ZOTAC ZT-B50610H-10M

ZOTAC Gaming GeForce RTX 5060 Ti 8GB Twin Edge OC Graphics Card User Manual

Model: ZT-B50610H-10M

1. PRODUCT OVERVIEW

The ZOTAC Gaming GeForce RTX 5060 Ti 8GB Twin Edge OC is a high-performance graphics card designed for gaming and demanding graphical applications. It features the NVIDIA Blackwell architecture, DLSS 4 technology, and ZOTAC's IceStorm 2.0 cooling system in a compact, SFF-ready form factor.

Figure 1: ZOTAC Gaming GeForce RTX 5060 Ti 8GB Twin Edge OC Graphics Card and Packaging.

Key Features:

- Powered by NVIDIA Blackwell architecture and DLSS 4.
- SFF-ready compact card design (2-slot, 220.5mm length).
- IceStorm 2.0 Cooling with dual 90mm BladeLink fans, composite heatpipes, and pass-thru airflow.
- FREEZE Fan Stop for silent operation at low temperatures.
- Durable metal backplate.
- 8GB GDDR7 memory with a 128-bit interface and 28 Gbps speed.
- PCIe 5.0 interface.
- Video outputs: 3x DisplayPort 2.1b, 1x HDMI 2.1b.
- Supports 8K resolution and up to 4 displays.

2. SETUP AND INSTALLATION

This section provides instructions for installing your ZOTAC Gaming GeForce RTX 5060 Ti graphics card into your computer system.

2.1 System Requirements

- PCI Express-compliant motherboard with one x16 graphics slot.
- Minimum 650W power supply with one 8-pin PCIe power connector.
- Microsoft Windows 10/11 64-bit operating system.
- Minimum 8GB system memory (16GB recommended).

2.2 Hardware Installation

1. **Prepare Your System:** Turn off your computer and disconnect the power cable. Open your computer case.
2. **Locate PCIe Slot:** Identify an available PCI Express x16 slot on your motherboard. This card requires two expansion slots.
3. **Remove Slot Covers:** Remove the two metal slot covers from the back of your computer case corresponding to the chosen PCIe slot.
4. **Insert Graphics Card:** Carefully align the graphics card with the PCIe slot and press down firmly until it is securely seated. A click may be heard.
5. **Secure Card:** Fasten the graphics card to the case using the screws from the removed slot covers.
6. **Connect Power:** Connect the 8-pin PCIe power cable from your power supply to the corresponding power connector on the graphics card. Ensure a secure connection.

Figure 2: ZOTAC Gaming GeForce RTX 5060 Ti Graphics Card.

Figure 3: Display Output Ports (3x DisplayPort, 1x HDMI).

2.3 Driver Installation

1. **Reconnect and Power On:** Close your computer case, reconnect the power cable, and connect your display cable(s) to the graphics card. Power on your computer.

2. **Download Drivers:** Navigate to the official NVIDIA website (www.nvidia.com/drivers) or the ZOTAC website (www.zotac.com/support) to download the latest drivers for your GeForce RTX 5060 Ti.

3. **Install Drivers:** Follow the on-screen instructions to complete the driver installation. A system restart may be required.

3. OPERATING THE GRAPHICS CARD

Once installed and drivers are updated, your graphics card is ready for operation. It will automatically handle graphics processing for your system.

3.1 Display Connectivity

Connect your monitor(s) to the available ports on the graphics card. This model features:

- 3x DisplayPort 2.1b
- 1x HDMI 2.1b

The card supports up to 4 displays simultaneously and resolutions up to 7680x4320 (8K).

3.2 Cooling System (IceStorm 2.0)

The IceStorm 2.0 cooling system is designed for efficient heat dissipation. It includes dual 90mm BladeLink fans and composite heatpipes. The pass-thru airflow design allows air to flow directly through the heatsink for improved cooling performance.

Figure 4: Advanced Cooling and Compact Size Illustration.

3.3 FREEZE Fan Stop

The FREEZE Fan Stop feature automatically halts the fans when the GPU is under low load or temperature, providing silent operation. The fans will automatically resume when temperatures rise during more demanding tasks.

