

[Manuals.plus](#) /

› [AOOSTAR](#) /

› AOOSTAR AG03 eGPU Dock User Manual

AOOSTAR AG03

AOOSTAR AG03 eGPU Dock User Manual

Model: AG03

1. INTRODUCTION

The AOOSTAR AG03 is an external GPU (eGPU) dock designed to enhance the graphics performance of compatible Windows laptops, mini PCs, desktops, and gaming handhelds. It features a built-in 800W power supply and supports up to 500W GPU power output. The dock offers versatile connectivity with OCuLink and dual Thunderbolt 5 ports.

This manual provides instructions for setting up, operating, and maintaining your AG03 eGPU Dock, along with troubleshooting tips and product specifications.

2. PACKAGE CONTENTS

Verify that all items are present in the package:

- 1 x AOOSTAR AG03 OCuLink eGPU Dock
- 1 x Thunderbolt 5 Cable
- 1 x Power Supply Cable
- 2 x Switch Cables

Note: A graphics card (GPU) is not included and must be purchased separately.

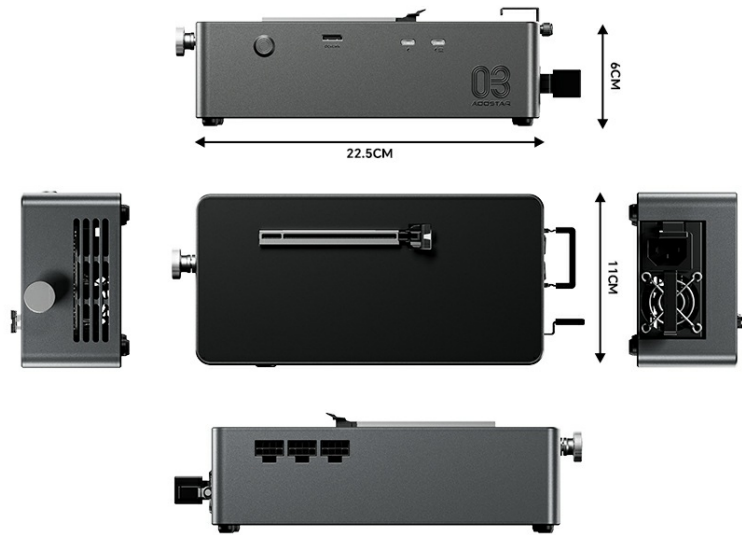


Image: Included accessories with the AOOSTAR AG03 eGPU Dock, showing the dock, power cables, and Thunderbolt 5 cable.

3. PRODUCT FEATURES

- **Integrated 800W Power Supply:** Provides up to 500W power output for the graphics card, simplifying cable management.
- **OCuLink Connectivity:** Supports native direct connection to PCIe for high bandwidth. Note: OCuLink does not support hot-swapping.
- **Dual Thunderbolt 5 Ports:** Features Intel JHL9480 controller for high-performance expansion. One port is for eGPU connection, the other supports DisplayPort protocol and 27W output.
- **Active Cooling:** Designed with active cooling to maintain stable power delivery during demanding workloads.
- **Wide GPU Compatibility:** Supports various graphics cards without length restrictions, compatible with AMD, Intel, and NVIDIA GPUs up to 500W.

PCIe4.0×4 interface

Equipped with a metal armor for the interface, it boasts a bandwidth up to 64GT/s, providing signal shielding for enhanced stability.

Thunder 5-140W reverse power supply



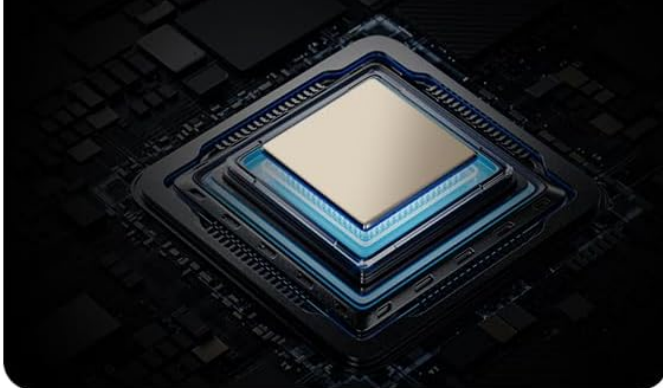
OCuLink

OCulink supports native direct connection to PCIe, and the interface comes with a security lock to prevent detachment.



