

# 01

## MINIMUM SYSTEM REQUIREMENTS

Thank you for choosing the NVIDIA® Quadro® graphics card.

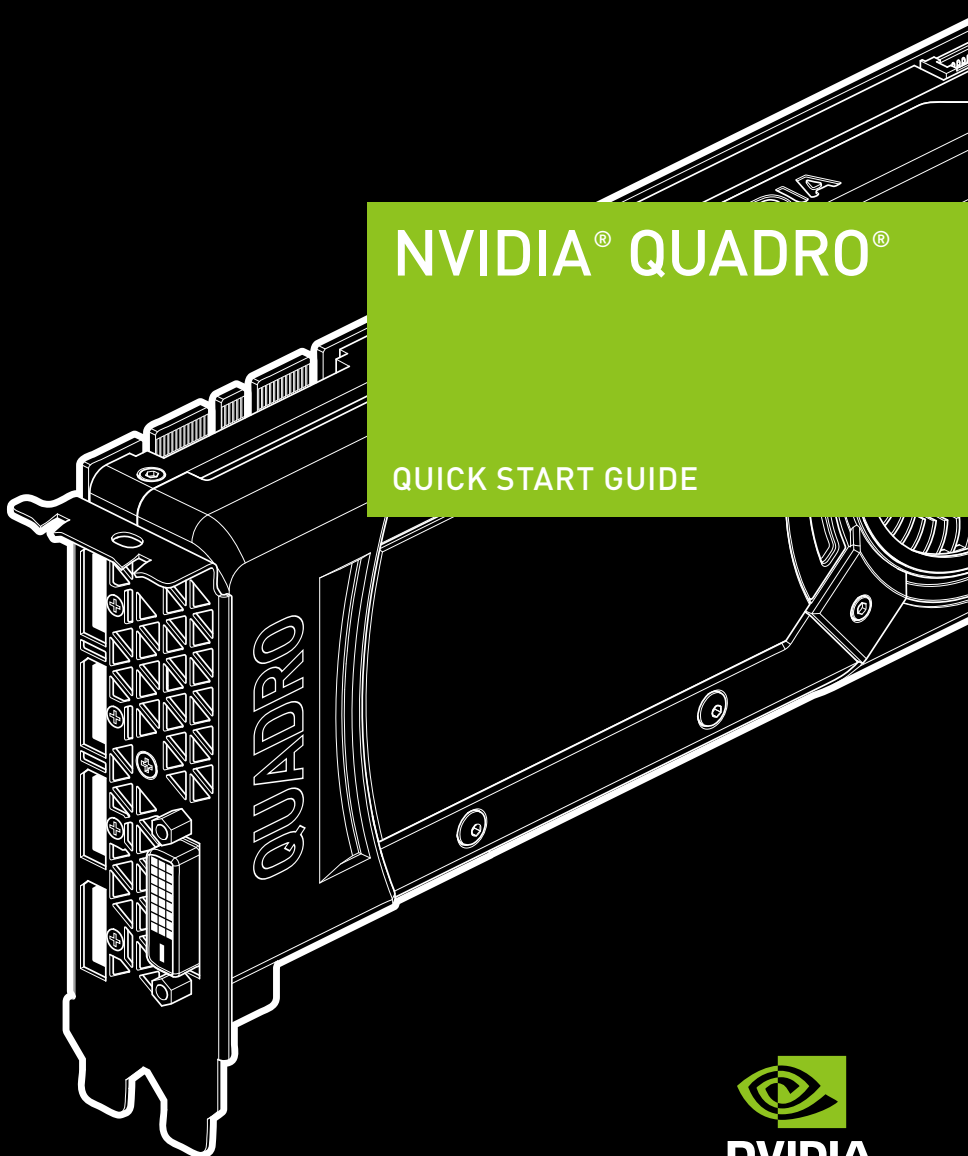
This quick start guide covers the NVIDIA Quadro GP100, P6000, P5000, P4000, P2000, P1000, P600, P400, M6000 24GB, M5000, M4000, M2000, K6000, K2200, K1200, K620, and K420 graphics cards. Before you begin, review the following Minimum System Requirements list to ensure your system meets the minimum hardware and software specification for your graphics card.

