



Product Sheet



The groundbreaking new NVIDIA® GeForce™ 6800 graphics processing units (GPUs) and their revolutionary technologies power the worlds where reality and fantasy meet--worlds in which new standards are set for visual realism and quality, performance, and video functionality. The GeForce 6800 GPUs deliver powerful, elegant graphics to drench your senses, immersing you in unparalleled worlds of visual effects for the ultimate PC experience.

Graphics Core

256-bit

Memory Interface

256-bit

RAMDACs

400MHz

Memory Bandwidth

22.4 GB/sec.

Fill Rate

2.4 Billion Texels/sec.

Vertices Per Second

300 Million

Pixels per Clock (peak)

8

Memory Clock

1 GHz

Clock rate

350 MHz

Chipset

6800 XT

Memory

256 MB

Bus Type

PCI-E

Memory Type

DDR3

Memory Bus

256-bit

Highlighted Features

Dual DVI Out, SLI ready, HDTV ready, TV Out

NVIDIA® UltraShadow™ II Technology

Enhances the performance of bleeding-edge games, like id Software's Doom 3, that feature complex scenes with multiple light sources and objects.

64-Bit Texture Filtering and Blending

Based on the OpenEXR technology from Industrial Light & Magic, NVIDIA's 64-bit texture implementation sets new standards for image clarity and quality through floating point capabilities in shading, filtering, texturing, and blending.

NVIDIA® CineFX™ 3.0 Technology

Powers the next generation of cinematic realism. Full support for Microsoft® DirectX® 9.0 Shader Model 3.0 enables stunning and complex special effects. Next-generation shader architecture delivers faster and smoother game play.

High-Speed GDDR3 Memory Interface

Support for the world's fastest GDDR3 memory delivers fluid frame rates for even the most advanced games and applications.

NVIDIA® PureVideo™ Technology

The combination of high-definition video processors and NVIDIA DVD decoder software delivers unprecedented picture clarity, smooth video, accurate color, and precise image scaling for all video content to turn your PC into a high-end home theater. (Feature requires supported video software.)

Adaptable Programmable Video Processor

PureVideo's programmable technology adapts to new video encoding formats as they are developed to provide a future-proof video solution. (Feature requires supported video software.)

Intellisample™ 3.0 Technology

The industry's fastest antialiasing delivers ultra-realistic visuals, with no jagged edges, at lightning-fast speeds. Visual quality is taken to new heights through a new rotated grid sampling pattern.

Unified Driver Architecture (UDA)

Part of the NVIDIA Forceware Unified Software Environment (USE). The NVIDIA UDA guarantees forward and backward compatibility with software drivers. Simplifies upgrading to a new NVIDIA product because all NVIDIA products work with the same driver software.

nView™ Multi-Display Technology

The nView hardware and software technology combination delivers maximum flexibility for multi-display options, and provides unprecedented end-user control of the desktop experience.

NVIDIA® Digital Vibrance Control™ (DVC) 3.0 Technology

Allows the user to adjust color controls digitally to compensate for the lighting conditions of their workspace, in order to achieve accurate, bright colors in all conditions.

Microsoft® DirectX® 9.0 Optimizations and Support

Ensures the best performance and application compatibility for all DirectX 9 applications.

High-Definition MPEG-2 Hardware Acceleration

Smoothly playback all MPEG-2 video with minimal CPU usage so the PC is free to do other work. Battery life is extended when watching DVDs while running on battery. MPEG-2 is the standard format for DVDs, is accepted as a format for HD-DVD, and is also used for HD broadcast.

High-Quality Real-Time Video Recording

Get full digital video recording functionality without losing data. With NVIDIA PureVideo technology, high-quality recording preserves picture detail while also using minimal space to store videos on the hard drive.

Advanced Spatial Temporal De-interlacing

Smooths video and DVD playback on progressive displays to deliver a crisp, clear picture that rivals high-end home theater systems.

Vibrant Color Temperature Correction

Color temperature correction makes actors' faces appear natural, rather than washed out and pale, when playing videos on LCD and CRT displays.

256-bit Memory Interface

Delivers more memory bandwidth and efficiency to power the latest games and applications at blazing speeds.

128-bit Studio-Precision Computation

128-bit studio-precision computation through the entire pipeline prevents image defects due to low precision and ensures the best image quality for even the most demanding applications.

Full-Speed 32-bit Color Precision

Delivers increased image quality with no performance compromise.

Full MPEG Support

Delivers a stunning video experience through encoding and decoding of analog and digital content.

Integrated TV Encoder

Provides best-of-class TV-out functionality for resolutions up to 1024x768.

OpenGL™ 2.0 Optimizations and Support

Ensures top-notch compatibility and performance for all OpenGL applications. NVIDIA® nView® Multi-display Advanced technology provides the ultimate in viewing flexibility and control for multiple monitors.

Dual 400MHz RAMDACs

Blazing-fast RAMDACs support dual QXGA displays with ultra-high, ergonomic refresh rates--up to

2048x1536@85Hz.

0.13 Micron Process Technology

Delivers high performance through faster clock rates.