



GEFORCE RTX™ 5070

Quick Start Guide

01 System Specifications

Thank you for choosing the NVIDIA® GeForce RTX™ 5070 graphics card. Before you begin, please review the following System Specifications to ensure your PC has the appropriate hardware and software for your new graphics card.

System Specifications

> **Motherboard:**

PCI Express® graphics slot required.

> **Clearance:**

Must have space for 244mm (L) x 112mm (W) x 41mm (H) card.

One additional slot clearance in front of the fans is recommended for better airflow.

➤ **System Power Supply:**

- 650 W power rating minimum.
- Supported power connector configurations:
 - At least two PCIe 8-pin cables
(with RTX 5070 PCIe Gen 5 Power Connector Adapter).
 - One 360 W or greater PCIe Gen 5 Cable (16-pin).

➤ **Operating System:**

- Microsoft® Windows® 11 64-bit recommended.
- Linux, 64-bit.

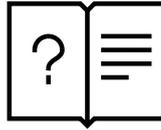
➤ **Driver Installation:** 2 GB of available disk space required for driver installation.

02 Equipment

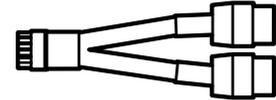
The following equipment is included in the NVIDIA GeForce RTX 5070 graphics card box.



**Quick Start
Guide**



**Support
Guide**

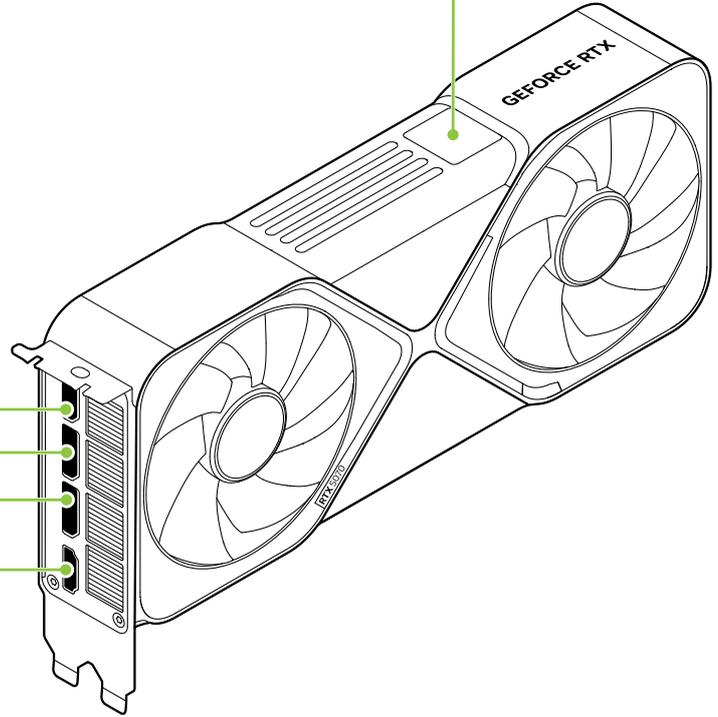


**NVIDIA PCIe
Gen5 16-pin power
connector adapter**



Attention: Use only the included NVIDIA power connector adapter for your GeForce RTX 50 Series Founders Edition graphics card.

PCIe Gen5 16-pin Power Connector



DisplayPort
Connectors (x3)

HDMI Connector

GeForce RTX 5070 Graphics Card

03 Hardware Installation

- 1 Turn off your computer, disconnect the power cord and remove any existing graphics card(s).

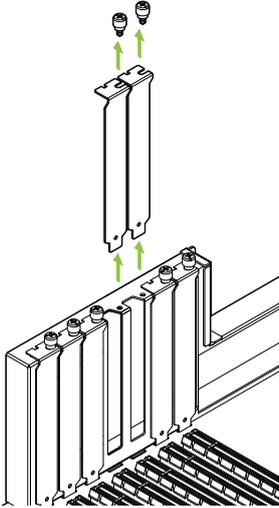


Note: Use the GeForce RTX 5070 graphics card with UL listed ITE Personal Computer (PC)/Server.



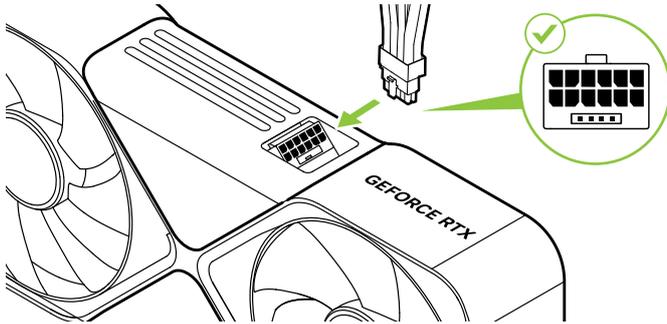
Attention: It is very important that you wait until the graphics card has cooled before taking the card out of the system.

2 Remove two slot covers if there was no existing graphics card.



Remove two adjacent slot covers that correspond to the PCI Express slot you are installing the graphics card in.

