



Performance. Compatibility. Reliability...On the Go.

CINEFX SHADING ARCHITECTURE

- Support for DX 9.0 Pixel Shader 2.0+
- Support for DX 9.0 Vertex Shader 2.0+
- Very long pixel programs up to 1024 instructions
- Very long vertex programs with up to 256 static instructions and up to 65536 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
- Conditional execution
- Procedural shading
- Full instruction set for vertex and pixel programs
- Z-correct bump-mapping
- Hardware-accelerated shadow effects with shadow buffers
- 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

- 4 pixels per clock rendering engine
- 128-bit, studio-quality floating point precision through 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 sRGB texture format for gamma textures
- DirectX and S3TC texture compression

HIGH-PERFORMANCE 2D RENDERING ENGINE

- Optimized for 32-, 24-, 16-, 15- and 8-bpp modes
- True-color, 64x64 hardware cursor with alpha
- Multi-buffering (double, triple or quad) for smooth animation and video playback

INTELLISAMPLE™ TECHNOLOGY

- Blistering-fast antialiasing performance
- Adaptive texture filtering
- 2-partition DDR memory interface
- Advanced loss-less compression algorithms for both color and Z data
- Fast Z-clear

ADVANCED DISPLAY PIPELINE WITH FULL NVIEW CAPABILITIES

- Dual channel LVDS interface drives LCD displays up to QXGA(2048x1536) for unsurpassed image clarity
- 400MHz RAMDAC for CRT display resolutions up to and including QXGA
- Integrated NTSC/PAL TV encoder support resolutions up to 1024x768 without the need for panning with built-in Macrovision copy protection
- DVD and HDTV-ready MPEG-2 decoding up to 1920x1080i resolutions
- Support for DVI for compatibility with next-generation flat panel displays with resolutions up to and including 1600x1200

DIGITAL VIBRANCE CONTROL (DVC) 3.0

- DVC color controls
- DVC image sharpening controls
- Bright and crisp images and text under any lighting condition

POWERMIZER 3.0

- A collection of automatic hardware and software power saving mechanisms designed to provide great performance and great battery life.
- Dynamic clock gating powers only parts of the GPU required to get the graphics job done.
- Dynamic clock scaling intelligently adjusts to keep clocks as low as possible by default and scales clocks up automatically based on application or user activity.
- Dynamic voltage scaling allows the GPU to run at low voltage most of the time and only scales up when the most demanding application are run
- Industry low 1.0V operation
- Thermal diode ensures great reliability and provides a useful feedback mechanism to run as fast as possible when demanding applications are loaded

VIDEO PROCESSING ENGINE (VPE) 2.0

- New MPEG-2 decode engine and encode assist enhances display quality
- Video Mixing Renderer (VMR) accelerates multiple video streams by moving video into the 3D graphics engine

- Enhanced scaling, filtering and sharpening delivers crisp, vivid and vibrant images.
- Adaptive de-interlacing provides highest quality video playback

OPERATING SYSTEMS

- Windows® XP
- Windows 2000
- Windows Me
- Windows NT® (all)
- Windows 98, Windows 95
- Linux compatible
- Mac® OS compatible

API SUPPORT

- Complete DirectX support, including DirectX 9.0 and lower
- Full OpenGL 1.4 and lower support

COMPATIBILITY

- NVIDIA Unified Driver Architecture (UDA)
- Fully compliant professional OpenGL 1.4 API with NVIDIA extensions, on all Linux and Windows operating systems
- WHQL-certified for Windows XP, Windows Me, Windows 2000
- Complete Linux XFree86 drivers
- Mac OS 9/X support
- Windows® XP

ADVANCED SOFTWARE APPLICATIONS

- NVIDIA nView software offers a comprehensive solution for multi-monitor support, increasing screen real estate for more efficient viewing and switching between multiple active windows.
- NVRotate is a standard driver feature that allows the user to use the display in standard landscape mode or in portrait mode without the usual performance degradation previous notebook graphics solutions.
- NVKeystone is an innovative feature that allows typical road warriors that use notebooks for presentations to simply adjust a projected image to get rid of common keystone display artifacts.

GPU	GEFORCE FX GO 5600	GEFORCE FX GO 5200
Process	0.13µ	0.15µ
Voltage range	1.0 - 1.2	1.2 - 1.3
Z Compression	yes	no
Color Compression	yes	no
DirectX 9	yes	yes



THE DAWN OF CINEMATIC COMPUTING

...ON THE GO!