Signal amplifier

More stable high-speed performance

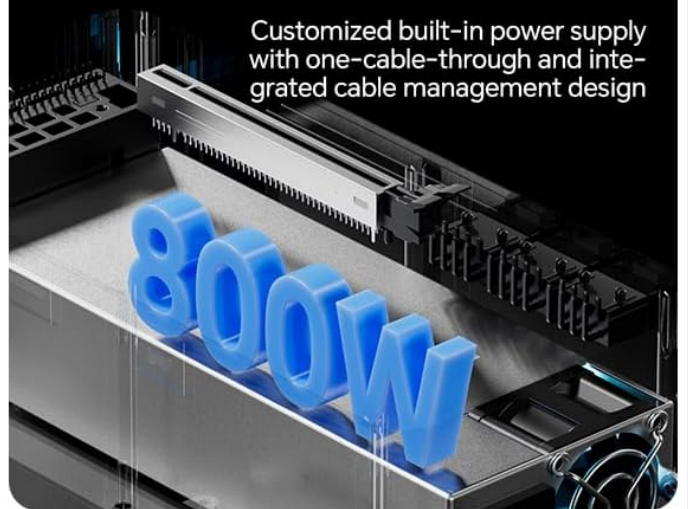


Supports Lenovo TGX hot-swapping

Applicable to: ThinkBook 14+/16+ 2024 Intel Core Edition Laptops

Built-in power supply

Customized built-in power supply with one-cable-through and integrated cable management design



Wide compatibility

Open space with no restriction on graphics card length



Image: The AOOSTAR AG03 eGPU Dock with a graphics card installed, illustrating its compact form factor.

Built-in customized 800W power supply

500W for graphics card use, with 150W of redundancy, supporting the full range of graphics cards available on the market. Say good-bye to bulky adapters with our one-cable-through power supply design featuring cable management.



Image: An internal view highlighting the built-in 800W power supply of the AG03 eGPU Dock.

4. COMPATIBILITY

The AG03 eGPU Dock is designed for select Windows 11 devices equipped with OCUlink, Thunderbolt 4/5, USB4, or USB4 v2 ports. Windows 11 version 22H2 or later is recommended.

4.1. Known Incompatibilities / Recommendations

- Not compatible or not recommended for AOOSTAR GT37, AOOSTAR WTR MAX, ROG Xbox Ally / Z2 Extreme devices.
- Not recommended for RX 9070 XT GPU setups.
- Certain MINISFORUM models may have compatibility issues.
- Compatibility may vary by host device, BIOS, firmware, GPU model, cable, and driver.

5. SETUP INSTRUCTIONS

Follow these steps to set up your AOOSTAR AG03 eGPU Dock:

5.1. Quick Setup Guide

OCUlink & Thunder 5

Equipped with dual OCUlink and Thunder 5 interfaces, this innovative design offers efficient transfer speeds, wide compatibility, and meets all your connection needs.

OCUlink

The OCUlink interface does not support hot-swapping. It is necessary to shut down the device before unplugging the cable.

Thunder 5-PCIE4.0x4

Thunder 5 supports 140W power delivery(reverse charging).



Image: Quick Setup Guide for the AG03 eGPU Dock, detailing GPU installation, power, and host connection steps.

1. **Install GPU:** Insert your graphics card into the PCIe slot and secure it with screws.
2. **Connect GPU Power:** Connect the 8-pin / 6+2-pin PCIe power cables from the dock to your graphics card. The AG03 provides 3 x 8-pin GPU power connectors. High-end GPUs requiring 12VHPWR or 12V-2x6 connectors may need a separate adapter (not included).
3. **Plug in AC Power:** Connect the AC power cord to the AG03 eGPU Dock.
4. **Select Connection Mode:** Choose OCuLink for higher bandwidth or Thunderbolt/USB4 for flexible connection.
5. **OCuLink Notice:** Power off both the computer and AG03 before connecting or disconnecting OCuLink. OCuLink does not support hot-swapping.
6. **Thunderbolt 5 Notice:** Press the Thunderbolt 5 switch button on the AG03 dock before using a Thunderbolt 5 connection.

5.2. Detailed Connection Steps

Steps to connect the graphics dock

Please make sure to follow the following operational steps to correctly use the graphics dock.

1. Plug in the power cord of the graphics dock first.



2. Connect the graphics card and the power cord of the graphics card to the dock.



3. Connect the OCuLink cable.



4. First, press the power button on the graphics dock. Then, turn on the device using its power switch.



Image: Step-by-step visual guide for connecting the graphics dock.

