EVGA 12G-P5-4877-KL

EVGA GeForce RTX 3080 FTW3 Ultra Gaming Graphics Card User Manual

Model: 12G-P5-4877-KL

1. PRODUCT OVERVIEW

The EVGA GeForce RTX 3080 FTW3 Ultra Gaming graphics card is engineered for high-performance computing and gaming. It features advanced NVIDIA Ampere architecture, offering significant improvements in graphics processing and efficiency.

Key Features:

- **Digital Max Resolution:** 7680 x 4320 pixels, supporting high-fidelity visual experiences.
- **Real Boost Clock:** 1800 MHz, providing enhanced clock speeds for demanding applications.
- **Memory Detail:** 12288 MB GDDR6X, ensuring ample memory for complex textures and high-resolution gaming.
- **Real-Time RAY TRACING:** Delivers cutting-edge, hyper-realistic graphics in supported games.
- **iCX3 Technology:** Features triple fans and 9 iCX3 thermal sensors for superior cooling performance and reduced acoustic noise.
- **All-Metal Backplate:** Provides structural rigidity and aids in heat dissipation.
- **Adjustable ARGB LED:** Customizable lighting to match your system's aesthetic.
- **PCI Express® Gen 4:** High-speed interface for optimal data transfer.
- **Microsoft DirectX® 12 Ultimate:** Supports the latest graphics APIs for advanced rendering.
- **NVIDIA DLSS:** AI-powered rendering that boosts frame rates with uncompromised image quality.
- **NVIDIA® GeForce Experience™:** Optimizes game settings and provides driver updates.
- **NVIDIA G-SYNC™:** Delivers smooth, tear-free gameplay at refresh rates up to 360 Hz.
- **NVIDIA GPU Boost™:** Dynamically maximizes clock speeds based on workload and temperature.
- **VR Ready:** Optimized for virtual reality experiences.
- **Display Support:** Supports 4K 120Hz HDR, 8K 60Hz HDR, and Variable Refresh Rate as specified in HDMI 2.1.

2. SETUP AND INSTALLATION

Proper installation of your EVGA GeForce RTX 3080 FTW3 Ultra Gaming graphics card is crucial for optimal performance and system stability. Always ensure your system is powered off and unplugged before beginning installation.

Installation Steps:

1. **Prepare Your System:** Power down your computer and unplug all cables. Open your PC case.
2. **Locate PCIe Slot:** Identify an available PCI Express x16 slot on your motherboard.
3. **Remove Slot Covers:** Remove the necessary expansion slot covers from your PC case.
4. **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 locks into place.
5. **Secure Card:** Use screws to secure the graphics card to the PC case.
6. **Connect Power:** Connect three 8-pin PCIe power connectors from your power supply to the corresponding ports on the graphics card. Ensure all connections are firm.
7. **Close Case:** Close your PC case, reconnect all cables, and power on your system.
8. **Install Drivers:** Once your operating system loads, install the latest NVIDIA drivers from the official NVIDIA website or via NVIDIA GeForce Experience.
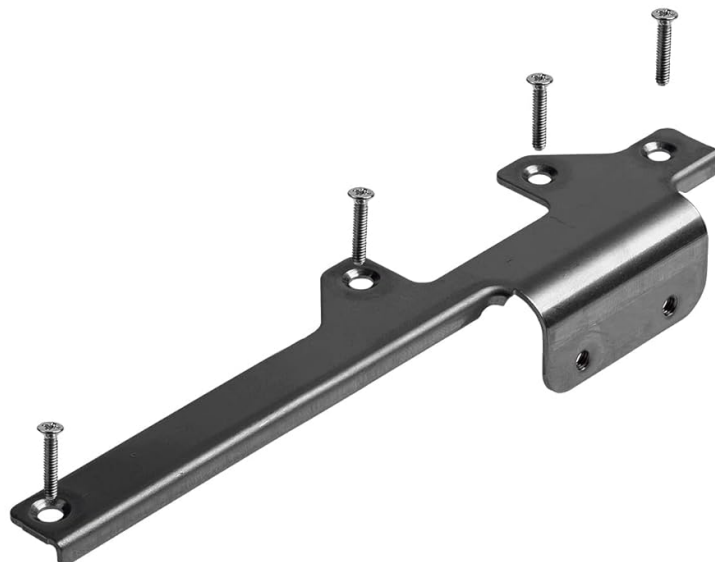

Image: General diagram illustrating the steps for graphics card installation into a PC case.

