

## PNY VCG5070T16TFXXPB1-O

# PNY NVIDIA GeForce RTX 5070 Ti Epic-X ARGB OC Triple Fan Graphics Card User Manual

Model: VCG5070T16TFXXPB1-O

## 1. INTRODUCTION

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The PNY NVIDIA GeForce RTX 5070 Ti Epic-X ARGB OC Triple Fan Graphics Card is engineered to deliver exceptional performance for gaming, content creation, and AI-driven applications. Powered by the NVIDIA Blackwell architecture, this graphics card integrates advanced technologies such as DLSS 4, supercharging frame rates and enhancing image quality through neural rendering. It also leverages NVIDIA Studio for accelerated creative workflows and NVIDIA Reflex for superior responsiveness in competitive gaming.

This manual provides essential information for the proper installation, operation, and maintenance of your graphics card, ensuring optimal performance and longevity.

## 2. PACKAGE CONTENTS

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Verify that all items are present in your product package:

- PNY GeForce RTX™ 5070 Ti OC Graphics Card
- One 16-pin to Three 8-pin Power Cable

## 3. SPECIFICATIONS

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Feature	Detail
Graphics Coprocessor	NVIDIA GeForce RTX 5070 Ti
Memory	16GB GDDR7
Memory Interface	256-bit
Boost Speed	2640 MHz
Memory Speed	2295 MHz

Feature	Detail
PCIe Interface	PCIe® 5.0
Display Outputs	HDMI®/DP 2.1
Max Screen Resolution	7680x4320
Slot Width	2.98-Slot
Item Weight	3.61 pounds
Color	Black
Model Number	VCG5070T16TFXXPB1-O

## 4. SETUP AND INSTALLATION

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### 4.1 System Requirements

- PCIe 5.0 x16 slot on motherboard.
- Minimum 750W power supply unit (PSU) recommended.
- Compatible operating system (e.g., Windows 10/11).
- Sufficient space within PC case for a 2.98-slot card (approximately 300mm length, 122mm height).

### 4.2 Physical Installation

1. **Prepare your system:** Power off your computer and unplug all cables. Open your PC case.
2. **Locate PCIe slot:** Identify an available PCIe 5.0 x16 slot on your motherboard.
3. **Remove slot covers:** Remove the necessary expansion slot covers from your PC case to accommodate the graphics card's 2.98-slot design.
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 the card:** Fasten the graphics card to the PC case using screws in the expansion slot brackets.
6. **Connect power:** Connect the included 16-pin to Three 8-pin Power Cable from your power supply to the graphics card. Ensure all connections are firm.
7. **Close case:** Close your PC case and reconnect all cables.

### 4.3 Driver Installation

After physical installation, power on your computer. Install the latest NVIDIA drivers from the official NVIDIA website ([www.nvidia.com/drivers](http://www.nvidia.com/drivers)) to ensure optimal performance and access to all features.



Figure 1: The PNY NVIDIA GeForce RTX 5070 Ti Epic-X ARGB OC Triple Fan Graphics Card, shown alongside its retail packaging, highlighting the product's design and branding.

## 5. OPERATING INSTRUCTIONS

### 5.1 Key Features and Technologies

- **DLSS 4:** Utilize NVIDIA DLSS 4 for AI-powered performance boosts, reducing latency and improving image quality in supported games and applications.
- **Ray Tracing:** Experience realistic lighting, shadows, and reflections with dedicated Fourth-Gen Ray Tracing Cores.
- **NVIDIA Reflex:** Optimize system latency for competitive gaming, providing faster target acquisition and quicker reaction times.
- **NVIDIA Studio:** Accelerate creative applications with NVIDIA Studio drivers and exclusive tools for AI-assisted workflows.

### 5.2 VelocityX Software

The PNY VelocityX software allows you to monitor and customize your graphics card's performance and aesthetics. Download the latest version from the official PNY website ([www.pny.com/gaming/learn-more/velocityx](http://www.pny.com/gaming/learn-more/velocityx)).

- **Overclocking:** Adjust GPU clock speeds and memory frequencies for enhanced performance.

- **Fan Control:** Customize fan curves to balance cooling efficiency and noise levels.
- **ARGB Lighting:** Control the integrated ARGB lighting effects and colors to match your system's theme.
- **Monitoring:** View real-time performance metrics such as temperature, clock speeds, and power consumption.



Figure 2: A direct top-down view of the graphics card, showcasing its three large cooling fans and the PNY branding on each fan hub. The ARGB lighting elements are visible around the fan blades.

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Video 1: Official PNY video demonstrating the features of the GeForce RTX 50 Series GPUs, including the VelocityX software for performance tuning and RGB control.

## 6. MAINTENANCE

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

- **Cleaning:** Periodically clean dust from the fans and heatsink using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **Airflow:** Ensure your PC case has adequate airflow to prevent heat buildup. Keep the area around your PC clear of obstructions.
- **Driver Updates:** Regularly check for and install the latest NVIDIA graphics drivers to benefit from performance improvements and bug fixes.



Figure 3: An angled front view of the graphics card, emphasizing its robust triple-fan cooler design and the integrated ARGB lighting that illuminates the fan surrounds.

## 7. TROUBLESHOOTING

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If you encounter issues with your graphics card, refer to the following common problems and solutions:

- **No Display/Black Screen:**

- Ensure the graphics card is fully seated in the PCIe slot.
- Verify that all power cables (including the 16-pin connector) are securely attached to the graphics card and PSU.
- Check that your monitor cable is connected to the graphics card, not the motherboard's integrated graphics port.
- Test with a different display cable or monitor if possible.

- **System Instability/Crashes:**

- Ensure your graphics drivers are up to date. Consider performing a clean installation of drivers.
- Monitor GPU temperatures using VelocityX or other monitoring software. Excessive heat can cause instability.
- Verify your PSU meets the recommended wattage (750W minimum).
- If overclocked, revert to default settings to check for stability.

- **Fan Noise/Rattling:**

- Check for any obstructions (e.g., loose cables) interfering with the fan blades.

- Ensure the graphics card is securely mounted to prevent vibrations.
  - Adjust fan curves in VelocityX software to find a balance between cooling and noise.
- **ARGB Lighting Issues:**
    - Ensure the graphics card is properly connected to the motherboard's ARGB header (if applicable) or controlled via VelocityX software.
    - Update VelocityX software to the latest version.



Figure 4: The metal backplate of the graphics card, featuring the GeForce RTX 5070 Ti branding and PNY logo, designed to provide structural rigidity and aid in cooling.

## 8. WARRANTY AND SUPPORT

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PNY products are backed by a limited warranty. For specific warranty terms and conditions, please refer to the documentation included with your product or visit the official PNY website.

### 8.1 Technical Support

If you require technical assistance, please contact PNY support:

- **US:** 1-800-234-4597
- **Email:** [tech-support@pny.com](mailto:tech-support@pny.com)
- **Website:** [www.pny.com](http://www.pny.com)

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Video 2: Official PNY video showcasing the gaming capabilities and immersive experience offered by PNY graphics cards.