The mobile PC is emerging as the latest consumer entertainment device. When you select a notebook as your primary computing and entertainment platform, you want to play the hottest 3D games, watch the latest DVDs, listen to your favorite MP3s, chat with your friends, and surf the Web. The NVIDIA® GeForce™ FX Go series of mobile graphics processing units (GPUs) has been designed to deliver the ultimate visual experience for your mobile entertainment needs.

Engineered to deliver cinematic-quality special effects and studio-quality color, the GeForce FX Go enables 3D worlds and characters to come alive like never before. Combined with world-class video playback and rock-solid software stability, reliability, and compatibility—the innovative GeForce FX Go family of mobile GPUs is changing the traditional notebook PC platform into a full-fledged mobile entertainment device.

With the GeForce FX Go, the dawn of cinematic mobile computing has arrived.



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NVIDIA GeForce FX
Product Overview
March 2003 v03



The Dawn of Cinematic Computing...on the Go

CINEMATIC 3D GRAPHICS

Realism and performance are the two elements every notebook user craves, and these are the heart and soul of every GeForce FX Go GPU. For truly immersive games, graphics must be of cinematic quality, with rich colors and realistic effects. The NVIDIA CineFX engine—at the core of the GeForce FX Go GPUs—delivers unprecedented programmability to the mobile PC platform, and a new level of 3D graphics realism. The CineFX engine gives developers the tools to easily translate their artistic visions into stunning and complex special effects. The industry's first top-to-bottom DirectX™ 9 class of mobile GPUs provides the feature set and raw horsepower to run games and application at speeds and resolutions never before possible. The CineFX engine also features true 128-bit studio-quality color for the most lifelike scenes and characters, delivering faster and smoother gameplay and real-time 3D cinematic experiences beyond imagination.



ENHANCED VIDEO PROCESSING ENGINE

GeForce FX Go provides the processing and rendering power needed to drive the highest-quality, most crystal-clear images to the latest mobile displays. NVIDIA's enhanced video processing engine (VPE) plays DVD titles with record low CPU utilization. Video playback is smooth, images are clear, artifacts are eliminated, and the delivery is lightning fast. GeForce FX Go application compatibility and stability allow you to edit, mix, and produce your own videos. NVIDIA's enhanced Digital Vibrance Control™ (DVC) gives you control over image optimization, so you can easily change the image settings for different content or lighting conditions.



Whether you are watching a DVD with NVIDIA's NVDVD™ multimedia software, editing a home movie, or streaming video from the web, the experience will be like nothing you have seen before on a mobile PC. With a GeForce FX Go GPU powering your notebook, the colors are crisp and bright, and the playback speed and delivery are flawless.

UNSURPASSED SOFTWARE QUALITY AND COMPATIBILITY

The NVIDIA Unified Driver Architecture (UDA) is the industry standard for graphics software. Our renowned UDA delivers a proven record of compatibility and stability with the widest range of games and applications, ensuring the best out of box experience for every user. In addition, the GeForce FX Go is the first mobile platform to be officially supported by game developers. NVIDIA, through our "The Way It's Meant to Be Played" program, works closely with game developers to ensure that games played on NVIDIA GPUs deliver the most immersive, unmatched gameplay possible on a mobile PC.

In addition, NVIDIA provides a host of complementary software for our mobile GPUs: NVIDIA's nView™ multi-display technology delivers the ultimate in viewing flexibility and control. NVIDIA's NVRotate™ display technology allows users to pivot any display connected to a GeForce FX Go from landscape to portrait mode, for easier information and application viewing. NVIDIA's NVKeystone™ real-time display correction technology allows a user to easily project an image onto any surface with loss-less picture quality.



With a GeForce FX Go GPU and NVIDIA's proven record of software quality and compatibility, you can be assured that your mobile applications will "just work."



ADVANCED POWER MANAGEMENT

Every processing and display capability of the GeForce FX Go GPUs is engineered for use on the go. NVIDIA's advanced power management technology, PowerMizer™, includes aggressive clock gating, intelligent clock scaling and automatic voltage scaling to provide the perfect balance of maximum performance and longer battery life. With the industry's lowest voltage, GeForce FX Go ensures the highest graphics performance is delivered with the least battery drain possible. All of this adds up to an entirely new level of long battery life and productivity on mobile PCs.

The GeForce FX Go—The Dawn of Cinematic Computing... on the Go.



Look for games displaying this logo for the best gaming experience.

Command & Conquer Generals™/EA Games

S.T.A.L.K.E.R. Oblivion Lost™/GSC Games

Delta Force®: Black Hawk Down™/NovaLogic

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