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ASRock 90-GA4XZZ-00UANF

ASRock Radeon RX 7900 XT Phantom Gaming OC Graphics Card User Manual

Model: RX 7900 XT Phantom Gaming White 20GB

1. INTRODUCTION

This user manual provides comprehensive instructions for the ASRock Radeon RX 7900 XT Phantom Gaming OC graphics card. It covers installation procedures, operational guidelines, maintenance tips, and troubleshooting information to ensure optimal performance and longevity of your product. This graphics card is designed to deliver high-performance visual experiences, leveraging AMD Radeon RX 7000 Series technology.



Image 1.1: ASRock Radeon RX 7900 XT Phantom Gaming OC Graphics Card with its retail packaging.

2. KEY FEATURES

The ASRock Radeon RX 7900 XT Phantom Gaming OC graphics card incorporates several advanced features for enhanced performance and user experience:

- **PCI Express 4.0 Support:** Provides high-bandwidth connectivity for optimal data transfer.
- **8K Resolution Support:** Capable of outputting visuals at resolutions up to 7680x4320 pixels.
- **Stylish Metal Backplate:** Enhances structural integrity and aids in heat dissipation.
- **Reinforced Metal Frame:** Adds durability and prevents card sag.
- **LED On/Off Switch:** Allows control over the integrated lighting.
- **Polychrome SYNC:** Customizable ARGB lighting effects for system personalization.
- **0dB Silent Cooling:** Fans stop spinning under light loads for silent operation, activating only when necessary.

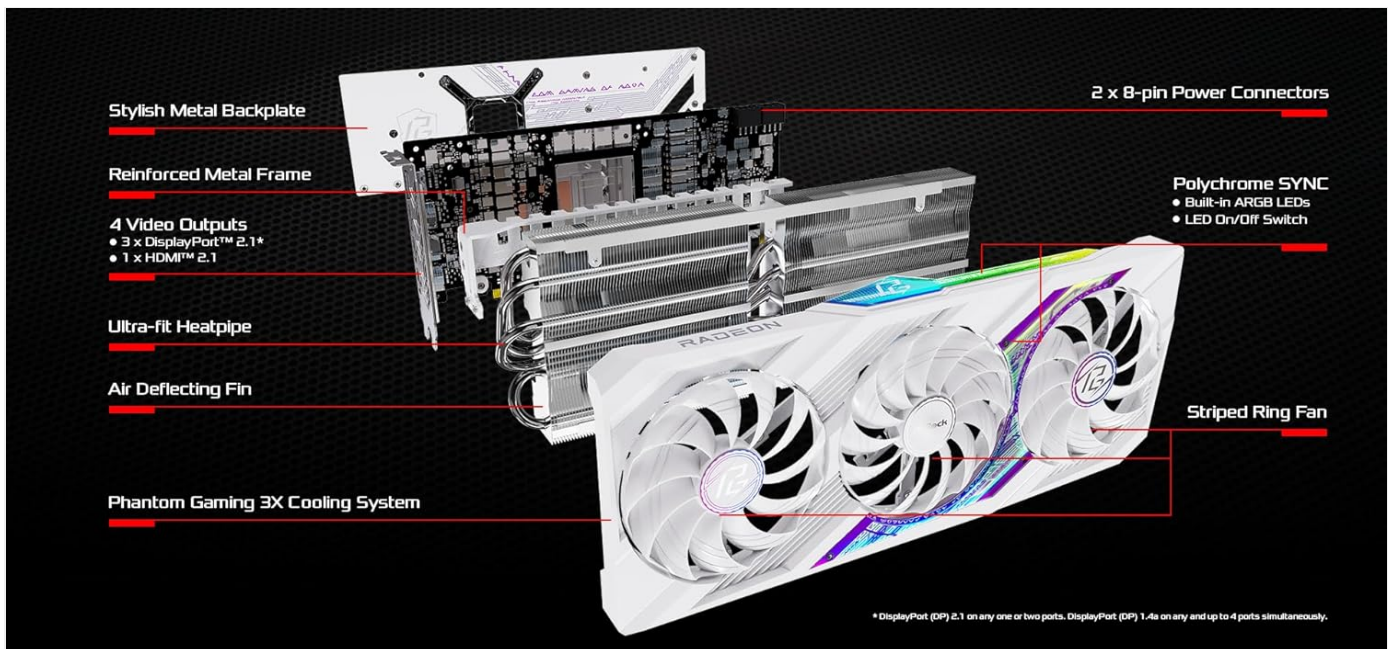


Image 2.1: Exploded view highlighting key features such as the metal backplate, reinforced frame, cooling system, and video outputs.

