PowerColor AXR7 270X 2GBD5-TDHE/OC

PowerColor TurboDuo R9 270X Graphics Card User Manual

Model: AXR7 270X 2GBD5-TDHE/OC | Brand: PowerColor

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, maintenance, and troubleshooting of your PowerColor TurboDuo R9 270X 2GB GDDR5 OC Graphics Card. This high-performance graphics card is designed to enhance your computing experience, offering advanced visual capabilities for gaming, multimedia, and professional applications.

Key features include 1280 Stream Processors, 2GB of 256-Bit GDDR5 memory, and PCI Express 3.0 compatibility, ensuring robust performance and efficient data transfer.

2. SETUP AND INSTALLATION

2.1 Pre-Installation Checklist

- **System Compatibility:** Ensure your motherboard has an available PCI Express x16 slot.
- **Power Supply:** Verify your power supply unit (PSU) meets the minimum wattage requirements for the graphics card and your system's other components. This card typically requires a 6-pin PCIe power connector.
- **Clearance:** Confirm your computer case has sufficient space for the card's dimensions (approximately 8.9 x 5.1 x 1.5 inches).
- **Tools:** Gather a Phillips head screwdriver and an anti-static wrist strap (recommended).

2.2 Physical Installation

1. **Prepare Your System:** Power off your computer and unplug all cables. Open the computer case.
2. **Locate PCIe Slot:** Identify an available PCI Express x16 slot on your motherboard. Remove any expansion slot covers corresponding to the slot.
3. **Insert Graphics Card:** Carefully align the graphics card with the PCIe slot. Apply even, firm pressure to both ends of the card until it is fully seated in the slot. A click may be heard.

Figure 2.2.1: Angled view of the PowerColor TurboDuo R9 270X Graphics Card, showing its dual-fan cooler and display outputs.

4. **Secure the Card:** Secure the graphics card to the computer case using the screw from the removed expansion slot cover.

5. **Connect Power:** Connect the 6-pin PCIe power connector(s) from your power supply to the corresponding port(s) on the graphics card. Ensure a secure connection.

Figure 2.2.2: Front view of the PowerColor TurboDuo R9 270X Graphics Card, highlighting the dual cooling fans and PowerColor branding.

6. **Close Case:** Replace the computer case side panel.

7. **Connect Display:** Connect your monitor to one of the display output ports on the graphics card (DVI, DisplayPort, or HDMI).

Figure 2.2.3: Close-up view of the PowerColor TurboDuo R9 270X Graphics Card's display output ports, including DVI, HDMI, and DisplayPort.

2.3 Driver Installation

After physical installation, power on your computer. The operating system may automatically install a basic driver. For optimal performance and access to all features, it is crucial to install the latest official drivers from the AMD website.

- Visit the official AMD support website.
- Navigate to the driver download section for Radeon R9 270X series graphics cards.

- Download the appropriate driver package for your operating system (e.g., Windows 10 64-bit).
- Run the downloaded installer and follow the on-screen prompts. A system restart may be required.

3. OPERATING THE GRAPHICS CARD

3.1 Initial Boot and Verification

Upon successful driver installation, your operating system should recognize the PowerColor R9 270X. You can verify this through your system's Device Manager (Windows) under "Display adapters."

3.2 AMD Radeon Software

The AMD Radeon Software (formerly Catalyst Control Center) provides a comprehensive interface for managing your graphics card settings. This software allows you to:

- Adjust display resolution and refresh rates.
- Configure multi-display setups (AMD Eyefinity).
- Optimize game settings for performance or visual quality.
- Monitor GPU temperature, clock speeds, and fan speeds.
- Update drivers directly.

3.3 Multi-Monitor Setup

The PowerColor R9 270X supports multiple displays. Connect additional monitors to the available DVI, DisplayPort, or HDMI outputs. Use the AMD Radeon Software or your operating system's display settings to configure extended desktop, duplicate displays, or AMD Eyefinity for a panoramic gaming experience.

4. MAINTENANCE

4.1 Cleaning

Regular cleaning helps maintain optimal performance and extends the lifespan of your graphics card.

- **Dust Removal:** Periodically (e.g., every 3-6 months), power off your computer and use compressed air to gently blow dust from the heatsink fins and fan blades of the graphics card. Hold the fan blades gently to prevent them from spinning excessively during cleaning.
- **Case Airflow:** Ensure your computer case has good airflow to prevent dust buildup and maintain lower internal temperatures.