3. OPERATING INSTRUCTIONS

After successful installation, your EVGA GeForce RTX 3080 FTW3 Ultra Gaming graphics card is ready for operation. To maximize its potential, follow these guidelines:

Driver and Software Management:

- **NVIDIA GeForce Experience:** Install NVIDIA GeForce Experience to automatically optimize game settings, record gameplay, and keep your drivers up-to-date.
- **EVGA Precision X1:** Download and install EVGA Precision X1 software for advanced monitoring, fan control, and customizable ARGB LED lighting effects. This software allows fine-tuning of performance parameters.

Usage Recommendations:

- **Gaming:** For optimal gaming performance, ensure your display is connected to one of the graphics card's output ports (DisplayPort or HDMI). Adjust in-game settings to balance visual quality and frame rate according to your preference.
- **Content Creation:** Leverage the GPU's power for tasks such as video editing, 3D rendering, and graphic design. Ensure your software is configured to utilize the NVIDIA GPU for accelerated processing.
- **Multi-Monitor Setup:** The card supports multiple displays. Connect additional monitors to the available DisplayPort or HDMI outputs. Configure display settings within your operating system.

4. MAINTENANCE

Regular maintenance helps prolong the lifespan and maintain the 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 too fast during cleaning.
- **Case Airflow:** Ensure your PC case has adequate airflow to prevent heat buildup. Clean case fans and filters regularly.

Software Maintenance:

- **Driver Updates:** Regularly update your graphics drivers through NVIDIA GeForce Experience or the NVIDIA website. Driver updates often include performance optimizations and bug fixes.
- **Firmware Updates:** Check the EVGA website for any available firmware updates for your specific graphics card model.

5. TROUBLESHOOTING

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

Common Issues and Solutions:

- **No Display/Black Screen:**
  - Ensure the monitor cable is securely connected to the graphics card and the monitor.
  - Verify that the graphics card is fully seated in the PCIe slot.
  - Check that all three 8-pin PCIe power connectors are securely attached to the graphics card.
  - Test with a different display cable or monitor if possible.

- **System Instability/Crashes:**
  - Ensure your power supply unit (PSU) meets the minimum wattage requirements for your system, including the graphics card.
  - Update your graphics drivers to the latest version.
  - Monitor GPU temperatures using EVGA Precision X1 or similar software. Excessive heat can cause instability.
  - Check for any conflicting software or background applications.

- **Poor Performance/Low Frame Rates:**
  - Verify that the latest graphics drivers are installed.
  - Check in-game settings; reduce demanding options like ray tracing or resolution if necessary.
  - Ensure your CPU and RAM are not bottlenecking the GPU.
  - Monitor GPU utilization and temperatures to ensure the card is operating as expected.

- **ARGB LED Not Working:**
  - Ensure EVGA Precision X1 software is installed and running.
  - Check the ARGB settings within EVGA Precision X1.

6. SPECIFICATIONS

Detailed technical specifications for the EVGA GeForce RTX 3080 FTW3 Ultra Gaming graphics card.

Specification	Value
Max Screen Resolution	7680x4320 Pixels
Memory Speed	19000 MHz
Graphics Coprocessor	NVIDIA GeForce RTX 3080
Chipset Brand	NVIDIA
Card Description	NVIDIA GeForce RTX 3080
Graphics Card Ram Size	12 GB
Brand	EVGA
Series	RTX 3080 12GB FTW3

Specification	Value
Item model number	12G-P5-4877-KL
Item Weight	4.66 pounds
Product Dimensions	11.81 x 2.75 x 5.38 inches
Item Dimensions LxWxH	11.81 x 2.75 x 5.38 inches
Manufacturer	EVGA
ASIN	B09Q3DH7V3
Date First Available	January 11, 2022
Video Output Interface	HDMI
Graphics Processor Manufacturer	NVIDIA

7. WARRANTY AND SUPPORT

Your EVGA GeForce RTX 3080 FTW3 Ultra Gaming graphics card comes with comprehensive support and warranty coverage.

- **Warranty:** This product includes a 3-year warranty from EVGA. Please retain your proof of purchase for warranty claims.
- **Technical Support:** For technical assistance, driver downloads, or software inquiries, please visit the official EVGA website or contact EVGA's technical support team.
- **Online Resources:** Additional resources, FAQs, and community forums can be found on the EVGA support pages.

