NEW! 600MHz Alpha Power

# Symbion™ AXP164LX

**The ultimate Windows NT 3D workstation**

***The Windows NT workstation that tested faster than the fastest UNIX workstation—at half the price.***

***466, 533 or 600MHz Alpha Microprocessor***

***MaxVision GLmax OpenGL 3D Accelerated Graphics***

***Expert Lifetime Support***
***3-year Warranty***
***Next-Day Replacement Parts***

**Let us quote on your next workstation. Call today at 800-533-5805 or visit our Web site for complete information.**
**http://www.maxvision.com**

In actual benchmark performance tests, MaxVision's new Symbion AXP164LX tested faster than comparably equipped UNIX workstations costing twice as much. An ultra high-performance workstation designed for real-time modeling, simulation and visualization under Windows NT, the Symbion AXP164LX is ideal for mechanical design and analysis, plant design and demanding geographic information systems.

### Supercomputer Power, 2.4 Billion Instructions Per Second

The AXP164LX is powered by the 600MHz 64-bit Digital Alpha AXP 21164A, a new, faster version of the world's most powerful microprocessor. The Alpha 21164A is designed using 64-bit superscalar, super-pipelined architecture, and can execute as many as four instructions every clock cycle. At 600MHz, this equals *2.4 billion* instructions per second. To supply this powerful engine with data, the Symbion AXP164LX features a high-performance three-level cache system. This includes an 8KB instruction and data cache, a 96KB on-chip L2 cache, and a 2MB on-board, synchronous SRAM back-up cache that accesses the microprocessor with a 128-bit data path to main memory.

### All Your Windows Applications—Faster

The Symbion AXP164LX runs most standard Windows and Windows NT software. Pro/ENGINEER®, Pro/MECHANICA®, Pro/MANUFACTURE®, SolidWorks, AutoCAD, MicroStation, Unigraphics and other popular CAD applications perform at unprecedented speeds in native mode under Windows NT.

*Continued on back*

## Performance Engineered

### 64-bit Alpha

- 466MHz, 533MHz or 600MHz Alpha AXP 21164A processor
- Three-level cache
  - L1, 8KB on-chip instruction cache
  - L1, 8KB on-chip data cache
  - L2, 96KB on-chip set-associative cache
  - L3, 2MB on-board synchronous SRAM backup cache with 128-bit data path

### Memory

- 64MB SDRAM expandable to 1GB

### GLmax88T OpenGL 3D Accelerator

- Up to 700,000 25-pixel, meshed, Gouraud-shaded triangles per second
- 8MB VRAM frame buffer and 8MB DRAM local buffer for 24-bit Z buffering
- 24-bit color
- Dual-screen Windows NT (with second card)
- OpenGL 1.1 and Heidi drivers

### Certification & Approvals

- PTC-certified for Pro/ENGINEER® (pending)
- Windows 4.0 certification (pending)

### Warranty & Support

- Three-year limited warranty
- Lifetime toll-free expert technical support
- Next-day replacement parts

MICROSOFT WINDOWS NT™ COMPATIBLE

PARAMETRIC TECHNOLOGY CORPORATION Pro/PARTNERS CERTIFIED HARDWARE PROVIDER

INDUSTRY PRO/ASSET PARTNER

AlphaPowered™

MAXVISION

# Symbion AXP164LX

### Expansion Flexibility

For expansion, the Symbion AXP164LX offers four PCI and two ISA slots. Five disk bays and a 300 Watt power supply provide the capacity for multi-gigabyte disk storage and make this Symbion an ideal high-powered workgroup or departmental server.

### OpenGL Video

For high-performance 3D graphics, the Symbion AXP164LX can be delivered with MaxVision's GL*max*88T, a high-powered 3D graphics accelerator. Designed with 3Dlabs' GLINT 500TX graphics processor and the GLINT Delta floating point processor, the GL*max*88T features on-board graphics processing for exceptional speed and resolution with image-intensive applications.

With an 8MB VRAM frame buffer and an 8MB DRAM local buffer, the GL*max*88T will support resolutions up to 1600 x 1200 double-buffered (32K colors). For enhanced graphics, the GL*max*88T uses local buffer memory for high-speed 24-bit Z buffering, stenciling, fog/depth cueing, textures, Gouraud shading, anti-aliasing and alpha blending. All standard Windows 3D programming interfaces are supported, including OpenGL 1.1 and Heidi.

