ASUS DUAL-RTX5050-O8G

ASUS Dual GeForce RTX™ 5050 8GB GDDR6 OC Edition Graphics Card User Manual

INTRODUCTION

The ASUS Dual GeForce RTX™ 5050 graphics card delivers robust thermal performance and broad compatibility. It features advanced cooling solutions, including two Axial-tech fans designed to optimize airflow to the heatsink. With a compact 2-slot form factor, this card provides significant graphics performance in a smaller footprint, making it suitable for various PC builds.

PRODUCT FEATURES

- **AI Performance:** Offers 433 AI TOPS, powered by the NVIDIA Blackwell architecture and DLSS 4 for enhanced graphics and performance.

- **Axial-tech Fan Design:** Features a smaller fan hub for longer blades and a barrier ring to increase downward air pressure, improving cooling efficiency.

Image: ASUS Dual GeForce RTX 5050 showcasing Axial-tech fan design and 0dB Technology.

- **0dB Technology:** Fans stop completely when GPU temperatures are below 50°C, allowing for silent operation during light tasks. Fans restart at 55°C to balance performance and acoustics.

- **Compact 2-Slot Design:** Maximizes compatibility and cooling efficiency, enabling superior performance in small chassis.

Image: ASUS Dual GeForce RTX 5050 highlighting its SFF-Ready 2-slot design for broad compatibility.

- **Dual BIOS:** Allows users to switch between Quiet and Performance BIOS profiles for customized operation.
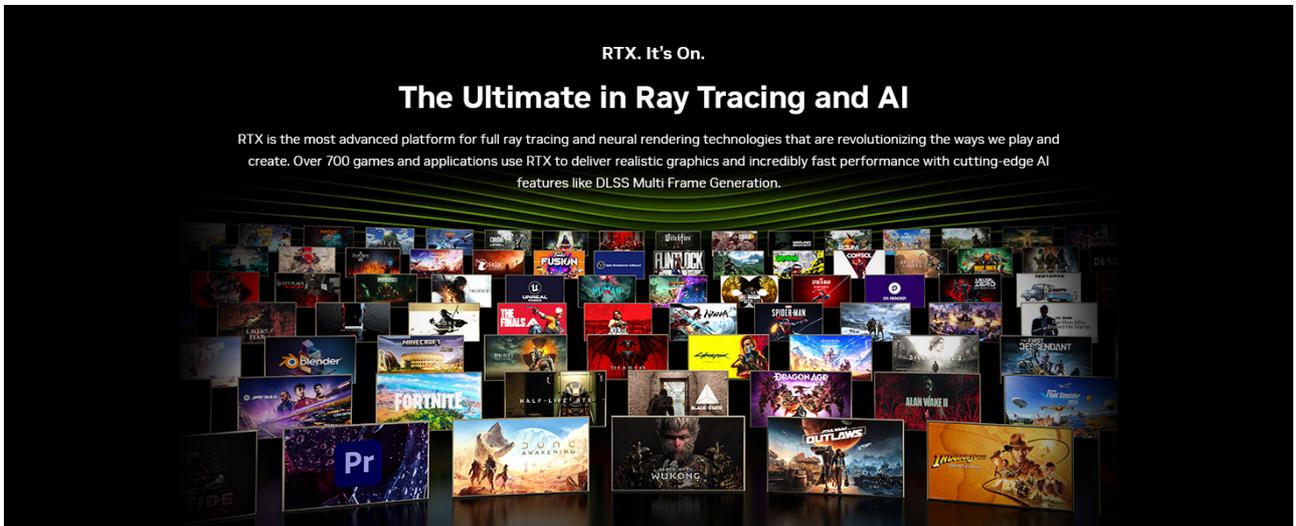

Image: Close-up of the ASUS Dual GeForce RTX 5050 showing the Dual BIOS switch.