### Minimum System Requirements

- > **Motherboard**
  - PCI Express x16 slot
- > **Operating System**
  - Microsoft Windows 10, 8.1, 8, 7 (all 32-bit and 64-bit)
  - Linux 32-bit or 64-bit on:
    - Red Hat Enterprise Linux 7.x, 6.x, 5.x, 4.x, 3.x
    - SUSE Linux Enterprise Desktop 13.x, 12.x, 11.x, 10.x
    - openSUSE 13.x, 12.x, 11.x, 10.x
    - Fedora up to 24
    - Ubuntu 16.x, 15.x, 14.x, 13.x, 12.x, 11.x, 10.x, 9.x, 8.x, 7.x
    - Solaris
- > **Processor**
  - Intel Core i5, i7 or Xeon processor or later
  - AMD Phenom or Opteron class processor or later
- > **System Memory**
  - Minimum of two (2) GB memory, eight (8) GB or higher recommended
- > **Blu-ray, DVD-ROM/CD-ROM drive, or Internet connection for driver installation**

# 02

## EQUIPMENT



**ATTENTION:** Static electricity can severely damage electronic components. Take the following precautions when installing your new NVIDIA Quadro graphics card:

- > Before touching any electronic parts, discharge the static electricity from your body by touching the internal metal frame of your system while it is unplugged.
- > Do not remove your card from the packaging clamshell until you are ready to install it. Whenever you remove a card from your system, always place it back in the clamshell.
- > Do not allow clothing or jewelry touch any electronic parts.
- > When handling your graphics card, hold it by the edges and avoid touching any circuitry or the PCIe connector.

<sup>1</sup> Special Sku only | <sup>2</sup> 8-pin-to-dual 6-pin adapter

EQUIPMENT	Software Installation Disc	Quick Start Guide	DVI-to-VGA Adapter	DisplayPort-to-DVI Adapter	DisplayPort-to-DisplayPort	Mini-DisplayPort-to-DisplayPort	Mini-DisplayPort-to-DVI	Auxiliary Power Cable	Stereo Connector Bracket
GP100	Yes	Yes	N/A	3	N/A	N/A	N/A	1	1
P6000	Yes	Yes	N/A	2	N/A	N/A	N/A	1	1
P5000	Yes	Yes	N/A	2	N/A	N/A	N/A	1	1
P4000	Yes	Yes	N/A	2	N/A	N/A	N/A	1	1
P2000	Yes	Yes	N/A	1	N/A	N/A	N/A	1	1
P1000	Yes	Yes	N/A	4	N/A	N/A	N/A	N/A	N/A
P600	Yes	Yes	N/A	4	N/A	N/A	N/A	N/A	N/A
P400	Yes	Yes	N/A	3	N/A	N/A	N/A	N/A	N/A
M6000 24GB	Yes	Yes	N/A	2	N/A	N/A	N/A	1	1
M5000	Yes	Yes	N/A	2	N/A	N/A	N/A	1	1
M4000	Yes	Yes	N/A	2	N/A	N/A	N/A	1	1
M2000	Yes	Yes	N/A	1	N/A	N/A	N/A	1	1
K6000	Yes	Yes	1	1	N/A	N/A	N/A	2	1
K2200	Yes	Yes	1	1	N/A	N/A	N/A	2	1
K1200	Yes	Yes	1	1	N/A	N/A	N/A	2	1
K620	Yes	Yes	1	1	N/A	N/A	N/A	2	1
K420	Yes	Yes	1	1	N/A	N/A	N/A	2	1

Included equipment with each NVIDIA Quadro graphics card.

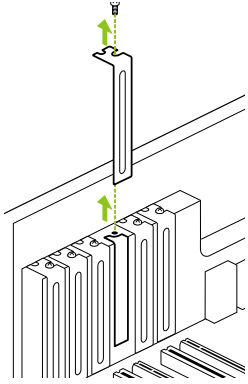


# 03 HARDWARE INSTALLATION

- 1 Remove the current graphics driver installed on the host system.
  - Go to **Start\Control Panel\Programs and Features**
  - Remove the current graphics driver.
- 2 Power down your system.
- 3 Unplug the power cord from the AC power source.
- 4 Remove the side panel from your system to gain access to the motherboard.

**Note:** Reference your specific computer documents for instructions on accessing the motherboard in your computer.

- 5 Remove the existing graphics card if present. If a retention bar is holding the card in place, remove the screw securing the card.  
**OR**, If there is no existing graphics card, remove the access covers from the primary x16 PCI slot.

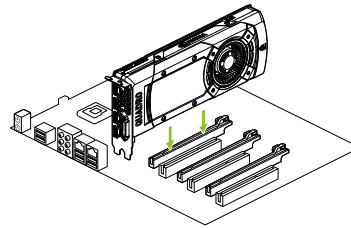


Remove one slot cover for the PCI x16 slot if you are installing the Quadro P4000, M4000, P2000, M2000, K2200, P1000, K1200, P600, K620, P400, or K420.

For the Quadro GP100, P6000, P5000, M6000 24GB, M5000, and K6000 graphics cards, remove two adjacent slot covers.

