### NVIDIA Quadro Plex 1000

#### A Quantum Leap In Visual Computing Enabling Breakthrough Levels Of Capability

**Massive Levels Of Visual Compute Density**

NVIDIA Quadro Plex 1000 represents a quantum leap in visual compute density — graphics computation per cubic inch. The compact deskside or rack-optimized form factors can be quickly deployed in any desktop workspace or can be easily fit into any standard 19” rack environment.

The latest member of the family, the Quadro Plex 1000 Model S4 is a standard 1U form factor system designed to integrate fully into standard SLI-capable systems and provide the highest image quality, and ultimate display resolution so professionals can utilize the largest asset stores, create photorealistic, interactive designs or natively drive a digital 4x projection system.

The revolutionary unified architecture, featured in Quadro Plex Models IV and S4, is designed to dynamically allocate geometry, shading, pixel, and compute processing power to deliver optimized GPU performance. Combining the industry’s most advanced feature set, including largest and fastest frame buffers, with a C programmer’s environment, Quadro Plex Models IV and S4 provide a breakthrough platform to solve the world’s most complex challenges. The reference standard for Shader Model 4.0, Models IV and S4 enables next generation ultra-realistic, real-time visualization applications with unprecedented image quality.

For the most demanding clustered large scale display applications, Quadro G-Sync enables frame synchronization, genlock, and frame lock to further scale performance, quality, and resolution to near infinite levels. Professionals can now drive massive clusters of synchronized channel outputs to create truly immersive reality environments, visualize large scale scientific models, and simulate astonishing virtual environments.

#### Configure To Meet Your Application Needs. Scale To Meet Your Performance Requirements.

Available in five distinct models, NVIDIA Quadro Plex is designed to deliver absolute maximum performance, the highest image quality, and ultimate display resolution so professionals can visualize the largest seismic datasets, create photorealistic, interactive designs or natively drive a digital 4x projection system.

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#### Industry-based Standard Architecture

Quadro Plex 1000 enables the highest density SLI-multi-GPU capability on any PCI Express x16 platform and is built on a foundation of proven NVIDIA Quadro graphics and NVIDIA Unified Driver Architecture (UDA).

Compatible with x86 32- and 64-bit Intel and AMD microprocessor architectures and running on Windows and Linux operating systems, the Quadro Plex 1000 fits in any environment. In addition, Quadro Plex 1000 is certified on all industry-leading applications to ensure the highest levels of stability, reliability, and compatibility.

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### NVIDIA Quadro Plex 1000

<table>
<thead>
<tr>
<th>NVIDIA Quadro</th>
<th>NVIDIA Quadro FX 550</th>
<th>NVIDIA Quadro FX 4500 X2</th>
<th>NVIDIA Quadro FX 5500 SDI</th>
<th>NVIDIA Quadro FX 5500</th>
<th>Quadro FX 5500</th>
</tr>
</thead>
<tbody>
<tr>
<td># NVIDIA Quadro GPUs</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Form Factor</td>
<td>Deskside or 3U Rackmount Kit</td>
<td>Deskside or 3U Rackmount Kit</td>
<td>Deskside or 3U Rackmount Kit</td>
<td>Deskside or 3U Rackmount Kit</td>
<td>1U Server</td>
</tr>
<tr>
<td>Total Frame Buffer</td>
<td>2GB (1GB/GPU)</td>
<td>2GB (1GB/GPU)</td>
<td>2GB (1GB/GPU)</td>
<td>2GB (1GB/GPU)</td>
<td>6 GB (1.5GB/GPU)</td>
</tr>
<tr>
<td>Option</td>
<td>Quadro G-Sync</td>
<td>Quadro G-Sync</td>
<td>Quadro SDI</td>
<td>Quadro SDI</td>
<td>N/A</td>
</tr>
<tr>
<td>Display Channels</td>
<td>4 dual-link DVI</td>
<td>8 dual-link DVI</td>
<td>2 dual-link DVI + 4 single-SDI</td>
<td>2 dual-link DVI + 2 dual-link HD SDI</td>
<td>N/A - High performance readback to host</td>
</tr>
</tbody>
</table>

#### Key Features

- **Shader Model**: 3.0, 3.0, 3.0, 4.0, 4.0
- **C Programming Environment**: N, N, N, Y, Y
- **Genlock/Frame Lock**: Y, Y, Y, Y, N/A
- **Frame Synchronization**: Y, Y, N, Y, N/A
- **HD SDI**: N, N, N, Y, N/A
- **FSAA (Max per Channel)**: 32x SLI/FSAA, 32x SLI/FSAA, 32x SLI/FSAA, 64x SLI/FSAA, 32x SLI/FSAA

