XFX RX-590P8DFD6

XFX RX-590P8DFD6 Radeon RX 590 Fatboy 8GB OC+ Graphics Card User Manual

Model: RX-590P8DFD6

1. Introduction

The XFX Radeon RX 590 Fatboy 8GB OC+ Graphics Card is designed to deliver high-performance graphics for PC gaming and demanding applications. Featuring an all-new Fatboy VRM heatsink for enhanced cooling and XFX exclusive Ultra Low Noise XL Inductors for quiet operation, this card provides a robust and efficient computing experience. It supports advanced AMD technologies like Radeon Chill and AMD LiquidVR for optimized performance and immersive virtual reality experiences.

2. Key Features

- **XFX RX 590 Graphics Card:** Offers advanced features for PC gamers, including capture, stream, share, optimize, and fine-tune capabilities with Radeon software. Equipped with 2304 stream processors for smooth and fast out-of-the-box gaming.
- **XFX OC Capable:** While True Clock ensures optimal hardware speed, RX Series cards with an OC rating are factory-tested for performance beyond XFX True Clock. Users can utilize the AMD WattMan utility to achieve these factory-tested speeds.
- **XFX True Clock Technology:** Provides hardware-controlled clock speed performance optimization, ensuring the card consistently runs at an optimized level, independent of software-controlled clock speeds.
- **AMD VR Ready Premium:** Delivers a compelling virtual reality experience when paired with leading VR headsets. AMD LiquidVR technology ensures a virtually stutter-free, low-latency experience. Supports Microsoft Windows 10 and Microsoft DirectX 12.
- **Fatboy VRM Heatsink:** Features an all-new heatsink design with 50% greater surface area compared to previous RX Series graphics cards, enhancing thermal dissipation.
- **Zero dB Auto Load Sensing Fans:** Equipped with a fan system that operates at efficient RPMs to minimize noise, reducing to zero RPM during low load. Fans automatically speed up during intense gaming to maintain optimal temperatures.

3. Package Contents

Verify that all items are present in your product package:

- XFX RX-590P8DFD6 Radeon RX 590 Fatboy Graphics Card
- Quick Install Guide

- Driver CD

4. Technical Specifications

Feature	Specification
Brand	XFX
Series	RX-590P8DFD6
Graphics Coprocessor	AMD Radeon RX 590
Graphics Card RAM Size	8 GB
Memory Speed	8000 MHz
Max Screen Resolution	4096x2160
Video Output Interface	DVI, HDMI, DisplayPort (3xDP)
Item Weight	2 pounds
Product Dimensions (LxWxH)	10.63 x 4.88 x 2.09 inches
Computer Memory Type	DDR5 SDRAM

5. Installation Guide

5.1. System Requirements

- PCI Express-enabled motherboard with one x16 graphics slot.
- Minimum 500W power supply with one 8-pin and one 6-pin PCI Express power connectors.
- Minimum 8GB system memory (16GB recommended).
- Supported operating system: Microsoft Windows 10 (64-bit recommended).
- Internet connection for driver downloads.

5.2. Physical Installation

1. **Power Off System:** Completely shut down your computer and disconnect the power cable from the wall outlet.
2. **Open Computer Case:** Remove the side panel of your computer case to access the motherboard.
3. **Locate PCI Express Slot:** Identify an available PCI Express x16 slot on your motherboard. If replacing an existing graphics card, carefully remove it.
4. **Insert Graphics Card:** Align the graphics card with the PCI Express x16 slot and press down firmly until it is securely seated. Ensure the retention clip on the slot locks into place.
5. **Secure Card:** Use a screw or the case's retention mechanism to secure the graphics card to the computer case.
6. **Connect Power Cables:** Connect the required 8-pin and 6-pin PCI Express power cables from your power supply to the corresponding ports on the graphics card.
7. **Close Case:** Replace the computer case side panel and reconnect the power cable.



Figure 1: Front view of the XFX RX 590 Fatboy graphics card, showing the dual fan cooling system.



Figure 2: Rear view of the XFX RX 590 Fatboy graphics card, highlighting the DVI, HDMI, and DisplayPort outputs.

5.3. Driver Installation

After physical installation, you must install the latest graphics drivers for optimal performance and stability.

1. **Boot System:** Power on your computer. Windows will typically install a basic display driver.
2. **Download Drivers:** Visit the official XFX website (www.xfxforce.com) or the AMD support website (www.amd.com/en/support) to download the latest drivers for the Radeon RX 590.
3. **Install Drivers:** Run the downloaded driver installer and follow the on-screen instructions. A system restart may be required after installation.

6. Operation

6.1. Connecting Displays

The XFX RX 590 Fatboy graphics card supports multiple display outputs:

- **DisplayPort (DP):** Connect up to three DisplayPort monitors for high-resolution and high-refresh-rate displays.
- **HDMI:** Connect to HDMI-compatible displays, TVs, or audio receivers.
- **DVI:** Connect to DVI-compatible monitors.

Ensure your display cables are securely connected to the graphics card and your monitor(s).

6.2. Software Configuration

Utilize the AMD Radeon Software for managing your graphics card settings. This software allows you to:

- Adjust display settings and resolutions.
- Configure game-specific profiles for optimal performance.
- Monitor GPU temperature, clock speeds, and fan speeds.
- Access AMD WattMan for advanced overclocking and power management.
- Enable features like Radeon Chill for power saving and FreeSync for tear-free gaming.

7. Maintenance

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

- **Keep Clean:** Regularly clean dust from the graphics card fans and heatsink using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **Ensure Airflow:** Maintain good airflow within your computer case by ensuring case fans are properly installed and not obstructed.
- **Update Drivers:** Periodically check for and install the latest graphics drivers from the XFX or AMD website. Driver updates often include performance improvements and bug fixes.
- **Monitor Temperatures:** Use monitoring software (e.g., AMD Radeon Software) to keep an eye on GPU temperatures, especially during heavy load. Excessive temperatures can indicate cooling issues.

8. Troubleshooting

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

- **No Display Output:**
  - Ensure the monitor is powered on and connected to the graphics card.
  - Verify that the graphics card is fully seated in the PCI Express slot.
  - Check that all required power cables (8-pin and 6-pin) are securely connected to the graphics card.
  - Test with a different display cable or monitor if possible.
- **Performance Issues (Low FPS, Stuttering):**
  - Ensure you have the latest graphics drivers installed.
  - Check in-game graphics settings; reduce settings if necessary.
  - Monitor GPU and CPU temperatures to ensure they are not overheating.
  - Verify that your power supply unit (PSU) meets the minimum wattage requirements for your system.
- **Overheating:**
  - Clean dust from the graphics card heatsink and fans.
  - Ensure adequate airflow within your computer case.

- Check fan speeds using AMD Radeon Software; ensure they are operating correctly.

- **Driver Crashes or Instability:**
  - Perform a clean installation of the graphics drivers (uninstall existing drivers before installing new ones).
  - Ensure your operating system is up to date.

9. Warranty and Support

For warranty information, technical support, or further assistance, please visit the official XFX website or contact their customer support:

- **XFX Official Website:** www.xfxforce.com
- Refer to the warranty card included with your product for specific terms and conditions.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

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