

**AMD 100-300000075**

# AMD Radeon™ Pro W7800 Professional Graphics Card User Manual

Model: 100-300000075

## INTRODUCTION

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The AMD Radeon™ PRO W7800 is a professional graphics card engineered for demanding workstation environments. Based on the RDNA™ 3 architecture with a chiplet design, it offers exceptional performance for tasks such as AI, 3D rendering, video composition, VFX, and color grading. This manual provides essential information for setting up, operating, maintaining, and troubleshooting your graphics card.

## WHAT'S IN THE BOX

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Verify that all components are present before proceeding with installation.

- (1x) AMD Radeon™ PRO W7800 Graphics Card



Image: The AMD Radeon Pro W7800 graphics card, showcasing its sleek black design with the AMD Radeon Pro logo and cooling fan.

## SETUP

Follow these steps to properly install your AMD Radeon™ PRO W7800 graphics card into your workstation.

1. **Prepare Your System:** Power off your computer and disconnect all cables. Open the computer case.
2. **Locate PCIe Slot:** Identify an available PCIe x16 slot on your motherboard. Ensure it is clear of obstructions.
3. **Install the Card:** Carefully align the graphics card with the PCIe slot and press down firmly until it is securely seated. Secure the card with the retaining clip or screw.
4. **Connect Power:** Connect the necessary PCIe power connectors from your power supply to the graphics card. The W7800 requires a 260W TDP, ensure your power supply meets the requirements.
5. **Close Case and Reconnect:** Close your computer case and reconnect all peripherals and power cables.
6. **Install Drivers:** Power on your computer. Once the operating system loads, download and install the latest AMD Radeon™ Pro drivers from the official AMD website ([www.amd.com/support](http://www.amd.com/support)).



Image: A side view of the AMD Radeon Pro W7800 graphics card, highlighting its length and the PCIe connector.

## OPERATING

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The AMD Radeon™ PRO W7800 is designed for high-performance professional applications. Here are key operational aspects:

- **Display Connectivity:** Utilize the DisplayPort™ 2.1 outputs for connecting displays. The card supports a single 8K display at 60Hz (12-bit HDR uncompressed) or up to four 4K displays at 120Hz. With Display Stream Compression (DSC), a 12K display at 60Hz or 8K at 120Hz is possible.
- **Application Support:** This card is optimized for leading professional applications including:
  - 3ds Max®/Maya®
  - Blender®
  - After Effects® / Premiere® Pro
  - Avid® Media Composer
  - DaVinci Resolve®
  - Maxon® Cinema 4D™
  - SideFX™ Houdini
  - Unity®
  - Unreal Engine®
- **API Support:** The card offers exhaustive API support, including OpenCL, DirectX, OpenGL, and Vulkan, ensuring broad compatibility with various professional workflows.
- **AI Acceleration:** With 70 Compute Units (CUs) and 2 AI Accelerators per CU, the W7800 is capable of accelerating demanding AI workloads and complex computations.
- **AV1 Encoding/Decoding:** Benefit from hardware-accelerated AV1 encoding and decoding for efficient video processing.



Image: The rear view of the AMD Radeon Pro W7800 graphics card, clearly showing the multiple DisplayPort outputs for connecting monitors.

## MAINTENANCE

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

- **Keep Drivers Updated:** Regularly check the official AMD website for the latest graphics drivers. Updated drivers often include performance improvements, bug fixes, and compatibility enhancements.
- **Dust Removal:** Periodically clean dust from the card's heatsink and fan using compressed air. Ensure the system is powered off and unplugged before cleaning. Dust accumulation can impede cooling and reduce performance.
- **Ensure Proper Airflow:** Make sure your computer case has adequate ventilation to prevent overheating. Clear any obstructions around the case's air intakes and exhausts.
- **Monitor Temperatures:** Use monitoring software to keep an eye on the graphics card's temperature, especially during heavy workloads. Excessive temperatures can indicate insufficient cooling or a need for cleaning.

## TROUBLESHOOTING

This section addresses common issues you might encounter with your AMD Radeon™ PRO W7800 graphics card.

Problem	Possible Cause	Solution
No display output	Incorrect cable connection, outdated drivers, card not seated properly, insufficient power.	Check display cables and ensure they are securely connected to both the card and monitor. Verify the card is fully seated in the PCIe slot. Ensure all required PCIe power connectors are attached. Try a different display cable or monitor. Boot into safe mode (if possible) and install/reinstall drivers.
System crashes or freezes during use	Overheating, unstable drivers, insufficient power supply, software conflicts.	Ensure proper case ventilation and clean dust from the card. Update graphics drivers to the latest stable version. Verify your power supply unit (PSU) meets the card's power requirements (260W TDP). Check for conflicting software or background processes.
Poor performance in applications	Outdated drivers, incorrect application settings, background processes, thermal throttling.	Update graphics drivers. Check application settings to ensure the correct GPU is being utilized and settings are optimized. Close unnecessary background applications. Monitor GPU temperatures to rule out thermal throttling.

## SPECIFICATIONS

Detailed technical specifications for the AMD Radeon™ PRO W7800 graphics card.

Feature	Detail
Graphics Coprocessor	AMD Radeon Pro W7000 Series

Feature	Detail
Memory Size	32 GB GDDR6
Memory Speed	2250 MHz
Compute Units (CUs)	70 CUs with 2 AI Accelerators per CU
FP32 Performance	45 TFLOPS
Thermal Design Power (TDP)	260W
Max Screen Resolution	7680x4320 Pixels (8K)
Video Output Interface	3 x DisplayPort 2.1, 1x Mini DisplayPort
Item Weight	2.7 pounds
Product Dimensions (LxWxH)	11 x 38.74 x 13.5 inches
Model Number	100-3000000075
Manufacturer	AMD
Country of Origin	China
First Available Date	May 25, 2023

## WARRANTY & SUPPORT

For warranty information and technical support, please refer to the official AMD resources.

- **Official Support:** Visit the official AMD support website for drivers, FAQs, and troubleshooting guides: [www.amd.com/support](http://www.amd.com/support)
- **Product Registration:** Register your product on the AMD website to receive updates and support.
- **Protection Plans:** Extended protection plans may be available for purchase through authorized retailers. For example, 3-Year and 4-Year protection plans are often offered.
- **Contact AMD:** For direct assistance, refer to the contact information provided on the AMD support website.

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