GIGABYTE GV-N306TGAMING OC-8GD REV2.0

GIGABYTE GeForce RTX 3060 Ti Gaming OC 8G (REV2.0) Graphics Card Instruction Manual

Model: GV-N306TGAMING OC-8GD REV2.0

Brand: GIGABYTE

Contents   Setup   Operating   Maintenance   **Introduction   Features   Package**   Troubleshooting   Specifications   Warranty & Support

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your GIGABYTE GeForce RTX 3060 Ti Gaming OC 8G (REV2.0) Graphics Card. The GIGABYTE GeForce RTX 3060 Ti Gaming OC 8G (REV2.0) is a high-performance graphics card designed for gaming and demanding graphical applications. It features NVIDIA's Ampere architecture, including 2nd Generation RT Cores and 3rd Generation Tensor Cores, and is equipped with 8GB of GDDR6 memory. The WINDFORCE 3X Cooling System ensures efficient thermal management.

2. KEY FEATURES

- NVIDIA Ampere Streaming Multiprocessors
- 2nd Generation RT Cores
- 3rd Generation Tensor Cores
- Powered by GeForce RTX 3060 Ti
- Integrated with 8GB GDDR6 256-bit memory interface
- WINDFORCE 3X Cooling System with alternate spinning fans
- RGB Fusion 2.0 for customizable lighting
- Protection metal back plate
- Display Outputs: 2x DisplayPort, 2x HDMI
- LHR (Lite Hash Rate) version

- Core Clock: 1740MHz

3. Package Contents

Verify that all items are present in your product package:

- GIGABYTE GeForce RTX 3060 Ti Gaming OC 8G (REV2.0) Graphics Card
- Users Manual

4. Setup and Installation

Follow these steps to properly install your graphics card:

1. **Preparation:** Power off your computer and disconnect all cables. Open your computer case.
2. **Locate PCIe Slot:** Identify an available PCI Express x16 slot on your motherboard.
3. **Insert Graphics Card:** Carefully align the graphics card with the PCIe slot and press down firmly until it is securely seated. Ensure the retention clip locks into place.
4. **Secure Card:** Use screws or the case's locking mechanism to secure the graphics card to the case.
5. **Connect Power:** Connect the required PCIe power cables from your power supply to the graphics card. This model typically requires 8-pin and 6-pin PCIe power connectors.
6. **Connect Display:** Connect your monitor(s) to the DisplayPort or HDMI outputs on the graphics card.
7. **Close Case:** Close your computer case and reconnect all cables.
8. **Install Drivers:** Power on your computer. Once the operating system loads, download and install the latest graphics drivers from the official GIGABYTE or NVIDIA website.

