NVIDIA® QUADRO® FX 380 LP
PRO PERFORMANCE.
DESIGNED FOR SMALL SPACES.

The NVIDIA® Quadro® FX 380 LP professional graphics solution, designed for desktop and small form factor systems, is certified for leading 3D applications. This power-efficient member of the Quadro family enables designers, animators, architects, and engineers to create and interact with more complex designs, increase visual quality, and maximize productivity.

In the past, design professionals often had to sacrifice the ability to interact with realistic 3D designs, and instead had to rely on simplified representations. As a result, design decisions were often based on less precise information. As software vendors such as Autodesk shift their 2D applications to incorporate the benefits of 3D, it becomes even more critical for professionals to enhance their computing platform for maximum productivity.

As a Built for Professionals™ solution, the Quadro FX 380 LP, enables digital artists and designers to realize more than 2X higher performance when working with professional 3D applications when compared to consumer graphics boards*. In addition, Quadro FX 380 LP is EnergyStar compliant, with an ultra-low, 28 Watt power consumption rating. Featuring the NVIDIA® CUDA™ parallel computing architecture and certified on leading CAD and DCC applications, Quadro FX 380 LP meets stringent performance and reliability requirements, yet is extremely affordable.

The entire NVIDIA Quadro family takes leading professional 3D applications to a new level of interactivity by enabling unprecedented capabilities and precision. Professional applications leverage the Quadro GPU to enable hardware-accelerated features, performance, and quality not found in any other professional graphics solution. From the award-winning, ultra high-end Quadro FX 5800 all the way to the entry-level Quadro FX 380 LP, NVIDIA delivers a full range of productivity-enhancing professional solutions with leadership performance and value.

PRODUCT SPECIFICATIONS

FORM FACTOR
> Low Profile, 2.731˝ (H) x 6.6˝ (L), Single Slot

CUDA CORES
> 16

FRAME BUFFER MEMORY
> 512 MB DDR3

MEMORY INTERFACE
> 64-bit

MEMORY BANDWIDTH
> 12.8 Gbps

MAX POWER CONSUMPTION
> 28W

GRAPHICS BUS
> PCI Express Gen 2 x16

DISPLAY CONNECTORS
> Dual Link DVI (1), DisplayPort (1)

THERMAL SOLUTION
> Variable Speed Active Fansink

*Viewperf 10 Geomean comparison to GeForce GTS 250
Image Courtesy of: AutoDesk, Modo image created by Muharraqi-Studios (Khalid Al-muharraqi), and NVIDIA Corporation.

QUADRO FX 380 LP | DATASHEET | OCT09

NVIDIA® QUADRO® FX 380 LP

Features	Benefits
Low-Profile Form Factor	Enables ISV certified, professional 3D graphics in space saving, small form factor systems.
Performance Drivers for Autodesk AutoCAD and 3D Studio Max	Increases productivity with up to a 10X acceleration in AutoCAD 2010 and up to 2X in 3D Studio Max while improving image quality.
Drive HD Video on Dual Displays	Display a separate HD video on each of the two displays, each supporting resolutions up to 2500x1600 @60Hz.
512 MB DDR3 GPU Memory with Ultra Fast Memory Bandwidth	Delivers high throughput needed to interact with large textured models.
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. 10-bit grayscale delivers 4X the number of shades of gray, critical for medical imaging applications.
NVIDIA CUDA Architecture	NVIDIA® CUDA™ is a revolutionary parallel computing architecture for Quadro professional GPUs, enabling breakthrough performance in areas such as video encoding, image processing, ray tracing, and accurate physics. CUDA enables this unprecedented performance via standard programming languages such as C and FORTRAN or APIs such as OpenCL and Microsoft DirectCompute.

TECHNICAL SPECIFICATIONS

MECHANICAL SPECIFICATIONS

> Low Profile 2.7" x 6.6" single slot board (low profile and ATX brackets available)
> 1 DVI-I Dual Link & 1 DisplayPort connector
> Variable speed active fan-sink
> 28W Max Power

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)
> Microsoft Windows 2000 (32-bit)
> Linux - Full OpenGL implementation, complete with NVIDIA and ARB extensions (64-bit and 32-bit)
> Solaris
> AMD64, Intel EM64T
> PCI Express 2.0

NVIDIA QUADRO FX 380 LP ARCHITECTURE

> 128-bit color precision
> Unlimited fragment instruction
> Unlimited vertex instruction

> 3D volumetric texture support
> Hardware-accelerated, antialiased points & lines
> Hardware OpenGL overlay planes
> Hardware-accelerated, two-sided lighting
> Hardware-accelerated clipping planes
> 3rd-generation occlusion culling
> Window ID clipping functionality
> Hardware-accelerated line stippling

SHADING ARCHITECTURE

> Full Shader Model 4.1 (OpenGL 3.2/DirectX 10.1 class)
> Long fragment programs (unlimited instructions)
> Long vertex programs (unlimited instructions)
> Looping and subroutines (up to 256 loops per vertex program)
> Dynamic flow control
> Conditional execution

HIGH LEVEL SHADER LANGUAGES

> Optimized compiler for Cg and Microsoft HLSL
> OpenGL 3.2 and DirectX 10.1 support
> Open source compiler

GPU COMPUTING SUPPORT

> CUDA C and CUDA FORTRAN
> OpenCL
> Microsoft DirectCompute

HIGH-RESOLUTION ANTIALIASING

> Rotated Grid Full-Scene Antialiasing (RG FSAA)
> 32x FSAA dramatically reduces visual aliasing artifacts or "jaggies" at resolution up to 1920x1200

DISPLAY RESOLUTION SUPPORT

> DisplayPort output drives a digital display at resolutions up to 2560 x 1600 @ 60Hz
> Dual-link DVI-I output drives a digital display at resolutions up to 2560 x 1600 @ 60Hz
> Internal 400 MHz DAC drives one analog display up to 2048 x 1536 @ 85Hz

NVIDIA® NVIEW® ARCHITECTURE

> Advanced multi-display desktop & application management, seamlessly integrated into Microsoft Windows

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

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