

## Sapphire 21322-01-20G

# Sapphire AMD Radeon RX 7900 XTX Graphics Card (Model 21322-01-20G) User Manual

Your guide to installation, operation, and maintenance.

## INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your Sapphire AMD Radeon RX 7900 XTX Gaming Graphics Card. Please read this manual thoroughly before installation to ensure proper setup and optimal performance. This graphics card is designed for high-performance computing and gaming, featuring 24GB GDDR6 memory and AMD RDNA 3 architecture.

## SETUP AND INSTALLATION

Proper installation is crucial for the stability and performance of your graphics card. Ensure your system meets the minimum requirements before proceeding.

### System Requirements

- **Motherboard:** PCI Express x16 slot available.
- **Power Supply:** Minimum 750W power supply recommended with appropriate PCIe power connectors.
- **Operating System:** Windows 10/11 64-bit or Linux 64-bit.
- **Memory:** 16GB system RAM recommended.

### Physical Installation

1. **Prepare Your System:** 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. Remove any expansion slot covers that obstruct the installation.
3. **Insert Graphics Card:** Carefully align the graphics card with the PCIe slot and press down firmly until it is securely seated. Ensure the retention clip on the PCIe slot locks into place.

4. **Secure the Card:** Use screws to secure the graphics card to the computer case at the expansion slot bracket.



Figure 1: Angled view of the graphics card, highlighting the PCIe connector and display outputs.

5. **Connect Power:** Connect the required PCIe power cables from your power supply to the graphics card. This model typically requires two 8-pin PCIe power connectors. Ensure all connections are firm.



Figure 2: Top view of the graphics card, showing the location of the power connectors.

6. **Close Case and Connect Displays:** Close your computer case, reconnect all peripherals, and connect your display cables (HDMI, DisplayPort, or USB-C) to the graphics card's output ports.



Figure 3: Close-up of the graphics card's output ports, including HDMI, DisplayPort, and USB-C.

## Driver Installation

After physical installation, power on your computer. The operating system may install a basic driver, but for full functionality and performance, you must install the latest AMD Radeon Software Adrenalin Edition drivers.

- **Download Drivers:** Visit the official AMD website ([www.amd.com/support](http://www.amd.com/support)) and download the latest drivers for your Radeon RX 7900 XTX graphics card.
- **Install Drivers:** Run the downloaded installer and follow the on-screen instructions. A restart may be required after installation.

## OPERATING INSTRUCTIONS

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Once installed and drivers are updated, your Sapphire AMD Radeon RX 7900 XTX is ready for use.

### Basic Operation

- **Power On:** Start your computer. The graphics card will initialize and output video to your connected display(s).
- **Display Configuration:** Use your operating system's display settings to configure resolution, refresh rate, and multiple monitors.

### AMD Radeon Software Adrenalin Edition

This software provides a comprehensive suite of tools for managing your graphics card.

- **Performance Tuning:** Adjust clock speeds, fan curves, and power limits for optimal performance or power efficiency.
- **Gaming Features:** Enable features like AMD FidelityFX Super Resolution (FSR) for enhanced visual quality and performance.
- **Monitoring:** Monitor GPU temperature, clock speeds, fan speeds, and power consumption in real-time.
- **Driver Updates:** Check for and install the latest driver updates directly through the software.

## MAINTENANCE

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

## Cleaning

- **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 them from spinning rapidly during cleaning, which can damage the bearings.
- **Exterior Cleaning:** Wipe the exterior of the card with a soft, dry, anti-static cloth.



Figure 4: Front view of the graphics card, showing the three cooling fans.

## Software Updates

Keep your AMD Radeon Software and graphics drivers updated to benefit from performance improvements, bug fixes, and new features.

## TROUBLESHOOTING

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If you encounter issues, refer to the following common troubleshooting steps.

### No Display Output

- **Check Cables:** Ensure all display cables are securely connected to both the graphics card and the monitor.
- **Power Connections:** Verify that all PCIe power connectors are firmly seated in the graphics card.
- **PCIe Seating:** Re-seat the graphics card in its PCIe slot to ensure it is properly connected.
- **Monitor Input:** Confirm your monitor is set to the correct input source (HDMI, DisplayPort, USB-C).

### Overheating or Performance Drops

- **Airflow:** Ensure your computer case has adequate airflow. Check that case fans are functioning correctly and not obstructed.
- **Dust:** Clean any dust accumulation from the graphics card's fans and heatsink.
- **Drivers:** Update to the latest graphics drivers.
- **Software Monitoring:** Use AMD Radeon Software to monitor GPU temperatures. If junction temperatures consistently reach 110°C or higher under load, this may indicate a cooling issue. Consider adjusting fan curves or power limits within the software.

## System Instability or Crashes

- **Driver Reinstallation:** Perform a clean installation of your graphics drivers using AMD's recommended procedure.
- **Power Supply:** Verify your power supply unit (PSU) meets the recommended wattage and is providing stable power.
- **BIOS/UEFI:** Ensure your motherboard's BIOS/UEFI is updated to the latest version.

## SPECIFICATIONS

Feature	Detail
Graphics Coprocessor	AMD Radeon RX 7900 XTX
Brand	Sapphire
Graphics RAM Size	24 GB
Graphics RAM Type	GDDR6
Memory Interface	384-bit
Memory Clock Speed	20 GHz
Video Output Interface	1 x HDMI, 2 x DisplayPort, 1 x USB-C
Graphics Card Interface	PCI Express 4.0
Form Factor	3 slot, ATX
Number of Fans	3
Display Maximum Resolution	7680 x 4320
Item Dimensions (L x W)	11.3"L x 4.85"W
Model Number	21322-01-20G
UPC	840777088586

## WARRANTY INFORMATION

This Sapphire AMD Radeon RX 7900 XTX Graphics Card comes with a **2-year manufacturer's warranty**.

The warranty covers defects in materials and workmanship under normal use. It does not cover damage caused by improper installation, accident, abuse, misuse, natural disaster, or unauthorized modification. Please retain your proof of purchase for warranty claims.

For detailed warranty terms and conditions, please refer to the official Sapphire Technology website or contact their customer support.

## SUPPORT AND CONTACT

For further assistance, technical support, or warranty inquiries, please contact Sapphire Technology directly.

- **Sapphire Technology Official Website:** [www.sapphiretech.com](http://www.sapphiretech.com)
- **AMD Support:** For driver downloads and general AMD GPU information, visit [www.amd.com/support](http://www.amd.com/support)

When contacting support, please have your product model number (21322-01-20G) and proof of purchase readily available.

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