Figure 1: Front view of the GIGABYTE GeForce RTX 3060 Ti Gaming OC 8G graphics card, showcasing its triple-fan
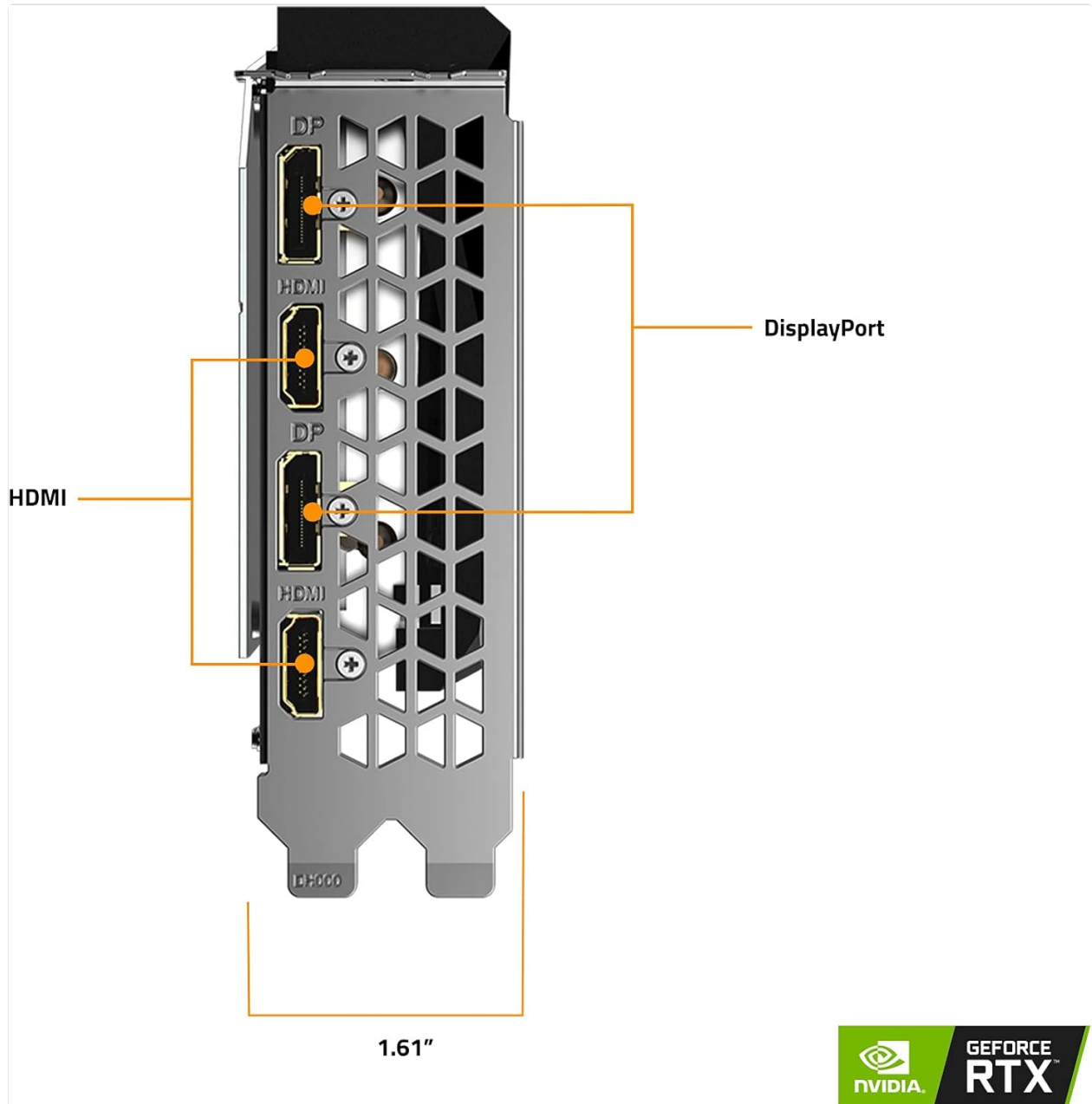
Figure 2: Rear panel of the graphics card, showing the DisplayPort and HDMI output connectors for connecting to monitors.
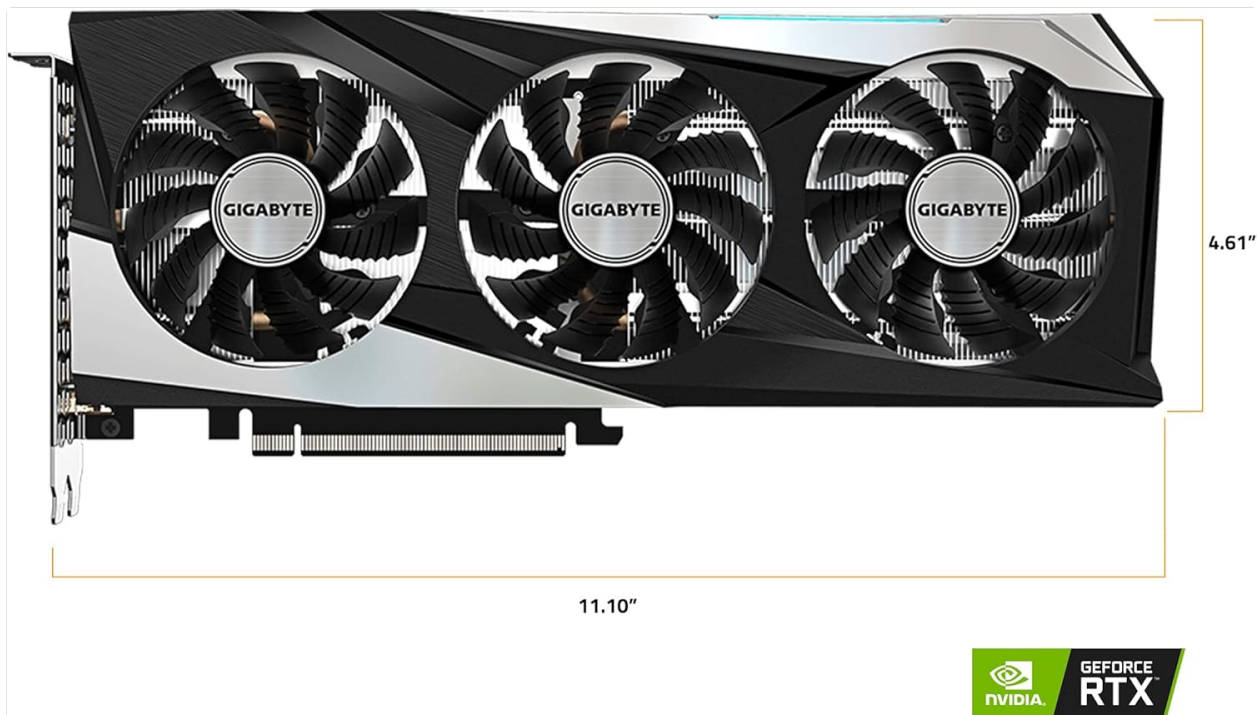
Figure 3: Diagram illustrating the physical dimensions of the graphics card, including length, width, and height, important for case compatibility.