- **Vented Backplate:** Improves heat dissipation, keeping the GPU cooler during heavy workloads and supporting overall system stability.
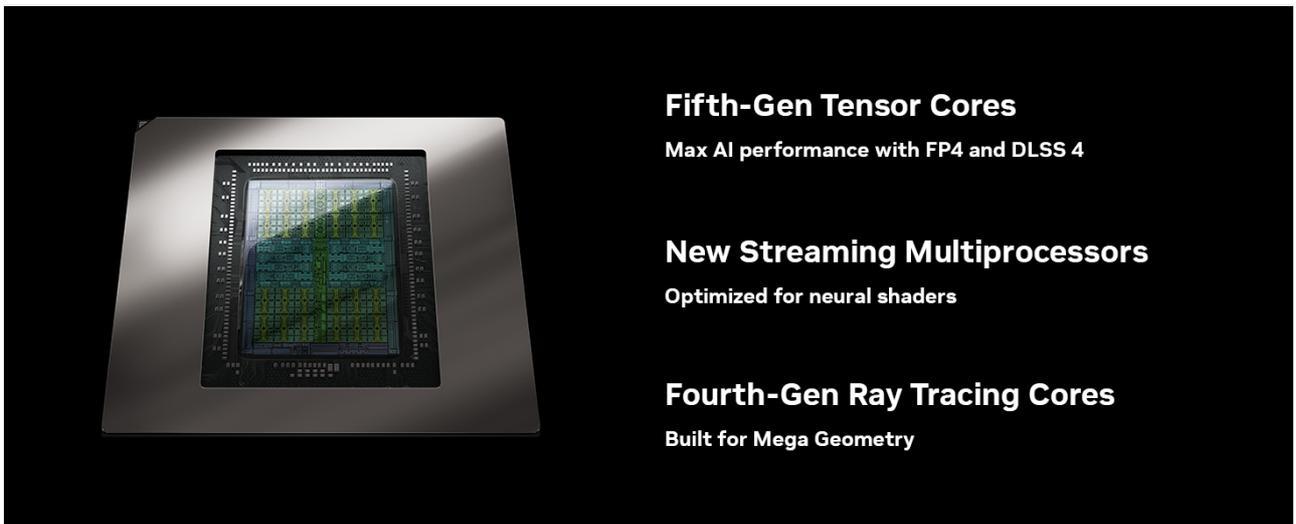

Image: Rear view of the ASUS Dual GeForce RTX 5050 illustrating the vented backplate for heat dissipation.

- **Stainless Steel Bracket:** The mounting bracket is reinforced with 304 Stainless Steel for increased durability and corrosion resistance.

NVIDIA DLSS 4

**Supreme Speed.
Superior Visuals.
Powered by AI.**

DLSS is a revolutionary suite of neural rendering technologies that uses AI to boost FPS, reduce latency, and improve image quality. The latest breakthrough, DLSS 4, brings new Multi Frame Generation and enhanced Ray Reconstruction and Super Resolution, powered by GeForce RTX™ 50 Series GPUs and fifth-generation Tensor Cores. DLSS on GeForce RTX is the best way to play, backed by an NVIDIA AI supercomputer in the cloud constantly improving your PC's gaming capabilities.
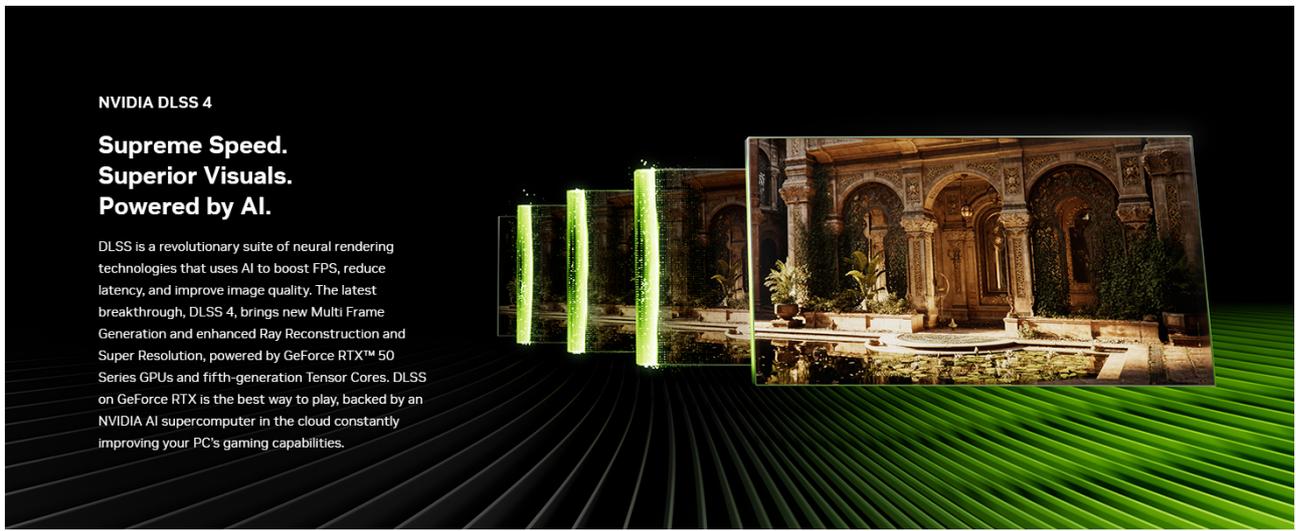
Image: Detail of the ASUS Dual GeForce RTX 5050's stainless steel I/O bracket.