#### Product Specifications

- **USB**: 2 Front
- **Host Connection**: PCI Express x16 or x8, Small Form Factor, Passive (10W), 2M (8.5 foot) NVIDIA Quadro Plex Interconnect Cable
- **Power**: 480W Max, 110/240 VAC auto-ranging worldwide power supply
- **Acoustics**: 40dB, <40dB
- **Form Factor**: Tower Desktop (9.49" H x 5.34" W x 20.55" D) or Rack Mount (3U H x 8.5" W x 20.55" D)
- **Weight**: 18.6 lbs, 18.6 lbs, 18.3 lbs, 18.8 lbs, ~40.2 lbs

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1. VCS Node is a single NVIDIA Quadro Plex VCS connected to a single NVIDIA Quadro Plex Controller
2. Requires optional x8 interface card
A Quantum Leap In Visual Computing

With the introduction of the NVIDIA Quadro® Plex 1000 visual computing system (VCS), NVIDIA delivers a quantum leap in visual compute density, enabling breakthrough levels of productivity and capability.

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.

### NVIDIA Quadro Plex Technical Specifications

#### Supporting Platforms
- NVIDIA Quadro® Plex officially certified system or platform
- Microsoft® Windows® XP (32-bit and 64-bit)
- Microsoft® Windows® 2000 (32-bit)
- Linux™ - Hardware OpenGL implementation
- NVIDIA and ARB extensions (64-bit and 32-bit)
- Solaris™

#### NVIDIA Quadro GPU Architecture
- 128-bit color precision (IEEE 128-bit per component)
- 3D volumetric texture support
- Fully programmable GPU (OpenGL2.0/DirectX 9.0c/DirectX10)
- Shader Model 4.0*
- C Programming Environment®

#### Display Resolution Support**
- Analog displays up to 2560 x 1600 @ 60Hz
- Dual-Link DVI-I outputs - drive digital displays at resolutions up to 2560 x 1600 @ 60Hz
- Native support for Sony 4K S/PDIF® large venue projector

### Product Details
- Quadro Plex Desktop VCS (Model I, II, III, IV)
- Quiet operation (40dB) suitable for office environment
- Connects to host via cabling to a low power PCI Express x16 or x16 adapter card
- Optional rack mount kit
- Quadro Plex Rack Mount Graphics Server (Model S4)
- Standard 19", 1U rack-mount chassis
- Connects to host via cabling to a low power PCI Express x16 or x16 adapter card
- Standard configuration: 1 PCI Express connector driving 4 GPUs
- Optional configurations: 2 PCI Express connectors driving 8 GPUs each

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### Features

<table>
<thead>
<tr>
<th>Features</th>
<th>Benefits</th>
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<tbody>
<tr>
<td>Breakthrough Visual Compute Density</td>
<td>Unmatched graphics compute per cubic centimeter provides highest visual compute density enabling breakthrough levels of capability and productivity.</td>
</tr>
<tr>
<td>Flexible Form Factor</td>
<td>Compact design can be easily deployed in a desktop workspace or can be transformed to fit any standard 19&quot; 3U rack environment.</td>
</tr>
<tr>
<td>Frame Synchronization</td>
<td>Allows the display channels from multiple workstations to be synchronized, thus creating one large &quot;virtual display&quot; that can be driven by a multisystem cluster for performance scalability. Available only on Models I, II, III, and IV.</td>
</tr>
<tr>
<td>C Programming Environment</td>
<td>A C language environment and tool suite that unleashes new capabilities to solve complex, visualization challenges such as real-time ray tracing and interactive volume rendering. (Model IV only)</td>
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<tr>
<td>NVIDIA Unified Architecture</td>
<td>Industry’s first unified architecture designed to dynamically allocate compute, geometry, shading and pixel processing power to deliver optimized GPU performance. (Model IV only)</td>
</tr>
<tr>
<td>NVIDIA SLI Technology</td>
<td>NVIDIA SLI™ technology enables intelligent and transparent scaling of professional application performance. Available only on Models I, II, III, and IV.</td>
</tr>
</tbody>
</table>

### NVIDIA Quadro Plex 1000

- Model I
- Model II
- Model III
- Model IV

### NVIDIA Quadro Plex 1000 Model S4

- Standard 1U Server Form Factor (Model S4 only)
  - 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. Available only on Model S4.

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** Available on Model IV
** Available only on Models I, II, III, and IV

Where to Buy | [www.nvidia.com/quadroplex](http://www.nvidia.com/quadroplex)