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+
- CineFX 2.0 advanced pixel shaders allow floating-point pixel shader operations to run 2x faster*
- 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
- UltraShadow 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 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
- 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*

FORCEWARE UNIFIED SOFTWARE ENVIRONMENT (USE)
- Unified Driver Architecture delivers rock-solid compatibility, stability, and reliability
- Mobile productivity software including nView, NVRotate, and NVKeystone
- Multimedia software integrates functionality into easy-to-use interface

FULL-FEATURED DISPLAY PIPELINE
- Dual RAMDACs (up to 400 MHz) for display resolutions up to and including 2048x1536@85Hz. Typical use in notebook PCs: one for CRT and one for TV-out.
- Integrated NTSC/PAL TV encoder support resolutions up to 1024x768 without the need for panning with built-in Macrovision copy protection
- TV-encoder includes support for integrated HDTV-out as well, for highest quality video*
- DVD and HDTV-ready MPEG-2 decoding up to 1920x1080i resolutions
- DVI support for compatibility with next-generation flat panel displays with resolutions up to and including 1600x1200
- Digital Vibrance Control (DVC) 3.0 image sharpening and color adjustment

POWERMIZER TECHNOLOGY
- Mobile technology unique to the "Go" family of notebook GPUs
- Power and thermal management technology to deliver the longest battery life for true mobility
- Advanced technology (0.13µ) delivers performance at lowest power consumption levels***
- CLK, Supply-VDD, thermal-throttling closed loop control mechanisms optimize performance
- Enables control of system levels components (such as CPU, display-panel, etc.) power-consumption, for a balanced and complete notebook PC power savings
- SmartDimmer technology to smartly control and save display-panel power consumption

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
- 128-bit memory interface****
- Support for up to 128MB RAM
- AGP 8X including Fast Writes and sideband addressing
- Flip-chip BGA packaging**

OPERATING SYSTEMS
- Windows® XP/2000/Me/98/95/NT®
- Linux compatible

API SUPPORT
- Complete DirectX support, including DirectX 9.0 and lower
- Full OpenGL 1.5 and lower support

COMPATIBILITY
- NVIDIA Unified 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 Go5700 only
** GeForce FX Go5700/Go5650 only
*** GeForce FX Go5700/Go5650/Go5600 only
**** Excluding GeForce FX Go5100

FEATURE	GEFORCE FX GO5700	GEFORCE FX GO5650/GO5600	GEFORCE FX GO5200	GEFORCE FX GO5100
CineFX Engine	CineFX 2.0	CineFX 1.0	CineFX 1.0	CineFX 1.0
Antialiasing Technology	Intellisample HCT	Intellisample	Accuview Antialiasing™	Accuview Antialiasing
Ultrashadow Technology	✔	N/A	N/A	N/A
Full 128-bit Color Precision	✔	✔	✔	✔
TV-Out Quality	HD/Component/ Composite/S-Video	SD/Composite/ S-Video	SD/Composite/ S-Video	SD/Composite S-Video
DirectX 9.0	✔	✔	✔	✔
AGP	8X	8X	8X	8X
ForceWare	✔	✔	✔	✔
Process	0.13µ	0.13µ	0.15µ	0.15µ
Memory Interface	128-bit	128-bit	128-bit	64-bit
Maximum Memory	128MB	128MB	128MB	64MB
RAMDAC	400	400	350	350

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REVOLUTIONIZING THE CINEMATIC MOBILE PC

The **NVIDIA® GeForce™ FX Go** series of mobile graphics processing units (GPUs) signals the dawn of a new era in mobile computing, powering digital entertainment for users on the go. The notebook computer is now the primary platform used for computing and entertainment. Users expect unparalleled PC features and functions from their notebooks, in addition to being able to play the hottest 3D games, watch the latest DVDs, listen to MP3s, chat with friends, and surf the Web. With the GeForce FX Go GPUs, NVIDIA delivers a top-to-bottom lineup of Microsoft® DirectX® 9 mobile solutions, providing performance and compatibility for the latest generation of games and multimedia applications.

The NVIDIA GeForce FX Go GPUs are designed to deliver the ultimate visual experience for your mobile entertainment needs. Engineered to deliver cinematic-quality special effects and studio-quality color, they enable 3D worlds and characters to come alive like never before on a mobile platform. Combined with world-class video playback and rock-solid software stability, reliability, and compatibility, the innovative GeForce FX Go GPUs are changing the traditional notebook platform into a full-fledged mobile entertainment device, powering cinematic computing experiences for all mobile PC users.

