MSI RTX 2080 Super Gaming X TRIO

MSI GeForce RTX 2080 Super Gaming X Trio Graphics Card

User Manual

1. Overview

The MSI GeForce RTX 2080 Super Gaming X Trio is a high-performance graphics card designed for gaming and creative applications. It is powered by NVIDIA's Turing architecture, featuring dedicated AI and Ray Tracing cores for advanced visual experiences. This graphics card offers enhanced performance compared to previous generations, ensuring a superior computing experience.

This manual provides detailed instructions for the installation, operation, and maintenance of your MSI GeForce RTX 2080 Super Gaming X Trio graphics card. Please read it thoroughly before use to ensure proper functionality and to maximize the lifespan of your product.

2. Product Features

- **Chipset:** NVIDIA GeForce RTX 2080 Super
- **Boost Clock:** 1845 MHz
- **Video Memory:** 8GB GDDR6
- **Memory Interface:** 256-bit
- **Output:** DisplayPort x 3 (V1.4) / HDMI 2.0B x 1

Advanced Cooling System: Tri-Frozr Thermal Design

The Tri-Frozr thermal design incorporates three fans to provide efficient and quiet cooling. This advanced system ensures optimal temperatures even under heavy loads.

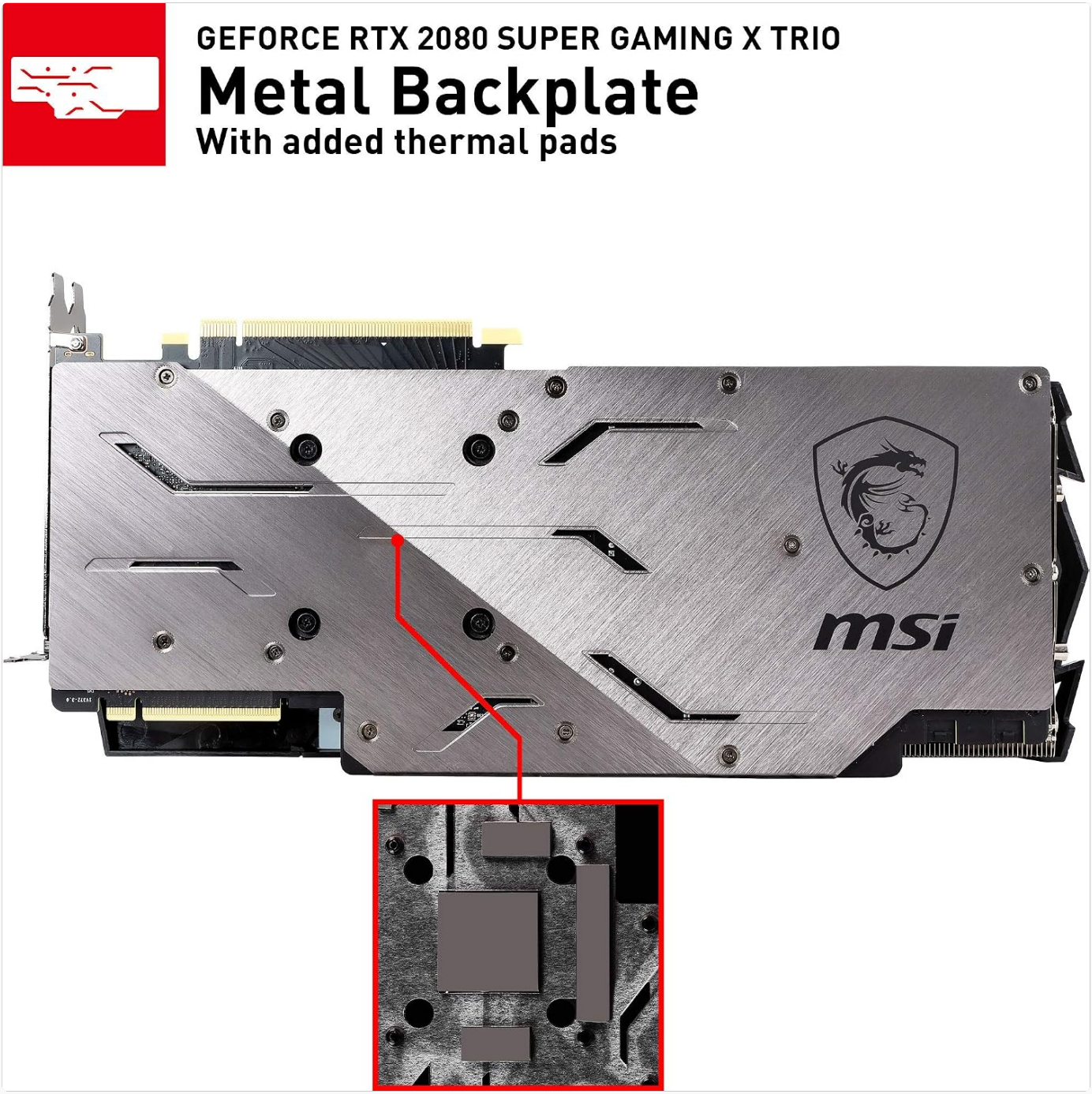


Image: The MSI GeForce RTX 2080 Super Gaming X Trio graphics card showcasing its Tri-Frozr cooling system with three fans.

TORX Fan 3.0

Equipped with TORX Fan 3.0, the fans feature two different blade shapes for improved airflow and reduced noise levels, contributing to superior cooling performance.



Image: A close-up view of the TORX Fan 3.0 blades, highlighting their unique design for enhanced airflow.

Zero Frozr Technology

The Zero Frozr feature stops the fans completely during low-load situations, eliminating fan noise when cooling is not actively needed. Fans will only activate when the GPU temperature exceeds a certain threshold, typically around 60°C.

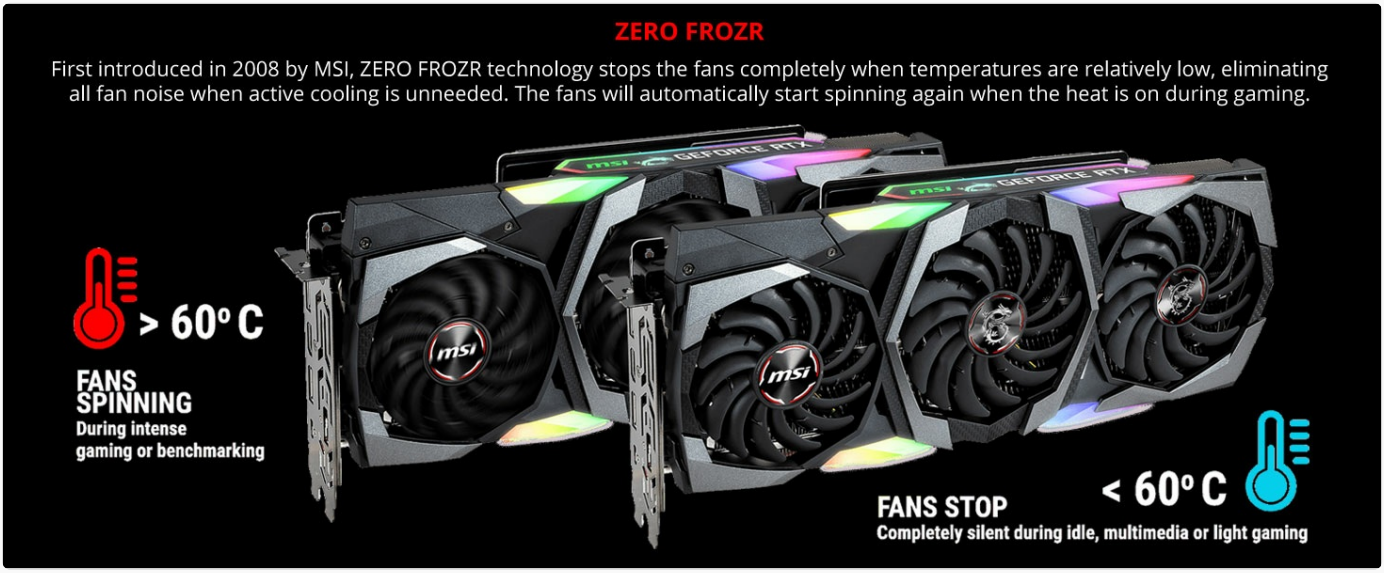


Image: An illustration demonstrating the Zero Frozr technology, showing fans stopping when the temperature is low.

