Sun XVR-2500 Graphics Accelerator

Next-generation UltraSPARC® Graphics

Highlights

- Outstanding image quality and support for super-high-quality 2-D, 3-D, and stereo resolutions
- Unsurpassed 3-D and texture mapping performance for real-world, demanding graphics applications
- PCI Express x16 single-slot, half-length, and full-height card
- Unparalleled pixel accuracy delivering precision in performance, programmability, and fidelity
- 256-MB bandwidth and 256-bit memory bus deliver the highest possible throughput
- Both digital and analog video output, dual stereo support at 1280x1024, and frame-lock support for multiple frame buffers ensuring high-quality output
- Optimized dual-display acceleration with two DVI-I connectors (2 x 2560 x 1600) and stereo support
- Supports OpenGL 2.0 and OpenGL Shading Language
- Large fragment shader program support for 256K individual instructions

Architected specifically to benefit the Sun Ultra™ 45 Workstation for uncompromised visualization features and exceptional performance, the Sun XVR-2500 graphics accelerator provides exceptional graphics quality, functionality, and performance to technical, engineering, development, and design users. Sun brings its signature reliability to its high-quality, high-performance 3-D graphics and visualization in this most complete acceleration of the Sun OpenGL® for Solaris™ API to date.

Cutting-edge graphics capability

Graphics acceleration and visual quality are critical to increased productivity in numerous key industries and processes, including mechanical computer-aided design (MCAD), mechanical computer-aided engineering (MCAE) solids-modeling, event-driven architecture (EDA), geographic information systems (GIS), and other scientific research. Renewing its commitment to UltraSPARC technology, Sun now delivers its most advanced graphics accelerator, the Sun XVR-2500 Graphics Accelerator, with a full range of supported features and unmatched resolution and visualization quality. Available on the Sun Ultra 45 Workstation and as a standalone product, the Sun XVR-2500 Graphics Accelerator is an affordable way to upgrade to the latest graphics technology while experiencing many times the performance of previous graphics accelerators with high-end visual quality and resolution for 2-D and 3-D applications.

The Sun XVR-2500 Graphics Accelerator delivers Sun's highest-performance graphics technology for desktop workstations in technical markets requiring hardware-accelerated texture mapping and industry-leading 3-D graphics. Thirty-two lights in hardware minimizes performance hits to the CPU and system memory, while 3-D textures are applied in real time throughout a model's volume. Display capability is increased through support for four monitors with stereoscopic graphics viewing for immersive applications, enhancing data comprehension in three dimensions. The Sun XVR-2500 delivers the functionality of two separate graphics cards, while delivering high-speed support of advanced graphics features such as motion blur and high-quality texture in images.

The Sun XVR-2500 Graphics Accelerator is built to meet demands for better quality, lower costs, and a shorter time to market in design, engineering, and other technical industries. Sun again demonstrates its leadership with the next step in cutting-edge visual technology at an affordable price.

Sun XVR-2500 Graphics Accelerator Specifications

Processor

- Wildcat Realzm
- Full programmability
- Texture sizes up to 4K x 4K

Supported APIs

- OpenGL Shading language
- 16 programmable 36-bit floating-point vertex shaders supporting: Up to 1K instructions, up to 32 light sources, subroutines, loops, and conditionals
- 48 programmable 32-bit floating-point fragment shaders supporting up to 256K instructions, subroutines, loops, and conditionals
- Unique programmable pixel shader with 16 programmable 16-bit shaders

Memory

- 256 MB GDDR3 unified memory with 256-bit-wide interface bus
- 64KB of PROM memory for OpenBoot BIOS and product configuration storage.
- Virtual memory support allowing: Onboard memory to be used as L2 cache, seamless handling of huge datasets, large individual texture sizes (for example, 4K x 4K)

Board

X16 PCI Express slot, full-length and full-height card, single slot

Connectors

- Two DVI Analog/Digital Video Output Ports —DVI capable of supporting one or two analog display devices, one or two single-link digital display devices, one single-link digital display device and one analog display device
- Stereo sync support: VESA-standard frame sequential stereo, three-pin, mini-DIN connector to shutter glasses or other stereo shutter devices

Monitor support

- 17-inch entry-level color CRT
- 19-inch flat-panel LCD display
- 20.1-inch flat-panel LCD display
- 21-inch color monitor
- 24-inch flat panel LCD display

Power

- Consumes 75 watts of system power
- Normal operations: 3.0 A—PCI Express 3.3 V current 5.1 A—PCI Express 12 V current

Learn more

Learn more about the Sun XVR-2500 Graphics Accelerator by visiting sun.com/xvr2500

Dimensions

- Board width 11.15cm (4.38 in.)
- Total height: 1.86cm (0.73 in.)
- Board length: 313.90cm (123.6 in.)
- Weight: 410g (.9 lb.)

System administrator features

Display Resolution	Refresh Rates	Aspect Ratio Format	Sync Standard	Maximum Number of spp Single Screen	Maximum Number of spp Single Screen
1920 x 1200	60, 75		Sun	8	-
1920 x 1080	60, 72		Sun	8	-
1600 x 1280	76		Sun	8	-
1600 x 1200	60, 75		VESA	8	-
1600 x 1200	60		Sun	8	-
1600 x 1024	60		Sun	16	-
1600 x 1000	66, 76		Sun	16	-
1440 x 900	76		Sun	16	-
1280 x 1024	98, 108, 112		Sun Stereo	16	-
1280 x 1024	67, 76		Sun	16	-
1280 x 1024	60, 75, 85		VESA	16	-
1280 x 800	112		Sun Stereo	16	4
1280 x 800	76		Sun	6	4
1280 x 768	56		Sun	16	4
1152 x 900	66, 76		Sun	16	4
1152 x 900	120		Sun Stereo	16	4
1024 x 800	84		Sun	16	4
1024 x 768	77		Sun	16	8
1024 x 768	96		Sun	16	4
1024 x 768	60, 70, 75		VESA	16	8
1024 x 692	100		Sun Stereo	16	4
960 x 680	108, 112		Sun Stereo	16	8
800 x 600	75		VESA	16	8
640 x 480	60, 72, 75		VESA	16	8

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