# GEFORCE RTX™ 2070

## USER GUIDE

# TABLE OF CONTENTS

# 01
# INTRODUCTION

Thank you for choosing the NVIDIA® GeForce RTX™ 2070 graphics card.

The GeForce® RTX 2070 is powered by the all-new NVIDIA Turing™ architecture to give you incredible new levels of gaming realism, speed, power efficiency, and immersion. This is graphics reinvented.

## About This Guide

This installation guide discusses the installation and operation of the NVIDIA GeForce RTX 2070 graphic card.

**01**

# Minimum System Requirements

> **Motherboard**
PCI Express® or up to PCI Express 3.0-compliant motherboard with one dual-width x16 graphics slot.

> **System Power Supply**
Minimum 550 W or greater system power supply with one 8-pin PCI Express supplementary power connectors.

> **Operating System**
- Microsoft® Windows® 10 64-bit (April 2018 Update or later)
- Microsoft Windows 7, 64-bit
- Linux, 64-bit

> **System Memory**
8 GB system memory (16 GB recommended)

> **Internet connection for driver installation**

> **1.5 GB of available hard disk space**

# 02
# UNPACKING

Prior to unpacking your new NVIDIA GeForce RTX 2070 graphics card, it is important to make sure you meet all the system requirements listed on page 4 for a smooth installation.

Be sure to inspect each piece of equipment shipped in the packing box. If anything is missing or damaged, contact your reseller.

# 02

# Equipment

The following equipment and documentation are included in the GeForce RTX 2070 graphics card box.
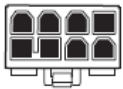


Quick Start Guide          Support Guide

GeForce RTX 2070 Graphics Card



One 8-pin power connector
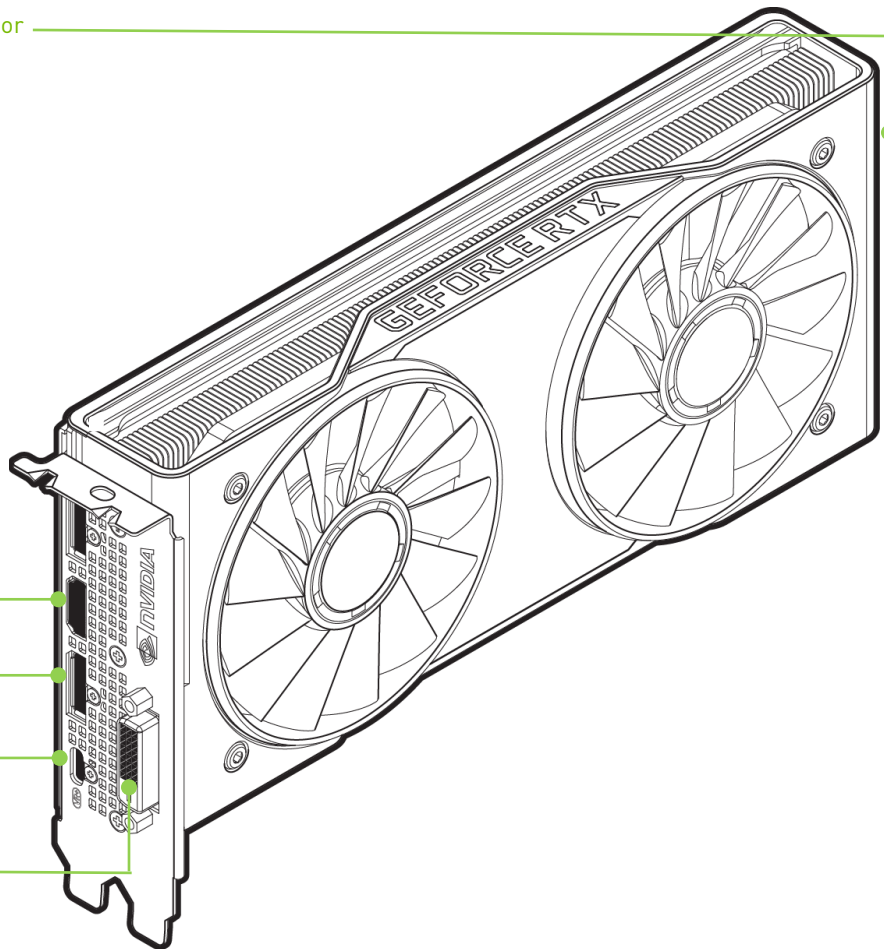(on back-edge of card)

HDMI (High-Definition
Multimedia Interface)
Connector

DisplayPort
Connectors (Qty 2)

USB Type-C™
Connector

DVI Connector)

# 03
# HARDWARE INSTALLATION

Installing the NVIDIA GeForce graphics card hardware involves opening your computer. RTX 2070 Follow all the safety instructions provided here to ensure that there is no damage to you, your computer, or the graphics board.

## Safety Instructions

To reduce the risk of fire, electric shock, or injury, always follow basic safety precautions.

> **Note**: All hardware must be installed prior to installation of the drivers.

> Remove power from your computer by disconnecting the AC main source before installation.

