MSI GeForce RTX 4070 SUPER 12G GAMING X SLIM

MSI Gaming RTX 4070 Super 12G Gaming X Slim Graphics Card User Manual

Model: GeForce RTX 4070 SUPER 12G GAMING X SLIM

Introduction

This manual provides comprehensive instructions for the installation, operation, maintenance, and troubleshooting of your MSI Gaming RTX 4070 Super 12G Gaming X Slim Graphics Card. Please read this manual thoroughly before using the product to ensure proper functionality and safety.



Figure 1: Front view of the MSI Gaming RTX 4070 Super 12G Gaming X Slim Graphics Card.

Safety Information

Always observe the following safety precautions to prevent damage to the graphics card or personal injury:

- Ensure your computer's power supply is disconnected before installation or removal.
- Handle the graphics card by its edges to avoid touching sensitive components.
- Use an anti-static wrist strap to prevent electrostatic discharge (ESD) damage.
- Do not expose the graphics card to moisture or extreme temperatures.
- Keep the graphics card away from children and pets.

Package Contents

Verify that all items are present in the package:

- MSI Gaming RTX 4070 Super 12G Gaming X Slim Graphics Card
- Quick Setup Guide
- Power Adapter Cable (if included)
- Graphics Card Support Bracket (if included)

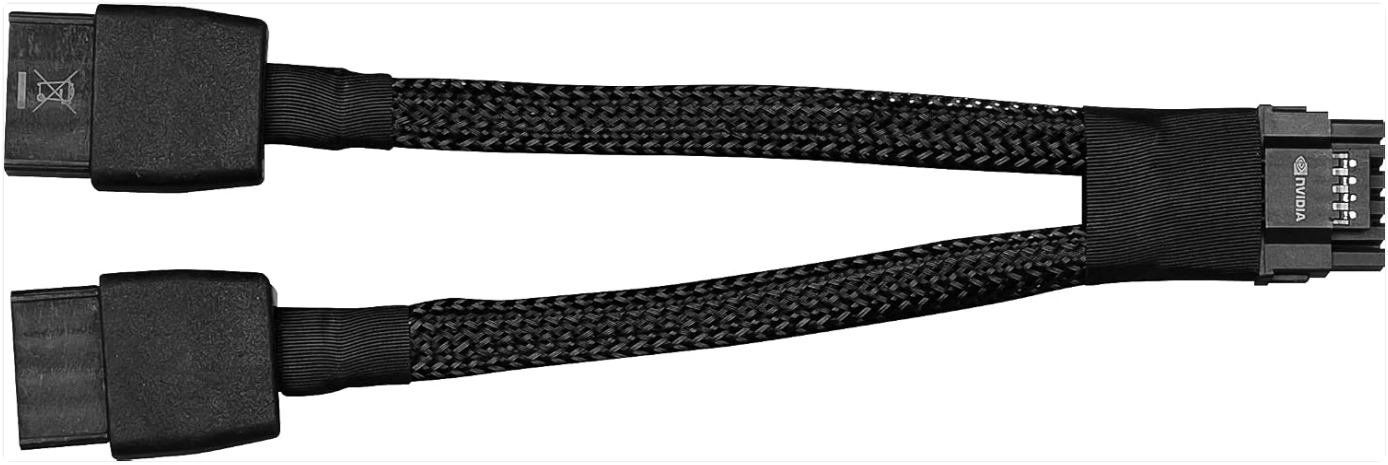


Figure 2: Included power adapter cable.



Figure 3: Graphics card support bracket.

System Requirements

Ensure your system meets the following requirements for optimal performance:

- **PCI Express-compliant motherboard:** With one dual-width x16 graphics slot.
- **Power Supply:** Minimum 650W recommended (check specific PSU requirements for your system configuration).
- **Operating System:** Windows 10 64-bit or later.

- **Memory:** 8GB RAM or more.
- **Storage:** At least 1.5GB of available hard-disk space for driver installation.

Setup

1. Physical Installation

1. **Prepare your system:** Power off your computer and disconnect all cables. Open the computer case.
2. **Locate the PCIe slot:** Find an available PCI Express x16 slot on your motherboard.
3. **Remove slot covers:** Remove the necessary slot covers from the back of your computer case.
4. **Install the graphics card:** Carefully align the graphics card with the PCIe slot and press it firmly until it is securely seated. Ensure the retention clip locks into place.
5. **Secure the card:** Fasten the graphics card to the case with screws.
6. **Connect power:** Connect the appropriate power cables from your power supply to the graphics card's power connectors. The RTX 4070 Super typically uses a 12VHPWR connector, often requiring an adapter from standard PCIe power cables.
7. **Close the case:** Replace the computer case cover and reconnect all cables.



Figure 4: Ensure proper seating of the graphics card in the PCIe slot.

2. Driver Installation

1. **Power on:** Connect your display to the graphics card's output ports (DisplayPort or HDMI) and power on your computer.
2. **Download drivers:** Visit the official NVIDIA website (www.nvidia.com/drivers) or MSI website (www.msi.com/support/download) to download the latest drivers for your GeForce RTX 4070 Super.
3. **Install drivers:** Run the downloaded driver installer and follow the on-screen instructions. A system restart may be required.