4.2 Driver Updates

Keep your graphics drivers updated to benefit from performance improvements, bug fixes, and compatibility with new games and applications. Check the official AMD website regularly for the latest driver releases.

4.3 Temperature Monitoring

Use the AMD Radeon Software or third-party monitoring tools to keep an eye on your GPU's temperature, especially during intensive tasks like gaming. Excessive temperatures can lead to performance throttling or component damage. Ensure proper case ventilation.

5. TROUBLESHOOTING

5.1 Common Issues and Solutions

- **No Display Output:**

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

- **Driver Installation Issues:**

    - Download the correct driver version for your operating system from the official AMD website.
    - Use a display driver uninstaller (DDU) in Safe Mode to remove previous drivers before installing new ones.

- **Poor Performance / Low FPS in Games:**

    - Ensure the latest drivers are installed.
    - Check GPU temperatures; overheating can cause throttling.
    - Verify that your system meets the game's minimum requirements.
    - Adjust in-game graphics settings to lower levels.
    - Ensure your power supply is adequate.

- **System Crashes / Blue Screens:**

    - This can indicate driver instability or hardware issues. Reinstall drivers cleanly.
    - Monitor GPU temperatures.
    - Check system memory (RAM) for errors.

6. SPECIFICATIONS

The following table details the technical specifications of the PowerColor TurboDuo R9 270X 2GB GDDR5 OC Graphics Card:

Feature	Detail
Model Number	AXR7 270X 2GBD5-TDHE/OC
Graphics Processor	AMD Radeon R9 270X
Stream Processors	1280
Video Memory	2GB GDDR5
Memory Interface	256-Bit
Memory Speed	1400 MHz (Effective)
Bus Standard	PCI Express 3.0
Max Resolution	4K Resolution
Output Ports	DVI, DisplayPort, HDMI
Dimensions (LxWxH)	8.9 x 5.1 x 1.5 inches

Feature	Detail
Item Weight	2 pounds

Figure 6.1: The PowerColor TurboDuo R9 270X Graphics Card alongside its retail packaging.

7. WARRANTY AND SUPPORT

7.1 Product Warranty

Your PowerColor TurboDuo R9 270X Graphics Card is covered by a limited warranty provided by PowerColor. The duration and terms of the warranty may vary by region and retailer. Please refer to the warranty information included with your product packaging or visit the official PowerColor website for detailed warranty policies. Keep your proof of purchase for warranty claims.

7.2 Technical Support

For technical assistance, driver downloads, or further inquiries, please visit the official PowerColor support website. The website typically offers:

- Driver and utility downloads.
- Frequently Asked Questions (FAQs).
- Contact information for customer service.
- Knowledge base articles.

Official PowerColor Website: www.powercolor.com

Related Documents - **AXR7 270X 2GBD5-TDHE/OC**

	[PowerColor Graphics Card Quick Installation Guide](#) A concise and SEO-optimized HTML guide for installing PowerColor graphics cards, including system requirements, hardware installation steps, and driver installation.
	[PowerColor Red Devil Quick Installation Guide](#) A guide to installing and setting up your PowerColor Red Devil graphics card, covering hardware installation, driver setup, and software features.
	[PowerColor Red Devil Graphics Card Quick Installation Guide](#) A concise guide for installing and setting up the PowerColor Red Devil graphics card, including system requirements, hardware installation, driver setup, and ARGB LED connection.
	[PowerColor Red Devil Graphics Card Quick Installation Guide](#) A concise and accessible guide for installing the PowerColor Red Devil graphics card, covering hardware setup, driver installation, and ARGB lighting configuration with detailed textual descriptions of visual elements.
	[PowerColor Graphics Card Quick Installation Guide](#) A comprehensive guide for installing and setting up PowerColor graphics cards, including hardware installation, driver installation, and additional software features.
	[PowerColor Red Devil Graphics Card Quick Installation Guide](#) A concise, SEO-optimized guide for installing and setting up your PowerColor Red Devil graphics card, covering system requirements, hardware installation, driver installation, and ARGB LED connection. Learn how to optimize your gaming experience with AMD Radeon Software.