> Do not operate this product near water or when your hands or body are wet.

> Do not place this product on soft surfaces that could block the ventilation slots and cause overheating.

> Do not place this product near a heating register or radiator.

> Place this product securely on a stable surface. Serious damage to this product may result if it falls.

> Do not allow anything to rest on the power cord. Do not place this product where a person can step or trip on the power cord.

**03**

# Before You Begin

The GeForce RTX 2070 graphics card is a PCI Express 3.0 ×16 graphics card. Your computer may already have a graphics card installed in the PCI Express slot. If so, you will need to remove that graphics card and replace it with the GeForce RTX 2070 graphics card.

If you do not have a graphics card, this means that your motherboard has on-board graphics (there is a graphics chip installed on your motherboard or integrated in the motherboard chipset). If this is the case, there is no action that needs to be taken before installing your new graphics card.

Use the RTX 2070 graphics card with UL Listed ITE Personal Computer (PC)/Server.

# Installing the GeForce Graphics Card

Because there are so many different computer systems on the market, the procedure to install the GeForce RTX 2070 graphics card can vary from system to system. Use the following instructions as a guideline and consult the documentation for your computer system for any further information on your individual system.

Note: It is important that all power to the computer be disconnected before you install the graphics card.

Discharge your body's static electricity by touching a grounded surface before touching the graphics card. A grounded surface is the computer chassis, or some other surface you know to be grounded.

ATTENTION: If your system has been running for a while prior to opening the panels, it is very important that you wait until the graphics card in your system has cooled before taking the card out of the system. Graphics cards get very hot when they have been operating for any length of time.

Use the following procedure to install the GeForce RTX 2070 graphics card into your computer system.

1  Turn off your computer and monitor and disconnect the power cord.

Depending on your computer system, you may need to disconnect the cable going to the back of your system. Mark the cables so you can make sure you reconnect them properly.

**03**

2   Open your computer by removing the cover/side panel. Refer to your computer documentation from the original manufacturer for assistance.

3   Remove any existing graphics card (if there is one). Save hardware (such as screws and brackets) to use when installing the NVIDIA graphics card.

4   Remove two adjacent slot covers if you do not have a graphics card installed.
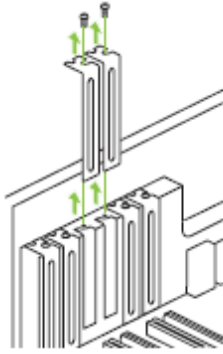


Remove two adjacent slot covers that corresponds to the PCI-Express slot you are installing the GeForce RTX 2070 graphics card in.

> 📰 **Note**: The GeForce RTX 2070 card is double-wide and requires removing two slot covers.

5   Plug the GeForce RTX 2070 graphics card into the Primary PCI Express x16 slot on your motherboard. This is often the slot closest to the CPU but may be the second or third slot. Look for the slot labeled ×16. It will likely be the only PCI Express slot with a retention lever on the end of the slot or the one closest to the CPU.
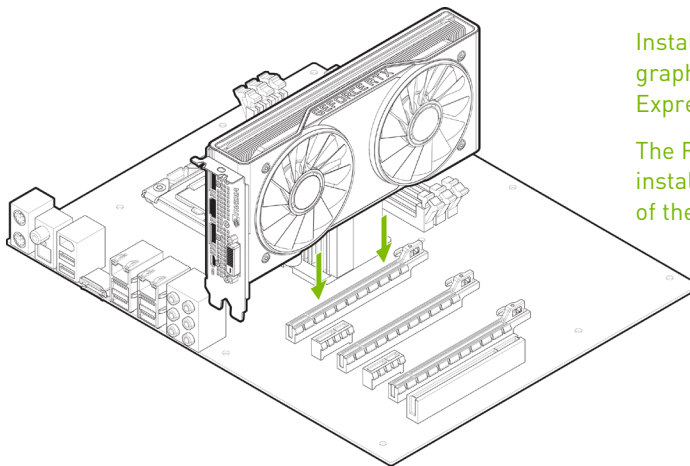


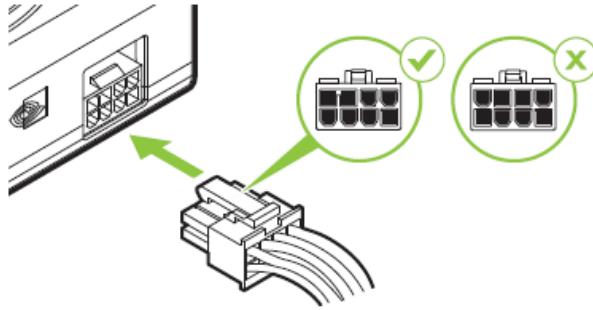Install your first GeForce RTX 2070 graphics card into the Primary PCI Express x16 slot.

The RTX 2070 graphics card should be installed with the bracket facing the side of the computer.

