NVIDIA Quadro NVS Technical Specifications

NVIDIA® nView™ Multi-Display Technology	The NVIDIA nView hardware and software technology combination delivers maximum flexibility for multi-display options, and provides unprecedented end-user control of the desktop experience[1].
NVIDIA® ForceWare® Unified Driver Architecture (UDA)	Delivers a proven record of compatibility, reliability, and stability with the widest range of business applications. ForceWare ensures the best out-of-box experience for every user and delivers continuous performance and feature updates over the life of NVIDIA Quadro NVS GPUs.
Highest Digital Display Resolution	Internal TMDS transmitters and 400MHz RAMDAC(s) deliver crystal-clear image quality for the highest resolution digital displays up 1920x1200 resolution[2].
Ultimate Image Quality	NVIDIA Quadro NVS graphics products deliver the industry's best image quality, sharpness and pixel tracking for analog LCDs, DLPs and plasma displays with resolutions up to 2048 x 1536 x 32 bpp at 75Hz.
Application Compatibility Testing	Compatibility testing with industry-leading business applications, including Microsoft® Office Suite, Lotus Notes®, McAfee® Virus Scan, pcAnywhere®, Bloomberg®, Tradestation™, Hummingbird Exceed®, Reuters® and more.
NVIDIA® PureVideo™ Technology	NVIDIA PureVideo technology is the combination of high-definition video processors and video decoding software that delivers unprecedented picture clarity, smooth video, accurate color, and precise image scaling for all video content. It turns your PC into a high-end home-theater. Feature varies by product.
High-Density Connectors	The DMS-59 high-density connectors provide flexible support for a variety of display types, from analog to digital[2].
NVIDIA® PowerMizer™ 6.0 Technology	The sixth generation of NVIDIA's advanced hardware power management technology that reduces notebook power consumption and heat generation for the graphics subsystem, thereby enabling a truly mobile, cool and quite, uncompromised user experience[3].

NVIDIA nView Hardware Architecture

- 32-bit color
- 2048x1536 x 32 bpp @ 75Hz maximum analog display resolution
- Dual 400MHz internal RAMDACs on NVS 440
- Dual internal TMDS (dual DVI)
- 1920 x 1200 maximum resolution over digital port on select panels
- High-performance 2D rendering engine
  - Optimized for 32-, 24-, 16-, 15- and 8-bpp mode

NVIDIA PureVideo Technology

- Full-screen, full-frame video playback of HD and SD videos
- ProcAmp Color Control Settings to correct for differences in RGB and TV monitors
- Hardware color-space conversion (YUV 4:2:2 and 4:2:0)
- IDCT Motion compensation
- 5-tap horizontal by 3-tap vertical filtering
- MPEG-2 and WMV9 Decode Acceleration
- High-Quality Scaling
- Integrated TV Output

Software Architecture nView Desktop Management Software

- Advanced Multi-display Desktop and Application Management
- Easy to use Setup Wizard
- Seamless integration within the familiar Windows environment
- Application Extensions for Microsoft Internet Explorer and Microsoft Office
- Advanced Window Effects
- Zoom features for detailed editing
- Complete set of Hot Keys and user profiles
- Support for multiple display modes including:
  - Full native DualView mode: Windows XP and Windows 2000
  - Span or Big Desktop mode: Windows XP, Windows 2000 and Windows NT
  - Clone mode: Windows XP and Windows 2000

Application Compatibility

- Rigorous compatibility testing with all major financial and corporate applications
- Fully compliant with professional OpenGL® and DirectX® applications

Unified Driver Architecture

- Supports all products
- Support for the latest applications on previous- and current-generation hardware
- Continuous performance tuning for previous- and current-generation hardware
- Microsoft Windows Hardware Qualification Lab (WHQL)-certified for Windows XP, Windows 2000, and Windows NT

Business PC Optimizations

- Tested with commonly used hardware peripherals, including the latest digital and analog displays
- Optimized for Intel® and AMD® workstation configurations
- Optimized for multi-processor configurations
- Enhanced customized multi-display drivers, including nView multi-display desktop and application-management software

1 NVIDIA GPUs support multi-displays, but graphics cards vary. Please verify multi-display support before purchasing

2 NVIDIA Quadro NVS 285 and 440 only

3 NVIDIA Quadro NVS 110M, 120M, and 300M only

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NVIDIA Quadro® NVS

The Standard for Business Graphics

Business professionals who rely on a notebook, desktop PC, or workstation know the importance and value of a solution that helps them work more efficiently. Whether it's tracking securities across multiple displays, managing multiple desktop applications, or running business applications while on the road, business users are looking for the right solution to fit their everyday requirements.

