OwlTree PCIe 4.0 x4 OCuLink eGPU DOCK User Manual

1. Product Overview

This OwlTree OCuLink eGPU Dock is an external graphics expansion enclosure built for laptops and mini- PC systems. Adopting PCIe 4.0 x4 (64Gbps) bandwidth together with OCuLink SFF- 8612 / SFF- 8611 high- speed cable connection, it allows you to connect a full- size desktop discrete GPU to your laptop or mini- PC. The dock supports standard ATX power supply installation, with gold- plated PCB contacts, multi- status LED indicators and split- type portable structure. Ideal for gaming, AI computing, video editing and graphic design workloads.

2. Product Specifications

- **Brand**: OwlTree
- **Model Name**: OCuLink PCIe4.0 x4 eGPU DOCK
- **Bus Specification**: PCIe 4.0 x4, 64Gbps
- **Interface**: OCuLink SFF- 8612 Female, PCIe x16 GPU slot, SFF- 8611 Male- to- Male cable
- **Cable Spec**: SFF- 8611 Male- to- Male, 50 cm / 19.7 inch flat shielded cable
- **Supported PSU**: Standard ATX power supply, dual- screw mounting (top & bottom)
- **AC Input Range**: 100- 240V AC
- **Compatible Host**: Laptop, Mini- PC with OCuLink SFF- 8611 port
- **Supported GPU**: Full- size desktop graphics cards such as RTX 4090, AMD RX 7900 XTX and more
- **Cooling Method**: Air cooling (GPU self- cooling)
- **Product Weight**: 0.47 kg
- **Special Note**: OCuLink interface **DOES NOT support hot- swap**
- **Warranty**: 1- Year

3. Key Features

3.1 PCIe 4.0 x4 64Gbps High- Speed Bandwidth

Delivers full PCIe 4.0 x4 64 Gbps bandwidth via OCuLink connection, bringing reliable throughput for external GPU gaming, AI inference, rendering and video production tasks.

3.2 Detachable Portable Enclosure Structure

Two- end detachable housing design for convenient disassembly, portability and storage. Easy access for GPU and ATX- PSU installation and maintenance.

3.3 10μ Gold- Plated PCB Contacts

High- quality 10- microinch gold- plated contacts reduce contact resistance, resist oxidation and rust, lowering risks of system crash, blue- screen (BSOD) and unstable connection.

3.4 Multi- Status LED Indicators

Built- in LED status lights provide real- time visual feedback for power and link status, helping you quickly diagnose connection issues.

3.5 Premium Flat SFF- 8611 Cable

Ultra- thin flat cable (0.5 mm thickness), flexible and durable. Full- coverage shielding plus advanced EMI- suppression materials reduce electromagnetic interference and avoid performance drop. Avoids port damage risks caused by stiff traditional OCuLink cables.

3.6 Standard ATX Power Supply Support

Designed for regular ATX power units only. Dual- screw mounting positions (top & bottom) firmly fix the PSU inside the dock for stable power delivery to high- power graphics cards.

4. Package Contents

- 1 × OCuLink SFF- 8612 Female to PCIe x16 eGPU Dock Enclosure
- 1 × SFF- 8611 Male- to- Male Cable, 50 cm / 19.7 inch

Important Note: Graphics Card and ATX Power Supply are NOT included in package.

5. Step- by- Step Installation Guide

Pre- installation Warning: OCuLink interface does NOT support hot- swap. Always shut down host computer completely and cut power before plugging / unplugging the OCuLink cable.

1. **Open the dock housing**: Disassemble the two- end detachable shell of the

eGPU dock.

2. **Install ATX power supply**: Place your standard ATX PSU inside the dock, secure it with top & bottom mounting screws. Connect PSU 24- pin and PCI- E power connectors to your graphics card.

3. **Mount GPU**: Insert your desktop graphics card into the PCIe x16 slot of the dock, lock the retention bracket screw.

4. **Connect OCuLink cable to dock**: Plug one end of SFF- 8611 male- male cable into the SFF- 8612 port on the eGPU dock.

5. **Connect OCuLink cable to host**: Make sure your laptop / mini- PC is fully powered off. Plug the other cable end into the host's OCuLink SFF- 8611 port.

6. **Close housing & power- on sequence**: Reassemble dock shell. First power- on the ATX power supply inside dock, then power- on your laptop / mini- PC.

7. **Driver check**: Boot into system, install or update your NVIDIA / AMD graphics driver, verify GPU is recognized in device manager.

6. Usage Instructions

- **Power- on sequence**: Turn on dock ATX PSU first → then power on your laptop / mini- PC.
- **Power- off & disconnection sequence**: Fully shut down your host system → cut power for ATX PSU → then you may disconnect the OCuLink cable. **Never pull OCuLink cable while powered- on.**
- **LED monitoring**: Observe multi- status LED lights. Abnormal LED status indicates power failure or link disconnection, please re- check cable and power connections.
- **GPU replacement**: Power off both dock PSU and host laptop before swapping graphics cards.

7. Important Notes

- OCuLink interface does NOT support hot- swap. Hot- plugging may damage host port, dock PCB or graphics card.
- Only standard ATX power supply is supported. Do not use non- standard / proprietary power units.
- Confirm your laptop / mini- PC hardware is equipped with native OCuLink SFF- 8611 port before purchase; this dock cannot work via Thunderbolt or USB- C without OCuLink hardware.
- Ensure proper ventilation inside the dock. Keep air- flow path unobstructed for GPU and ATX PSU cooling.
- Do not bend the flat OCuLink cable sharply; avoid heavy compression on the

cable body to prevent internal conductor damage.

- Gold- plated PCB contacts should be kept clean; avoid dust, moisture and corrosive contaminants.

8. Troubleshooting

Fault Phenomenon	Solutions
External GPU not detected by host	1. Confirm host is fully powered- off before OCuLink cable insertion. 2. Re- seat both ends of SFF- 8611 cable. 3. Verify ATX- PSU is switched on and GPU receives sufficient PCI- E power. 4. Check host BIOS OCuLink setting is enabled.
System BSOD / crash under GPU load	1. Check ATX PSU output power matches GPU power requirement. 2. Re- insert OCuLink cable firmly. 3. Update GPU official driver. 4. Check PCB contacts for dust or oxidation.
LED indicator shows abnormal status	Check ATX- PSU AC input, re- check GPU PCI- E power connections and OCuLink cable seating.
Low performance / bandwidth drop	Avoid cable sharp bending and EMI interference sources. Confirm PCIe 4.0 mode is enabled in host BIOS.

9. After- Sales Service

We provide **1- year warranty service**. The warranty covers non- human- induced functional defects. Damage caused by hot- swap, improper power supply, physical impact or liquid ingress is excluded from warranty. Please contact our customer service for technical support or RMA service when you encounter quality- related

issues.