



## DELIVERING EXCEPTIONAL VALUE NVIDIA® QUADRO® 600

The low-profile and power-efficient NVIDIA® Quadro® 600 professional graphics solution delivers exceptional value to the entry level professional graphics market. Quadro 600 is available in small form factor and full height workstations with ultra-efficient 40W maximum power consumption, delivering the best performance per watt in its class.

Modern applications harness the NVIDIA® Scalable Geometry Engine of the Quadro GPU to deliver huge performance gains over previous generations when running leading CAD and DCC applications. NVIDIA professional software technologies including CUDA™, NVIDIA Application Acceleration Engines, and optimized drivers, enable Quadro GPUs to further accelerate applications including 3ds Max, AutoCAD, SolidWorks and many more.

In addition, Quadro 600 delivers advanced capabilities including 3D Vision™ Pro for high quality stereoscopic 3D environments and Mosaic Technology<sup>1</sup> which enables any application to scale across up to eight displays.

The entire Quadro family takes leading professional applications to a new level of interactivity leveraging the Fermi architecture to enable hardware-accelerated features, performance and quality not found in any other products. From the 6 GB<sup>2</sup> Quadro 6000 at the ultra-high-end to the small form factor Quadro 600 at the entry-level, NVIDIA solutions deliver the productivity you need at every price point. With Quadro solutions your work flows — design, iterate and deliver higher quality results in less time.

### QUADRO 600 PRODUCT SPECIFICATIONS

- CUDA PARALLEL PROCESSING CORES  
> 96
- FRAME BUFFER MEMORY  
> 1 GB DDR3
- MEMORY INTERFACE  
> 128-bit
- MEMORY BANDWIDTH  
> 25.6 GB/s
- DISPLAY CONNECTORS  
> DVI-I (1) and DP (1)
- MAX POWER CONSUMPTION  
> 40 W
- GRAPHICS BUS  
> PCI Express 2.0 x16
- FORM FACTOR  
> 2.731" H x 6.6" L, Single slot
- THERMAL SOLUTION  
> Active
- 3D VISION PRO  
> Support via USB

<sup>1</sup> Mosaic Technology will be available with upcoming driver release in Winter 2010  
<sup>2</sup> 6 GB is supported on Win7 and Linux64 (4GB memory limit on Windows XP64) via Rel 256 driver

## NVIDIA® QUADRO® 600

GPU Features	Benefits
NVIDIA® Scalable Geometry Engine™	Dramatically improves geometry performance across a broad range of CAD, DCC and medical applications, enabling professionals to work interactively with models and scenes that are an order of magnitude more complex than before.
GPU Tessellation with Shader Model 5.0	Quadro Tessellation Engines automatically generate finely detailed geometry, for cinematic quality environments and scenes, without sacrificing performance.
30-Bit Color Fidelity	30-bit color fidelity (10-bits per color) enables billions rather than millions of color variations for rich, vivid image quality with the broadest dynamic range.
NVIDIA® Mosaic Technology	NVIDIA Mosaic Technology <sup>1</sup> enables transparent scaling of any application across up to eight display channels.

## TECHNICAL SPECIFICATIONS

### SUPPORTED PLATFORMS

- > Microsoft Windows 7 (64-bit and 32-bit)
- > Microsoft Windows Vista (64-bit and 32-bit)
- > Microsoft Windows XP (64-bit and 32-bit)
- > Linux - Full OpenGL implementation, complete with NVIDIA and ARB extensions (64-bit and 32-bit)
- > Solaris

### 3D GRAPHICS ARCHITECTURE

- > Scalable geometry architecture
- > Hardware tessellation engine
- > NVIDIA® GigaThread™ engine
- > Shader Model 5.0
- > OpenGL 4.1
- > DirectX 11
- > Optimized compiler for Cg and Microsoft HLSL
- > Up to 16K x16K texture and render processing
- > Transparent multisampling and super sampling
- > 16x angle independent anisotropic filtering
- > 128-bit floating point performance
- > 32-bit per-component floating point texture filtering and blending
- > 64x full scene antialiasing (FSAA)

- > Decode acceleration for MPEG-2, MPEG-4 Part 2 Advanced Simple Profile, H.264, MVC, VC1, DivX (version 3.11 and later), and Flash (10.1 and later)
- > Blu-ray dual-stream hardware acceleration (supporting HD picture-in-picture playback)

### NVIDIA CUDA PARALLEL PROCESSING ARCHITECTURE

- > API support includes:
  - > CUDA C, CUDA C++, DirectCompute 5.0, OpenCL, Java, Python, or Fortran
- > NVIDIA® Parallel DataCache™ hierarchy (configurable L1 and unified L2 caches)
- > 64 KB of RAM (configurable partitioning of shared memory and L1 cache)
- > Full IEEE 754-2008 - 32-bit or 64-bit double precision
- > Dual Warp Scheduler (schedules and dispatches simultaneously instructions from two independent warps)

### ADVANCED DISPLAY FEATURES

- > 30-bit color (10-bit per each red, green, blue channel)
- > Support for any combination of two connected displays
- > DisplayPort (up to 2560 x 1600 @ 60Hz or 1920 x 1200 @ 120Hz)
- > Dual-link DVI-I output (up to 2560 x 1600 @ 60Hz or 1920 x 1200 @ 120Hz)

- > Internal 400 MHz DAC DVI-I output (analog display up to 2048 x 1536 @ 85Hz)
- > DisplayPort to VGA, DisplayPort to DVI (single-link and dual-link) and DisplayPort to HDMI cables (resolution support based on dongle specifications)
- > DisplayPort 1.1a, HDMI 1.3a, and HDCP support
- > 10-bit internal display processing (hardware support for 10-bit scanout for both windowed desktop and full screen, only available on Windows and Linux with Aero disabled)
- > NVIDIA® 3D Vision™ technology, 3D DLP, Interleaved, and other 3D stereo format support
- > Full OpenGL quad buffered stereo support
- > Underscan/overscan compensation and hardware scaling
- > NVIDIA® nView® multi-display technology

### DISPLAYPORT AND HDMI DIGITAL AUDIO

- > Support for the following audio modes:
  - > Dolby Digital (AC3), DTS 5.1, Multi-channel (7.1) LPCM, Dolby Digital Plus (DD+), and MPEG-2/MPEG-4 AAC
- > Data rates of 44.1 KHz, 48 KHz, 88.2 KHz, 96 KHz, 176 KHz, and 192 KHz
- > Word sizes of 16-bit, 20-bit, and 24-bit

To learn more about NVIDIA Quadro, go to [www.nvidia.com/quadro](http://www.nvidia.com/quadro)

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