RGB Mystic Light

Customize the aesthetics of your graphics card with RGB Mystic Light. Choose from millions of colors and various lighting effects to match your system's theme. This feature can be synchronized with other compatible third-party products using MSI's Mystic Light software.

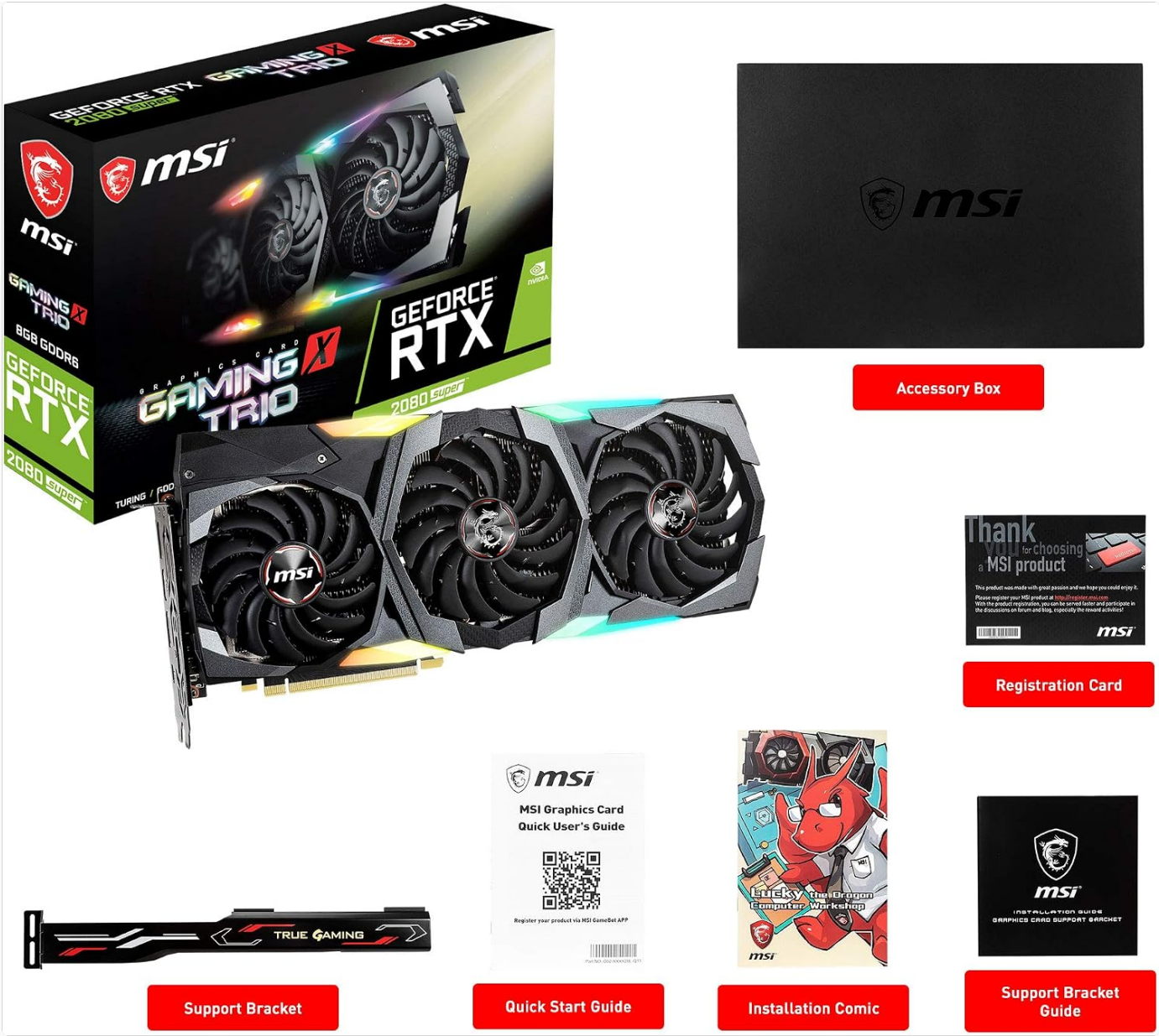


Image: The MSI GeForce RTX 2080 Super Gaming X Trio graphics card displaying its customizable RGB Mystic Light.