- 3 Connect the 16-pin plug of NVIDIA power connector adapter to the power receptacle on the top of the GeForce RTX 5070 graphics card.



Connect at least two independent dedicated cables with 8-pin PCI Express plugs from the system power supply to the NVIDIA power connector adapter.

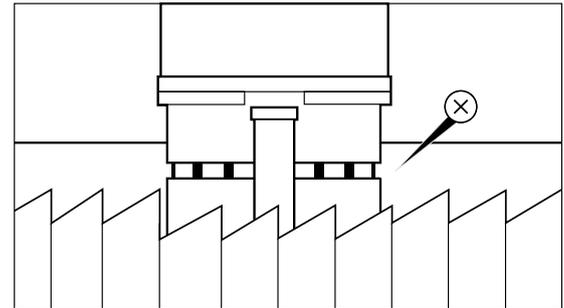
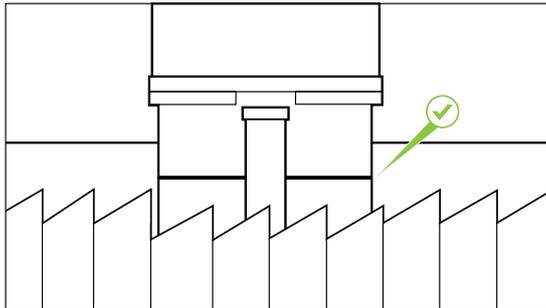


Attention: Use only the included NVIDIA power connector adapter for your GeForce RTX 50 Series Founders Edition graphics card.

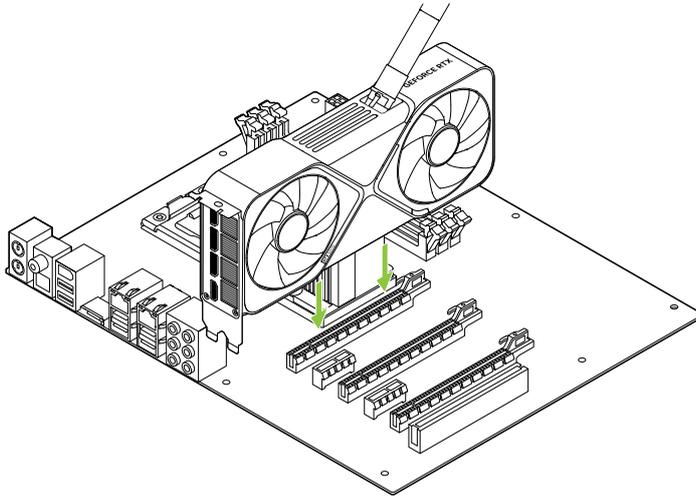
To help ensure the connector is secure we recommend plugging the power dangle into the graphics card first to ensure it's firmly and evenly plugged in, before plugging the graphics card into the motherboard.



Attention: Ensure the power plug is fully inserted and seated flush against the power receptacle.



- 4 Install the GeForce RTX 5070 graphics card into the primary PCI Express x16 slot on your motherboard.



Install your GeForce RTX 5070 into the Primary PCI Express x16 slot (the Primary slot is the one closest to the CPU).

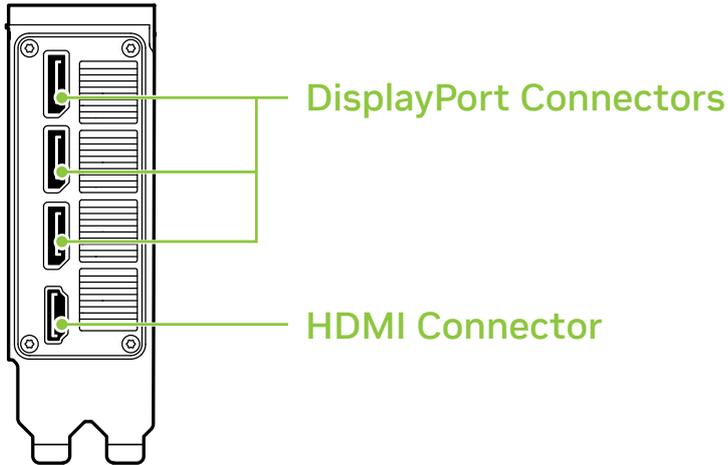


Attention: This GPU card should not be installed with the I/O brackets facing downwards.

- 5 Reinstall the covers on your computer and reconnect any cables previously removed.

04 Connecting To The Display

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



05 Software Installation And Configuration

With the hardware installed, the final step is to install the NVIDIA App software to update your drivers and optimize your games.

- 1 Download and install NVIDIA App software.
 - Go to <https://www.nvidia.com/en-us/software/nvidia-app/> and click **Download Now**.
 - Accept the NVIDIA software license agreement by selecting **Agree and Continue**. NVIDIA App software begins to install.
 - Select **Close** to finish the installation.

2 Congratulations! Your GeForce graphics card is now ready to use!



Note: If you have any questions about your NVIDIA product you can Chat live with NVIDIA Customer Care at www.nvidia.com/support or call 1-800-797-6530 (US) or 0800 404 7747 (UK).