> 📰 **Note:** It is recommended that you install the graphics card into the primary PCI Express x16 slot. If you install the graphics card into the secondary slot, your system may not recognize the graphics card and there will be nothing displayed on the monitor.
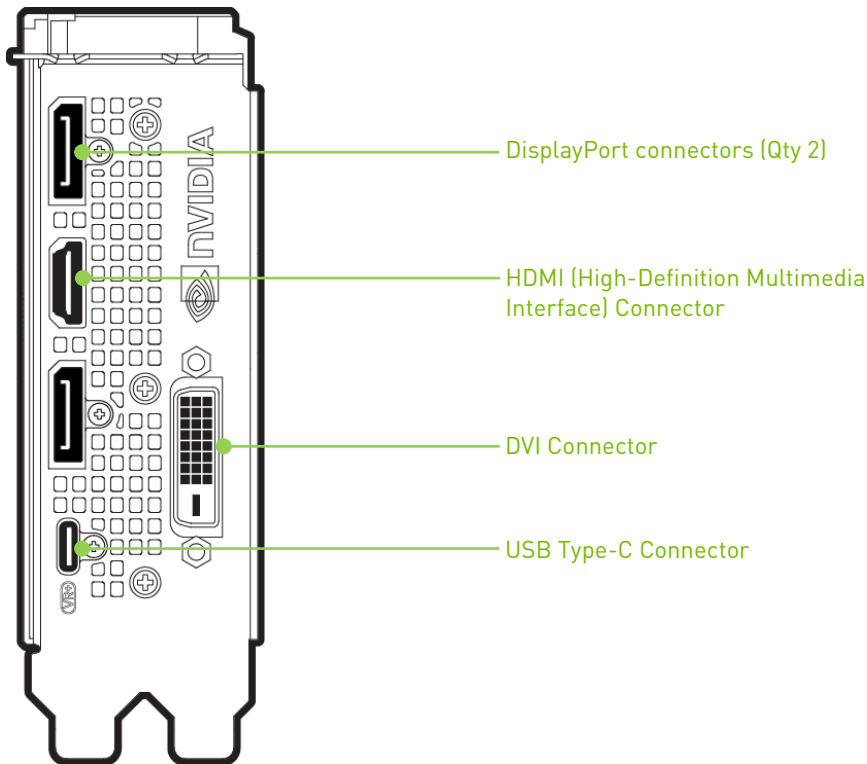>
> Also note that on some motherboard SBIOS, the physical location of the primary slot can be configured when there are more than one PCI Express x16 slots.

**03**

6   Connect an 8-pin power connector from the power supply to the power connector on the back-edge of the GeForce RTX 2070 graphics card. Note that the connector and socket on the graphics card have a unique shape and connect one way only.



GeForce RTX 2070 graphics card requires one 8-pin PCI Express power plug from the system power supply.

Reinstall the cover on your computer and reconnect any cables that you removed earlier in the installation.



DisplayPort connectors (Qty 2)

HDMI (High-Definition Multimedia Interface) Connector

DVI Connector

USB Type-C Connector

# 04
# SOFTWARE INSTALLATION

With the hardware installed, it is now time to install the NVIDIA GeForce Experience™ software and the graphics driver.

## GeForce Experience Software Installation

1  Download and install GeForce Experience software.
   - Go to **http://www.geforce.com/geforce-experience/download** and click **Download Now**.
   - Accept the NVIDIA software license agreement by selecting **Agree and Continue**. GeForce Experience software begins to install.
   - Select **Close** to finish the installation.

2  Optimize your installed games.
   - Open GeForce Experience and click Scan for Games and click OK to scan your installed games.
   - Click on Optimize All to optimize your game settings.

3  Install the latest drivers.
   - Open GeForce Experience and select the Drivers tab.
   - Select Download Driver. Your GPU driver begins to download.
   - Select Express Installation when the download finishes. GeForce Experience begins to install the graphics driver.

   > **Note:** It may take several minutes for the installation to take place. Your screen may go blank for a few seconds one or more times during installation. This is normal.

   - Click **CLOSE** when the driver install completes.

**04**

## Congratulations!
## Your GeForce RTX 2070 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 1-800-493-4578 (US) or 0800-404-7747 (UK).

# 05
# CONFIGURING HDMI

Connecting HDTV via HDMI allows you to output both digital audio and video from your graphics card to an HDTV.

## Enabling Audio Over HDMI

If you are connecting to your display over HDMI, you may need to set the HDMI output to be your default audio device.

1  Select Start → Control Panel → Sound.

2  On the Playback tab, select your HDMI display and select

3  Set Default.

Congratulations! Your GeForce graphics card(s) is now ready to use!

For detailed instructions on using the NVIDIA Control Panel, consult the **Control Panel User's Guide** found at **www.geforce.com/drivers** (select your driver, then click on **Control Panel User's Guide** to download the User's Guide).

# 07
# FEATURES

> NVIDIA GeForce Experience™: Ensures the best gaming experience, the day a game releases, by automatically updating your game-ready drivers. Plus, it allows users to optimize the game settings to their PC with a single click. GeForce Experience also includes SHARE that lets you capture and share your favorite gaming moments.

