

MSI RTX 2060 Super Gaming X

MSI GeForce RTX 2060 Super Gaming X Graphics Card User Manual

Model: RTX 2060 Super Gaming X | Brand: MSI

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your MSI GeForce RTX 2060 Super Gaming X graphics card. The GeForce RTX 2060 Super is powered by NVIDIA Turing architecture, designed for enhanced gaming and creative performance with dedicated AI and ray tracing cores. This GPU offers significant performance improvements over previous generations, ensuring a superior visual experience. It is recommended to keep drivers updated and optimize game settings using GeForce Experience for optimal performance.

2. PACKAGE CONTENTS

Verify that all items are present in the package:

- MSI GeForce RTX 2060 Super Gaming X Graphics Card
- Quick Setup Guide

3. PRODUCT OVERVIEW

The MSI GeForce RTX 2060 Super Gaming X features advanced cooling and customizable RGB lighting for an optimized user experience.



Figure 3.1: Front view of the MSI GeForce RTX 2060 Super Gaming X graphics card, showcasing its dual fan design and sleek aesthetic.

Key Features:

- **NVIDIA Turing Architecture:** Powered by NVIDIA Turing with NVIDIA GeForce RTX 2060 SUPER for advanced graphics.
- **Boost Clock:** Achieves a boost clock of 1695 MHz for high performance.
- **Video Memory:** Equipped with 8GB GDDR6 video memory.
- **Memory Interface:** Features a 256-bit memory interface.
- **Output Ports:** Includes DisplayPort x 3 (v1.4) and HDMI 2.0b x 1 for versatile connectivity.
- **TWIN-FROZR Cooling:** Utilizes MSI TWIN-FROZR 7 thermal design for high-performance cooling.
- **Zero Frozr Technology:** Fans stop in low-load situations to eliminate noise.
- **MSI Mystic Light:** Customize colors and LED effects, and synchronize with other compatible components via Dragon Center.
- **Brushed Metal Backplate:** Provides structural reinforcement and improved heat dissipation.



RTX 2060 SUPER GAMING X

TORX FAN 3.0

Great cooling, low noise



Figure 3.2: Close-up of the TORX FAN 3.0, highlighting its design for great cooling and low noise operation.



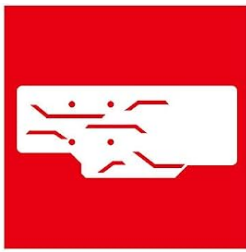
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RGB Mystic Light

Choose your own color



Figure 3.3: The graphics card illuminated with RGB Mystic Light, demonstrating customizable lighting effects.



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Metal Backplate

Reinforcement with thermal pads



Figure 3.4: Rear view showing the brushed metal backplate, which adds reinforcement and aids in thermal management.