NVIDIA GeForce FX
Product Overview
NOV2003v04

Revolutionizing the Cinematic Mobile PC

CINEMATIC 3D GRAPHICS

Powered by pure adrenaline and engineered for precision, GeForce FX Go brings unprecedented 3D graphics performance to all mobile PC users—from business and home users to extreme gamers. 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 mind-blowing special effects, studio-quality color, and a new level of 3D graphics realism through hardware programmability. The CineFX engine 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. This gives developers the tools to translate their artistic visions into stunning and complex special effects.

GeForce FX Go also features NVIDIA® Intellisample™ technology, encompassing z-culling, anisotropic filtering, and powerful antialiasing capabilities. These advances in compression and antialiasing techniques ensure realistic color and smooth edges at all resolutions without sacrificing performance.

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. The NVIDIA enhanced video processing engine (VPE) plays DVD titles with record low CPU utilization, extending battery life. Video playback is smooth, images are clear, artifacts are eliminated, and the delivery is lightning fast. NVIDIA® enhanced Digital Vibrance Control™ (DVC) technology gives you control over image optimization, so you can easily change the image settings for different content or lighting conditions. And now GeForce FX Go5700 performance GPUs support component video output for display of high-definition content at its full native resolution.

GeForce FX Go application compatibility and stability make it easy to run software that allows you to edit, mix, and produce your own videos. So whether you are watching a DVD with the NVIDIA® ForceWare™ Multimedia application, 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, you're guaranteed breathtaking video quality with flawless, smooth playback, and crisp, bright colors.

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

UNSURPASSED SOFTWARE QUALITY AND COMPATIBILITY

In addition to the quality and stability that are hallmarks of NVIDIA graphics hardware, NVIDIA provides a robust, complementary suite of software applications and utilities for its mobile GPUs. The NVIDIA ForceWare software suite for mobile platforms unleashes the full potential of your PC graphics experience, delivering an industry-leading software feature set for both consumers and corporate mobile PC users:

- NVIDIA® nView™ multi-display technology for increased screen real estate:
  - Gridlines allows a user to divide up the monitor into separate regions and quickly reposition and resize application windows.
  - Profiles let you easily save and restore multiple desktops that allow you to customize display settings for different environments depending on what you are using your mobile PC for (gaming, watching a DVD, document viewing, etc.).
- NVIDIA® NVRotate™ display technology allows a user to pivot the display from landscape to portrait mode for easier information and application viewing.
- NVIDIA® NVKeystone™ technology allows a user to project and adjust images onto any surface with lossless picture quality.

Built on the foundation of the NVIDIA Unified Driver Architecture (UDA), ForceWare offers simple software installations and continual upgrades that deliver compatibility with future software applications and APIs (such as Microsoft DirectX 9.0, and OpenGL® 1.5) for long-term reliability and stability.

In addition, the GeForce FX Go is the first mobile platform to be officially supported by game developers. NVIDIA, through its "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.

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

ADVANCED POWER MANAGEMENT

Every processing and display capability of the GeForce FX Go is engineered for use in a mobile PC. The NVIDIA® PowerMizer™ technology has been specifically designed to enable unique power and performance optimizations that deliver an uncompromised multimedia experience at the lowest power consumption levels possible. Features like GPU power and temperature monitoring, aggressive clock gating, intelligent clock scaling, automatic voltage scaling, and SmartDimmer technology provide the perfect balance of maximum performance and longer battery life. All of this adds up to an entirely new level of productivity and 3D performance on mobile PCs powered by the GeForce FX Go.

GeForce FX Go5700: The Ultimate Performance Mobile GPU

Architected for blazing speeds, the GeForce FX Go5700 delivers unmatched visual quality with three times the geometry and twice the floating point pixel shader performance previously available. The GeForce FX Go5700 powers the next generation of games and multimedia applications on the go, and introduces the revolutionary NVIDIA® UltraShadow™ technology, powering the complex shadow and lighting effects of today's second-generation DirectX 9 games. In addition, Go5700 GPUs feature the CineFX 2.0 engine with 128-bit precision computing for the highest level of image quality. Second-generation Intellisample high compression technology (HCT) extends ultra-realistic visuals at lightning fast speeds to higher resolutions and antialiasing levels.

The GeForce FX Go5700 also introduces integrated component video output support for playback of high-definition content at its full native resolution for the best video quality ever seen on a laptop. PowerMizer 4.0 introduces a host of new power optimizing features that provide the perfect balance of performance and long battery life.