Datasheet

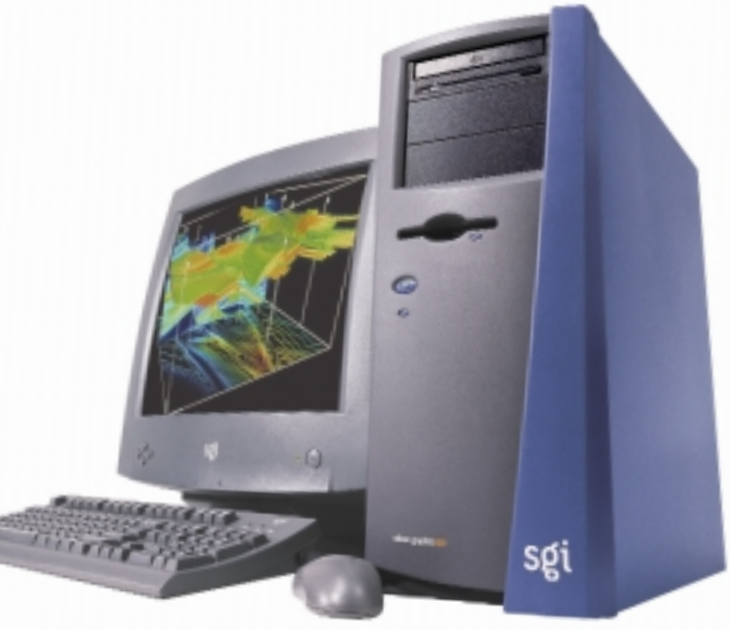
Silicon Graphics® 550 Visual Workstation with VPro™ Graphics

Silicon Graphics 550 Visual Workstation for Windows®

Silicon Graphics 550L Visual Workstation for Linux®

A Scalable Graphics Solution Designed for Maximum Performance

The Silicon Graphics 550 visual workstation is designed to accommodate the most demanding power users in the CAD, digital content creation, and scientific visualization markets. As the high end of the Silicon Graphics workstation family for Windows and Linux, the 550 features advanced graphics processing, lightning-quick processing power, and industry-leading expansion. Offering the ultimate in technical, creative, and scientific tools for visualization, Silicon Graphics 550 incorporates a state-of-the-art Intel® architecture with Silicon Graphics subsystems to set a new standard for graphics performance on Windows and Linux operating systems. With additional 32-bit and 64-bit expansion slots, complete AGP Pro 4X compliance, and the latest in large storage capacity and memory expansion, this high-performance system provides power and flexibility in a reliable, cost-effective package.



Features	Benefits
Silicon Graphics VPro graphics subsystem includes an OpenGL on a Chip™ implementation, accelerated geometry pipeline, and professional texture mapping capabilities	Provides unprecedented application and system performance: fully OpenGL® 1.2 conformant and accelerated.
Hardware-accelerated transform and lighting	Allows more realistic object behaviors and character animation, as well as significantly more complex 3D modeling. Frees up CPU for intensive computations.
Single or dual Intel Pentium® III Xeon™ processor configuration (840 chipset)	The Intel Pentium III Xeon processors provide advanced cache, advanced system buffering, and multiprocessing capabilities that provide significant performance and productivity gains to the customer. The processor's large advanced transfer cache allows large amounts of data to be stored locally and accessed quickly. The Intel 840 chipset also delivers high memory bandwidth. Its split-transaction system bus allows multiple processors to effectively share the system bus, increasing bus utilization and minimizing bus contention.
High-bandwidth 64-bit PCI slots	Provide a flexible expansion platform to accommodate the need for more specialized throughput-intensive peripherals and processes.
High-performance memory subsystem featuring dual memory controllers and Rambus dynamic random access memory (RDRAM)	RDRAM offers faster memory speeds for applications that require high performance and powerful multitasking, as well as increased memory access and system performance. The dual memory controllers provide simultaneous access and increased bandwidth (3.2GB/sec).
Flexible, intelligently designed system	Easy, toolless access for upgrade, customization, and expansion to meet growing needs for storage, memory, and graphics.
Preinstalled Windows NT® 4.0 or Red Hat® Linux 6.2 with OpenGL 1.2 graphics drivers	System is ready to power on with the operating system software professionally installed and tested for system compliance. It offers the industry's first fully hardware-accelerated OpenGL graphics for Linux.
Comprehensive one-stop support for both hardware and software	Leverages SGI's enterprise experience in global services: 90-day software and three-year hardware support, including first-year on-site warranty service for Linux and Windows NT 4.0.