The NVIDIA Quadro® NVS business graphics solutions deliver the reliability, stability, ease-of-use, and business application compatibility testing that today's professionals require. From small businesses to enterprise-level corporations, the NVIDIA Quadro NVS series features distinct solutions to fit the needs of every user.

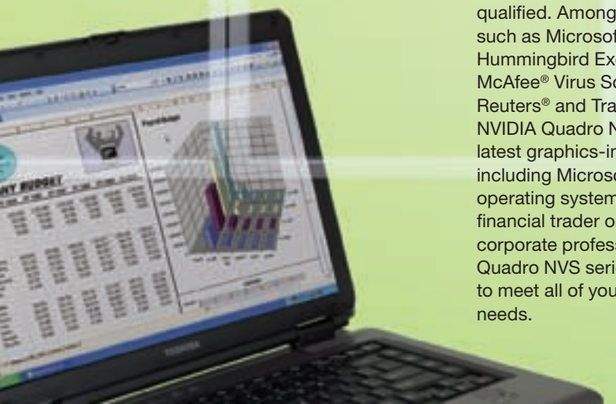
The Standard for Business Graphics

Reliable Hardware and Software Platform

NVIDIA Quadro® NVS notebook and desktop solutions deliver a reliable hardware and software platform to ensure business professionals have a dependable solution. The tightly integrated architecture provides increased reliability while the extensive product development and qualification ensures complete system performance. Architected to run in mixed environments within diverse IT deployments, NVIDIA Quadro NVS solutions provide easy manageability and deployment.

Stable Architecture Provides a Dependable Solution

The NVIDIA Unified Driver Architecture (UDA) provides easy installation, manageability, and upgradeability with managed releases. NVIDIA UDA delivers a single driver for all NVIDIA graphics products. This single driver is binary compatible with all NVIDIA graphics products including desktop, notebook, workstation, and integrated chipset solutions. And NVIDIA Quadro NVS has an extended product lifecycle to minimize replacement costs and protect long-term investments.



Easy Deployment and Maintenance with Robust System Management Tools

NVIDIA Quadro NVS solutions are built not only with the user's productivity in mind, but also to streamline and enhance deployment and maintenance. NVIDIA UDA makes large-scale system deployment and unattended installations extremely easy due to excellent driver stability, forward and backward compatibility, and IT specific functionality. The NVIDIA® nView® Profiles feature allows IT managers to create custom desktop settings for all their users. Once created, these settings can be locked to prevent users from accidentally overriding them. nView Profiles can also be used to save specific display configurations such as resolutions or color depths. These settings can then be globally applied to multiple systems using nView IT management tools.

Industry's Best Business Application Support

NVIDIA rigorously tests core-user applications and commonly used peripheral devices and displays to ensure that the NVIDIA Quadro NVS series performs flawlessly. Business applications in the corporate and financial markets are fully tested and qualified. Among these are applications such as Microsoft® Office Suite, Hummingbird Exceed®, Lotus Notes® , McAfee® Virus Scan, pcAnywhere™, Reuters® and TradeStation™. And NVIDIA Quadro NVS is built for the latest graphics-intensive applications including Microsoft® Windows Vista™ operating system. Whether you are a financial trader on Wall Street or a corporate professional, the NVIDIA Quadro NVS series is the only solution to meet all of your business computing needs.

Increased Productivity for End-Users

Seamlessly integrated within the familiar Microsoft® Windows® environment, NVIDIA nView multi-display technology offers a robust set of features to maximize productivity. For example, the Application Extensions feature allows applications such as Microsoft Internet Explorer to take full advantage of multiple displays.