Operating

1. Connecting Displays

The graphics card features multiple display outputs:

- 3 x DisplayPort (v1.4a)

- 1 x HDMI (2.1)

Connect your monitor(s) to the desired ports. The card supports up to 4 simultaneous displays and a maximum resolution of 7680x4320.



Figure 5: DisplayPort and HDMI outputs.

2. Software and Features

- **NVIDIA Control Panel:** After driver installation, access the NVIDIA Control Panel for advanced display settings, 3D settings, and resolution management.
- **MSI Center:** Download MSI Center from the MSI website to monitor your graphics card, customize RGB lighting, and optimize performance profiles.
- **Ray Tracing:** Experience realistic lighting, shadows, and reflections in supported games.
- **DLSS 3:** Utilize AI-powered upscaling and Frame Generation for significantly higher frame rates without compromising image quality.
- **NVIDIA G-SYNC:** Pair with a G-SYNC compatible monitor for tear-free, stutter-free gaming.

Maintenance

1. Cleaning

- Regularly clean dust from the graphics card fans and heatsink using compressed air.
- Ensure the computer is powered off and unplugged before cleaning.
- Hold the fan blades gently to prevent them from spinning rapidly during cleaning, which can damage the bearings.

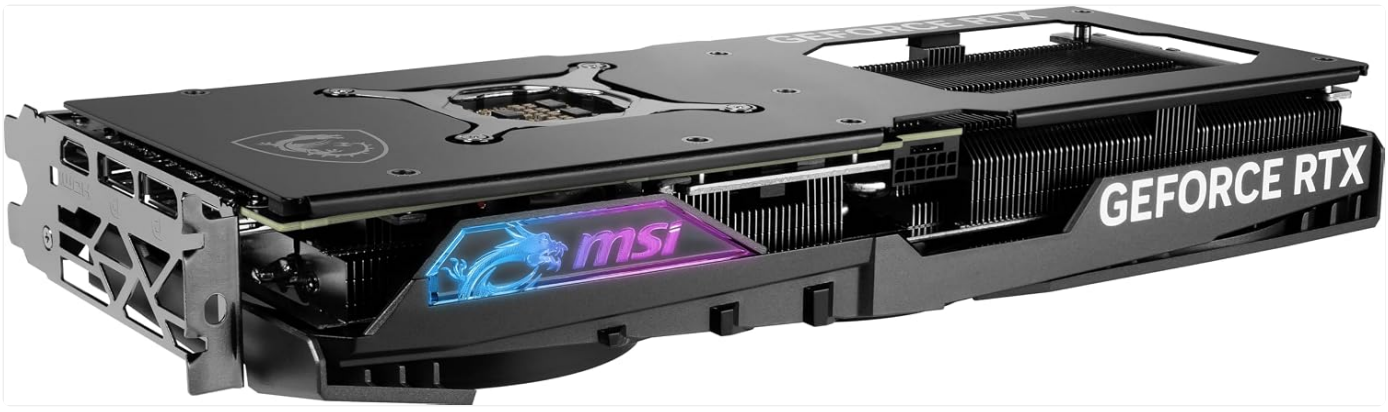


Figure 6: Keep the heatsink and fans clear of dust for optimal cooling.

2. Driver Updates

Periodically check the NVIDIA and MSI websites for the latest driver updates. Keeping your drivers up-to-date ensures optimal performance, stability, and access to new features.

3. Temperature Monitoring

Use monitoring software (e.g., MSI Afterburner, MSI Center) to keep an eye on your graphics card's temperature, especially during heavy loads. Maintain good airflow within your PC case to prevent overheating.

Troubleshooting

- **No Display Output:**
  - Ensure the graphics card is fully seated in the PCIe slot.
  - Verify all power cables are securely connected to the graphics card.
  - Check that the display cable is connected to the graphics card, not the motherboard's integrated graphics port.
  - Try a different display cable or monitor.
- **Poor Performance in Games:**
  - Ensure the latest graphics drivers are installed.
  - Check in-game settings; reduce resolution or graphics quality if necessary.
  - Monitor GPU temperature to ensure it's not overheating and throttling performance.
  - Verify your power supply meets the minimum wattage requirement.
- **System Crashes or Freezes:**
  - Update graphics drivers.
  - Check for system stability with other components.
  - Ensure adequate cooling and power delivery.

Specifications

Feature	Specification
Graphics Processing Unit	NVIDIA GeForce RTX 4070 SUPER
Interface	PCI Express 4.0 x16
Boost Clock	2655 MHz
Memory Size	12GB GDDR6X
Memory Speed	21 Gbps
Memory Interface	192-bit
Output	3x DisplayPort (v1.4a), 1x HDMI (2.1)
Max Resolution	7680x4320
Recommended PSU	650W
Dimensions (LxWxH)	12.1 x 4.9 x 0.1 inches (approx.)
Weight	3.48 pounds (approx.)

Warranty and Support

For warranty information, technical support, or service inquiries, please visit the official MSI support website or contact your local retailer. Keep your proof of purchase for warranty claims.

MSI Support Website: www.msi.com/support

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