Silicon Graphics 550 Visual Workstation Technical Specifications

Core Logic Chipset
- Intel 840

Processor Support (Single or Dual)
- 866 MHz Pentium III Xeon 256KB on-chip cache
- 933 MHz Pentium III Xeon 256KB on-chip cache
- 1 GHz Pentium III Xeon 256KB on-chip cache

Memory Capacity
- 128MB–2.0GB PC800 RDRAM[1,2]

System Graphics
- 1280x1024 at 75 Hz
- Up to 2048x1536 at 60 Hz

Graphics Features
- **VPro V7 and VR7**

VPro V7 is a high-performance graphics solution equipped with a complete set of workstation capabilities for the mainstream professional. Based on NVIDIA second-generation GPU technology, the V7 board features a high-performance 256-bit graphics pipeline for 2D and 3D rendering, versatile TwinView™ dual monitor support, and Digital Vibrance Control (DVC) for enhanced on-screen image quality. The V7 includes multiple output options, including a standard VGA connector and DVI-I for flat panel display and digital monitor compatibility. In addition, the V7 supports NVIDIA Unified Driver Architecture (UDA), which provides driver compatibility with past, present, and future NVIDIA graphics processors. The V7 supports AGP 4X/2X with Fast Writes. Additional features include integrated transform and lighting, 350 MHz RAMDAC, high-speed memory interface, 32-bit Z stencil buffer, and complete support for Microsoft® DirectX 7 and OpenGL features. The VR7 board incorporates all the features of the V7 except for TwinView support. In addition, the VR7 has twice the graphics memory (64MB DDR) and has support for anti-aliased points and lines, which is important for workstation applications in the MCAD and DCC market.

Storage and I/O
- Two external 5.25" drive bays
- One external 5.25" 48X CD-ROM (preinstalled)
- Three internal 3.5" hard drive bays
- One external 3.5" floppy drive (preinstalled)
- Integrated ATA66 controller

Communication
- Two 9-pin serial ports (16550 UART)
- One 25-pin parallel port
- Two Universal Serial Bus (USB) ports
- One PS/2 mouse port
- One PS/2 keyboard port
- On-board audio: Analog Devices AD1881 chip

Expansion Options
PCI
- Four 32-bit PCI slots
- Two 64-bit PCI slots
- Dual channel SCSI controller

Networking
- On-board NIC 10/100Base-T: Intel 82559

Storage Options
- 9.1GB Ultra160 SCSI drive (7,200 RPM)
- 18.2GB Ultra160 SCSI drive (7,200 RPM and 10,000 RPM)
- 36.4GB Ultra160 SCSI drive (10,000 RPM)

Display and Media Options
Display
- 19" color monitor
- 21" color monitor
- Silicon Graphics® 1600SW flat panel display

Media
- 8x40x DVD
- 8x4x32x CD-RW

Bundled Software (Windows)
- Windows NT 4.0
- Windows 2000 Professional
- PC Doctor (diagnostic software)
- McAfee VirusScan
- Internet Explorer
- Adobe® Acrobat Reader®

Bundled Software (Linux)
- Red Hat Linux 6.2
- SGI ProPack for Linux™ 1.3 Visual Workstation Edition—includes support for Red Hat 6.2, TurboLinux 6.0, and SuSE 6.4
- SGI Visual Workstation Edition 3.0 for Linux—includes support for Red Hat 6.2 and TurboLinux 6.0

Physical Environment
System
- 8.25" W x 19.25" H x 19.25" D
- 32 lb
- 19" monitor: 18.4" H x 18" W x 18.8" D
- 21" monitor: 19.3" H x 19.6" W x 18.6" D
- 1600SW flat panel display: 18.3" H x 17.8" W x 7.3" D

Voltage and Frequency
- Japan: 100 VAC 6.10 A
- North America: 120 VAC 5.10 A
- Europe: 230 VAC 2.66 A

Heat Dissipation
- 1,460.7 BTUs/hour

Ambient Temperature
- +10 to +35°C (operating)
- -20 to + 60°C (nonoperating)

Relative Humidity
Operating
- 40°C, 20%
- 40°C, 90%
- 10°C, 10%

Nonoperating
- 10% to 90% relative humidity

Altitude
- 10,000 ft operating
- 40,000 ft nonoperating

Vibration
Operating
- 5–16.2 Hz 0.38 mm (peak to peak)
- 16.2–250 Hz 0.2G
- X, Y, Z axis

Nonoperating (Packaged)
- 5–27.1 Hz 0.6G
- 27.1–50 Hz 0.4 mm (peak to peak)
- 50–500 Hz 2.0G
- X, Y, Z axis

Regulatory Agency
- USA: UL, FCC (CFR 47 Part 15 Subpart B), FCC Telecomm. CFR 47 Part 68
- Canada: CSA, CSA/NRTL, DOC
- Japan: VCCI
- Europe: CE Mark, CB, TUV
- Australia: C-Tick
- Korea: EMC
- Mexico: NOM
- Taiwan: BCIQ

[1] *When available*

[2] *Linux configurations support up to 968MB of main memory*

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