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PNY VCQP2200-SB

NVIDIA Quadro P2200 Graphics Card User Manual

Model: VCQP2200-SB | Brand: PNY

1. INTRODUCTION

The PNY NVIDIA Quadro P2200 is a professional graphics card designed for demanding 3D applications and content creation workflows. It offers a balance of performance, features, and a compact form factor, making it suitable for various professional environments. This manual provides essential information for the proper installation, operation, and maintenance of your Quadro P2200 graphics card.

Key Features:

- 1280 CUDA Cores for powerful graphics and compute performance.
- 5 GB of fast GDDR5X GPU memory to handle large models or scenes.
- Ideal for 3D Design, FHD video editing, and medical imaging systems (e.g., ultrasound).
- Supports up to four displays at 5K resolution with 30-bit color.
- Compatible with NVIDIA CUDA, NVIDIA nView, and Mosaic technologies.

2. PRODUCT OVERVIEW

Familiarize yourself with the components of your NVIDIA Quadro P2200 graphics card.



Figure 2.1: Angled view of the NVIDIA Quadro P2200 Graphics Card, showcasing its compact design and cooling fan.



Figure 2.2: Top view of the NVIDIA Quadro P2200 Graphics Card, highlighting the Quadro branding and fan shroud.



Figure 2.3: Side view of the NVIDIA Quadro P2200 Graphics Card, showing the PCIe connector and overall length.



Figure 2.4: Rear view of the NVIDIA Quadro P2200 Graphics Card, displaying the four DisplayPort outputs.

3. SETUP AND INSTALLATION

3.1 Pre-Installation Checklist

- Ensure your computer's power supply unit (PSU) meets the minimum power requirements for the Quadro P2200.
- Verify that your motherboard has an available PCI Express x16 slot.
- Download the latest NVIDIA drivers for the Quadro P2200 from the official NVIDIA website before installation.

- Back up any important data.
- Turn off your computer and disconnect it from the power outlet.

3.2 Hardware Installation

1. Open your computer case. Refer to your computer's manual for specific instructions.
2. Locate an available PCI Express x16 slot on your motherboard.
3. Remove the metal bracket cover from the rear of the computer case corresponding to the chosen PCIe slot.
4. Carefully align the Quadro P2200 graphics card with the PCIe slot and press down firmly until it is securely seated. Ensure the retention clip on the slot engages.
5. Secure the graphics card to the computer case using the screw or latch mechanism.
6. Close your computer case and reconnect all cables.

3.3 Driver Installation

1. Power on your computer. The operating system may install a basic display driver.
2. Run the NVIDIA driver installer downloaded in step 3.1.
3. Follow the on-screen prompts to complete the driver installation. A system restart may be required.
4. Once drivers are installed, you can access the NVIDIA Control Panel for advanced settings and optimizations.

4. OPERATING INSTRUCTIONS

4.1 Connecting Displays

The Quadro P2200 features four DisplayPort outputs. Use DisplayPort cables to connect your monitors to the graphics card. Adapters (e.g., DisplayPort to HDMI/DVI) may be used if your monitor does not have a DisplayPort input, but ensure they are active adapters for optimal performance, especially at higher resolutions.

- Connect up to four 5K (5120x2880 @ 60Hz) displays.
- For multi-display configurations, use the NVIDIA Control Panel to arrange and configure your displays (e.g., extended desktop, duplicate, Mosaic).

4.2 Software Configuration (NVIDIA Control Panel)

The NVIDIA Control Panel provides comprehensive settings for your graphics card. To access it, right-click on your desktop and select "NVIDIA Control Panel."

- **Display Settings:** Configure resolution, refresh rate, color depth, and multiple display setups.
- **3D Settings:** Optimize performance and quality for professional applications. You can create application-specific profiles.
- **Workstation Settings:** Access advanced features like Mosaic for large-scale visualization and nView for desktop management.

5. MAINTENANCE

5.1 Cleaning

Regular cleaning helps maintain optimal performance and extends the lifespan of your graphics card.

- Turn off and unplug your computer before cleaning.
- Use compressed air to gently remove dust from the fan and heatsink fins. Hold the fan blades to prevent them from

spinning too fast.

- Wipe the exterior of the card with a soft, dry, lint-free cloth. Avoid using liquid cleaners.

5.2 Driver Updates

Keep your graphics drivers updated to ensure compatibility with the latest software, optimize performance, and benefit from bug fixes. Visit the official NVIDIA website regularly for new driver releases.

6. TROUBLESHOOTING

This section addresses common issues you might encounter with your Quadro P2200 graphics card.

6.1 No Display Output

- **Check Connections:** Ensure all display cables are securely connected to both the graphics card and the monitor.
- **Power:** Verify the graphics card is properly seated in the PCIe slot and receiving adequate power from the PSU.
- **Monitor Input:** Confirm your monitor is set to the correct input source (DisplayPort).
- **BIOS/UEFI:** Check your system's BIOS/UEFI settings to ensure the primary display output is set to PCI Express.

6.2 Visual Artifacts or Distorted Display

- **Driver Reinstallation:** Perform a clean installation of the latest NVIDIA drivers. Use a tool like Display Driver Uninstaller (DDU) to remove old drivers completely before installing new ones.
- **Overheating:** Ensure proper airflow within your computer case. Check the graphics card temperature using monitoring software. Clean the fan and heatsink if dusty.
- **Cable Quality:** Try a different DisplayPort cable to rule out a faulty cable.

6.3 Performance Issues in Applications

- **Driver Updates:** Ensure you have the latest professional drivers from NVIDIA.
- **Application Settings:** Verify that your professional applications are configured to use the NVIDIA Quadro P2200 and not integrated graphics. Adjust application-specific settings for optimal performance.
- **System Resources:** Check if other system components (CPU, RAM, storage) are bottlenecking performance.

If you continue to experience issues, please refer to the support section or the NVIDIA/PNY support websites for further assistance.

7. SPECIFICATIONS

Feature	Detail
Graphics Coprocessor	NVIDIA Quadro P2200
Graphics Card Ram Size	5 GB GDDR5X
CUDA Cores	1280
Max Screen Resolution	5120x2880 (5K) @ 60Hz
Video Output Interface	4x DisplayPort
Item Weight	15.2 ounces
Product Dimensions	7.9 x 4.4 x 0.04 inches
Model Number	VCQP2200-SB
Manufacturer	NVIDIA
Brand	PNY

8. WARRANTY AND SUPPORT

8.1 Product Warranty

For detailed information regarding the warranty for your PNY NVIDIA Quadro P2200 graphics card, please refer to the warranty documentation included with your product or visit the official PNY website. Warranty terms and conditions may vary by region and retailer.

8.2 Technical Support

If you encounter issues that cannot be resolved using the troubleshooting steps in this manual, or require further assistance, please contact PNY technical support. Support resources, including FAQs, driver downloads, and contact information, are typically available on the official PNY support website.

PNY Support Website: www.pny.com/support (Example link, please verify actual URL)

When contacting support, please have your product model number (VCQP2200-SB) and serial number ready.