1. Plug in the power cord of the graphics dock first.
2. Connect the graphics card and the power cord of the graphics card to the dock.
3. Connect the OCuLink or Thunderbolt cable to your host device.
4. First, press the power button on the graphics dock. Then, turn on the host device using its power switch.

6. OPERATING INSTRUCTIONS

6.1. Interface Description

Interface Description

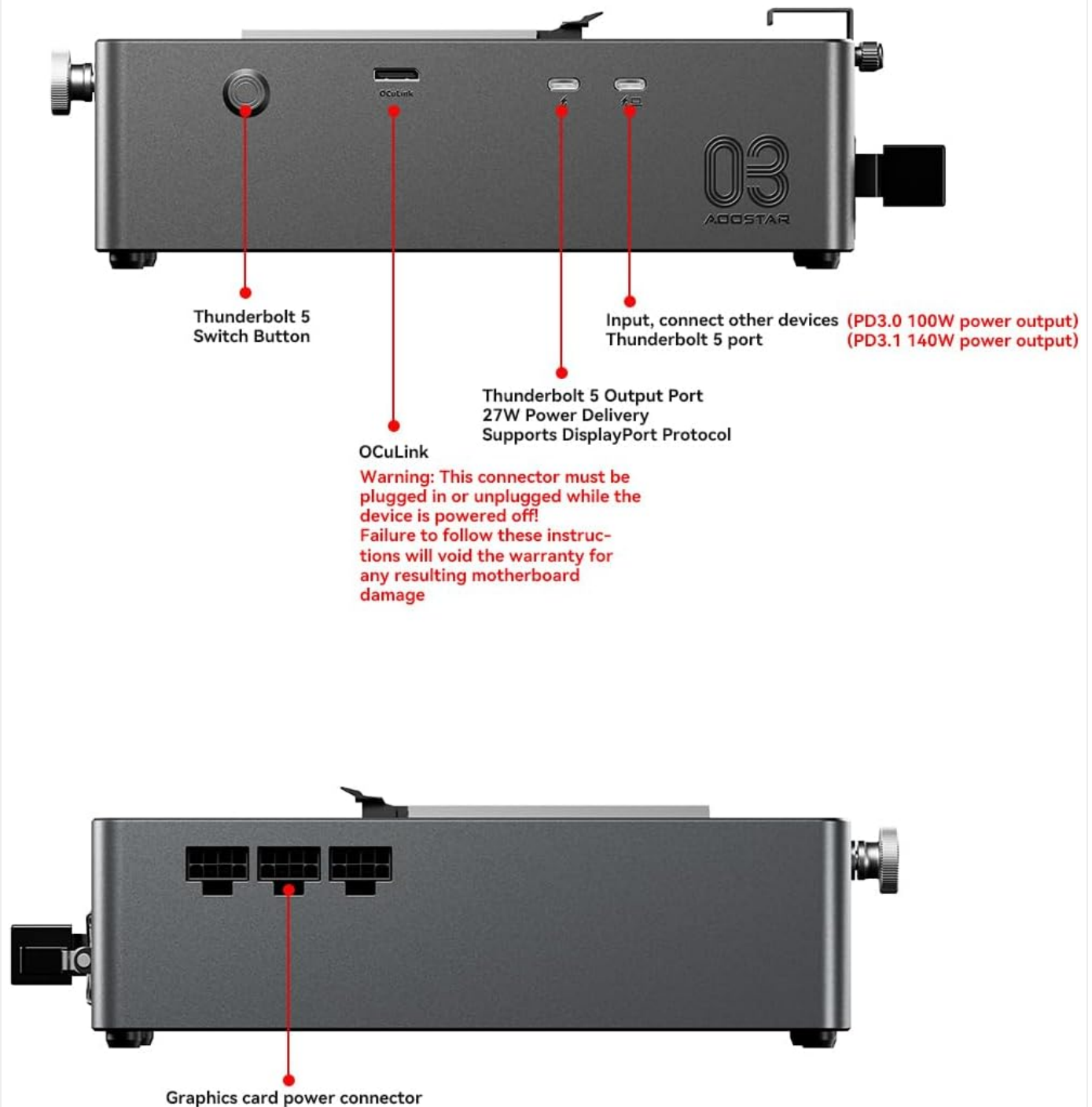


Image: Detailed view of the AG03 eGPU Dock interfaces, including Thunderbolt 5 ports, OCUlink, and GPU power connectors.