**Contact MaxVision's Sales and Technical Support staff at 800.533.5805 for more information about MaxVision's high-performance workstations, servers and 3D graphics accelerators.**

MaxVision Corporation
Executive Park South
Huntsville, Alabama 35805-4732
US: 800.533.5805; 205.533.5800
International: (33) 2 33 40 20 20
Fax: 205.533.5801
E-mail: info@maxvision.com

## Features and Specifications

| | |
|---|---|
| **Motherboard/System** | |
| Processor Options | 466MHz, 533MHz or 600MHz Alpha AXP 21164A processor |
| Chip Set | Digital Semiconductor 21174 core logic chip set |
| Main Memory | 64MB to 1GB of SDRAM<br>Four 168-pin DIMM sockets |
| Cache | L1, 8KB on-chip instruction cache<br>L1, 8KB on-chip data cache<br>L2, 96KB on-chip set-associative cache<br>L3, 2MB on-board synchronous SRAM backup cache with 128-bit data path |
| On-board I/O | Primary and Secondary PCI EIDE ports (supports up to Mode 4)<br>Two 16550 UART serial ports<br>One ECP/EPP bi-directional parallel port, floppy, keyboard |
| I/O Bus Slots | Two 32-bit and two 64-bit BusMaster PCI, and two 16-bit ISA |
| Firmware | Alpha BIOS |
| Floppy Drive | 1.44MB, 3.5 in. floppy drive |
| Keyboard | 104-key enhanced Windows 95/Windows NT 4.0 |
| Mouse | PS/2 3-button mouse |
| Disk Bays | Two 5.25 in. and three 3.5 in. external disk bays |
| **Physical and Environmental Characteristics** | |
| Dimensions | 16.7 in. H x 7.3 in. W x 16.75 in. D (42 cm x 18.5 cm x 42.8 cm) |
| Ambient Temp. | 50° - 100° F (10° - 37.8° C) |
| Relative Humidity | 20% - 80% |
| Power Supply | 300 Watts (UL listed, CSA approved) |
| Electrical Rating | 3A max (0.5A typ) @ 115 VAC<br>1.7A max (0.3A typ) @ 230 VAC, 50/60Hz |
| **Certifications and Approvals** | |
| Approvals | FCC Class A compliant<br>Windows NT 4.0 certification (pending)<br>PTC-certified for Pro/ENGINEER® (pending) |
| **Hardware Options** | |
| SCSI Controller | 32-bit PCI Ultra SCSI controller |
| Disk Drives | 2GB, 4GB or 9GB SCSI-3 Ultra Wide or 2.5GB, 6.4GB EIDE |
| 2D Video Controllers | Matrox MGA Millennium II (4MB or 8MB WRAM)<br>Single or dual screen support |
| 3D Accelerators | MaxVision GL*max*88T 3D OpenGL graphics accelerator<br>3Dlabs' GLINT 500TX, GLINT Delta<br>MaxVision 3D*max*P2 3D OpenGL graphics accelerator<br>3Dlabs' PERMEDIA 2 |
| Network Interface | SMC EtherPower 10/100 PCI 32-Bit Fast Ethernet adapter<br>10BaseT and 100BaseTX support |
| CD-ROM Drive | 15X Fast SCSI-2 CD-ROM drive (tray type)<br>12-24X ATAPI CD-ROM Drive (tray type) |
| Sound Boards | Creative Labs Soundblaster 16/64 or Ensoniq AudioPCI |
| Modem | 56k internal data/fax modem |
| **Software Options** | |
| Operating Systems | Windows NT Workstation v4.0, Windows NT Server v4.0 |

Copyright © 1997 MaxVision Corporation. MaxVision, Symbion, VideoMax, GLmax and 3Dmax are trademarks of MaxVision Corporation. The Alpha Powered logo is a registered trademark of Digital Semiconductor Corporation. Other brands and product names are trademarks or registered trademarks of their respective holders. Specifications are subject to change without notice. MaxVision is not responsible for inadvertent errors.