> Multi-Frame sampled Anti-Aliasing (MFAA): MFAA delivers a 30% performance boost while maintaining smooth, high-quality edges by alternating sample calculations across each frame and each pixel.

> Dynamic Super Resolution (DSR): This innovative feature can deliver 4 K fidelity to 1080p displays for exceptional detail and image quality.

> Voxel Global Illumination (VXGI): Part of the NVIDIA GameWorks™ library for developers, VXGI accelerates dynamic lighting effects for a truly immersive, cinematic experience.

> NVIDIA GameStream™[1]: GeForce GPU support for NVIDIA PhysX technology, enabling a totally new class of physical gaming interaction for a more dynamic and realistic experience with GeForce.

> NVIDIA G-SYNC™-Ready[2]: NVIDIA G-SYNC monitors feature revolutionary NVIDIA technology that eliminates screen tearing while also reducing input lag. The result is a smoothest, fastest, and most responsive gaming monitor experience ever seen.

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[1] NVIDIA GameStream requires an NVIDIA GameStream-ready device

[2] NVIDIA G-SYNC requires an NVIDIA G-SYNC-ready monitor

**07**

> Microsoft® DirectX® 12 Support: Support for the latest Microsoft DirectX API to enable next-generation gaming.

> NVIDIA GPU Boost™ 3.0: Dynamically maximizes clock speeds based on workload and allows enthusiast-class controls such as temperature target and fan controls, extra over-voltage headroom, and optimizations for water-cooling solutions. This allows gamers to push performance to new levels.

> NVIDIA Adaptive Vertical Sync: Dynamically enable vertical sync based on your current frame rates for the smoothest gaming experience.

> NVIDIA CUDA™: Unlock the power of the GPU's processor cores to accelerate demanding tasks such as video transcoding, physics simulation, ray tracing, and more, delivering incredible performance improvements over traditional CPUs.

> DisplayPort: Drive the latest DisplayPort panels with support for resolutions up to 4096x2160.

> HDMI[3]: Support for HDMI includes 4K resolution at 60 Hz, GPU-accelerated Blu-ray 3D support, x.v.Color, HDMI Deep Color, and 7.1 digital surround sound.

> PCI Express 3.0: This card is designed for the new PCI Express 3.0 bus architecture, offering the highest data transfer speeds for the most bandwidth-hungry games and 3D applications. It also maintains backwards compatibility with existing PCI Express motherboards for the broadest support.

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[3] Blu-ray 3D playback requires the purchase of a compatible software player from CyberLink or Corel. Upgrade your GPU to full 3D capability with NVIDIA 3DTV Play software, enabling 3D gaming, picture viewing and 3D web video streaming. See www.nvidia.com/3dtv for more details.

# 08
# COMPLIANCES

The NVIDIA GeForce RTX 2070 graphics card is compliant with the following regulations:

> Federal Communications Commission (FCC)

> Industry Canada (IC)

> Conformité Européenne (CE)

> Australian Communications and Media Authority (C-tick)

> Voluntary Control Council for Interference (VCCI)

> Bureau of Standards Metrology and Inspection (BSMI)

> Korean Certification (KC)

> Underwriters Laboratories (UL, cUL)

> ISO 9241-307 Visual Display Ergonomics

**08**

## UNITED STATES
## Federal Communications Commission (FCC)

FC  NVIDIA CORP
Model PG160
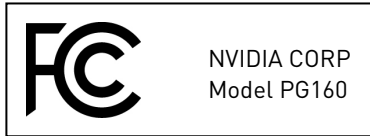
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including any interference that may cause undesired operation of the device.

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.

**08**

# UNDERWRITERS LABORATORIES (UL)



# CANADA

**Innovation, Science and Economic Development Canada (ISED)**

**CAN ICES-3(B)/NMB-3(B)**

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

# EUROPEAN UNION

**European Conformity; Conformité Européenne (CE)**



Santa Clara, California, USA

This device bears the CE mark accordance with Directive 2014/30/EU and 2011/65/EU.

This device complies with the following Directives:

> EMC Directive 2014/30/EU

> RoHS Directive 2011/65/EU for hazardous substances

A copy of the Declaration of Conformity to the essential requirements may be obtained directly from NVIDIA GmbH (Floessergasse 2, 81369 Munich, Germany).

**08**

# JAPAN

**Voluntary Control Council for Interference (VCCI)**



この装置は、クラスＢ情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。
取扱説明書に従って正しい取り扱いをして下さい。
VCCI－B

## Japan RoHS Material Content Declaration

日本工業規格JIS C 0950:2008により、2006年7月1日以降に販売される特定分野の電気および電子機器について、製造者による含有物質の表示が義務付けられます。
機器名称: グラフィックカード

| 主な分類 | 特定化学物質記号 | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| | Pb | Hg | Cd | Cr(VI) | PBB | PBDE |
| PCBボード | 0 | 0 | 0 | 0 | 0 | 0 |
| パッシブ電子部品 | 除外項目 | 0 | 0 | 0 | 0 | 0 |
| アクティブ電子部品 | 除外項目 | 0 | 0 | 0 | 0 | 0 |
| ケーブル/コネクター | 除外項目 | 0 | 0 | 0 | 0 | 0 |
| プロセッサー | 0 | 0 | 0 | 0 | 0 | 0 |
| メモリ | 0 | 0 | 0 | 0 | 0 | 0 |
| 機械部品 | 除外項目 | 0 | 0 | 0 | 0 | 0 |
| はんだ付け材料 | 0 | 0 | 0 | 0 | 0 | 0 |
| フラックス、クリームはんだ、ラベル、その他消耗品 | 0 | 0 | 0 | 0 | 0 | 0 |

