



NVIDIA QUADRO NVS 420

THE STANDARD FOR BUSINESS GRAPHICS

QUADRO NVS 420
DATASHEET

The NVIDIA® Quadro® NVS 420 business graphics solution, designed for small form factor desktop systems, delivers a reliable hardware and software platform for a stable environment. With robust IT management tools for seamless enterprise deployment, Quadro® NVS 420 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 NVIDIA® CUDA™ parallel computing processors and a unified GPU architecture designed to dynamically allocate GPU resources, the Quadro NVS 420 solution delivers optimized performance for business graphics. Quadro NVS 420 is the first professional 2D solution capable of driving up to four 30" digital displays at up to 2560 x 1600 resolution through the DisplayPort connectors, the Quadro NVS 420 maximizes productivity by enabling more display real estate from a single graphics card. In addition, Quadro NVS 420 provides high-quality HD video output and high memory bandwidth for today's most demanding digital signage requirements.

With NVIDIA® nView™ display management software, Quadro NVS 420 enables features, such as profiles, extended Windows taskbar, gridlines, and virtual desktops. Plus, Quadro

NVS 420 is tested for compatibility with leading business applications to meet the needs of today's most demanding business users.

NVIDIA Quadro NVS 420 is part of a family of professional 2D solutions. The entire Quadro NVS family takes the leading business applications to a new level of interactivity by enabling unprecedented capabilities in display technology. Featuring Quadro NVS 450 and 420 for up to four displays and Quadro NVS 290 for up to two displays, NVIDIA Quadro delivers unmatched workstation performance and quality.

PRODUCT SPECIFICATIONS

FORM FACTOR

- > Low Profile

FRAME BUFFER MEMORY

- > 512MB GDDR3

MEMORY INTERFACE

- > 64-bit per GPU

MEMORY BANDWIDTH

- > 11.2 GBps per GPU

MAX POWER CONSUMPTION

- > 40W

GRAPHICS BUS

- > PCI Express x16 or x1

DISPLAY CONNECTORS

- > VHDCI (quantity 1)

DISPLAYPORT

- > Yes (quantity 4, through single VHDCI to Quad DisplayPort dongle)

SINGLE LINK DVI-D

- > Yes (quantity 4, through single VHDCI to Quad DVI-D dongle)

AUXILIARY POWER CONNECTORS

- > No

NUMBER OF SLOTS

- > 1

THERMAL SOLUTION

- > High quality, variable speed fansink

FEATURES AND BENEFITS

NVIDIA UNIFIED GPU ARCHITECTURE	Industry's first unified architecture designed to dynamically allocate GPU resources to deliver optimized performance.
NVIDIA® CUDA™ PARALLEL COMPUTING PROCESSOR	16 CUDA parallel processing cores compatible with CUDA accelerated applications.
QUAD DISPLAYPORT	Featuring the small and user friendly DisplayPort connectors through a VHDCI to Quad DisplayPort dongle, Quadro NVS 420 is the first professional 2D solution capable of driving quad high-resolution displays at 2560x1600 resolution.
QUAD DVI-D (SINGLE LINK)	Featuring a VHDCI to Quad DVI-D dongle, Quadro NVS 420 is capable of supporting four DVI enabled displays at 1920x1200 resolution.
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® TECHNOLOGY	NVIDIA PureVideo technology is the combination of high-definition video processors and software that delivers unprecedented picture clarity, smooth video, accurate color, and precise image scaling for SD and HD video content. Features include, high-quality scaling, spatial temporal de-interlacing, inverse telecine, and high quality HD video playback from DVD.
NVIDIA® NVIEW® DISPLAY SOFTWARE	The nView display software delivers maximum flexibility for single-large display 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 idle power levels.
LOW PROFILE FORM FACTOR	Enables quad high resolution displays from small form factor systems.

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

- > Unified GPU architecture
- > Microsoft DirectX 10 Shader Model 4.0 support
- > OpenGL 3.0 optimization and support

DISPLAY RESOLUTION SUPPORT

- > VHDCI to Quad DisplayPort dongle drives DisplayPort enabled digital displays at resolutions up to 2560 x 1600 @ 60Hz
- > VHDCI to Quad DVI-D (Single Link) dongle drives digital displays at resolutions up to 1920 x 1200 @ 60Hz

NVIDIA QUADRO NVS 420 ARCHITECTURE

- > Internal DisplayPort support
- > PCI Express 2.0 support
- > PureVideo™ HD technology
- > CUDA capable

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