- **Thunderbolt 5 Switch Button:** Activates the Thunderbolt 5 connection.
- **OCUlink Port:** For high-bandwidth PCIe connection.
- **Thunderbolt 5 Output Port (Left):** Supports DisplayPort protocol and 27W power delivery. Not intended as the main eGPU host connection.
- **Thunderbolt 5 Input Port (Right, with computer icon):** Main port for connecting to your host device (Thunderbolt/USB4 eGPU connection). Supports PD3.0 100W or PD3.1 140W power output.

- **Graphics Card Power Connectors:** Three 8-pin connectors for GPU power.

Important: For OCuLink, this connector must be plugged in or unplugged while the device is powered off. Failure to follow these instructions will void the warranty for any resulting motherboard damage.

6.2. Power Delivery

The AG03 features a built-in 800W power supply, providing up to 500W for the installed graphics card. The Thunderbolt 5 interface supports 140W reverse power delivery, allowing compatible devices to operate without a separate power source.

Thunder 5-140W reverse power supply

The Thunder 5 interface supports 140W reverse power delivery, allowing devices to operate without the need for a separate power source.



Image: Illustration of the AG03's 140W reverse power delivery capability to various devices.

7. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the dock. Avoid liquid cleaners.
- **Ventilation:** Ensure the dock's ventilation openings are clear of obstructions to maintain proper airflow for active cooling.
- **Storage:** Store the dock in a cool, dry place when not in use.

8. TROUBLESHOOTING

If you encounter issues with your AG03 eGPU Dock, refer to the following common solutions:

- **GPU Not Detected:**
 - Ensure the graphics card is properly seated in the PCIe slot and secured.
 - Verify all GPU power cables are securely connected.
 - Confirm the AC power cord is connected and the dock is powered on.
 - For Thunderbolt 5 connection, ensure the switch button on the dock is pressed.
 - Install the official NVIDIA or AMD graphics driver after the GPU is detected.
 - If the GPU shows a warning in Device Manager, install any required patch files.
- **Compatibility Issues:**
 - Check if your host device (laptop, mini PC) is listed under known incompatibilities.
 - Ensure your Windows 11 version is 22H2 or later.
 - Some laptops may require Bitlocker / Device Encryption to be disabled before setup.
 - Compatibility can vary by host device BIOS, firmware, GPU model, cable, and driver. Contact AOOSTAR support for specific compatibility questions.
- **Loud Fan Noise:**
 - The AG03 features active cooling, and fan noise may be audible, especially under heavy GPU load or in quiet environments. This is normal operation.
- **Power Supply Failure (Red LED):**
 - If a red LED indicator appears, the internal power supply may have failed. Contact AOOSTAR support for assistance.
- **Safe Disconnection:**
 - Safely disconnect the eGPU from the system tray before unplugging USB4 / Thunderbolt cables.
 - For OCuLink, always power off both the host device and the AG03 before connecting or disconnecting.

9. SPECIFICATIONS

Feature	Detail
Brand	AOOSTAR
Model	AG03
Hardware Interface	OCuLink, Thunderbolt 5 (Intel JHL9480 controller)

Feature	Detail
Compatible Devices	Windows 11 laptops, gaming handhelds, mini PCs (with OCuLink, Thunderbolt 4/5, USB4, or USB4 v2 ports)
Product Dimensions (L x W x H)	8.86" x 4.33" x 2.36" (22.5 cm x 11 cm x 6 cm)
Item Weight	1.6 Kilograms
Number of Ports	1 x OCuLink, 2 x Thunderbolt 5, 3 x 8-pin GPU power connectors
Built-in PSU Wattage	800W (up to 500W GPU power output)
Thunderbolt 5 Power Delivery	140W reverse power delivery (PD3.1), 27W output on secondary TB5 port
Minimum OS Required	Windows 11 (22H2 or later recommended)



Image: Product dimensions of the AOOSTAR AG03 eGPU Dock.

10. WARRANTY AND SUPPORT

AOOSTAR provides 12 months of after-sales service from the date of order.
For compatibility, driver, GPU cable, or setup questions, please contact AOOSTAR support. Our team can assist you in checking your device, GPU model, cable connection, and driver setup.
Warranty Description: 1 YEAR

11. VIDEO GUIDE

Watch the official product video for a visual overview of the AOOSTAR AG03 eGPU Dock.



Video: An official video demonstrating the features and usage of the AOOSTAR AG03 eGPU Dock.