Metal Backplate

The card features a sturdy gunmetal gray metal backplate with a brushed finish. This backplate not only enhances the card's structural integrity but also aids in cooling by dissipating heat through integrated thermal pads.



Image: The metal backplate of the graphics card, showing the thermal pads underneath for improved heat dissipation.

Custom PCB Design

The graphics card utilizes a custom-designed Printed Circuit Board (PCB) with more layers and a robust power delivery system. This design ensures stable performance and reliability, especially when pushing the card to its limits through overclocking.

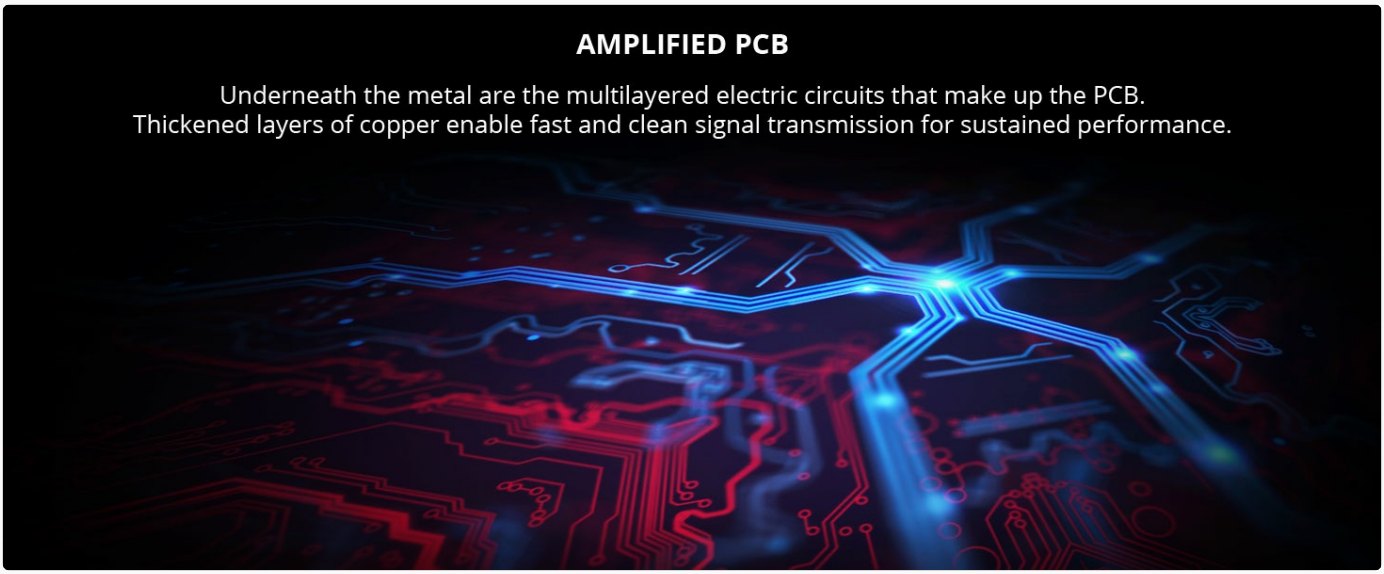


Image: An illustration of the custom PCB, highlighting the robust power delivery system.

3. Setup

Before installing your new graphics card, ensure your computer's power supply unit (PSU) meets the recommended wattage and has the necessary power connectors. Always power off your computer and disconnect it from the power outlet before opening the case.

