

PNY VCQP4000-PB

NVIDIA Quadro P4000 Graphics Card User Manual

Brand: PNY | Model: VCQP4000-PB

1. INTRODUCTION

This user manual provides comprehensive instructions for the installation, operation, and maintenance of your PNY NVIDIA Quadro P4000 graphics card. Designed for professional visual computing, the Quadro P4000 leverages NVIDIA Pascal GPU technology to deliver exceptional performance for demanding applications.

Please read this manual thoroughly before installing or operating the device to ensure proper functionality and to prevent damage.

2. PRODUCT OVERVIEW

The NVIDIA Quadro P4000 is a high-performance professional graphics solution. Key features include:

- Powered by NVIDIA Pascal architecture, offering significant performance improvements.
- 8 GB GDDR5 memory capacity for handling large datasets and complex models.
- Quad DisplayPort outputs supporting expansive visual workspaces and high resolutions up to 5120x2880.
- Single-slot form factor, making it suitable for various workstation configurations.
- Optimized and tested drivers for compatibility with professional applications utilizing OpenGL, DirectX, Vulkan, and NVIDIA CUDA.
- VR Ready solution for immersive virtual reality experiences.



Figure 2.1: Angled view of the NVIDIA Quadro P4000 graphics card, showcasing its sleek black design with green accents.

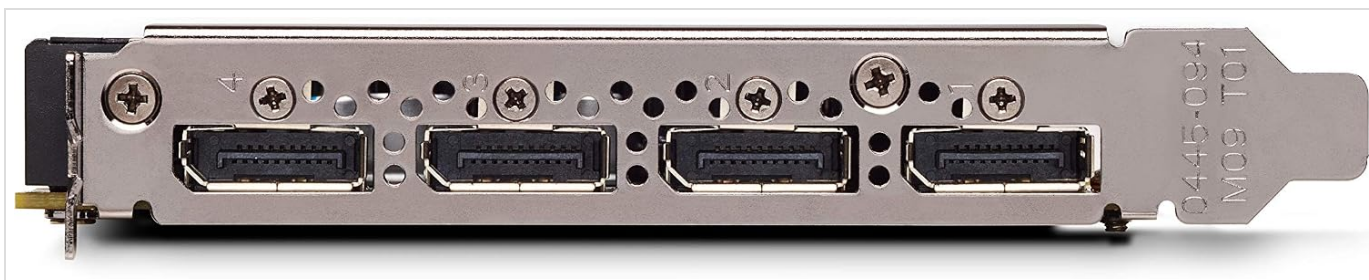


Figure 2.2: Rear view of the Quadro P4000, highlighting the four DisplayPort outputs for multi-monitor setups.



Figure 2.3: The Quadro P4000 graphics card shown with its included accessories: an auxiliary power cable, a DisplayPort to DVI-D SL adapter, and a stereo connector bracket.

3. SETUP AND INSTALLATION

Follow these steps to properly install your NVIDIA Quadro P4000 graphics card into your system:

1. **Prepare Your System:** Power off your computer and disconnect the power cable. Open the computer case.
2. **Locate PCIe Slot:** Identify an available PCI Express 3.0 x16 slot on your motherboard. Remove any expansion slot covers that may be blocking the slot.
3. **Install the Graphics Card:** Carefully align the Quadro P4000 with the PCIe slot and press down firmly until it is securely seated. Secure the card with the retaining clip or screw on your computer case.
4. **Connect Power:** Connect the auxiliary power cable (included) from your power supply unit (PSU) to the 6-pin power connector on the graphics card. Ensure a secure connection.
5. **Close Case and Connect Peripherals:** Close your computer case, reconnect the power cable, and connect your display(s) to the DisplayPort outputs on the graphics card.
6. **Install Drivers:** Power on your computer. Once the operating system loads, install the latest drivers for the NVIDIA Quadro P4000. The software installation disc is included, or you can download the most current drivers from the official NVIDIA website (www.nvidia.com/drivers).

Note: Ensure your power supply unit meets the minimum power requirements for the Quadro P4000 (105 W max power consumption) and your overall system configuration.

