**CINEFX SHADING ARCHITECTURE**
- Support for FX 0.8 pixel shader 2.0+
- Support for FX 0.9 vertex shader 2.0+
- Advanced pixel shaders allow floating-point pixel shader operations to run 2x faster (CineFX 2.0)**
- Very long pixel programs up to 1024 instructions
- Very long vertex programs with up to 256 static instructions and up to 65,536 instructions executed before termination
- Looping and subroutines with up to 256 loops per vertex program
- Subroutines in shader programs
- Dynamic flow control
- Conditional write masking
- Procedural shading
- Full instruction set for vertex and pixel programs
- Z-correct bump mapping
- Hardware-accelerated shadow effects with shadow buffers
- UltraShad technology to accelerate shadow computations**
- Two-sided stencil
- Programmable matrix palette skinning
- Keyframe animation
- Custom lens effects: fish eye, wide angle, fresnel effects, water refraction

**HIGH-PERFORMANCE, HIGH-PRECISION 3D RENDERING ENGINE**
- Up to 8 pixels per clock rendering engine
- 128-bit, studio-quality floating point precision throughout the entire graphics pipeline
- Native support for 128-bit floating point, 64-bit floating point and 32-bit integer rendering modes
- Up to 16 textures per pass
- Support for d32f texture format for gamma textures
- Direct3D and S3TC texture compression

**HIGH-PERFORMANCE 2D RENDERING ENGINE**
- Optimized for 32-, 24-, 16-, 15- and 8-bpp modes
- True-color, 44444-host color with alpha
- Multi-buffering (double, triple or quad) for smooth animation and video playback

**INTELLISAMPLE TECHNOLOGY**
- Blurring-fast anti-aliasing performance
- Adaptive texture filtering
- Support for advanced lossless compression algorithms for both color and z-data**
- Fast z-clear
- Intellisample HCT extends performance and quality gains to higher resolutions and frame rates**

**DISPLAY PIPELINE WITH FULL NVIEW CAPABILITIES**
- Dual RAMDACS (up to 400 MHz) for display resolutions up to and including 2048x1536@60Hz
- Integrated NTSC/PAL TV encoder support resolutions up to 1024x768 without the need for pairing with built-in Macromedia copy protection
- DVD and HDTV-ready MPEG-2 decoding up to 1920x1080 resolutions
- DVI support for compatibility with next-generation flat panel displays with resolutions up to and including 1600x1200

**NVIDIA® GeForce™ FX家族的3D图形处理器（GPUs）**
- NVIDIA® Wireframe** application for advanced display configuration
- NVIDIA® Wireframe** application for advanced display configuration
- Digital Vibrance Control (DVC) 3.0
- DVC color controls
- DVC image sharpening controls

**ROCKET SCIENCE FOR A SYSTEM-LEVEL SOLUTION**
- 0.13µ process technology for higher levels of integration and higher operating clock speeds**
- Copper vias and wiring**
- Advanced thermal monitoring and thermal management**
- 256-bit memory interface**
- Support for up to 256MB
- AGP 8X including Fast Writes and sideband addressing
- Flip-chip BGA* packaging

**OPERATING SYSTEMS**
- Windows XP
- Windows 2000
- Windows Me
- Windows NT (all)
- Windows 98, Windows 95
- Linux compatible

**API SUPPORT**
- Complete DirectX support, including DirectX 8.0 and lower
- OpenGL 1.5 and lower support

**COMPATIBILITY**
- NVIDIA Unifed Driver Architecture (UDA)
- Fully compliant professional OpenGL 1.5 API with NVIDIA extensions, on all Linux and Windows operating systems
- WHQL-certified for Windows XP, Windows Me, Windows 2000
- Complete Linux XFree86 drivers

*GeForce FX 5900 models only.
**GeForce FX 5900 and 5700 models only.