**Note:** The NVIDIA Quadro GP100, P6000, P5000, M6000 24GB, M5000, and K6000 are dual-slot cards and will require two (2) adjacent slots. The NVIDIA Quadro P4000, M4000, P2000, M2000, K2200, P1000, K1200, P600, K620, P400, and K420 are single slot cards and will only require a single (1) slot.

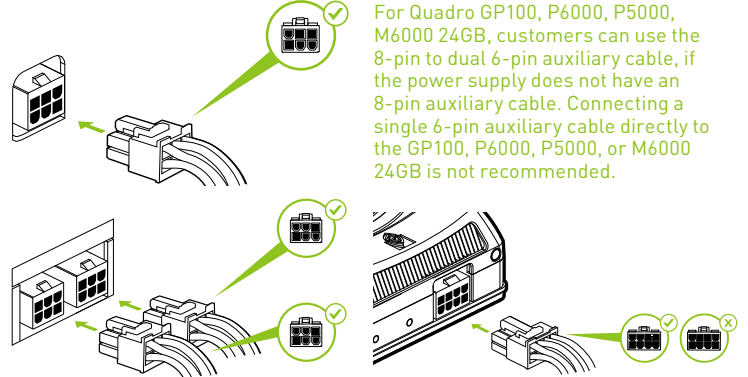
- 6 Install the card into the primary x16 PCI slot. Press gently on the card until it is seated securely in the slot.



Install the graphics card into the primary x16 PCI slot.

The Quadro GP100, P6000, P5000, M6000 24GB, M5000, and K6000 graphics cards are dual-slot cards and will cover the adjacent slot. The remaining graphic cards are single-slot cards.

- 7 Secure the card to the system frame using the screw(s) removed in **step 5**.
- 8 Connect the supplied auxiliary power cable(s) from the power supply to the back edge of the Quadro GP100, P6000, P5000, M6000 24GB, M5000, P4000, M4000, or K6000 graphics card.



For Quadro GP100, P6000, P5000, M6000 24GB, customers can use the 8-pin to dual 6-pin auxiliary cable, if the power supply does not have an 8-pin auxiliary cable. Connecting a single 6-pin auxiliary cable directly to the GP100, P6000, P5000, or M6000 24GB is not recommended.

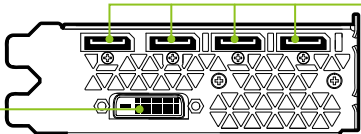
**Note:** Use the recommended power connector guidelines at [www.nvidia.com/quadropowerguidelines](http://www.nvidia.com/quadropowerguidelines).

- 9 Install the side panel removed in **step 4**.

# 04 CONNECTING TO THE DISPLAY

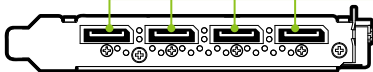
- 1 Connect the display cable(s) to your Quadro graphics card.
- 2 Reconnect your power cord to the workstation.

**Quadro GP100, P6000, P5000, M6000 24GB, and M5000**

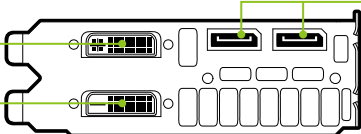


**DisplayPort Connector**  
Supports single-lane transfer rates over a single cable. The interface is primarily used to connect a video source to a display device such as a computer monitor.

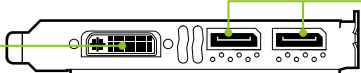
**Quadro P4000, M4000 P2000, and M2000**



**Quadro K6000**



**Quadro K2200**



**Mini-DisplayPort Connector**  
**DisplayPort Connector**

**Quadro P1000, K1200, and P600**



**DVI Connectors**  
Use this to connect a digital display or, with an adapter, a VGA display using DVI-to-VGA adapter.

**Quadro P400**



**DVI-to-VGA Adapter**  
(Optional - For use with DVI-I connectors only)

**Quadro K620 and K420**



# 05 SOFTWARE INSTALLATION AND CONFIGURATION

## Driver Installation

With the hardware installed, it is now time to install the graphics driver.

- 1 Power up your computer, start Windows or Linux, and login with an account that has Administrator rights.

**Note:** Since there is no GPU driver currently loaded, the display may run at reduced resolution or image quality.

- 2 Download and install the driver.
  - Select and download the driver from [www.nvidia.com/drivers](http://www.nvidia.com/drivers). Launch the downloaded executable file, then follow the installer guides to complete installation.
  - Insert the software installation disc and follow directions for driver installation.

The installer may require you to reboot your system once the driver installation is complete.

**Congratulations! Your NVIDIA Quadro graphics card is now ready to use!**