3.4 NVIDIA Technologies

This graphics card leverages advanced NVIDIA technologies to enhance your experience:

- **DLSS 4:** Deep Learning Super Sampling uses AI to boost frame rates while maintaining image quality.
- **Ray Tracing:** Simulates the physical behavior of light to bring real-time, cinematic-quality rendering to games.
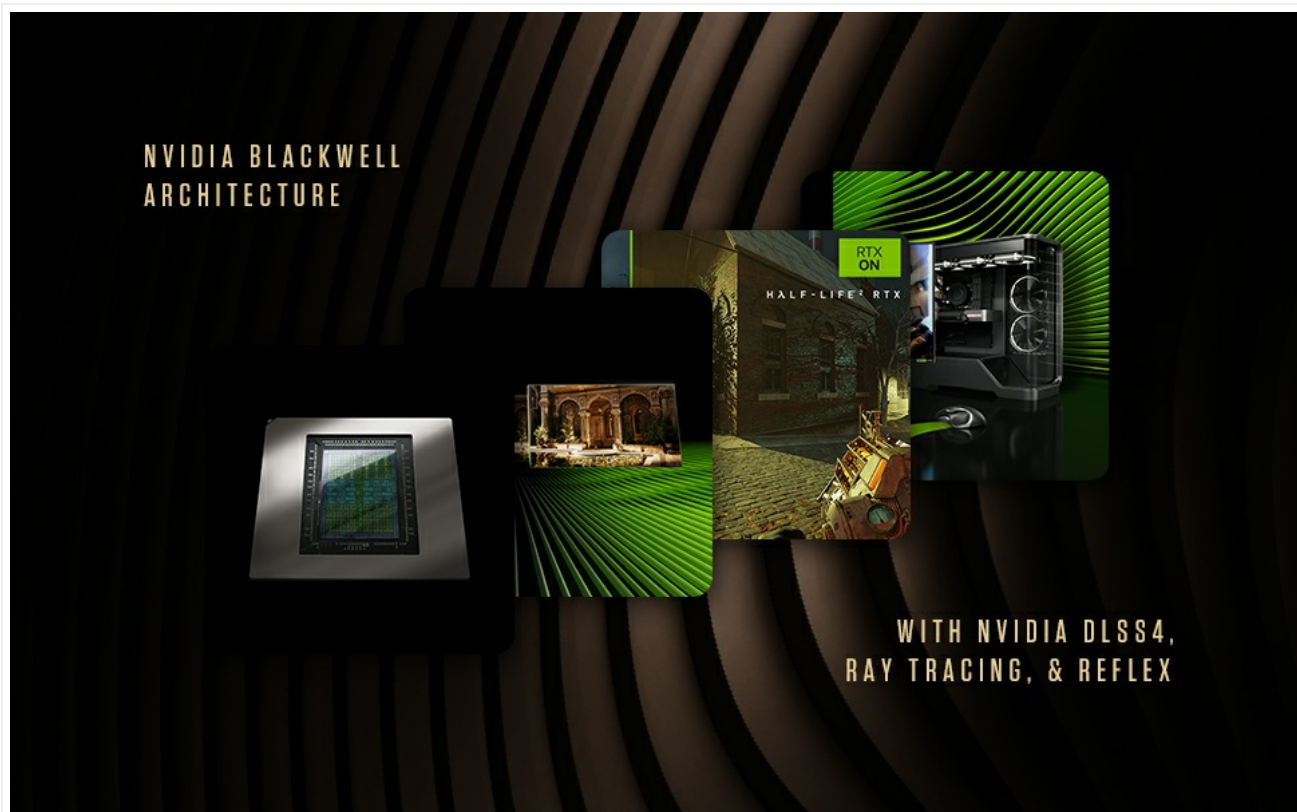- **NVIDIA Reflex:** Delivers the lowest latency and best responsiveness for a competitive advantage.

Figure 5: NVIDIA Blackwell Architecture and Key Technologies.

4. MAINTENANCE

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

4.1 Cleaning

- Regularly inspect the fans and heatsink for dust accumulation.
- Use compressed air to gently remove dust from the fan blades and heatsink fins. Ensure the fans are not spinning rapidly during cleaning to prevent damage.
- Do not use liquid cleaners directly on the card.

4.2 Software Updates

Keep your graphics drivers updated by regularly checking the NVIDIA or ZOTAC websites for the latest versions. Driver updates often include performance improvements, bug fixes, and support for new games and applications.