- 1 Display Port
- 2 HDMI

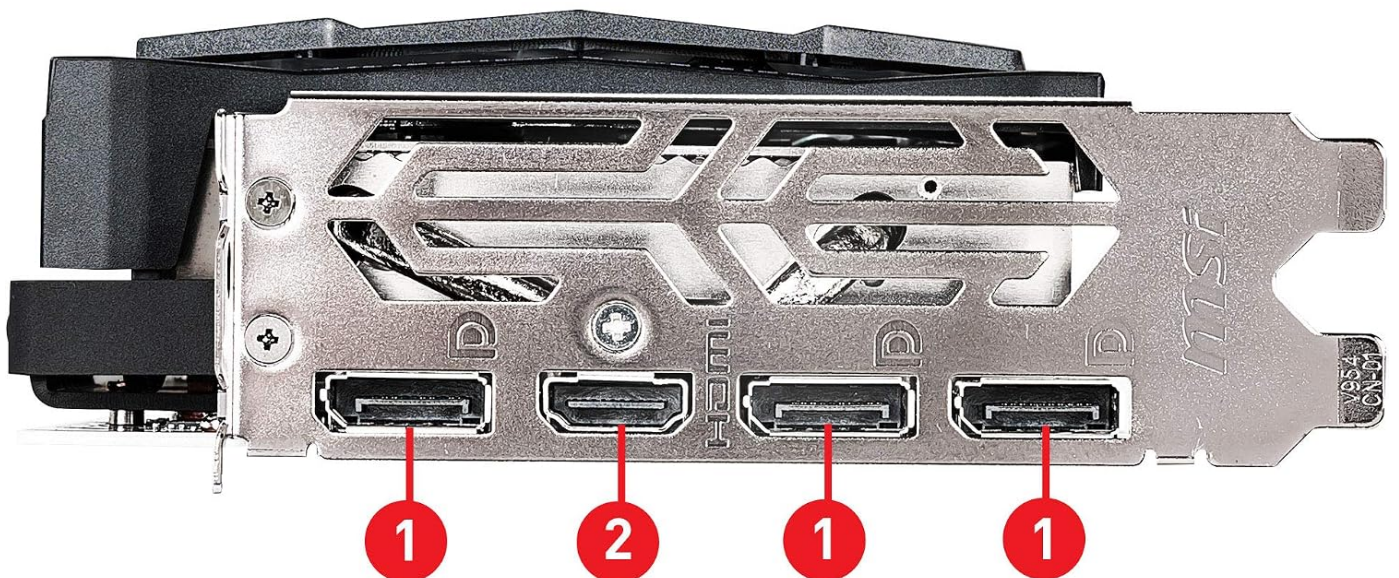


Figure 3.5: The output panel of the graphics card, featuring DisplayPort and HDMI connections.

4. SETUP AND INSTALLATION

Follow these steps to properly install your graphics card into your computer system.

1. **Preparation:** Power off your computer and unplug all cables. Open your computer case.
2. **Locate PCIe Slot:** Identify an available PCI Express x16 slot on your motherboard.
3. **Remove Slot Covers:** Remove the necessary expansion slot covers from your computer case corresponding to the graphics card's size.
4. **Install 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.
5. **Secure Card:** Secure the graphics card to the case with screws.
6. **Connect Power:** Connect the appropriate PCIe power connectors from your power supply to the graphics card. The RTX 2060 Super Gaming X typically requires 8-pin and/or 6-pin PCIe power connectors. Refer to your power supply and graphics card documentation for exact requirements.
7. **Close Case:** Close your computer case and reconnect all cables.
8. **Connect Display:** Connect your monitor to one of the graphics card's output ports (DisplayPort or HDMI).

5. OPERATING INSTRUCTIONS

After physical installation, software setup is required for full functionality.

1. **Power On:** Turn on your computer.
2. **Driver Installation:**
 - Insert the driver CD (if included) or download the latest drivers from the official MSI or NVIDIA website.
 - Follow the on-screen instructions to complete the driver installation. A restart may be required.
3. **NVIDIA GeForce Experience:** Install NVIDIA GeForce Experience to optimize game settings, update drivers, and access features like ShadowPlay for recording gameplay.
4. **MSI Dragon Center / Mystic Light:** Download and install MSI Dragon Center to customize RGB lighting effects (Mystic Light) and monitor system performance.
5. **MSI Afterburner:** For advanced users, MSI Afterburner is an overclocking utility that allows fine-tuning of clock speeds, voltage, and fan performance.