8. PRODUCT VISUALS

Image: The EVGA GeForce RTX 3080 FTW3 Ultra Gaming graphics card displayed alongside its retail packaging.

* LED-OFF

Image: Front view of the graphics card, showcasing its triple-fan design with the ARGB LEDs turned off.

* LED-ON

Image: Front view of the graphics card, highlighting the customizable ARGB LED lighting in operation.

Image: Side profile of the graphics card, showing the heatsink and power connectors with LEDs off.

* LED-OFF

Image: Side profile of the graphics card, illustrating the illuminated ARGB LED strip.

Image: Close-up of the graphics card's output ports, including DisplayPort and HDMI connectors.

Image: Rear view of the graphics card, showing the metal backplate and illuminated EVGA logo.

Image: Branding for the EVGA GeForce RTX 3080 12GB FTW3 and XC3 Series.
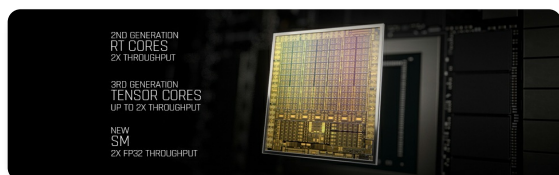
Image: Visual representation of the 2nd Gen RT Cores, 3rd Gen Tensor Cores, and New Streaming Multiprocessors (SM) technology.
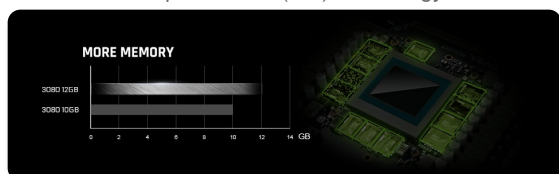
Image: A chart comparing the 12GB memory of the RTX 3080 to the 10GB memory of a previous model.

Image: Diagram detailing the iCX3 Interactive Cooling system, showing thermal contact surface, triple fans, and smart cut-outs for improved airflow.

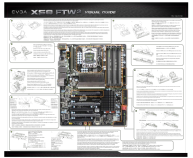Image: A comprehensive list of features and detailed specifications for the graphics card.

9. OFFICIAL PRODUCT VIDEOS

Video: An unboxing and installation guide for the EVGA GeForce RTX 3080 FTW3 Ultra 12GB graphics card, provided by Systematic Hardware.

Related Documents - 12G-P5-4877-KL

[EVGA GeForce RTX 3080 Ti FTW3 Ultra Gaming Quick Start Guide and Warranty](#)

Quick start guide for the EVGA GeForce RTX 3080 Ti FTW3 Ultra Gaming (12G-P5-3967-KR), covering minimum system requirements, operating system compatibility, included equipment, and EVGA's limited warranty for Australia and New Zealand. Includes HDMI information and RoHS compliance details.

[EVGA GeForce RTX 2080 Ti KINGPIN Edition OC Guide: Overclocking, Performance, and Features](#)

Detailed overclocking guide for the EVGA GeForce RTX 2080 Ti KINGPIN Edition graphics card. Covers advanced power design, 12-layer PCB benefits, watercooling, performance benchmarks, EVGA Precision X1 software, and probe points for extreme overclocking.

[EVGA X58 FTW3 Motherboard Installation and Visual Guide](#)

A comprehensive visual guide for installing and setting up the EVGA X58 FTW3 motherboard, covering CPU, RAM, graphics card, power, and system startup. Includes component identification, package contents, and support information.

	EVGA Graphics Card User Guide - Installation, Setup, and Support Comprehensive user guide for EVGA graphics cards, covering installation, software setup, SLI configuration, troubleshooting, and support resources. Includes details on hardware installation, driver installation, multiple display setups, and compliance information.
	EVGA GeForce GTX 1080 Ti SC HYBRID Installation Guide This guide provides step-by-step instructions for installing the EVGA GeForce GTX 1080 Ti SC HYBRID Cooling Kit. It covers component identification, disassembly of the original graphics card cooler, and assembly of the new HYBRID module, including radiator mounting and cable connections. Important information regarding warranty and compatibility is also provided.
	EVGA Graphics Card User Guide: Installation, Setup, and Support Comprehensive user guide for EVGA graphics cards, covering installation, software setup, SLI configuration, troubleshooting, and support resources. Includes details on hardware installation, power requirements, and compliance information.