1. **Prepare Your System:** Turn off your computer, unplug the power cord, and open the computer case.
2. **Remove Old Graphics Card (if applicable):** If you are replacing an existing graphics card, carefully remove it from the PCIe slot and disconnect any power cables.
3. **Install the Graphics Card:** Align the MSI GeForce RTX 2080 Super Gaming X Trio with an available PCI-Express x16 slot on your motherboard. Press down firmly until it is securely seated.
4. **Secure the Card:** Use the screw or latch mechanism on your computer case to secure the graphics card in place.
5. **Connect Power Cables:** Connect the required PCIe power cables from your PSU to the graphics card. Refer to your PSU manual for correct cable identification.
6. **Close Case and Connect Peripherals:** Close your computer case, reconnect the power cord, monitor, and other peripherals.
7. **Install Drivers:** Power on your computer. Once the operating system loads, install the latest NVIDIA drivers for your graphics card. These can be downloaded from the official NVIDIA website or through the GeForce Experience application.

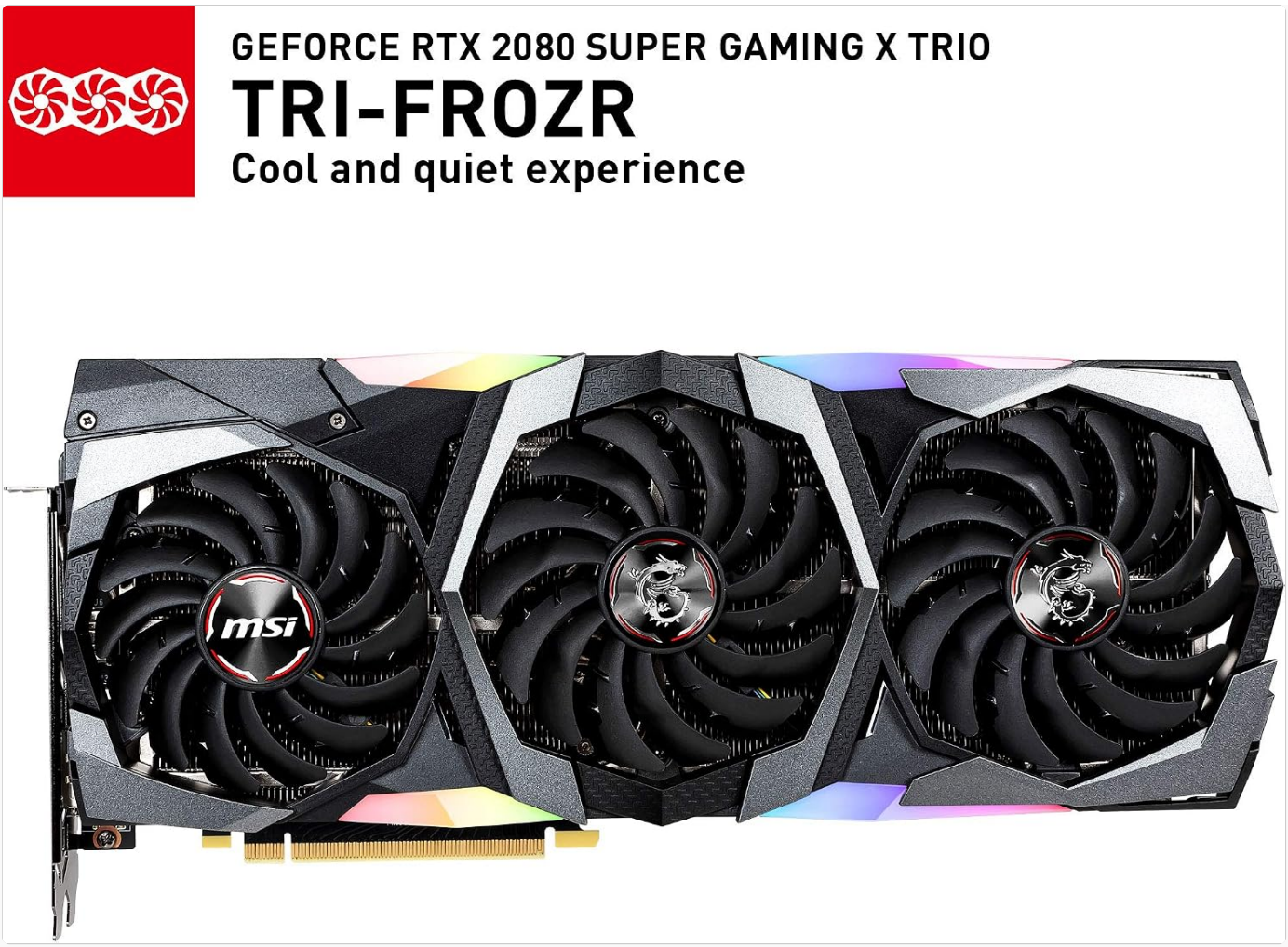


Image: The MSI GeForce RTX 2080 Super Gaming X Trio graphics card shown within its retail packaging, alongside included accessories like the quick setup guide and support bracket.



Image: A view of the display output ports on the graphics card, including DisplayPort and HDMI connections.

4. Operating Instructions

After successful installation and driver setup, your graphics card is ready for use. For optimal performance, ensure your drivers are always up to date.

GeForce Experience

NVIDIA GeForce Experience is a companion application that optimizes game settings, updates drivers, and allows you to capture and share gameplay videos, screenshots, and livestreams.

MSI Mystic Light Software

Utilize the MSI Mystic Light software to customize the RGB lighting effects on your graphics card. This software allows for personalized color schemes and synchronization with other compatible components in your system.

MSI Afterburner

For advanced users, MSI Afterburner provides comprehensive control over your graphics card, including overclocking capabilities, fan speed control, and real-time monitoring of GPU statistics. Exercise caution when overclocking to avoid potential damage.

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Video: An official MSI video showcasing the features and design of the MSI GeForce RTX 20 SUPER GAMING TRIO series graphics card, including its cooling system and RGB lighting.