注:
1.「0」は、特定化学物質の含有率が日本工業規格JIS C 0950:2008に記載されている含有率基準値より低いことを示します。
2.「除外項目」は、特定化学物質が含有マークの除外項目に該当するため、特定化学物質について、日本工業規格JIS C 0950:2008に基づく含有マークの表示が不要であることを示します。
3.「0.1wt%超」または「0.01wt%超」は、特定化学物質の含有率が日本工業規格JIS　C　0950:2008に記載されている含有率基準値を超えていることを示します。

**08**

A Japanese regulatory requirement, defined by specification JIS C 0950: 2008, mandates that manufacturers provide Material Content Declarations for certain categories of electronic products offered for sale after July 1, 2006.

Product Model Number: Graphic card

| Major Classification | Symbols of Specified Chemical Substance | | | | | |
|---|---|---|---|---|---|---|
| | Pb | Hg | Cd | Cr(VI) | PBB | PBDE |
| PCB | 0 | 0 | 0 | 0 | 0 | 0 |
| Passive components | Exempt | 0 | 0 | 0 | 0 | 0 |
| Active components | Exempt | 0 | 0 | 0 | 0 | 0 |
| Cables/Connectors | Exempt | 0 | 0 | 0 | 0 | 0 |
| Processor | 0 | 0 | 0 | 0 | 0 | 0 |
| Memory | 0 | 0 | 0 | 0 | 0 | 0 |
| Mechanicals | Exempt | 0 | 0 | 0 | 0 | 0 |
| Soldering material | 0 | 0 | 0 | 0 | 0 | 0 |
| Flux, Solder Paste, label and other consumable materials | 0 | 0 | 0 | 0 | 0 | 0 |

Notes:
1. "0" indicates that the level of the specified chemical substance is less than the threshold level specified in the standard, JIS C 0950: 2008.
2. "Exempt" indicates that the specified chemical substance is exempt from marking and it is not required to display the marking for that specified chemical substance per the standard, JIS C 0950: 2008.
3. "Exceeding 0.1wt%" or "Exceeding 0.01wt%" is entered in the table if the level of the specified chemical substance exceeds the threshold level specified in the standard, JIS C 0950: 2008

**08**

# KOREA

## Radio Research Agency (RRA)

**R-R-NVA-PG160**

| B급 기기 | 이 기기는 가정용(B급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다. |
|---|---|

## Korea RoHS Material Content Declaration

| Confirmation and Evaluation Form Concerning the Adherence to Acceptable Standards of Hazardous Materials Contained in Products | | | | |
|---|---|---|---|---|
| Statement Prepared by | Company Name: | Nvidia HongKong Holding Ltd.Korea branch | Corporate Identification Number: | 110181-0036373 |
| | Name of Company Representative: | Karen Theresa Burns | Business Registration Number: | 120-84-06711 |
| | Address | 2788 San Tomas Expressway, Santa Clara, CA 95051 | | |
| Product Information | | | | |
| Product Category: | N/A | | Name of Product: | N/A |
| Detailed Product Model Name (Number): | N/A | | Date of first market release: | N/A |
| Weight of Product: | N/A | | Manufacturer and/or Importer: | NVIDIA Corporation |
| This for is publicly certify That NVIDIA Company has undergone the confirmation and evaluation procedures for the acceptable amounts of hazardous materials contained in graphic card according to the regulations stipulated in Article 3 of the 'Status on the Recycling of Electrical and Electronic Products, and Automobiles' and that company has graphic card adhered to the Enforcement Regulations of Article 11, Item 1 of the statute. | | | | |
| Attachment: None ＊Preparing the Form ① Please indicate the product category according to the categories listed in Article 8, Items 1and 2 of the 'Enforcement Ordinance of the Statute on the Recycling of Electrical, Electronic and Automobile Materials' ② For electrical and electronic products, please indicate the Model Name (and number). For automobiles, please indicate the Vehicle Identification Number. ③ Please indicate the name of manufacturer and/or importer of the product. | | | | |

| |
|---|
| 확인 및 평가 양식은 제품에 포함 된 유해 물질의 허용 기준의 준수에 관한 |

**08**

| 문 준비 | 상호 : | 앤비디아홍콩홀딩즈리미티드( 영업소) | 법인등록번호 | 110181-0036373 |
|---|---|---|---|---|
| | 대표자성명 | 카렌테레사번즈 | 사업자등록번호: | 120-84-06711 |
| | 주소 | 서울특별시 강남구 영동대로 511, 2101호 ( 삼성동, 코엑스무역타워) | | |

| 제품 내용 | | | | |
|---|---|---|---|---|
| 제품의 종류 | 해당없음 | 제품명(규격) | 해당없음 | |
| 세부모델명(번호): | 해당없음 | 제품출시일 | 해당없음 | |
| 제품의 중량 | 해당없음 | 제조, 수입업자 | 앤비디아 | |

엔비디아의 그래픽 카드제품은 전기 전자제품 및 자동차의 자원순환에 관한 법률 시행령 제 11조 제 1항에 의거한 법 시행행규칙 제 3조에에따른 유해물질함유 기준을 확인 및 평가한 결과, 이를 준수하였음을 공표합니다.