- **Auto-Extreme Manufacturing:** An automated manufacturing process that enhances precision and reliability.
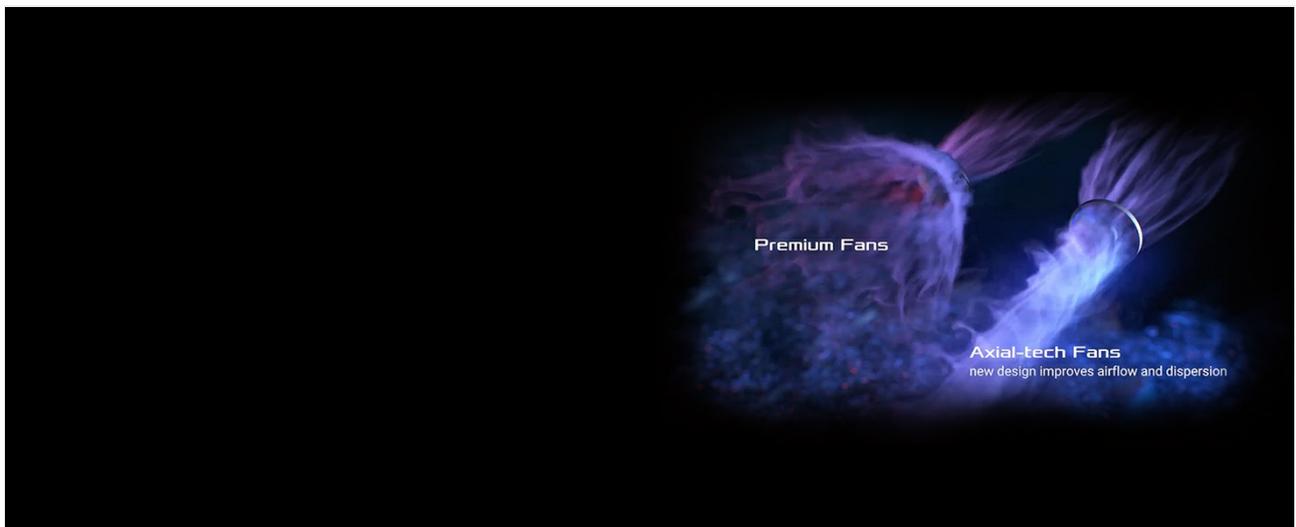

Image: Illustration of the Auto-Extreme Technology manufacturing process for the ASUS Dual GeForce RTX 5050.

- **GPU Tweak III Software:** Provides intuitive performance tweaking, advanced thermal control, and system monitoring.

NVIDIA Reflex 2

Compete at Warp Speed

Reflex technologies optimize the graphics pipeline for ultimate responsiveness, providing faster target acquisition, quicker reaction times, and improved aim precision in competitive games. Reflex 2 introduces Frame Warp, which further reduces latency based on the game's latest mouse input.

Image: ASUS Dual GeForce RTX 5050 with an overlay showing the GPU Tweak III software interface.

What's in the Box

Upon opening your ASUS Dual GeForce RTX™ 5050 package, you should find the following items:

- DUAL-RTX5050-O8G Graphics Card
- Speed Setup Manual
- Thank You Card

SETUP

Follow these steps to install your ASUS Dual GeForce RTX™ 5050 graphics card:

1. **Prepare Your System:** Power off your computer and unplug all cables. Open your PC case.

