphaoem

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