



NVIDIA QUADRO PLEX 2200 S4 ULTRA DENSE REMOTE GRAPHICS SOLUTIONS



QUADRO PLEX
DATASHEET

Whether searching for and extracting oil, designing and bringing the next luxury vehicle to market, or providing a diagnosis of a patient's condition, professionals are faced with a mountain of data that needs to be distilled into meaningful and actionable visualizations.

The size and complexity of data is growing at an exponential rate. In an increasingly competitive and high-pressure landscape they need to deliver results better, faster, and more cost effectively than ever before. These pressures require the most advanced platform solutions.

The NVIDIA® Quadro® Plex 2200 S4 visual computing system (VCS), a standard 1U form factor integrating four ultra-high end GPUs, delivers the industry's most advanced visualization platform for remote and distributed graphics applications. Professionals ranging from manufacturing designers and stylists to earth scientists to digital content creators can solve their most complex, graphics-intensive problems using an unconstrained dedicated visual computing system based on proven, industry standard architectures.

As a multi-GPU visual computing system, NVIDIA® Quadro® Plex 2200 S4 dedicated VCS enables breakthrough performance for all leading visualization applications. Architected with four Quadro FX 5800 GPUs, featuring 16 GB of total GPU memory (4 GB/gpu) and 960 CUDA parallel processing cores, the Quadro Plex 2200 S4 enables graphics-intensive, high-density visual computing and scales to meet the most demanding professional applications requirements.

PRODUCT SPECIFICATIONS

- FORM FACTOR
 - > 1U Server
- NVIDIA QUADRO GPU
 - > Quadro FX 5800
- # OF NVIDIA QUADRO GPUS
 - > 4
- TOTAL FRAME BUFFER
 - > 16 GB (4 GB/GPU)
- SHADER MODEL
 - > 4.0
- CUDA™ PARALLEL PROCESSING CORES
 - > 960 (240/GPU)
- NVIDIA® CUDA™ TECHNOLOGY
 - > Yes
- FSAA (MAX PER CHANNEL)
 - > 32x FSAA
- HOST CONNECTION
 - > 0.5M Quadro Plex Interconnect Cable
Standard (option 2.0M cable)
- POWER
 - > 1200W Max
- ACOUSTICS
 - > Idle 45 dB, max 72 dB
- WEIGHT
 - > ~40.0 lbs

FEATURES AND BENEFITS

BREAKTHROUGH VISUAL COMPUTE DENSITY	Unmatched graphics compute per cubic centimeter provides highest visual compute density enabling breakthrough levels of capability and productivity.
NVIDIA UNIFIED GPU ARCHITECTURE	Industry's first unified architecture designed to dynamically allocate compute, geometry, shading and pixel processing power to deliver optimized GPU performance.
HIGH SPEED, PCI EXPRESS DATA TRANSFER	With low latency and high bandwidth, computing applications benefit from the highest data transfer rate possible through standard PCI-Express x16 and x8 architecture.
16 GB TOTAL FRAME BUFFER (4 GB/GPU)	Delivers high throughput for interactive visualization of large models and high-performance for real time processing of large textures and frames and enables the highest quality and resolution full-scene antialiasing (FSAA).
STANDARD 1U SERVER FORM FACTOR	Industry standard form factor optimized for large scale server deployments. Four Quadro GPUs in a high density 1U chassis offer the highest performance for remote graphics applications. Performance optimized and power optimized products cover the range of IT server room requirements. System monitoring, thermal control and fault notification in the 1U server product provide the necessary features for efficient integration of the Quadro Plex 2200 S4 servers into the data center.
NVIDIA® CUDA™ PARALLEL COMPUTING PROCESSOR	A parallel computing processor architecture with 960 cores (240/GPU) is exposed through a C language environment and tool suite in combination with high performance visualization, CUDA unleashes new capabilities to solve highly complex challenges such as real-time ray tracing, video encoding, and interactive volume rendering.
HIGHEST COLOR FIDELITY	10-bit per component color fidelity enables billions rather than millions of color variations for rich, vivid image quality with the broadest dynamic range.
PCI EXPRESS 2.0 COMPLIANT	Maximizes bandwidth between the host processor and the Quadro Plex with up to 12.8 GB/s transfer rates (up to 6.4 GB/s per PCI Express connection).

TECHNICAL SPECIFICATIONS

SUPPORTED PLATFORMS

- > Linux® (64-bit)
 - Red Hat Enterprise Linux 3, 4 and 5
 - SUSE 10.1, 10.2 and 10.3
- > Microsoft® Windows® (64-bit)
 - Windows XP
 - Server 2003
 - Server 2008

NVIDIA QUADRO GPU ARCHITECTURE

- > 128-bit color precision (IEEE fp32 bit per component)
- > 3D volumetric texture support

- > Fully programmable GPU (OpenGL 3.0/OpenGL 2.1/DirectX 9.0c/DirectX 10)
- > Shader Model 4.0
- > NVIDIA® CUDA™ enabled C-Programming Environment

DISPLAY RESOLUTION SUPPORT

- > Analog displays up to 2560 x 1600 @ 60 Hz
- > Dual-link DVI-I outputs – drive digital displays at resolutions up to 1600 x 1200 @ 60Hz

PRODUCT DETAILS

- > Quadro Plex Rack Mount Graphics Server
- > Standard 19", 1U rack-mount chassis
- > Connects to host via cabling to a low power PCI Express x8 or x16 adapter card
- > Configuration: 2 PCI Express connectors driving 2 GPUs each (4 GPUs total)

Where to Buy | www.nvidia.com/quadroplex