3. SETUP AND INSTALLATION

Before beginning installation, ensure your computer is powered off and unplugged from the wall outlet. It is recommended to wear an anti-static wrist strap to prevent electrostatic discharge (ESD) damage to components.

3.1 System Requirements

- PCI Express-enabled motherboard with one x16 graphics slot.
- Minimum 750W power supply unit (PSU) with two 8-pin PCIe power connectors.
- Operating system: Windows 10/11 64-bit or Linux 64-bit.
- At least 8GB system memory (16GB recommended).
- Sufficient space within the PC case for the graphics card (Approximate dimensions: 13 x 5.5 x 2.3 inches).

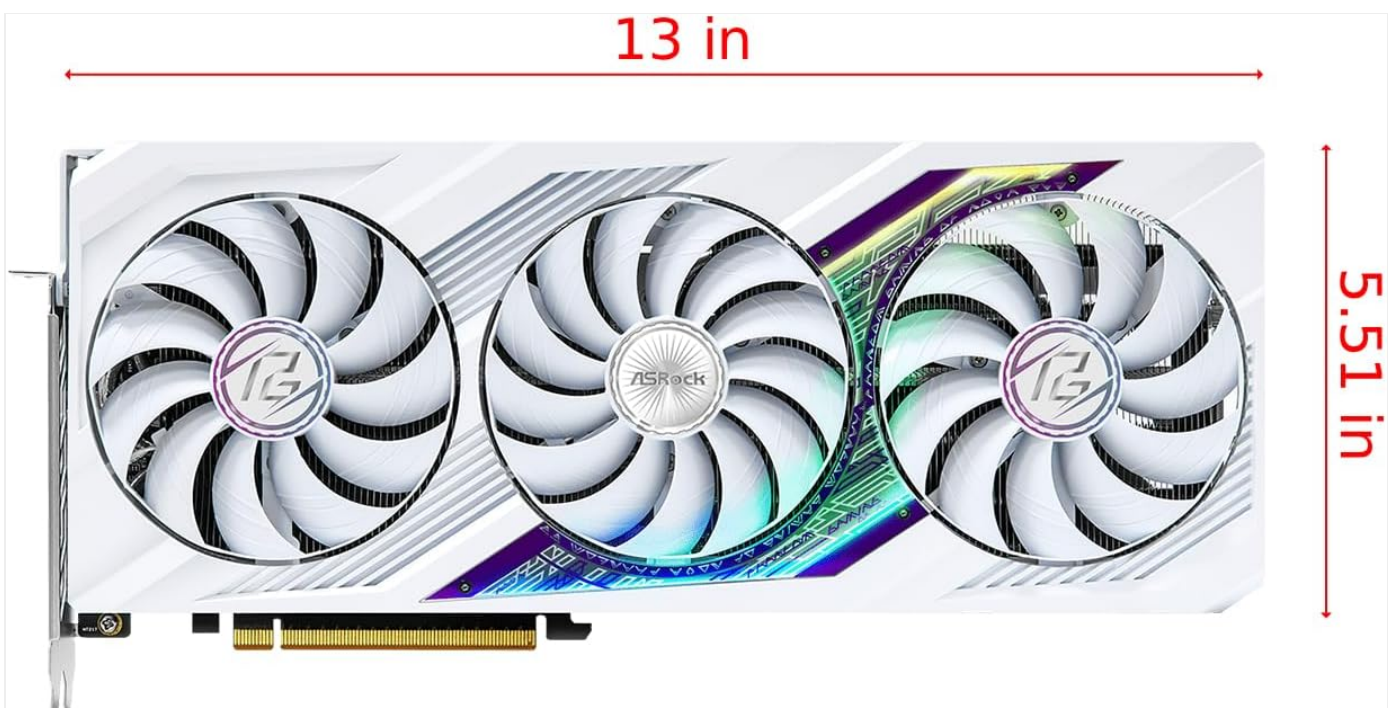


Image 3.1: Graphics card dimensions, indicating a length of approximately 13 inches and a width of 5.51 inches.

