

## PRIMERGY Graphics card 128 MB by NVIDIA

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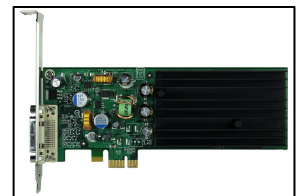
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This graphics card meets the requirements for high-resolution graphics solutions, for example at control stations and in process monitoring.

Fujitsu Siemens Computers offers this PCIe-based graphics card from NVIDIA with a 128-MB graphics memory as a supplement to the existing onboard graphics card. It also supports functions such as dual head and 3D acceleration under Windows operating systems.

As a result, the application area of PRIMERGY servers' graphics is expanded to cover requirements above and beyond those customary for servers. High-resolution monitors (19" or 21") can also be used with a DVI and VGA port.

3D graphics can now be displayed vividly thanks to acceleration of the hardware. Customers' wishes for more flexible graphics solutions for servers are fulfilled completely with this card.



### PCI-Express Support

The NVS 285 (128MB, x1 PCIe) is specifically designed to deliver outstanding 3D graphics performance when installed in an x1 lane PCIe slot, although it is compatible with x4, x8, and x16 lane PCIe expansion slots as well.

### Increased Productivity for Knowledge Workers Using Business Applications

Seamlessly integrated within the Microsoft® Windows® 2000 and 2003 environment, NVIDIA nView™ multi-display technology offers a robust set of features to maximize productivity. For example, the Application Extensions feature allows applications such as Microsoft Internet Explorer to take full advantage of multiple displays.

### NVIDIA nView™ Multi-Display Software

Delivers a new standard in workstation productivity by delivering unprecedented stability, image quality and performance. No other solution features rock-solid stability with productivity-enhancing functionality, all seamlessly

integrated into the Windows and Linux environment.

- Intuitive and interactive NVIDIA nView Setup Wizard
- Multi-desktop support enables users to create up to 32 individual desktops
- Improved desktop management
- Superior application and profile management
- Advanced window effects

### IT Friendly Solutions and the Industry's Best Support

NVIDIA NVS 285 solutions are built not only with the user's productivity in mind, but also to streamline and enhance deployment and maintenance. The NVIDIA NVS 285 offers enhanced graphics capabilities for graphic oriented server applications, optimized for video surveillance, process control rooms, and similar cases of server operation. Windows and Linux operating systems will support this graphic adapter.

Key Features	Benefits
■ NVIDIA NVS 285 GPU (Graphics Processing Unit)	■ Dual 350MHz RAMDACs deliver the industry's best image quality
■ Integrated TMDS transmitters	■ Only requires x1 lane PCIe slot for maximum performance
■ 128MB DDR2 local frame buffer	■ Maximum analog resolution 2048 x 1536 x 32 bpb at 75 Hz
■ 64-bit memory interface	■ Maximum digital resolution 1920 x 1200 (panel must support this resolution)
■ DMS-59 connector supports two DVI-I or VGA displays	■ Dual head support for special graphics applications
■ ATX PCI-Express (2.731 inches by 6.60 inches) form factor for low profile systems	■ Usable for Tower and Rack optimized servers even in smallest form factors.
■ Passive heat sink	■ Provides silent operation and reliable cooling

<b>Board Configuration</b>	
<b>Specifications</b>	<b>Description</b>
Chip	NVIDIA NVS 285
Core clock	275 MHz
Memory clock	300 MHz
Frame buffer	128 MB
Memory I/O	64-bit
Memory type	16M x 16 DDR2
Maximum board power	12.85 W
Connectors	DMS-59 connector
<b>Features</b>	
<b>Board</b>	
Six layer printed circuit board (PCB)	
x1 lane PCI Express	
Voltage	1.2 V
Package size	84-pin ball grid array (BGA)
<b>Display Support</b>	
Dual 350 MHz internal RAMDACs	
Dual internal TMDS (dual DVI per GPU)	
Display maximum resolution/refresh: 2048 x 1536 x 32 bpp at 75 Hz	
Maximum resolution over digital port: 1920 x 12001	
<b>Bios</b>	
SST or Atmel serial ROM (1 Mbit)	

<b>Operating Systems</b>	
Microsoft Windows 2000	
Microsoft Windows 2003	
LINUX: (native driver support, no 3D and Dual Head)	
<ul style="list-style-type: none"> <li>■ SUSE SLES 10</li> <li>■ Red Hat AS4 / AS5 / ES4 / ES5</li> </ul>	
<b>Released PRIMERGY Servers</b>	
<b>Tower Server</b>	
<ul style="list-style-type: none"> <li>■ TX150 S5</li> <li>■ TX200 S3</li> <li>■ TX300 S3</li> </ul>	
<b>Rack Server</b>	
<ul style="list-style-type: none"> <li>■ RX100 S4</li> <li>■ RX200 S3</li> <li>■ RX300 S3</li> </ul>	
<b>Compliance with standards</b>	
<b>Cooling Solution</b>	
<p>The thermal cooling system is thermally enhanced polymers designed to minimize the thermal resistance between power dissipating electronic components and their associated heat sinks. Some of the key features and benefits are:</p> <ul style="list-style-type: none"> <li>■ Low thermal impedance, .049 °C-In ^2/W at 10 psi</li> <li>■ Electrically non-conductive</li> <li>■ Interface material is self adhering allowing for "peel and stick" installation</li> </ul>	