5. OPERATING INSTRUCTIONS

5.1 Driver Installation

After physical installation, it is crucial to install the correct drivers for optimal performance. Visit the official GIGABYTE website or NVIDIA's driver download page to obtain the latest drivers for your GeForce RTX 3060 Ti graphics card. Follow the on-screen instructions for a clean installation.

5.2 Software and Customization

GIGABYTE provides software such as RGB Fusion 2.0, which allows you to customize the RGB lighting effects on your graphics card. You can also use GIGABYTE's AORUS Engine utility for monitoring performance, adjusting clock speeds, and fan curves.

5.3 Display Configuration

Once drivers are installed, access your operating system's display settings to configure your monitor's resolution, refresh rate, and multiple display setups. Ensure your monitor is connected to the graphics card's DisplayPort or HDMI outputs.

6. MAINTENANCE

Regular maintenance helps ensure the longevity and optimal performance of your graphics card.

6.1 Cleaning

- Periodically clean dust from the graphics card's 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.

6.2 Airflow

- Maintain good airflow within your computer case to prevent overheating.
- Ensure case fans are properly installed and functioning.
- Avoid obstructing the graphics card's fans or exhaust vents.

7. TROUBLESHOOTING

If you encounter issues with your graphics card, refer to the following common problems and solutions:

7.1 No Display Output

- Ensure the monitor cable is securely connected to both the graphics card and the monitor.
- Verify that the graphics card is fully seated in the PCIe slot.
- Check that all PCIe power connectors are securely attached to the graphics card.
- Test with a different display cable or monitor if possible.

7.2 Driver-Related Issues

- Perform a clean installation of the latest graphics drivers. Uninstall existing drivers before installing new ones.
- Ensure your operating system is up to date.

7.3 Overheating

- Improve case airflow by ensuring proper fan configuration and cable management.
- Clean dust from the graphics card's heatsink and fans.
- Monitor temperatures using software like GIGABYTE AORUS Engine or MSI Afterburner.

7.4 Performance Issues

- Ensure your system meets the minimum requirements for the games or applications you are running.
- Update your graphics drivers and motherboard BIOS to the latest versions.
- Check for background applications consuming system resources.

8. SPECIFICATIONS

Feature	Specification
Graphics Coprocessor	NVIDIA GeForce RTX 3060 Ti
Brand	GIGABYTE
Graphics Card Ram Size	8 GB GDDR6
GPU Clock Speed	14000 MHz (Memory Speed) / 1740MHz (Core Clock)
Video Output Interface	DisplayPort, HDMI (2x DisplayPort, 2x HDMI)
Max Screen Resolution	7680x4320

Feature	Specification
Item Model Number	GV-N306TGAMING OC-8GD REV2.0
Item Weight	1.83 pounds
Product Dimensions	11.1 x 4.61 x 1.61 inches
Date First Available	July 28, 2021

9. WARRANTY & SUPPORT

For detailed warranty information, including terms, conditions, and registration, please visit the official GIGABYTE website. Keep your purchase receipt as proof of purchase for any warranty claims.
For technical support, driver downloads, and FAQs, please refer to the support section of the GIGABYTE website. You may also contact GIGABYTE customer service directly for assistance.

- **GIGABYTE Official Website:** www.gigabyte.com
- **Support Page:** Refer to the support section on the official website for your specific model.