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ASUS DUAL-RTX3060-O12G-V2

ASUS Dual GeForce RTX 3060 OC Edition 12GB GDDR6 Graphics Card User Manual

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your ASUS Dual GeForce RTX 3060 OC Edition 12GB GDDR6 Graphics Card. Please read this guide thoroughly before using the product to ensure optimal performance and longevity.

The ASUS Dual GeForce RTX 3060 OC Edition is a high-performance graphics card designed for gaming and creative applications. It features 12GB of GDDR6 memory, NVIDIA Ampere architecture, Ray Tracing, and DLSS technology, delivering exceptional visual fidelity and smooth frame rates.

2. PACKAGE CONTENTS

Verify that all items are present in your product package:

- ASUS Dual GeForce RTX 3060 OC Edition 12GB GDDR6 Graphics Card (Model: DUAL-RTX3060-O12G-V2)
- Quick Start Guide / User Manual
- Support CD (may include drivers and utilities)

3. SETUP AND INSTALLATION

Before installation, ensure your computer is completely powered off and unplugged from the power source. It is recommended to wear an anti-static wrist strap to prevent electrostatic discharge (ESD) damage.

3.1 Hardware Installation

1. Open your computer case and locate an available PCI Express 4.0 x16 slot on your motherboard.
2. Remove any expansion slot covers corresponding to the size of your graphics card.
3. Carefully insert the graphics card into the PCI Express slot until it clicks securely into place.
4. Secure the graphics card to the chassis with the required screws.
5. Connect the 8-pin supplementary power connector from your power supply unit (PSU) to the graphics card. Ensure your PSU meets the minimum power requirements for the RTX 3060.
6. Close your computer case.



Figure 3.1: Front view of the ASUS Dual GeForce RTX 3060 OC Edition Graphics Card.



Figure 3.2: Side view showing the 8-pin power connector on the ASUS Dual GeForce RTX 3060 OC Edition Graphics Card.

3.2 Connecting Display Devices

Connect your monitor(s) to the graphics card using compatible cables. The card supports multiple display outputs:

- HDMI 2.1
- DisplayPort 1.4a



Figure 3.3: Display output ports on the ASUS Dual GeForce RTX 3060 OC Edition Graphics Card, including HDMI and DisplayPort.

3.3 Driver Installation

After hardware installation, power on your computer. You will need to install the latest graphics drivers for optimal performance. Visit the official ASUS support site at <https://www.asus.com/support/>. Select 'Graphics Cards' from the menu, find your product model (DUAL-RTX3060-O12G-V2), and download the latest drivers and utilities for your operating system.

4. OPERATING THE GRAPHICS CARD

Your ASUS Dual GeForce RTX 3060 OC Edition graphics card is designed to deliver high performance for gaming and demanding applications.

4.1 Performance Modes

The card operates with different clock speeds depending on the mode:

- **OC Mode:** 1867MHz (Boost Clock) for maximum performance.
- **Gaming Mode:** 1837MHz (Boost Clock) for balanced performance.

These modes can typically be managed through ASUS GPU Tweak software, allowing you to optimize performance based on your needs.

4.2 Key Technologies

- **NVIDIA Ray Tracing:** Experience realistic lighting, shadows, and reflections in supported games.
- **NVIDIA DLSS:** AI-powered rendering that boosts frame rates with uncompromised image quality.
- **RGB Lighting:** The card features subtle RGB lighting elements that can be customized via ASUS software.

4.3 Multi-Monitor Support

The graphics card supports a maximum digital resolution of 7680 x 4320, allowing for immersive multi-monitor

setups or high-resolution displays.

5. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your graphics card.

- **Cleaning:** Regularly clean dust from the fans and heatsink using compressed air. Ensure the computer is powered off and unplugged before cleaning.
- **Airflow:** Maintain good airflow within your PC case to prevent overheating. Ensure case fans are functioning correctly and cables are managed to avoid obstructing airflow.
- **Driver Updates:** Keep your graphics drivers updated to the latest version from the ASUS support website or NVIDIA's official website.

6. TROUBLESHOOTING

If you encounter issues with your graphics card, refer to the following common troubleshooting steps:

- **No Display Output:**
 - Ensure the monitor cable is securely connected to both the graphics card and the monitor.
 - Verify that the 8-pin power connector is properly seated in the graphics card.
 - Test with a different display cable or monitor if possible.
- **Performance Issues (Low FPS, Stuttering):**
 - Ensure your graphics drivers are up to date.
 - Check your system's temperatures using monitoring software. Overheating can lead to performance throttling.
 - Verify that your power supply unit (PSU) provides sufficient wattage for your system, especially under load.
- **Driver Crashes or Errors:**
 - Perform a clean installation of the graphics drivers.
 - Ensure your operating system is fully updated.

7. SPECIFICATIONS

Feature	Specification
Model	DUAL-RTX3060-O12G-V2
Graphics Engine	NVIDIA GeForce RTX 3060
Bus Standard	PCI Express 4.0
Video Memory	12GB GDDR6
Engine Clock (OC Mode)	1867MHz (Boost Clock)
Engine Clock (Gaming Mode)	1837MHz (Boost Clock)
CUDA Cores	3584

Memory Speed	15Gbps
Memory Interface	192-bit
Max Digital Resolution	7680 x 4320
Display Outputs	HDMI 2.1, DisplayPort 1.4a
Dimensions (LxWxH)	7.87 x 4.84 x 0.1 inches
Item Weight	11.3 ounces
Power Connector	1 x 8-pin

8. WARRANTY AND SUPPORT

For warranty information, technical support, and further assistance, please visit the official ASUS support website:

[ASUS Support Website](#)

You can also find the latest drivers, FAQs, and troubleshooting guides on the support page specific to your graphics card model.