2. **Locate PCIe Slot:** Identify an available PCI Express x16 slot on your motherboard. This card is a 2-slot design, so ensure adequate space.

Image: The ASUS Dual GeForce RTX 5050 graphics card, ready for installation.

3. **Install the Graphics Card:** Carefully align the graphics card with the PCIe slot and press down firmly until it is securely seated. Secure the card to the chassis with screws.

4. **Connect Power (if applicable):** This model typically draws power directly from the PCIe slot. Refer to your power supply unit (PSU) and motherboard documentation if additional power connectors are present or required

for your specific system configuration. You can use the ASUS Power Supply Calculator to estimate your power needs.

5. **Connect Display Cables:** Connect your monitor(s) to the graphics card's output ports (HDMI 2.1b, DisplayPort 2.1b).

Image: Close-up of the ASUS Dual GeForce RTX 5050's display output ports (HDMI and DisplayPort).

6. **Close Case and Power On:** Close your PC case, reconnect all cables, and power on your computer.

7. **Install Drivers:** Once your operating system loads, install the latest NVIDIA drivers for your GeForce RTX 5050 from the official NVIDIA website or the ASUS support page.

Official Product Video: ASUS Dual GeForce RTX 5050

Your browser does not support the video tag.

Video: An official overview of the ASUS Dual GeForce RTX 5050, highlighting its design and features.

OPERATING

To optimize your experience with the ASUS Dual GeForce RTX™ 5050:

- **Driver Updates:** Regularly update your graphics drivers from the NVIDIA website to ensure optimal performance and compatibility with the latest games and applications.

- **Dual BIOS Switch:** Utilize the physical Dual BIOS switch on the card to toggle between 'Performance' mode (maximizes cooling for higher clock speeds) and 'Quiet' mode (less aggressive fan curve for quieter operation).

- **GPU Tweak III:** Install and use the ASUS GPU Tweak III software for advanced control over your graphics card. This utility allows you to monitor GPU statistics, adjust clock speeds, fan curves, and power targets to fine-tune performance or reduce noise.

- **NVIDIA DLSS 4:** Enable NVIDIA DLSS (Deep Learning Super Sampling) in supported games to boost frame rates and generate sharp images using AI rendering.

MAINTENANCE

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

- **Dust Removal:** Periodically clean dust from the fans and heatsink using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **Airflow:** Maintain good airflow within your PC case by ensuring other components do not obstruct the graphics card's fans.
- **Temperature Monitoring:** Use monitoring software (like GPU Tweak III) to keep an eye on GPU temperatures, especially during heavy loads, to prevent overheating.

TROUBLESHOOTING

If you encounter issues with your graphics card, consider the following:

- **No Display:**
  - Ensure the graphics card is fully seated in the PCIe slot.
  - Verify display cables are securely connected to both the card and the monitor.
  - Check if your monitor is set to the correct input source.
  - Test with a different display cable or monitor if possible.
- **Performance Issues/Crashes:**
  - Update your graphics drivers to the latest version.
  - Monitor GPU temperatures to ensure it's not overheating.
  - Ensure your power supply unit (PSU) meets the minimum wattage requirements for your system.
  - If overclocked, revert to default settings.
- **Fan Noise:**
  - Check for dust accumulation on the fans and heatsink.
  - Switch to 'Quiet' BIOS mode using the Dual BIOS switch.
  - Adjust fan curves using GPU Tweak III software.

SPECIFICATIONS

Feature	Specification
Model Number	DUAL-RTX5050-O8G
Graphics Coprocessor	NVIDIA GeForce RTX 5050
Graphics RAM Size	8 GB GDDR6
GPU Clock Speed (OC Mode)	2677 MHz
GPU Clock Speed (Default Mode)	2647 MHz
Max Screen Resolution	7680x4320 Pixels

Video Output Interface	Native DisplayPort 2.1b, Native HDMI 2.1b
Item Weight	1.1 pounds
Product Dimensions	8 x 4.7 x 1.6 inches
Color	BLACK

WARRANTY AND SUPPORT

Your ASUS Dual GeForce RTX™ 5050 graphics card comes with a manufacturer's warranty. For detailed warranty information, technical support, driver downloads, and FAQs, please visit the official ASUS support website. Keep your purchase receipt for warranty claims.
For further assistance, you can visit the ASUS Store on Amazon.