3.2 Hardware Installation Steps

1. **Prepare your PC:** Open your computer case. Locate the PCIe x16 slot on your motherboard. Remove any expansion slot covers that obstruct the installation.
2. **Insert the Graphics Card:** Align the graphics card with the PCIe x16 slot. Press down firmly and evenly until the card is securely seated in the slot. You should hear a click from the retention clip.
3. **Secure the Card:** Use screws to fasten the graphics card to the PC case at the expansion slot bracket.
4. **Connect Power Cables:** Connect two 8-pin PCIe power cables from your power supply to the corresponding power connectors on the graphics card. Ensure a snug fit.
5. **Close the Case:** Once the card is securely installed and powered, close your computer case.

4. OPERATING INSTRUCTIONS

4.1 Driver Installation

1. **Power On:** Connect your monitor to one of the graphics card's display outputs (DisplayPort or HDMI) and power on your computer.
2. **Initial Boot:** Your system may boot into a basic display mode.
3. **Download Drivers:** Visit the official ASRock website or AMD's official website (www.amd.com/en/support) to download the latest AMD Radeon Software: Adrenalin Edition drivers for your RX 7900 XT.
4. **Install Drivers:** Run the downloaded installer and follow the on-screen prompts. A restart may be required after installation.
5. **Verify Installation:** After restarting, open AMD Radeon Software to confirm that the graphics card is recognized and drivers are up to date.

4.2 Polychrome SYNC (ARGB Lighting)

The graphics card features integrated ARGB lighting controllable via ASRock Polychrome SYNC software. Download the software from the ASRock website to customize lighting effects and synchronize them with other compatible components in your system. An LED On/Off switch is also available on the card for quick control.

5. MAINTENANCE

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

- **Dust Removal:** Periodically clean dust from the fans and heatsink using compressed air. Ensure the system is powered off and unplugged before cleaning. Hold the fan blades gently to prevent over-spinning during cleaning.
- **Driver Updates:** Keep your graphics drivers updated to the latest version from AMD's official website to benefit from performance improvements and bug fixes.
- **Temperature Monitoring:** Use monitoring software (e.g., AMD Radeon Software) to keep an eye on GPU temperatures during heavy loads. Ensure adequate airflow within your PC case.
- **Physical Inspection:** Occasionally inspect the card for any loose connections or visible damage.

6. TROUBLESHOOTING

This section addresses common issues you might encounter.

6.1 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 cables are correctly connected to the graphics card.
- Confirm your monitor is set to the correct input source.
- Test with a different display cable or monitor if possible.

6.2 System Instability or Crashes

- Ensure graphics drivers are up to date. Consider performing a clean installation of drivers.
- Check GPU temperatures during operation. Overheating can cause instability.
- Verify your power supply unit (PSU) meets the recommended wattage (minimum 750W).
- Ensure your system's BIOS/UEFI is updated to the latest version.

6.3 Fan Noise or Malfunction

- The 0dB Silent Cooling feature means fans may not spin under light loads. This is normal.
- If fans are excessively noisy under load, check for dust accumulation and clean as described in the Maintenance section.
- Ensure no cables are obstructing the fan blades.

7. TECHNICAL SPECIFICATIONS

| Feature | Specification |
|----------------------------|--|
| Model Number | 90-GA4XZZ-00UANF |
| Graphics Coprocessor | AMD Radeon RX 7900 XT |
| Chipset Brand | AMD |
| Graphics Card Ram Size | 20 GB GDDR6 |
| Memory Bus | 320-bit |
| Max Screen Resolution | 7680x4320 Pixels (8K) |
| Video Output Interface | DisplayPort, HDMI (3x DisplayPort 2.1, 1x HDMI 2.1) |
| PCI Express Support | PCI Express 4.0 |
| Recommended PSU | Minimum 750W |
| Power Connectors | 2 x 8-pin |
| Item Weight | 3.08 pounds |
| Product Dimensions (LxWxH) | 13 x 5.5 x 2.3 inches (approx. 328mm x 140mm x 57mm) |
| Color | White |
| Cooling System | Phantom Gaming 3X Cooling System with 0dB Silent Cooling |
| Lighting | Polychrome SYNC ARGB with On/Off Switch |

8. WARRANTY AND SUPPORT

For detailed warranty information, please refer to the warranty card included with your product or visit the official ASRock website. Technical support and driver downloads are available through the ASRock support portal.

ASRock Official Website: www.asrock.com

AMD Support: www.amd.com/en/support



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