5. TROUBLESHOOTING

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

5.1 No Display Output

- Ensure all display cables are securely connected to both the graphics card and the monitor.
- Verify that the monitor is powered on and set to the correct input source.
- Check that the 8-pin PCIe power connector is firmly seated in the graphics card.
- Confirm the graphics card is fully seated in the motherboard's PCIe slot.
- Try connecting to a different display output port on the graphics card or using a different cable.

5.2 Driver Issues or Instability

- Perform a clean installation of the latest graphics drivers from the NVIDIA or ZOTAC website.
- Ensure your operating system is up to date.
- Check for any conflicting software or background applications.

5.3 Overheating

- Ensure adequate airflow within your computer case.
- Clean any dust accumulation from the graphics card fans and heatsink.
- Verify that the fans are spinning under load (unless FREEZE Fan Stop is active at low temperatures).

For further assistance, please contact ZOTAC customer support.

6. SPECIFICATIONS

Detailed technical specifications for the ZOTAC Gaming GeForce RTX 5060 Ti 8GB Twin Edge OC graphics card.

Feature	Specification
Graphics Processor	NVIDIA GeForce RTX 5060 Ti
NVIDIA Architecture	Blackwell
Video Memory	8GB GDDR7
Memory Interface	128-bit
Memory Speed	28 Gbps
Boost Clock	2602 MHz
PCI Express	PCIe 5.0
Display Outputs	3x DisplayPort 2.1b, 1x HDMI 2.1b
HDCP Support	2.3
Multi Display Support	Up to 4 displays
Max Digital Resolution	7680x4320 (8K)
Power Input	1x 8-pin PCIe
Recommended Power Supply	650W
Cooling	IceStorm 2.0 (Dual 90mm BladeLink Fans, Composite Heatpipes, Pass-thru Airflow, FREEZE Fan Stop)
Card Dimensions (LxWxH)	220.5mm x 120.25mm x 41.6mm (8.7 x 4.7 x 1.6 inches)
Slot Size	2-slot
Item Weight	1.68 pounds

Model Number	ZT-B50610H-10M

7. WARRANTY AND SUPPORT

ZOTAC provides comprehensive warranty coverage and customer support for its products.

7.1 Product Warranty

This ZOTAC Gaming graphics card comes with a standard warranty, which can be extended. Registration is required to activate the extended warranty.

- **Standard Warranty:** Typically 3 years.
- **Extended Warranty:** Up to 5 years (3+2 years) upon product registration.

Please visit the official ZOTAC website for detailed warranty terms and conditions, and to register your product.

Figure 6: ZOTAC 5 Years Extended Warranty Information.

Figure 7: ZOTAC 3+2 Year Warranty Information.

7.2 Customer Support

For technical assistance, troubleshooting, or warranty claims, please utilize the following resources:

- **ZOTAC Support Website:** Visit www.zotac.com/support for FAQs, driver downloads, and support contact information.