4. OPERATING THE GRAPHICS CARD

Once installed and drivers are in place, the NVIDIA Quadro P4000 will automatically be recognized by your operating system. Here are some operational considerations:

- **Display Connectivity:** Utilize the four DisplayPort outputs for connecting up to four displays. Adapters (such as the included DisplayPort to DVI-D SL adapter) can be used for compatibility with other display types.
- **Resolution Support:** The card supports a maximum screen resolution of 5120x2880, enabling high-fidelity visual experiences.
- **Software Optimization:** For optimal performance in professional applications (CAD, video editing, 3D rendering, etc.), ensure your software is configured to utilize the NVIDIA Quadro P4000. Refer to your application's documentation for specific settings.
- **Supported Platforms:** The Quadro P4000 is compatible with Microsoft Windows 10 (64- and 32-bit), Windows 8.1/8 (64- and 32-bit), Windows 7 (64- and 32-bit), Windows Server 2008/2012/2012 R2/2016, and Linux (full OpenGL implementation).

5. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your graphics card:

- **Driver Updates:** Regularly check the official NVIDIA website for the latest driver updates. Keeping drivers current can improve performance, stability, and compatibility with new software.
- **Dust Removal:** Periodically clean dust from the graphics card's fan and heatsink using compressed air. Accumulation of dust can impede cooling and lead to overheating. Ensure the system is powered off and unplugged before cleaning.
- **Fan Noise:** If the fan becomes unusually noisy, it may indicate dust buildup or a worn bearing. Cleaning the fan as described above can often resolve dust-related noise. If the issue persists, professional inspection may be required.
- **System Ventilation:** Ensure your computer case has adequate airflow to prevent heat buildup around the graphics card.

6. TROUBLESHOOTING

This section addresses common issues you might encounter:

- **No Display Output:**
 - Ensure the graphics card is fully seated in the PCIe slot.
 - Verify that the auxiliary power cable is securely connected to the card and PSU.
 - Check that display cables are firmly connected to both the graphics card and the monitor.
 - Try connecting to a different DisplayPort output or using a different cable/adaptor.
- **Driver Installation Issues:**
 - Download the latest drivers directly from the official NVIDIA website.
 - Temporarily disable antivirus software during installation.
 - If upgrading from a different graphics card, use a display driver uninstaller (DDU) to remove old drivers before installing new ones.
- **Performance Issues / Application Crashes:**
 - Ensure you have the latest graphics drivers installed.
 - Check for software updates for your professional applications.
 - Monitor system temperatures to ensure the card is not overheating.
 - Verify your system meets the minimum requirements for the applications you are running.

If issues persist, consult the NVIDIA support resources or contact PNY customer support.

7. SPECIFICATIONS

NVIDIA Quadro P4000 Key Specifications

Feature	Detail
Graphics Coprocessor	NVIDIA Quadro 4000
Memory Size	8 GB GDDR5
Memory Speed	3200 MHz
Max Screen Resolution	5120x2880
Video Output Interface	DisplayPort (x4)
System Interface	PCI Express 3.0 x16
Item Model Number	VCQP4000-PB
Product Dimensions (LxWxH)	9.5 x 4.38 x 0.75 inches
Item Weight	1.05 pounds
Max Power Consumption	105 W

8. WHAT'S IN THE BOX

The following items are typically included with your NVIDIA Quadro P4000 graphics card:

- NVIDIA Quadro P4000 Professional Graphics Board
- Software Installation Disc
- Printed Quick Start Guide
- Auxiliary Power Cable
- Stereo Connector Bracket
- DisplayPort to DVI-D SL Adapter

9. WARRANTY AND SUPPORT

PNY provides a manufacturer's warranty for the NVIDIA Quadro P4000 graphics card. For specific warranty terms and conditions, please refer to the documentation included with your product or visit the official PNY website.

For technical support, driver downloads, and additional resources, please visit the NVIDIA support website or the PNY support portal. Contact information for PNY customer service can typically be found on their official website.

It is recommended to register your product with PNY after purchase to facilitate warranty claims and receive important updates.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question