



## PRODUCT BRIEF

# AlphaPC 164UX Motherboard

### Description

AlphaPC 164UX Motherboard provides the industry's highest motherboard performance and standard for OEMs and system integrators building Alpha ready systems. AlphaPC 164UX Motherboard supports the Alpha 21164 microprocessor at speeds of 600MHz and beyond and uses Digital's 21174 core logic chip set that can support 128bit memory access at speeds up to 66MHz and includes on-board Ultra Wide SCSI and 10/100 Mbs Ethernet. AlphaPC 164UX Motherboard is available in 2MB or 4MB of on-board cache.

AlphaPC 164UX is perfectly organized for Windows NT server and workstation applications such as computer based video systems, computer aided design, financial analysis, Internet servers and high-end graphics such as 3-D rendering and animation. AlphaPC 164UX also provides the Linux market with a high performance solution.

### Hardware Features

- Supports Alpha 21164 microprocessors:
  - 500MHz up to 700MHz (33.33MHz increments)
- Digital Semiconductor 21174 core logic chip:
  - Interface to the CPU, system memory, L3 cache and PCI bus
- Synchronous DRAM (SDRAM) memory subsystem includes:
  - 32MB to 1.5GB memory
  - Three banks of 128bit memory
  - 168-pin unbuffered SDRAM DIMM with ECC
- L3 cache subsystem supports:
  - 128bit data path
  - Synchronous SRAMs (SSRAMs)
  - 2MB cache size, using 128K x 18 SSRAMs or 4MB with 256K x 18 SSRAMs
- PCI bus support (33MHz):
  - One 64bit slot and five 32bit slots
  - PCI-to-ISA bridge using an Intel 82371SB System I/O chip
- On-board Ultra-Wide SCSI:
  - Symbios Logic 53C875 with Narrow, Wide and Ultra Wide support
- On-board 10/100Mbs Ethernet:
  - Digital 21143 Controller with 10/100Mbs
  - UTP with RJ45 connector

### Software Features

- Windows NT ARCBios firmware:
  - Supports installation of Windows NT operating system (Version 4.0 or later)

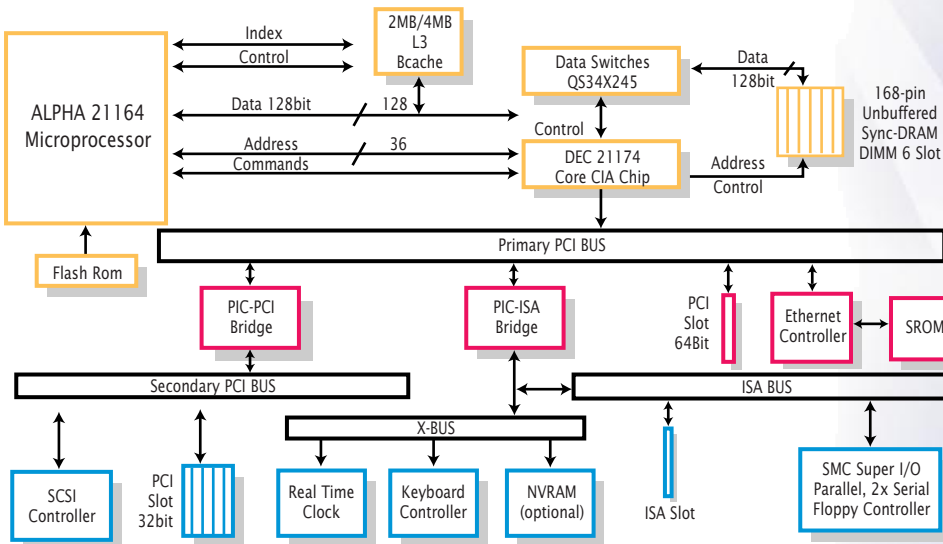
### Supporting OS

- Microsoft Windows NT (Version 4.0 or later)
- Linux

### Documentation

- AlphaPC 164UX Motherboard Windows NT User's Manual
- AlphaPC 164UX Motherboard Technical Reference Manual

## AlphaPC 164UX Block Diagram



## For More Information Alpha Processor, Inc.

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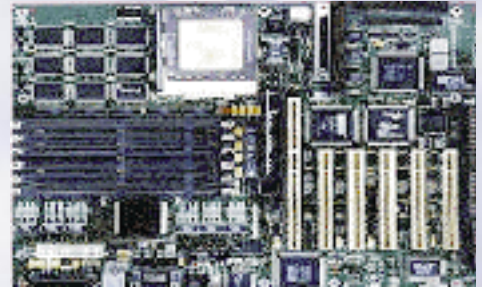
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## CHARACTERISTICS

|                           |  |
|---------------------------|--|
| Power Supply              | Standard ATX PC power supply           |
| Operating Temperature     | 10° C to 40° C<br>(50° F to 104° F)    |
| Storage Temperature Range | -55° C to 125° C<br>(-67° F to 257° F) |
| Dimensions                | LWH: 12.0 in x 96 in x 2.7 in          |
| Availability              | NOW                                    |



## Samsung DIMM Part Number List for 164UX Motherboard:

| Density | Part Number         | Configuration | # of Banks | Base of Component |
|---------|---------------------|---------------|------------|-------------------|
| 16MB    | KMM374S203CT-GH/GL  | 2M X 72       | (2 Bank)   | 16 Mbit           |
| 32MB    | KMM374S403CT-GH/GL  | 4M X 72       | (2 Bank)   | 16 Mbit           |
| 64MB    | KMM374S823BT-GH/GL  | 8M X 72       | (4 Bank)   | 64 Mbit           |
| 128MB   | KMM374S1623BT-GH/GL | 16M x 72      | (4 Bank)   | 64 Mbit           |
|         | KMM374S1723T-GH/GL  | 16M x 72      | (4 Bank)   | 128 Mbit          |
| 256MB   | KMM374S3323T-GH/GL  | 32M x 72      | (4 Bank)   | 128 Mbit          |

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