- **Online Chat:** ZOTAC offers 24/7 online chat support.
- **RMA Program:** Information regarding the Return Merchandise Authorization program can be found on the support website.
- **Online Communities:** Engage with other users and find community support through ZOTAC's official channels on platforms like Reddit, Discord, Instagram, Twitch, Facebook, YouTube, and X (formerly Twitter).
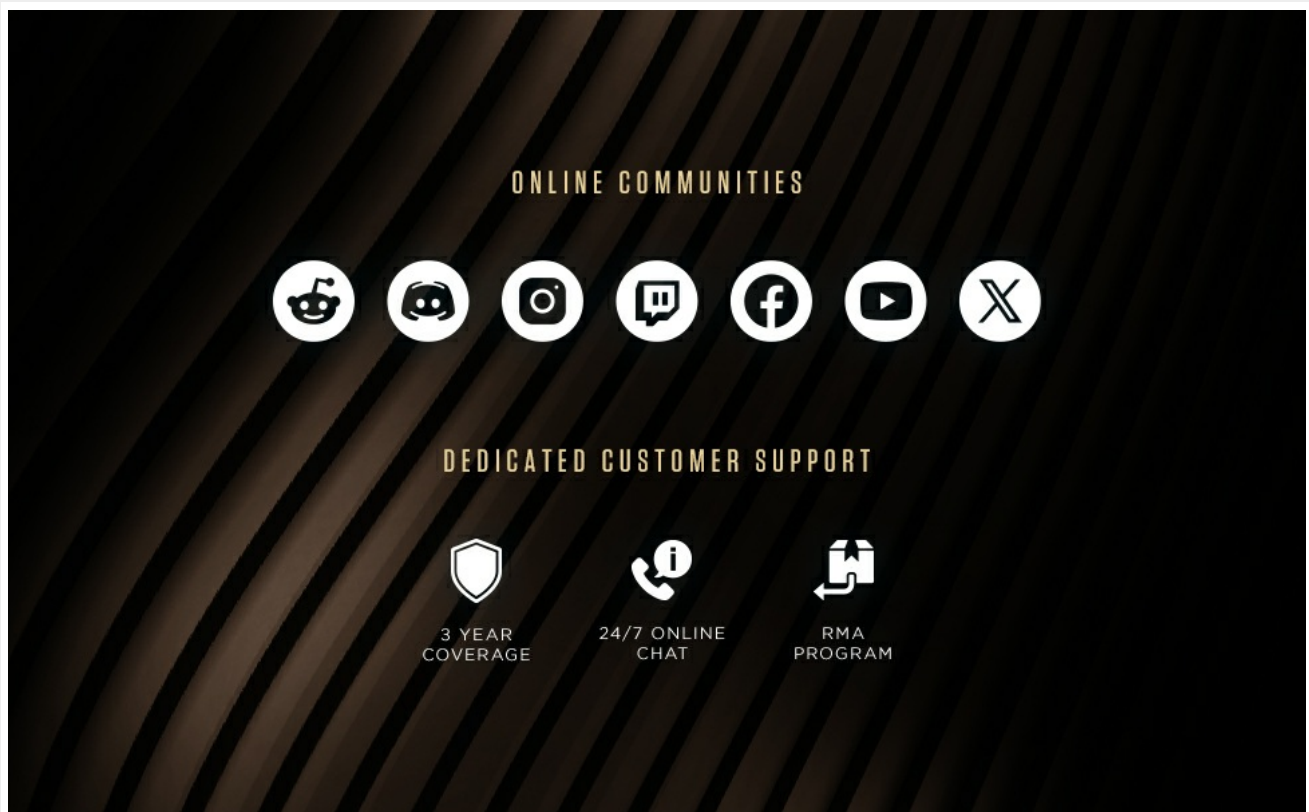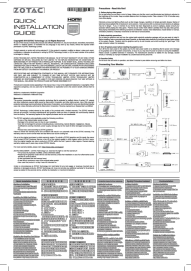

Figure 8: ZOTAC Online Communities and Support Options.

Related Documents - ZT-B50610H-10M

	[ZOTAC Graphics Card Installation and Driver Guide](#) Comprehensive guide for installing ZOTAC GeForce graphics cards and the latest NVIDIA drivers, including warranty information and safety precautions.
	[ZOTAC ZBOX MAGNUS EN275060TC User's Manual](#) Comprehensive user manual for the ZOTAC ZBOX MAGNUS EN275060TC mini PC, detailing product specifications, safety guidelines, hardware installation (memory, M.2 SSD), system setup, driver installation, wireless and audio configuration, and regulatory warnings.
	[ZOTAC GeForce GTX 1660 SUPER 6GB Quick Installation Guide](#) Official quick installation guide for the ZOTAC GeForce GTX 1660 SUPER 6GB graphics card, covering hardware setup, driver installation, and updates.

	ZOTAC ZBOX C1329nano Quick Start Guide A concise guide to setting up and customizing the ZOTAC ZBOX C1329nano mini PC, covering package contents, hardware installation, and port identification.
	ZOTAC ZBOX C Series Nano Quick Start Guide A concise and informative quick start guide for the ZOTAC ZBOX C Series Nano, detailing package contents, customization, memory module installation, and hard disk installation.
	ZOTAC ZBOX C1331 NANO User's Manual - Mini PC Setup and Guide Comprehensive user manual for the ZOTAC ZBOX C1331 NANO mini PC, covering product specifications, safety information, package contents, hardware installation, peripheral setup, driver installation, and usage instructions.

Documents - ZOTAC – ZT-B50610H-10M

[pdf] Specifications Datasheet Borchure

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