UNITED STATES

Federal Communications Commission (FCC)



This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including any interference that may cause undesired operation of the device.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- > Reorient or relocate the receiving antenna.
- > Increase the separation between the equipment and receiver.
- > Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- > Consult the dealer or an experienced radio/TV technician for help.

FCC Warning: The FCC requires that you be notified that any changes or modifications to this device not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Notice

The information provided in this specification is believed to be accurate and reliable as of the date provided. However, NVIDIA Corporation ["NVIDIA"] does not give any representations or warranties, expressed or implied, as to the accuracy or completeness of such information. NVIDIA shall have no liability for the consequences or use of such information or for any infringement of patents or other rights of third parties that may result from its use. This publication supersedes and replaces all other specifications for the product that may have been previously supplied.

NVIDIA reserves the right to make corrections, modifications, enhancements, improvements, and other changes to this specification, at any time and/or to discontinue any product or service without notice. Customer should obtain the latest relevant specification before placing orders and should verify that such information is current and complete.

NVIDIA products are sold subject to the NVIDIA standard terms and conditions of sale supplied at the time of order acknowledgement, unless otherwise agreed in an individual sales agreement signed by authorized representatives of NVIDIA and customer. NVIDIA hereby expressly objects to applying any customer general terms and conditions with regard to the purchase of the NVIDIA product referenced in this specification.

NVIDIA products are not designed, authorized or warranted to be suitable for use in medical, military, aircraft, space or life support equipment, nor in applications where failure or malfunction of the NVIDIA product can reasonably be expected to result in personal injury, death or property or environmental damage. NVIDIA accepts no liability for inclusion and/or use of NVIDIA products in such equipment or applications and therefore such inclusion and/or use is at customer's own risk.

NVIDIA makes no representation or warranty that products based on these specifications will be suitable for any specified use without further testing or modification. Testing of all parameters of each product is not necessarily performed by NVIDIA. It is customer's sole responsibility to ensure the product is suitable and fit for the application planned by customer and to do the necessary testing for the application in order to avoid a default of the application or the product. Weaknesses in customer's product designs may affect the quality and reliability of the NVIDIA product and may result in additional or different conditions and/or requirements beyond those contained in this specification. NVIDIA does not accept any liability related to any default, damage, costs or problem which may be based on or attributable to: (i) the use of the NVIDIA product in any manner that is contrary to this specification, or (ii) customer product designs.

No license, either expressed or implied, is granted under any NVIDIA patent right, copyright, or other NVIDIA intellectual property right under this specification. Information published by NVIDIA regarding third-party products or services does not constitute a license from NVIDIA to use such products or services or a warranty or endorsement thereof. Use of such information may require a license from a third party under the patents or other intellectual property rights of the third party.

ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS, AND OTHER DOCUMENTS [TOGETHER AND SEPARATELY, "MATERIALS"] ARE BEING PROVIDED "AS IS." NVIDIA MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY, OR OTHERWISE WITH RESPECT TO THE MATERIALS, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES OF

NONINFRINGEMENT, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE. Notwithstanding any damages that customer might incur for any reason whatsoever, NVIDIA's aggregate and cumulative liability towards customer for the products described herein shall be limited in accordance with the NVIDIA terms and conditions of sale for the product.

VESA DisplayPort

DisplayPort and DisplayPort Compliance Logo, DisplayPort Compliance Logo for Dual-mode Sources, and DisplayPort Compliance Logo for Active Cables are trademarks owned by the Video Electronics Standards Association in the United States and other countries.



HDMI, the HDMI logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

OpenCL

OpenCL is a trademark of Apple Inc. used under license to the Khronos Group Inc.

MPEG LA (H.264/AVC)

THIS PRODUCT IS LICENSED UNDER THE AVC PATENT PORTFOLIO LICENSE FOR THE PERSONAL USE OF A CONSUMER OR OTHER USES IN WHICH IT DOES NOT RECEIVE REMUNERATION TO [(i) ENCODE VIDEO IN COMPLIANCE WITH THE AVC STANDARD [""AVC VIDEO""] AND/OR [(ii) DECODE AVC VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE AVC VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION MAY BE OBTAINED FROM MPEG LA, L.L.C. SEE [HTTP://WWW.MPEGLA.COM](http://www.mpegla.com).

Access Advance

This product is covered by one or more claims of the HEVC patents listed at patentlist.accessadvance.com

Trademarks

NVIDIA, the NVIDIA logo, NVIDIA CUDA, NVIDIA GeForce, GeForce RTX, Ge Force Experience, NVIDIA NVLink, GigaThread, Lumenex, PureVideo, and PhysX Technology are trademarks or registered trademarks of NVIDIA Corporation. Other company product names may be trademarks of the respective companies with which they are associated.

Copyright

© 2025 NVIDIA Corporation. All rights reserved.

www.nvidia.com

© 2025 NVIDIA Corporation. All rights reserved.