구비서류 : 없음
작성방법
① 제품의 종류는 "전기.전자제품 및 자동차의 자원순환에관한 법률 시행령" 제 8조 제 1항 및 제 2항에 따른 품목별로 구분하여 기재합니다.
② 전기 전자 제품의 경우 모델명 (번호), 자동차의 경우, 제원관리번호를 기재합니다.
③ 해당제품의 제조업자 또는 수입업자를 기재합니다.

## AUSTRALIA/NEW ZEALAND

### Australian Communications and Media Authority

This product meets the applicable EMC requirements for Class B, I.T.E equipment and applicable radio equipment requirements

## TAIWAN

### Bureau of Standards, Metrology & Inspection (BSMI)

**08**



D33088
RoHS

## Taiwan RoHS Material Content Declaration

| 限用物質含有情況標示聲明書<br>Declaration of the presence condition of the Restricted Substances Marking | | | | | | |
|---|---|---|---|---|---|---|
| 設備名稱：繪圖卡<br>Equipment Name: Graphic Card | | | | | | |
| 單元<br>Parts | 限用物質及其化學符號<br>Restricted substances and its chemical symbols | | | | | |
| | 鉛<br>(Pb ) | 汞<br>(Hg) | 鎘<br>(Cd) | 六價鉻<br>(Cr(VI)) | 多溴聯苯<br>(PBB) | 多溴二苯醚<br>(PBDE) |
| PCB板<br>PCB | O | O | O | O | O | O |
| 結構件以及風扇<br>Mechanical parts and Fan | - | O | O | O | O | O |
| 連接器<br>Connectors | - | O | O | O | O | O |
| 被動電子零件<br>Passive components | - | O | O | O | O | O |
| 處理器<br>Processor | O | O | O | O | O | O |
| 主動電子零件<br>Active components | - | O | O | O | O | O |
| 內存<br>Memory | O | O | O | O | O | O |
| 線材<br>Cables | - | O | O | O | O | O |
| 焊接金屬<br>Soldering material | O | O | O | O | O | O |
| 助焊劑，錫膏，標籤及耗材<br>Flux, Solder Paste, label and other consumable materials | O | O | O | O | O | O |

備考1：O：系指該限用物質未超出百分比含量基準值
Note 1： O：indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.
備考2： -：系指該項限用物質為排外項目。
Note 2： -：indicates that the restricted substance corresponds to the exemption.
此表中所有名稱中含 "-" 的部件均符合歐盟 RoHS 立法。
All parts named in this table with an "-" are in compliance with the European Union's RoHS Legislation.

注：環保使用期限的參考標識取決與產品正常工作的溫度和濕度等條件
Note: The referenced Environmental Protection Use Period Marking was determined according to normal operating use conditions of the product such as temperature and humidity.

# 08

# CHINA

## China RoHS Material Content Declaration

产品中有害物质的名称及含量
The Table of Hazardous Substances and their Content
根据中国《电器电子产品有害物质限制使用管理办法》
as required by Management Methods for Restricted Use of Hazardous Substances in Electrical and Electronic Products

| 部件名称<br>Parts | 有害物质<br>Hazardous Substances | | | | | |
|---|---|---|---|---|---|---|
| | 铅<br>(Pb) | 汞<br>(Hg) | 镉<br>(Cd) | 六价铬<br>(Cr(VI)) | 多溴联苯<br>(PBB) | 多溴二苯醚<br>(PBDE) |
| PCB板<br>PCB | O | O | O | O | O | O |
| 结构件以及风扇<br>Mechanical parts and Fan | X | O | O | O | O | O |
| 连接器<br>Connectors | X | O | O | O | O | O |
| 被动电子零件<br>Passive components | X | O | O | O | O | O |
| 处理器<br>Processor | O | O | O | O | O | O |
| 主动电子零件<br>Active components | X | O | O | O | O | O |
| 内存<br>Memory | O | O | O | O | O | O |
| 线材<br>Cables | X | O | O | O | O | O |
| 焊接金属<br>Soldering material | O | O | O | O | O | O |
| 助焊剂，锡膏，标签及耗材<br>Flux, Solder Paste, label and other consumable materials | O | O | O | O | O | O |

格依据SJ/T 11364-2014 的规定编制
The table according to SJ/T 11364
**O**：表示该有害物质在该部件所有均质材料中的含量均在GB/T 26572 标准规定的限量要求以下。
**O**: Indicates that this hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in GB/T 26572.
**X**：表示该有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572 标准规定的限量要求。
**X**: Indicates that this hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in GB/T 26572.