**FEATURES**
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The NVIDIA® GeForce™ FX家族的3D图形处理器（GPUs）家族以图形处理能力著称，赋予所有用户前所未有的图形体验。凭借先进的图形处理能力，GeForce FX GPU家族带来了前所未有的3D图形性能。通过纯物理运行原理和精心设计的架构，GeForce FX GPU家族重新定义了3D图形处理的界限。结合具有革命性的 NVIDIA® ForceWare™软件、驱动程序和广泛的开发者支持，GeForce FX GPU家族将3D图形性能带给所有用户——从商业和家庭用户到极端玩家。在图形工程、性能、兼容性、视觉质量方面，我们再次突破了传统的界限。
Cinematic Computing for Every User

POWERED BY PURE ADRENALINE

With the NVIDIA GeForce FX GPUs powering your graphics experiences, you can run your applications and games at speeds and resolutions never before possible. Everything you need has been combined into this powerhouse graphics processor. With impressive performance—up to 8 pixels per clock performance, expansive AGP 8X pipeline and a 256-bit memory bus—the GeForce FX GPUs are proof of how powerful GPUs can be. These amazing GPUs also feature NVIDIA® Intellisample™ technology**, 2-culling, anisotropic filtering, and powerful antialiasing. These advances in compression and antialiasing techniques ensure realistic color and smooth edges at all resolutions without sacrificing performance. The second-generation Intellisample high-resolution compression technology (HCT)** extends the performance and quality gains to even higher resolutions and quality levels. You will see the most fluid frame rates only be achieved by incorporating leading-edge engineering process and design techniques. The GeForce FX GPUs take advantage of the latest and most sophisticated 0.13 micron process technology by packing up to twice the transistors into the same space as the GeForce4 Ti GPU**. The GeForce FX GPUs were engineered with optimizations that enable spectacular content and take full advantage of a new generation of software tools and APIs, including the new Cg high-level shader language, Microsoft® Direct3D® 9.0 and OpenGL® 1.5. The resulting products enable game developers to design higher quality content faster than ever before. The commitment to engineering excellence has made the GeForce FX GPUs the development platforms of choice for next-generation, cinematic-quality games.

CINEMATIC EFFECTS BEYOND IMAGINATION

Powered by the NVIDIA CineFX engine, the GeForce FX GPUs shift PC special effects toward cinematic quality thanks to a new level of advanced shading techniques. The CineFX engine allows designers and creators to easily convert their artistic visions into visual content, achieving cinematic visual effects in real time. The GeForce FX GPUs eliminate many programming barriers previously associated with pixel shaders by supporting long programs for the most elaborate effects, and conditional branching capabilities for better program flow. The result is more advanced effects that were once impossible to create in real time. In addition, the innovative graphics pipeline of the CineFX engine has the built-in capacity to deliver true studio-quality 128-bit color processing. The new CineFX 2.0 engine** further advances pixel shaders delivering double the floating-point pixel shader performance compared to the previous generation. The revolutionary new NVIDIA® UltraShadow™ technology** accelerates shadow computation to power the complex effects in today’s cutting-edge games. By matching film-industry levels of precision processing and delivering advanced techniques, the GeForce FX GPUs enable 3D worlds and characters to come alive—making Hollywood dreams on the desktop a reality.

UNLEASH THE EXPERIENCE

Get more out of your PC graphics with a powerful suite of complementary NVIDIA software. The GeForce FX GPUs leverage the NVIDIA ForceWare software solution to unleash the full potential of your PC graphics experience. An industry-leading software feature set, ForceWare delivers advanced technologies—including NVIDIA® view™ multi-display technology for increased screen real estate, and NVIDIA® Digital Vibrance Control™ (DVC) technology for richer colors and brighter images and text. Built on the foundation of the NVIDIA Unified Driver Architecture (UDA), ForceWare’s simple software installations and upgrades consistently deliver compatibility with future software applications and APIs for long-term reliability and stability. Delivering the most complete software feature set, a rock-solid driver architecture, and continual performance and feature updates over the life of the product, ForceWare unleashes the full potential of your GPU.

GAME NIVANA!

Power and realism, the two elements every gamer craves, are the heart and soul of the GeForce FX GPUs. Representing a watershed achievement in graphics history, NVIDIA’s innovative engineering will inspire new levels of creativity from developers, and raise the quality of the visual experience for all users. The GeForce FX GPUs, powered by the CineFX engine, drive elaborate visual effects on par with Hollywood movies. For the first time, developers can give users exactly what they want—games and other interactive applications that look more like what they see in the film world. The GeForce FX GPUs also include rock-solid drivers—packed with all kinds of tweakable features to allow fine-tuning of gaming rigs for maximum frame rates with minimum fuss.