



# NETRA™ AX1105-500 PLATFORM

## Versatility and performance in a low-cost motherboard for OEM solutions.

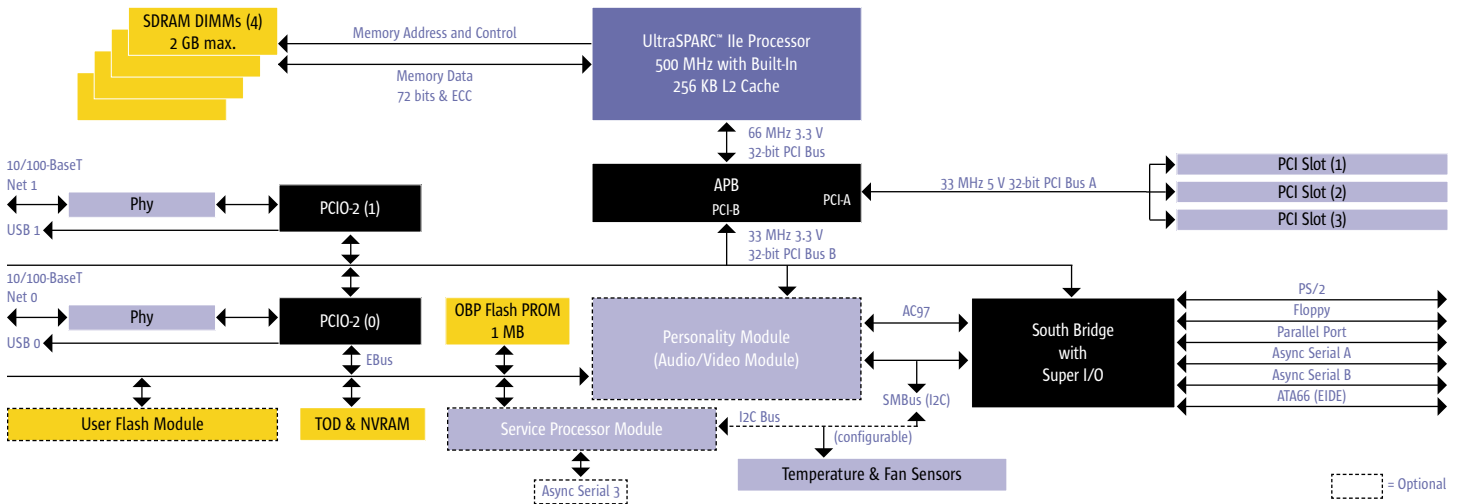
Powered by the 500 MHz UltraSPARC™ IIe processor, the Netra™ AX1105-500 platform delivers high performance and state-of-the-art connectivity in a low cost, full function motherboard. This versatile motherboard is well-suited for building server appliances and configurable servers, as well as traditional embedded systems applications. The robust Netra AX1105-500 board includes dual Ethernet ports to provide redundant network connections, three industry-standard PCI expansion slots for expandability, and a full complement of peripheral and device interfaces such as EIDE, USB, serial, and parallel ports.

The industry-standard ATX form factor helps enable greater compute densities in thin servers, while simplifying integration and reducing costs. An optional audio/video module with 8 MB of video RAM supports 24-bit color graphics and CD-quality 16-bit audio to make interactive applications such as information kiosks come alive. With support for the latest Solaris™ 8 Operating Environment, the Netra AX1105-500 platform delivers the reliability, performance, functionality, and flexibility required for today's cost-sensitive server appliance and embedded market.

## HIGHLIGHTS

- 500 MHz UltraSPARC IIe processor with internal 256 KB four-way set associative integrated L2 cache
- Expandable up to 2 GB of SDRAM memory. Four standard 168-pin SDRAM DIMM sockets
- Dual 10/100-BaseT Fast Ethernet interfaces for fast, redundant network connections
- Two serial ports, two USB ports, and two PS/2 ports support a wide range of peripheral devices
- On-board EIDE controller supports up to four EIDE drives running at 66 MB/sec. max.
- Advanced System Monitoring  
Allows the user to monitor critical hardware parameters of the system such as power supply, voltage, fan speed, and temperatures
- Optional audio/video module with 8 MB SGRAM. Supports 24-bit color and up to 1,280 x 1,024 resolution

# NETRA AX1105-500 BLOCK DIAGRAM



## NETRA AX1105-500 PLATFORM SPECIFICATIONS

### PROCESSOR ARCHITECTURE

<b>Processor</b>	Core architecture based on UltraSPARC™ IIe
<b>Performance</b>	500 MHz
<b>Cache</b>	256 KB internal L2 cache, 4-way set associative
<b>Package</b>	Standard 370-pin PGA

### MEMORY ARCHITECTURE

<b>Memory type</b>	Standard 168-pin SDRAM DIMM (PC 133)
<b>Error checking and correcting (ECC)</b>	Single-bit correction, double-bit detection
<b>Memory speed</b>	83.3 MHz with unbuffered DIMM mode 100 MHz with Registered DIMM in buffered mode
<b>Minimum</b>	128 MB
<b>Maximum</b>	2 GB, using four dual bank 512 MB DIMMs
<b>Voltage</b>	3.3 V
<b>Number of sockets</b>	Four

### PCI ARCHITECTURE & EXPANSION SLOTS

<b>Type</b>	Three 32-bit, 33 MHz PCI Expansion slots
<b>Voltage</b>	5 V
<b>Capacity</b>	3 PCI slots on-board 1U: 1 PCI slot with riser card 2U: 3 PCI slots with riser card Personality Module (PM) support

### ON BOARD I/O

<b>Ethernet ports</b>	Two 10/100-BaseT Fast Ethernet with RJ45 connectors
<b>Serial ports</b>	Two serial ports with external DB9 connectors 16550 compatible asynchronous
<b>USB ports</b>	Two USB ports with external USB connectors 1.5 MB and 12 MB
<b>Parallel port</b>	One parallel port with 2 x 13 internal header IEEE 1284 Bidirectional
<b>PS/2 ports</b>	Two PS/2 ports with two internal headers for keyboard and mouse

### PERIPHERALS

<b>Disk interface</b>	ATA66 EIDE controller with two internal headers Supports up to four EIDE drives Max. speed 66 MB/sec.
<b>Flash module</b>	AX User Flash, 4 MB and 8 MB
<b>Floppy disk interface</b>	ALL South Bridge 34-pin on surface 3.5-in., 1.44 MB capacity

### MECHANICAL

<b>Form factor</b>	Standard ATX
<b>Size</b>	12-in. x 9.6-in.

### POWER REQUIREMENTS (Motherboard only, not including memory and peripherals)

<b>Voltage</b>	Current (A)
+3.3 V	5.0 A
+5.0 V	5.0 A
+12 V	1.5 A
-12 V	0 A
+5.0 Standby	0.2 A
<b>Operating temperature</b>	0° C to 55° C

### SOFTWARE SUPPORT

<b>Solaris</b>	Solaris 8 Operating Environment (Jan. 2001 release or later)
<b>SunVTS™</b>	SunVTS 4.2 software or later
<b>On-board Flash</b>	With OBP and POST

### AVAILABLE OPTIONS

<b>Personality module (Audio/video module)</b>	ATI RageXL graphics accelerator, 8 MB SGRAM, PCI bus interface for the video chip, stereo audio line in/out, two headers for mic. and headphone, 16-bit EBus-based audio, four external audio jacks Board dimension: 3.25-in. wide x 4.25-in. long
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**HEADQUARTERS** SUN MICROSYSTEMS, INC., 901 SAN ANTONIO ROAD, PALO ALTO, CA 94303-4900 USA  
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