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Afterburner

Overclocking utility

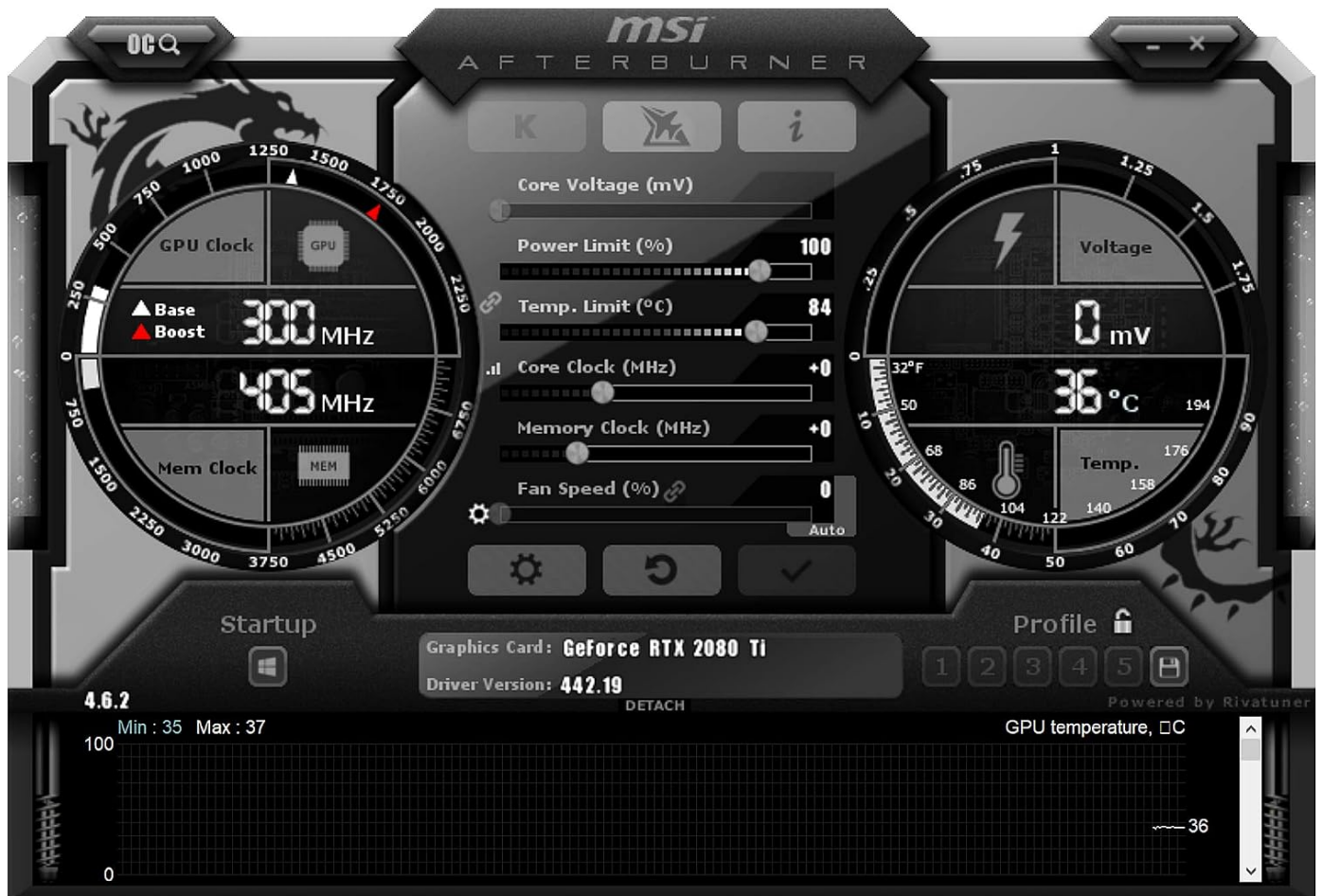


Figure 5.1: Screenshot of the MSI Afterburner utility, used for advanced overclocking and monitoring.

6. MAINTENANCE

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

- **Dust Removal:** Regularly clean dust from the fans and heatsink using compressed air. Ensure the computer is powered off and unplugged before cleaning.
- **Driver Updates:** Keep your graphics drivers updated to the latest version for performance improvements and bug fixes.
- **Temperature Monitoring:** Use software like MSI Afterburner or Dragon Center to monitor GPU temperatures during heavy load. Ensure temperatures remain within safe operating limits.
- **Airflow:** Ensure good airflow within your computer case to prevent overheating.

7. TROUBLESHOOTING

Common issues and their potential solutions:

- **No Display Output:**
 - Ensure the monitor cable is securely connected to the graphics card.
 - Verify the graphics card is fully seated in the PCIe slot and power connectors are attached.
 - Test with a different display cable or monitor if possible.
- **Driver Installation Issues:**
 - Uninstall any previous graphics drivers using Display Driver Uninstaller (DDU) in Safe Mode, then attempt a clean installation of the latest drivers.
 - Ensure your operating system is up to date.
- **Overheating/Performance Drops:**
 - Clean dust from the heatsink and fans.
 - Ensure adequate case airflow.
 - Check fan speeds using MSI Afterburner or Dragon Center.
- **System Instability/Crashes:**
 - Ensure your power supply unit (PSU) meets the minimum wattage requirements for your system, including the graphics card.
 - If overclocking, revert to default settings to check for stability.

8. SPECIFICATIONS

Feature	Detail
Graphics Processing Unit	NVIDIA GeForce RTX 2060 SUPER
Architecture	NVIDIA Turing
Boost Clock	1695 MHz
Video Memory	8GB GDDR6
Memory Interface	256-bit
Memory Speed	14000 MHz
Max Screen Resolution	7680x4320
Output Ports	3x DisplayPort (v1.4), 1x HDMI (2.0b)
Cooling System	MSI TWIN-FROZR 7 with TORX FAN 3.0, Zero Frozr Technology
Dimensions (LxWxH)	9.8 x 2 x 5 inches
Item Weight	2.2 pounds
Manufacturer	MSI
Model Number	RTX 2060 Super Gaming X

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official MSI website or contact MSI customer service. Keep your purchase receipt for warranty claims.

Official MSI Support: www.msi.com

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question