此表中所有名称中含 "X" 的部件均符合欧盟 RoHS 立法。
All parts named in this table with an "X" are in compliance with the European Union's RoHS Legislation.

注：环保使用期限的参考标识取决于产品正常工作的温度和湿度等条件
Note: The referenced Environmental Protection Use Period Marking was determined according to normal operating use conditions of the product such as temperature and humidity.

**08**

# INDIA

## India RoHS Material Content Declaration

This product, as well as its related consumables and spares, complies with the reduction in hazardous substances provisions of the "India E-waste (Management and Handling) Rule 2016". It does not contain lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers in concentrations exceeding 0.1 weight % and 0.01 weight % for cadmium, except for where allowed pursuant to the exemptions set in Schedule 2 of the Rule.

<table>
<tr><th colspan="9">India RoHS Self-Declaration Form<br>(as per E-Waste (Management) Rules, 2016)</th></tr>
<tr>
<th>Sr. No.</th>
<th>Product Category& Code (as Per Schedule I of E-Waste (M) Rules, 2016</th>
<th>Product name</th>
<th>Model No.</th>
<th>Product Weight (g)</th>
<th>Date of placing on market</th>
<th>Compliance with RoHS Yes/No</th>
<th>RoHS Information provided on product info booklet Yes/No</th>
<th>In case Product is imported from other country, name of the country manufactured</th>
</tr>
<tr>
<td>i.</td>
<td>TEW2 (Graphic Card)</td>
<td>Graphic Card</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Yes</td>
<td>Yes</td>
<td>China</td>
</tr>
</table>

# R

## AMD
# RADEON RX
# 5700

## AMD
# RADEON RX
# 5700 XT

**AMD Radeon™ RX 5700**
**AMD Radeon™ RX 5700 XT**
Quick Setup Guide

# Getting started

## Before You Begin...

Before you begin installing your new graphics card, visually inspect the card and any components that may have shipped with it, and contact your AMD reseller in the event of missing or damaged parts. Also make sure that you have the proper system requirements and have reviewed the preinstallation information outlined below.

## System Requirements

The following are recommended minimum requirements for installation of AMD Radeon™ RX 5700 / AMD Radeon™ RX 5700 XT graphics cards. These recommendations are for single-card installations:

• PC with at least one PCI-Express x16 graphics slot available on the motherboard.

• Minimum 600W (recommended 700W) PSU with up to an 8-pin + 6-pin PCI Express Auxiliary connectors. This PSU recommendation is only for one Radeon RX 5700 series GPU installed per system. Additional GPUs will require more capable power supplies.

• Minimum of 8 GB of system memory, 16GB is recommended.

• Windows® 10 or Linux® operating system (64-bit operating system is highly recommended).

• At least one display that is compatible with a DisplayPort or HDMI connection.

## Recording the Serial and Part Numbers

Write down the serial number and part number before installing your product. The serial number and part number on the product are required for registration and technical support. They are located on a sticker on the back of your AMD Radeon™ RX 5700 / AMD Radeon™ RX 5700 XT graphics card.

# Hardware & Software Installation

## Installation Overview

Once you have determined that your system meets the recommended minimum requirements, perform the following tasks to install your new graphics card. Detailed installation instructions are provided in the following sections.

If replacing an existing graphics card, uninstall the old graphics driver and software before installing the new Radeon™ RX 5700 / Radeon™ RX 5700 XT graphics card.

**NOTE:** *If you are using a motherboard containing an on-board graphics solution and do not intend to use it as part of a multiple monitor configuration, disable it.*

1. Turn off and disconnect your computer system from AC power.

2. If needed, remove any existing graphics card(s).

3. Install the new graphics card.

4. Reassemble and connect your computer system and display(s).

5. Start the computer system, install the AMD drivers and configuration software.

6. Restart the computer system.

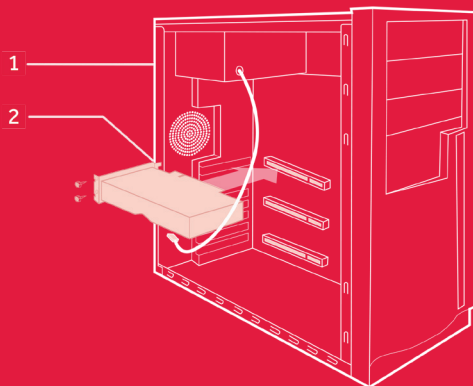## Installing the Graphics Card

### Power Connection Location

1. Power supply.

2. Graphics card.

!

