NVIDIA® GeForce® 7900 GPUs Features and Benefits

Next-Generation Superscalar GPU Architecture: Delivers over 2x the shading power of previous generation products taking gaming performance to extreme levels.

Full Microsoft® DirectX® 9.0 Shader Model 3.0 Support: The standard for today's PCs and next-generation consoles enables stunning and complex effects for cinematic realism. NVIDIA GPUs offer the most complete implementation of the Shader Model 3.0 feature set—including vertex texture fetch (VTF)—to ensure top-notch compatibility and performance for all DirectX 9 applications.

NVIDIA® CineFX® 4.0 Engine: Delivers advanced visual effects at unimaginable speeds. Full support for Microsoft® DirectX® 9.0 Shader Model 3.0 enables stunning and complex special effects. Next-generation shader architecture with new texture unit design streamlines texture processing for faster and smoother gameplay.

NVIDIA® SLI™ Technology*: Delivers up to 2x the performance of a single GPU configuration for unparalleled gaming experiences by allowing two graphics cards to run in parallel. The must-have feature for performance PCI Express® graphics, SLI dramatically scales performance on today's hottest games.

NVIDIA® Intellisample™ 4.0 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, advanced 128 tap sample coverage, 16x anisotropic filtering, and support for transparent supersampling and multisampling.

True High Dynamic-Range (HDR) Rendering Support: The ultimate lighting effects bring environments to life for a truly immersive, ultra-realistic experience. Based on the OpenEXR technology from Industrial Light & Magic (http://www.openexr.com/), NVIDIA's 64-bit texture implementation delivers state-of-the-art high dynamic-range (HDR) visual effects through floating point capabilities in shading, filtering, texturing, and blending.

NVIDIA® PureVideo™ Technology:** The combination of high-definition video processors and 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.

> **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.

> **High-Definition H.264, MPEG-2, and WMV Hardware Acceleration**:** Smoothly playback H.264, MPEG-2, and WMV video—including WMV HD—with minimal CPU usage so the PC is free to do other work.

Advanced Spatial Temporal De-Interlacing****:** Smoothes video and DVD playback on progressive displays to deliver a crisp, clear picture that rivals high-end home theater systems.

High-Quality Scaling: High-quality scaling technology delivers a clear, clean image at any window size, including full-screen HDTV resolutions up to 1080p.

Video Color Correction****:** Corrects differences in color characteristics of RGB monitors and TV monitors through NVIDIA PureVideo's ProcAmp Color Controls setting, such as brightness and contrast. Display gamma correction ensures videos are not too dark, overly bright, or washed out regardless of the video format or display.

Integrated HDTV Encoder: Provides analog TV-output (Component/Composite/S-Video) up to 1080i resolution.

256-Bit Memory Interface: Delivers more memory bandwidth and efficiency to power the latest games and applications at blazing speeds.

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.

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.

NVIDIA® ForceWare® Unified Driver Architecture (UDA): Delivers a proven record of compatibility, reliability, and stability with the widest range of games and applications. ForceWare ensures the best out-of-box experience for every user and delivers continuous performance and feature updates over the life of NVIDIA GeForce GPUs.

OpenGL® 2.0 Optimizations and Support: Ensures top-notch compatibility and performance for OpenGL applications.

NVIDIA® nView® Multi-Display Technology: Advanced technology provides the ultimate in viewing flexibility and control for multiple monitors.

NVIDIA® Digital Vibrance Control® 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.
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PCI Express Support: Designed to run perfectly with the next-generation PCI Express bus architecture. This new bus doubles the bandwidth of AGP 8X delivering over 4 GB/sec. in both upstream and downstream data transfers.

Dual 400MHz RAMDACs: Blazing-fast RAMDACs support dual QXGA displays with ultra-high, ergonomic refresh rates–up to 2048x1536@85Hz.

Dual Dual-link DVI Support: Able to drive two of the industry's largest and highest resolution flat-panel displays up to 2560x1600.

90nm Process Technology: Delivers higher performance through blazing clock rates.

High-Speed GDDR3 Memory Interface: Support for fast GDDR3 memory delivers fluid frame rates for even the most advanced games and applications.

Built for Microsoft® Windows Vista™: NVIDIA's third-generation GPU architecture built for Windows Vista gives users the best possible experience with the 3D graphical user interface in the upcoming operating system (OS) from Microsoft.

* NVIDIA SLI certified versions of GeForce PCI Express GPUs only.
** Feature requires supported video software. Features may vary by product.