5. Maintenance

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

- **Dust Removal:** Periodically clean the fans and heatsink to prevent dust buildup, which can impede airflow and lead to overheating. Use compressed air for best results.
- **Driver Updates:** Keep your graphics drivers updated to benefit from performance improvements, bug fixes, and new features.
- **Monitor Temperatures:** Use monitoring software (like MSI Afterburner) to keep an eye on GPU temperatures, especially during intensive tasks. Ensure temperatures remain within safe operating limits.
- **Ensure Proper Airflow:** Make sure your computer case has adequate airflow to prevent heat from accumulating around the graphics card.

6. Troubleshooting

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

- **No Display Output:** Double-check all power connections to the graphics card and ensure the monitor cable is securely connected to the graphics card's output. Try a different display port or cable.
- **System Instability/Crashes:** Ensure your drivers are up to date. If you have overclocked the card, try reverting to default settings. Check your PSU wattage to ensure it meets the card's requirements.
- **Overheating:** Verify that the fans are spinning correctly under load. Clean any dust from the heatsink and fans. Ensure proper case airflow.
- **Performance Issues:** Confirm that the latest drivers are installed. Check background applications that might be consuming resources.

For more complex issues, consult the MSI support website or contact their customer service.

7. Specifications

Graphics Coprocessor	NVIDIA GeForce RTX 2080

Brand	MSI
Graphics RAM Size	8 GB
Video Output Interface	DisplayPort, HDMI
Graphics Processor Manufacturer	NVIDIA
Graphics RAM Type	GDDR6
Compatible Devices	Desktop
Graphics Card Interface	PCI-Express x16
Memory Clock Speed	15.5 GHz
Number of Fans	3
Model Name	GeForce RTX 2080 SUPER GAMING X TRIO
Item Weight	3.4 Pounds

8. Warranty and Support

Your MSI GeForce RTX 2080 Super Gaming X Trio graphics card comes with a**3-year warranty**. Please retain your proof of purchase for warranty claims.

For technical support, driver downloads, and further product information, please visit the official MSI website. You can also find additional resources and support through the MSI GameBot application: MSI GameBot.

For any issues not covered in this manual, please contact MSI customer support.

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Name

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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