*CAUTION:*

*Wait approximately 20 seconds after unplugging the power cord before disconnecting a peripheral cable or removing a component from the motherboard to avoid possible damage to the motherboard.*

# Installing the Graphics Card

1. Turn off the computer, monitor(s) and other peripheral devices.

2. Unplug the computer's power cord, and then disconnect all cables from the back of the computer.

3. Remove the cover to the computer's case.

   **NOTE:** *If necessary, consult the computer manual for help in removing the cover.*

   **CAUTION:** *Static electricity can seriously damage computer components. Discharge your body's static electricity by touching the power supply or the metal surface of the computer chassis before you touch any components inside the computer's case to avoid damaging them.*

4. Unscrew or unfasten and remove any existing graphics card from the computer.

5. Locate the appropriate bus slot and, if necessary, remove the corresponding metal backplate cover(s). Make sure all internal cables are clear of the slot.

   **NOTE:** *If you cannot find a bus slot to match the card, you need a graphics card with the correct bus to match the motherboard.*

6. Align the graphics card with the slot and press it in firmly until the card is fully seated.

7. If your card requires supplementary power and must be connected directly to the power supply, locate the appropriate power connector cable(s) from the power supply and connect it (or them) to the graphics card's supplementary power connector(s).

   **NOTE:** *If applicable, before installing a card that requires a supplementary power connection, make sure your existing power supply has such a connection available.*

8. Fasten the graphics card securely to the back panel.

9. Make sure no internal cables are interfering with components inside the computer (for example, a cooling fan) and then replace the computer cover.

10. Reconnect any cables you have disconnected during installation, and then plug in the computer's power cord. Turn on the monitor, and then the computer. If you have properly installed the graphics card, the computer should start normally. Proceed to install the software and drivers for your Radeon™ RX 5700 / Radeon™ RX 5700 XT graphics cards.

# Radeon™ RX 5700 Series Drivers and Software

Drivers are small but important programs that enable an operating system to communicate with a piece of hardware, such as a graphics card. When you install a new graphics card, you must also install the appropriate Radeon™ RX 5700 / Radeon™ RX 5700 XT driver and configuration software for your card to take full advantage of the capabilities of your card. You should also reinstall Radeon Software drivers each time you reinstall or upgrade your operating system. The latest drivers are available from AMD's website at http://support.amd.com.

*NOTE: When reinstalling drivers, always uninstall any previous drivers that are on your system, even if they are for the same graphics card. Always start 'fresh.' Included with your driver installation is Radeon™ Settings which is a software application that lets you control and manage your graphics product. Use it to configure display, video, and other graphics features such as Radeon FreeSync™.*

# Display Adapters

Adapters and dongles can be used to connect displays that are not directly supported by the connection types available on your graphics card. Adapters/dongles that are not provided with your graphics cards can be purchased from AMD's website or through your local AMD resellers. When connecting displays to a DisplayPort connection, the type of adapter and display that you use may determine the number of displays that can be used with your graphics card.

• An active adapter allows a non-DisplayPort display to be connected to a DisplayPort connection using native DisplayPort signals.

• A passive adapter also allows a non-DisplayPort display to be connected to a DisplayPort connection but using non-DisplayPort signals.

• Transmission of audio and video information between variants of the same connection type (for example, Mini DisplayPort to standard DisplayPort and vice versa) are considered to be native connections. More information on the number and type of displays that can be supported by your graphics card is provided in the following sections.

# Display Configurations

## Display Configurations

### Connecting Displays

The Radeon™ RX 5700 / Radeon™ RX 5700 XT graphics card provides support for Ultra HD resolutions via its DisplayPort connections. Up to four displays can be simultaneously supported via the onboard DisplayPort and HDMI connections. Non-DisplayPort devices may be connected using adapter cables.

*NOTE: Only up to three (3) passive adapter cables may be used. Active adapter cables are required for additional displays. The following table lists options for attaching displays to your graphics card.*

For best graphics performance and quality, always use native (or active) connections when possible.

| Display Configuration | Connection Options |
|---|---|
| CRT (VGA) display | DisplayPort connection with DisplayPort-to-VGA adapter |
| DFP (digital flat-panel) display | DisplayPort connection with DisplayPort cable<br>DisplayPort connection with DisplayPort-to-DVI adapter |
| HDMI | DisplayPort connection with DisplayPort-to-HDMI adapter |

**Display connector types:**

DisplayPort

DVI-D

VGA

HDMI

# Disclaimer

The information contained herein is for informational purposes only, and is subject to change without notice. While every precaution has been taken in the preparation of this document, it may contain technical inaccuracies, omissions and typographical errors, and AMD is under no obligation to update or otherwise correct this information.

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**Important Safety Instructions:**
Note: This product is for use only with compatible UL-listed personal computers that have installation instructions detailing user installation of this class of product. Read all instructions before beginning installation. All safety and installation instructions should be read before the product is installed or operated. Retain all instructions. Safety, installation, and operating instructions should be retained for future reference. Heed all warnings. All warnings regarding the product and its operating instructions should be obeyed. Use appropriate grounding.

**Caution:**
[Where applicable] For continued protection against the risk of electric shock and fire, install this accessory only in products equipped with a three-wire grounding plug, a plug having a third (grounding) pin. This is a safety feature. Do not remove the grounding pin of a three-pin plug.

Attach product securely. All product-securing screws or fasteners should be completely tightened in order to provide continuous bonding between the product and the PC chassis, as appropriate.

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