



NVIDIA® QUADRO® 410 PRODUCTIVITY ASSURANCE AT AN EXCEPTIONAL VALUE

NVIDIA® Quadro® 410 combines outstanding entry level CAD/PLM productivity and application certification at an exceptional value.

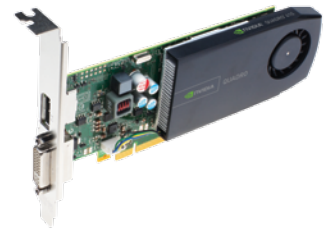
With the new NVIDIA® Quadro® 410 entry CAD/PLM users get the peace of mind they've come to expect from NVIDIA Quadro products. The Quadro 410 is tested, certified, and guaranteed to reliably accelerate all major design and CAD applications – providing assurance of productivity regardless of how complex your workflow becomes.

Quadro 410 is designed to help you work at your best. Take advantage of improved model interactivity and time savings or take on more complex models through almost 90% CAD performance improvement over Quadro FX380LP* and up to 30% gain over Quadro 400**. New FXAA & TXAA full scene anti-aliasing technologies from NVIDIA allow you to view your models with crisper edges without impacting model interactivity, unlike traditional anti-aliasing. And with

its low profile and ultra-quiet design, the Quadro 410 is designed for space constrained work environments and lets you focus on translating your vision into reality.

Quadro 410 also includes professional-grade display management through NVIDIA Mosaic™, nView®, and 3D Vision™ technologies. Mosaic helps manage multiple display configurations while nView manages application windows across single or multiple displays. For more compelling communication of your design intentions 3D Vision and 3D Vision Pro stereoscopic 3D shutter-glasses can be seamlessly incorporated into your workflow.

With a 2 year lifecycle and 3 year warranty, the Quadro 410 delivers unsurpassed dependability and robustness you've come to expect from NVIDIA Quadro products.



QUADRO 410 PRODUCT SPECIFICATIONS

CUDA PARALLEL PROCESSING CORES

> 192

FRAME BUFFER MEMORY

> 512 MB DDR3

MEMORY INTERFACE

> 64-bit

MEMORY BANDWIDTH

> 14 GB/s

DISPLAY CONNECTORS

> 1 single link DVI-I and
1 Display Port

MAX POWER CONSUMPTION

> 38 W

GRAPHICS BUS

> PCI Express 2.0 x16

FORM FACTOR

> 2.731" H x 6.93" L, Single slot,
Low Profile

THERMAL SOLUTION

> Active

3D VISION / 3D VISION PRO

> Support via USB

NVIDIA® QUADRO® 410

Features	Benefits
CERTIFIED ON 100+ PROFESSIONAL APPLICATIONS	The Quadro 410 is tested, certified, and guaranteed to reliably accelerate all major design and CAD applications – assurance of productivity regardless of how complex your workflow gets.
3 YEAR WARRANTY	With a 2 year lifecycle and 3 year warranty, the Quadro 410 delivers unsurpassed dependability & robustness expected from NVIDIA Quadro products.
3D VISION AND 3D VISION PRO	Advanced active shutter glasses deliver crystal-clear stereoscopic 3D visualization for the most immersive experience. Infrared (NVIDIA® 3D Vision™) or RF (3D Vision Pro) technology enables a range of immersive environments ranging from your desktop workstation to collaborative work spaces. 3D Vision and 3D Vision Pro sold separately.
nVIEW ADVANCED DESKTOP SOFTWARE	The NVIDIA® nView® Advanced Desktop Software delivers maximum flexibility for single large display or multi-display options, providing unprecedented end-user control of the desktop experience for increased productivity.

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

- > Shader Model 5.0 (OpenGL 4.2 and 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
- > 16x full scene antialiasing (FSAA)

- > Advanced FXAA and TXAA anti-aliasing techniques
- > 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, and Fortran

ADVANCED DISPLAY FEATURES

- > 30-bit color (10-bit per each red, green, blue channel)
- > Support for any combination of two connected displays
- > DisplayPort 1.2 (up to 3840x2160 @ 60Hz and 2560x1600 @ 120Hz)
- > Dual-link DVI-I output (up to 2560 x 1600 @ 60Hz and 1920x1200 @ 120Hz)
- > Internal 400 MHz DAC DVI-I output (analog display up to 2048 x 1536 @ 85Hz)

- > DisplayPort 1.2, HDMI 1.4, 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
- > NVIDIA® Mosaic 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

Follow Quadro on Twitter @NVIDIAQuadro.

*88% improvement based on SPEC Viewperf 11 score on Quadro 410 of 17.8 (Xeon 3.3GHz w5590, 24GB RAM, Win7-64, 295.10 driver) compared to Quadro 380LP score of 37.7 (Xeon 3.3GHz w5590, 6GB RAM, Win7-64, 260.79).

**30% improvement based on SPEC Viewperf 11 score on Quadro 410 of 17.8 (Xeon 3.3GHz w5590, 24GB RAM, Win7-64, 295.10 driver) compared to Quadro 400 score of 13.7 (Xeon 3.3GHz w5590, 24GB RAM, Win7-64, 295.10).

SPEC® and the benchmark name SPECviewperf® are registered trademarks of the Standard Performance Evaluation Corporation.

