

AVMATRIX[®]



TB-BOX

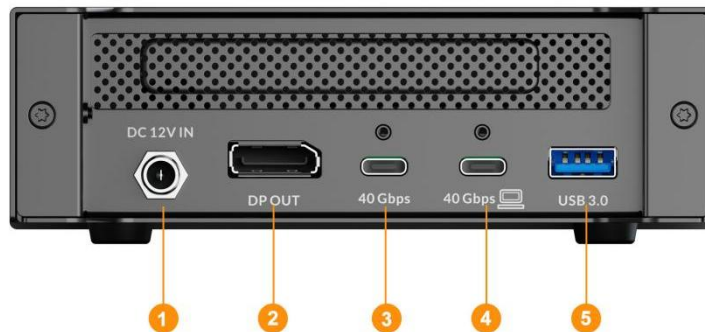
ULTRA-SPEED DOCKING STATION

User Manual

Main Features:

- **Dual Ultra-speed interfaces (maximum rate of 40Gbps) with daisy chain support:** Connect multiple Ultra-speed-compatible devices (e.g., external storage drives, DP displays) in a chain, eliminating the need for extra computer ports.
- **One internal PCIe 3.0 x4 slot:** Compatible with PCIe Capture & Playback cards (for 4K video processing), sound cards (for professional audio), SSD cards (for high-speed storage), and network cards (for fast internet access), meeting diverse expansion needs.
- **Expanded computer interfaces:**
 - 1×USB3.1 Gen2 10Gbps interface: Enables high-speed data transmission for USB devices (e.g., transferring a 10GB movie in ~10 seconds).
 - 1×DP1.4 interface (4×8Gbps bandwidth): Supports DP MST daisy chain display on Windows platform, allowing multi-monitor setups (e.g., 2×4K 60Hz displays via one DP cable).
- **Optional 60W USB Type-C external power supply via PD protocol:** Provides flexible power for connected devices (e.g., charges thin-and-light laptops) when used with a compatible adapter.
- **Active heat dissipation system:** Ensures stable 24/7 operation even under long-term high-load scenarios (e.g., continuous 4K video capture, SSD array reading/writing).

Interfaces:



No.	Interface Name & Description
1	DC 12V IN: Connects to an external DC power adapter (12~21V) to supply power to the docking station.
2	DP OUT (DP1.4): Connects to external DP-compatible displays (supports 8K30Hz/4K120Hz) for display expansion.
3	Downlink Port (40Gbps): For connecting downstream Ultra-speed devices, compatible with USB4 & Thunderbolt 3/4/5-like Protocols (e.g., another Ultra-speed docking station, external storage).

4	Uplink Port (40Gbps + 60W PD): Used for Ultra-speed data transmission with the computer and optional power supply, compatible with USB4 & Thunderbolt 3/4/5-like Protocols Note: To enable the 60W PD function, this port must be connected to a computer's Ultra-speed port, and a 20V4A power adapter(optional) must be used.
5	USB-A Port (USB3.1 Gen2 10Gbps): Connects to USB devices such as USB disks, keyboards, mouse, and external hard drives for data transmission or device control.

Installation:

● Install PCIe card the docking station

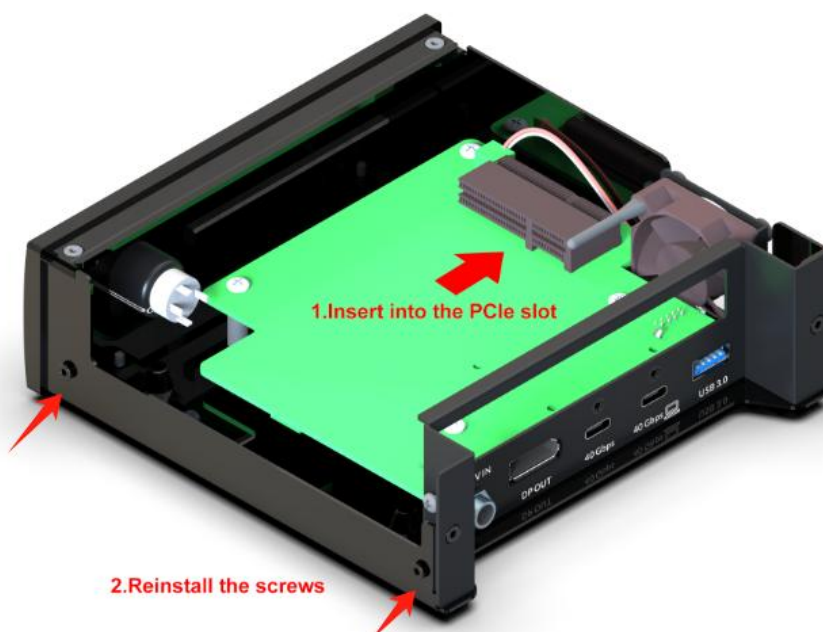


Step1: Power off the unit and disconnect all cables.

Step2: Using a screwdriver, remove the two screws on each side of the unit.

Step3: Gently lift the top cover to expose the internal slot.

Step4: Align the PCIe card's gold fingers with the PCIe slot, keep the card level, and press down evenly until it is fully seated.



Step5: Close the top cover and reinstall the screws on both sides.

Step6: Reconnect power; the system will automatically detect the new hardware.

Specifications:

Category	Parameter Item	Details
Slot Interface	PCIe Standard	1 slot, PCIe x4 (Gen3)
Data Interfaces	DC Input	1×DC 12V IN (compatible with 12~21V adapters)
	Video Output	1×DP1.4 OUT
	Ultra-speed Ports	2 ports, compatible with USB4 & Thunderbolt 3/4/5-like Protocols
	USB Port	1×USB3.1 Gen2 (USB-A, 10Gbps)
Power Supply	Input Voltage Range	DC 12~21V
	PD Power Output	Up to 60W (requires optional 20V4A power adapter)
Operating Environment	Working Temperature	0~40°C (non-condensing)
	Storage Temperature	-20~60°C (non-condensing)
	Relative Humidity	0%~90% (non-condensing)
Physical Dimensions	Size (L×W×H)	139.8×138×42.6mm
	Weight	Net weight: 675g; Gross weight: 1370g
Accessories	Accessories	12V 3A Power Adapter High-speed C-to-C cable 20V 4A Adapter(Optional)
Warranty	Period	2 years