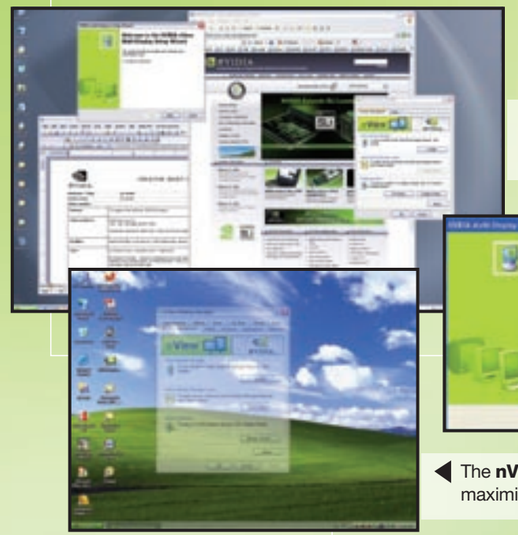
Some of the features of the NVIDIA nView environment include:

- Intuitive and interactive nView Setup Wizard that walks users through every feature of the software
- On-screen display setup enables business professionals to easily switch display configurations with the click of a button
- Display Gridlines maximize a user's desktop space by dividing up the monitor display into multiple regions
- Desktop management control lets a user launch applications on up to 16 different desktops
- Programmable hotkeys lets a user quickly access nView functions
- NVKeystone provides real-time display correction technology to allow business professionals to display onto any surface with lossless picture quality through intuitive user controls

The Industry's Best Multi-Display Desktop Solution

NVIDIA Quadro NVS desktop graphics boards deliver flexible solutions to support multiple displays with the single-, dual-, and quad display architecture. NVIDIA nView allows users to spread their work across multiple displays and maximize productivity through advanced desktop and application management features.

NVIDIA NVIEW FEATURES



The **nView Application Extensions** enhance the functionality of commonly used Windows applications.

The **nView Setup Wizard** makes installation and configuration extremely easy.

The **nView Advanced Window Effects** feature maximizes valuable desktop real estate.

The NVIDIA Quadro NVS desktop solutions provide reliable hardware that delivers ultra-sharp images at the highest resolutions and refresh rates.

Featuring dual 400MHz internal RAMDACs, and built-in dual TMDS transmitters, the NVIDIA Quadro NVS desktop series drives the latest analog and digital flat panel displays. DisplayMate™, the industry resource for image-quality testing, named the NVIDIA Quadro NVS series as the standard of quality for dual- and quad-display graphics boards.

The First Business Graphics Solution for Notebooks

NVIDIA Quadro NVS notebook solutions are built to support the latest business applications. Through accelerated graphics performance, business professionals can increase productivity when running graphics-intensive applications. NVIDIA Quadro NVS notebooks solutions are designed for the latest standard and wide aspect LCD screens offering excellent visual quality and crisp text for a wide range of resolutions. In addition NVIDIA® PowerMizer™ technology enables the most efficient power consumption to deliver longer battery life.

	Desktop Series			Notebook Series		
PRODUCT	**NVIDIA Quadro NVS 280**	**NVIDIA Quadro NVS 285**	**NVIDIA Quadro NVS 440**	**NVIDIA Quadro NVS 110M**	**NVIDIA Quadro NVS 120M**	**NVIDIA Quadro NVS 300M**
Memory Size	64MB DDR	64MB DDR 128MB DDR2	256MB[2] DDR	128/256/512MB	128/256/512MB	128/256/512MB
Memory Interface	64-bit	64-bit	128-bit	64-bit	64-bit	128-bit
Bus Interface	PCI-32	PCI Express x1 PCI Express x16	PCI Express x1 PCI Express x16	PCI Express x16	PCI Express x16	PCI Express x16
Form factor	SFF[1]	SFF[1]	ATX Full Height, 1/2 length	n/a	n/a	n/a
Display Connectors	DMS-59 (1)	DMS-59 (1)	DMS-59 (2)	VGA, DVI, LVDS, HDTV, HDMI[3]	VGA, DVI, LVDS, HDTV, HDMI[3]	VGA, DVI, LVDS, HDTV, HDMI[3]
Max Displays per Board	2	2	4	2	2	2
Max Digital Display Support	1600 x 1200	1920 x 1200	1920 x 1200	1600 x 1200	1600 x 1200	1600 x 1200
Max Analog Display Support	2048 x 1536	2048 x 1536	2048 x 1536	2048 x 1536	2048 x 1536	2048 x 1536
Max Power Consumption	21W-Passive	21W-Passive	31W-Passive	10W-Passive	10W-Active	10W-Active
NVIDIA nView Enabled	Yes	Yes	Yes	Yes	Yes	Yes
NVIDIA TurboCache	No	Yes	No	Yes	Yes	No

1 SFF = Small Form Factor

2 256MB of local frame buffer (128MB DDR memory per GPU)

3 Dependent on system design