Datasheet

# Silicon Graphics® 230 Visual Workstation with VPro™ Graphics

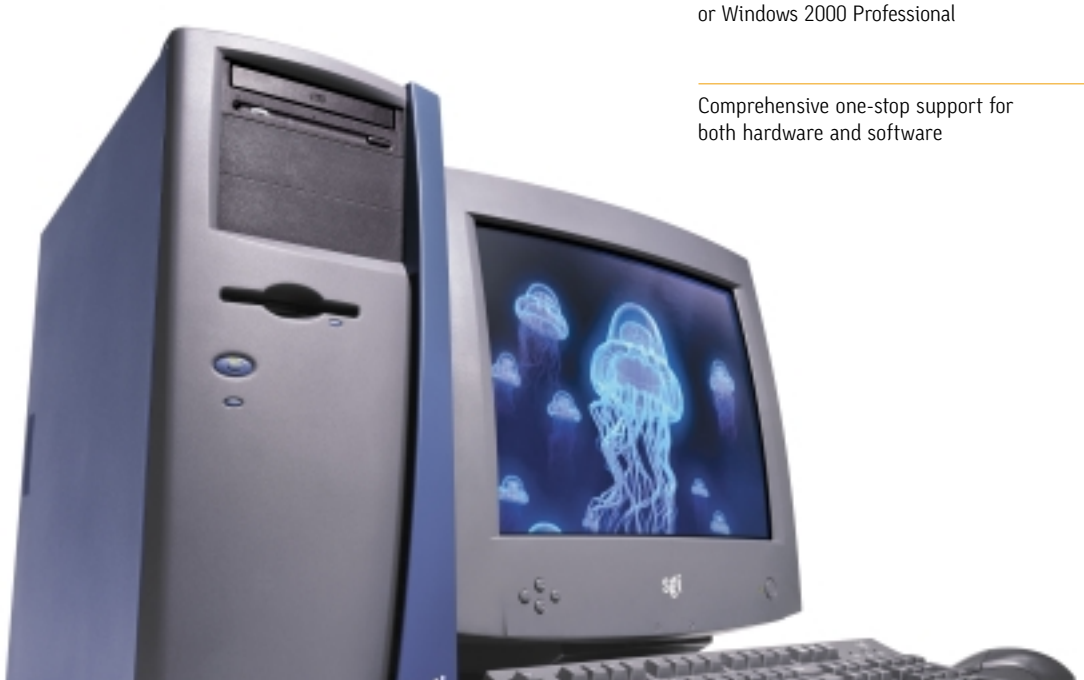
Silicon Graphics 230 Visual Workstation for Windows®

Silicon Graphics 230L Visual Workstation for Linux®

## Exceptional Graphics Performance at Unprecedented Prices

The Silicon Graphics 230 visual workstation provides professional graphics performance at a remarkably low price. Affording customers an unparalleled technical, creative, and scientific tool for visualization, Silicon Graphics 230 incorporates state-of-the-art Intel® architectures with Silicon Graphics visualization subsystems, setting a new standard for graphics application performance for Windows and Linux operating systems. As the entry system into the Silicon Graphics family of visual workstations, the 230 offers amazing reliability, flexibility, and performance at a truly unbelievable price. This combination of high-performance graphics and computing power for markets such as digital content creation, MCAD/MCAE, scientific visualization, and EDA has never been more accessible.

| Features | Benefits |
|---|---|
| Silicon Graphics VPro graphics subsystem includes 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 |
| Aggressive system price | Delivers high-performance workstation graphics capabilities to technical and creative professionals at an extremely affordable price |
| Integrated transform and lighting | Allows more realistic object behaviors and character animation, as well as significantly more complex 3D modeling |
| Intel based system utilizing industry-standard architecture and components | Incorporates renowned SGI graphics capabilities in a cost-effective, reliable, and flexible system that is easy to upgrade, maintain, and support |
| Single Intel Pentium® III processor | Provides superior computing performance featuring fast on-die 256KB Level 2 Advanced Transfer Cache |
| Flexible, intelligently designed system | Easy, toolless access for upgrade, customization, and expansion to meet growing needs for storage, memory, and graphics |
| Preinstalled Red Hat® Linux 6.2 and OpenGL 1.2 graphics drivers | System is ready to power on with the industry's first fully hardware-accelerated OpenGL graphics |
| Preinstalled and certified Windows NT® 4.0 or Windows 2000 Professional | System is ready for business applications and software with Windows professionally installed and tested for system compliance |
| Comprehensive one-stop support for both hardware and software | Leverages SGI's enterprise experience in global services: 90-day software and 3-year hardware support, including first-year on-site warranty service for Linux and Windows |



# Silicon Graphics 230 Visual Workstation Technical Specifications

## Core Logic Chipset
- Via Apollo Pro133A

## Processor Support
- 800 MHz Pentium III 256KB on-chip cache
- 866 MHz Pentium III 256KB on-chip cache
- 933 MHz Pentium III 256KB on-chip cache
- 1 GHz Pentium III 256KB on-chip cache

## Memory Capacity
- 128MB–1.5GB PC133 synchronous DRAM (SDRAM)[1]

## System Graphics

### VPro V7
- Up to 2048x1536 at 60 Hz
- Up to 1920x1440 at 75 Hz
- Up to 1280x1024 at 120 Hz

### Matrox Millennium G450
- Up to 2048x1536 at 60 Hz
- Up to 540x480 at 200 Hz

## Graphics Features

### VPro V7
- 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.

### Matrox Millennium G450
- Matrox Millennium G450 offers fast acceleration for 2D and entry-level 3D users; 256-bit DualBus graphics chip; supports OpenGL and DirectX applications; 32MB DDR frame buffer memory; Dual Head display; VCQ rendering that eliminates color banding in richly colored single and multitextured polygons; RAMDAC (360 MHz for primary display (up to 2048x1536 at 32 bpp)—230 MHz for secondary display (up to 1600x1200 at 32 bpp))

## 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

## Display and Media Options

### Display
- 19" color monitor
- 21" color monitor
- Silicon Graphics® 1600SW flat panel display

### Media
- 8x40x DVD
- 8x4x32x CD-RW

## Expansion Options
- Five 32-bit PCI slots

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

## Storage Options
- 20GB IDE drive (7,200 RPM)
- 30GB IDE drive (7,200 RPM)

## 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 Dimensions
- 8.25" W x 19.25" H x 19.25" D
- 29 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
- USA: 120 VAC 5.10 A
- Europe: 230 VAC 2.66 A

## Heat Dissipation
- 1460.7 BTUs/hr

## Ambient Temperature
- Operating: +10 to +35°C
- Nonoperating: -20 to +60°C

## Relative Humidity
- 10% to 90% (operating and nonoperating)

## 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 Direction: 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 Direction: 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
- Korean: EMC
- Mexico: NOM
- Taiwan: BCIQ

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