



NVIDIA QUADRO NVS 295 THE STANDARD FOR BUSINESS GRAPHICS



QUADRO NVS 295
DATASHEET

Designed for small form factor desktop systems, the NVIDIA® Quadro® NVS 295 business graphics solution supports dual displays with ultra high resolution. Delivering a reliable hardware and software platform, Quadro NVS provides a stable business environment. With robust IT management tools for seamless enterprise deployment, Quadro® NVS 295 is the chosen solution across mixed work environments in many markets, including financial institutions, emergency call centers, digital signage systems, and other mission-critical environments.

Featuring the NVIDIA® CUDA™ parallel computing architecture, Quadro NVS 295 delivers optimized performance for business graphics. Capable of supporting up to two 30" digital displays at resolutions of up to 2560 x 1600 each through the DisplayPort connector, the Quadro NVS 295 maximizes productivity by enabling more display real estate from a single graphics card. In addition, Quadro NVS 295 provides enhanced high-quality HD video output with high memory bandwidth for today's most demanding digital signage requirements.

Quadro NVS 295 business graphics solution along with NVIDIA nView® display management software delivers maximum flexibility for single or multi-display options. With productivity enhancing features such as extended Windows Taskbar that spans across multiple displays, gridlines that divide a single large or a multiple display set up into smaller sub-displays, virtual desktops that seamlessly reduce desktop

clutter, and profiles that assist with enterprise deployments – users are provided with unprecedented control of the desktop experience.

Quadro NVS 295 is the professional 2D solution from a wide range of product offerings. The entire Quadro NVS family takes the leading business applications to a new level of interactivity by enabling unprecedented capabilities in display technology. Tested for compatibility with leading business applications, Quadro NVS solutions are designed to meet the needs of today's most demanding business users. Featuring Quadro NVS 450 and 420 for up to four displays and Quadro NVS 295 and 290 for up to two displays, Quadro delivers unmatched workstation performance and quality.

PRODUCT SPECIFICATIONS

FORM FACTOR

- > Low Profile

FRAME BUFFER MEMORY

- > 256MB GDDR3

MEMORY INTERFACE

- > 64-bit per GPU

MEMORY BANDWIDTH

- > 11.2 GBps per GPU

MAX POWER CONSUMPTION

- > 23W

GRAPHICS BUS

- > PCI Express x16 or x1

DISPLAY CONNECTORS

- > DisplayPort (quantity 2)

SINGLE LINK DVI-I

- > Yes (quantity 2, through DP to DVI-D cable)

AUXILIARY POWER CONNECTORS

- > No

NUMBER OF SLOTS

- > 1

THERMAL SOLUTION

- > Fanless heatsink

NVIDIA QUADRO NVS 295

Features	Benefits
Low-Profile and Flexible Form Factor	Enables small form factor systems. Available in native PCI Express x16 and x1 versions.
NVIDIA Unified GPU Architecture	Industry's first unified architecture designed to dynamically allocate GPU resources to deliver optimized performance.
NVIDIA® CUDA™ Architecture	CUDA GPU parallel computing architecture compatible with all CUDA accelerated applications.
Dual DisplayPort Digital Display Connectors	Compact and secure DisplayPort connectors support ultra-high-resolution panels (up to 2560 x 1600) – enabling maximum range, resolution, refresh rate, and color depth designed to support the latest display technologies.
PCI Express 2.0 Compliant	Doubles the data transfer rate up to 5 GT/sec per lane for an aggregate bandwidth of 16 GBps bi-directional (8 GBps in each direction).
NVIDIA PureVideo HD Technology	The ultimate high-definition movie experience by combining high-definition movie decode acceleration and post-processing delivering superb picture quality for all video formats, as well as stunning HD DVD and Blu-ray movies.
NVIDIA® nView® Display Management Software	The nView display management software delivers maximum flexibility for single or multi-display configurations, providing unprecedented end-user control of the desktop experience for increased productivity.
EnergyStar Enabling Design	Enables EnergyStar compliance with low maximum and low idle power levels.

TECHNICAL SPECIFICATIONS

SUPPORTED PLATFORMS

- > Microsoft® Windows® Vista (64-bit and 32-bit)
- > Microsoft Windows XP (64-bit and 32-bit)
- > Microsoft Windows 2000 (32-bit)
- > Linux® - Full OpenGL® implementation, complete with NVIDIA and ARB extensions (64-bit and 32-bit)
- > Solaris®
- > AMD64, Intel EM64T

NVIDIA QUADRO NVS 295 ARCHITECTURE

- > Internal DisplayPort support
- > PCI Express 2.0 support
- > NVIDIA nView Display Software support
- > NVIDIA® PureVideo® HD technology
- > NVIDIA® CUDA™ technology capable
- > 128-bit color precision
- > Unlimited fragment instruction
- > Unlimited vertex instruction
- > 12 pixels per clock rendering engine
- > 3rd-generation occlusion culling
- > 16 textures per pixel in fragment programs
- > Window ID clipping functionality
- > Compliant with professional OpenGL® and DirectX® applications

DISPLAY RESOLUTION SUPPORT

- > Dual DisplayPort outputs drive DisplayPort enabled digital displays at resolutions up to 2560 x 1600 @ 60Hz
- > DisplayPort to DVI-D (Single Link) industry standard cables can be used to drive digital displays at resolutions up to 1920 x 1200 @ 60Hz
- > DisplayPort to VGA and DisplayPort to DVI-D (Dual Link) industry standard dongles will be tested for compatibility by NVIDIA as they become available

NVIDIA® NVIEW® DISPLAY MANAGEMENT SOFTWARE

- > Boosts productivity by delivering maximum flexibility for single and multi-display set-ups, and provides unprecedented end-user control of the desktop experience.
- > Seamless integration within the Windows environment
- > Easy to use Setup Wizard
- > Extended Windows Taskbar to spread the application buttons across displays
- > Get virtual sub-displays with Gridlines to make best use of large display setups
- > Create Virtual Desktops to maximize work area and reduce application clutter
- > Complete set of Hot Keys

- > User Profiles for easier system deployments
- > Support for multiple display modes including DualView, Span and Clone modes

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

UNIFIED DRIVER ARCHITECTURE

- > Supports NVS 450, NVS 420, NVS 295, NVS 290
- > Support for the latest applications on previous- and current-generation hardware
- > Continuous performance tuning
- > Microsoft Windows Hardware Qualification Lab (WHQL)-certified for Windows Vista, Windows XP and Windows 2000

To learn more about NVIDIA Quadro, go to www.nvidia.com/quadro