2x1 Triple Monitor KVM Switch Docking Station with DP/HDMI

iDock B23



User Manual

AV Access

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Introduction

Features

- **Multi-Display Switching Support**
  - Two input video groups: one USB-C and one including 1 x HDMI and 2 x DP inputs
  - One output video group, simultaneously supporting 1 x HDMI and 2 x DP outputs
  - Each output channel is independent, allowing for different resolutions across displays
- **Full-Featured USB-C Input**
  - Supports up to 4K@120Hz (DP only) and 4K@60Hz video
  - USB 3.2 Gen 2×1 (10Gbps) data transfer
  - Supports up to100W Power Delivery (PD) charging
  - Supports 1Gbps Ethernet passthrough
- **8K Resolution & High Refresh Rate Support**
  - For a desktop: Fully compatible with HDMI 2.1, DP 1.4a (HBR3) and DP 2.0 (UHBR 13.5), supporting resolutions up to 8K@60Hz, 5K@120Hz, 4K@165Hz/120Hz, 1080P@240Hz, and more (see the *Specification* section for details)
  - For a laptop: Supports up to 4K@120Hz (DP only), 4K@60Hz and 1080P@240Hz
- Cable Length Recommendation
  - Maximum 2m for input cables
  - Maximum 2m for output cables

  Note: Use certified cables compliant with HDMI 2.1 and DP 2.0/1.4a standards to ensure optimal signal integrity.
- **DP Features (for DESKTOP)**
  - MST (Multi-Stream Transport): Enables daisy-chaining multiple monitors via a single DP port
  - HDR Support: Compatible with a wide range of HDR formats
  - VRR (Variable Refresh Rate): Minimizes screen tearing and stuttering for smoother visuals
- **Comprehensive Peripheral Connectivity**
  - 2 x USB 3.2 Gen 2×1 Type-A ports (up to 10Gbps), sharing a total of 2.5A

output

- 3 x USB 3.0 Type-A ports (5Gpbs): one (rear) supporting up to 1.5A output, and two (front) sharing a total of 2.5A output
- 1 x USB-C port (for USB data only), supporting USB 3.2 Gen 2×1 (up to 10Gbps) and 5V/1.5A power output
- 1 x 3.5mm TRRS microphone + headphone combo audio jack (4-pole)
- 1 x CTL port, for connecting the external switching button
- 1 x SDXC card slot, supporting up to 2TB capacity and 104MB/s max transfer rate
- 1 x Gigabit LAN (RJ-45) port, supporting1Gbps network passthrough

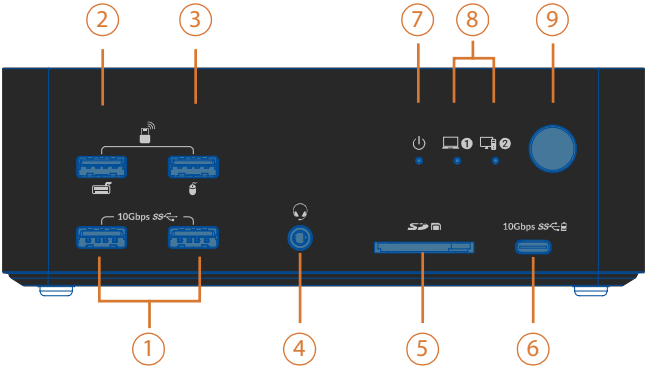
- **Smart Functionality**
  - Auto Wake-Up: automatically wakes the connected computer when switched to, no manual input required
  - Fast Switching Response: typical switching time of 2–3 seconds
- **Control**
  - Supports control via front panel button or external switching button (EXB01)

Package Contents

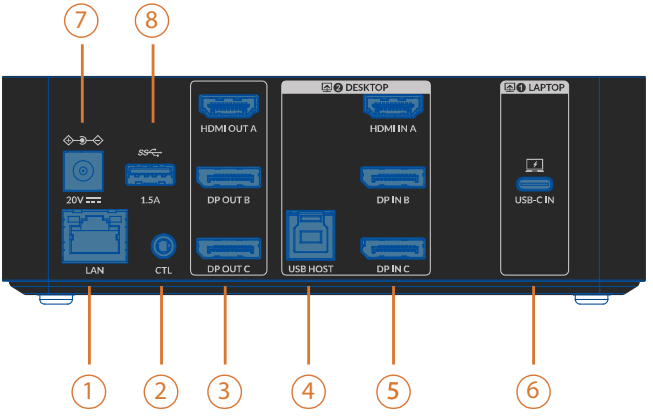
Before you start the installation of the product, please check the package contents:

- KVM Switch Docking Station x 1
- Power Adapter (DC 20V 6A) x 1
- USB 3.0 Type-A to Type-B Cable (1.8m) x 1
- USB 3.2 Gen 2×1 Full-Featured Type-C Cable (1m) x 1
- DP 1.4a Cables (1.5m) x 2
- HDMI 2.1 Cable (1.5m) x 1
- Wired Button Switch x 1
- Quick Start Guide x 1

Panel

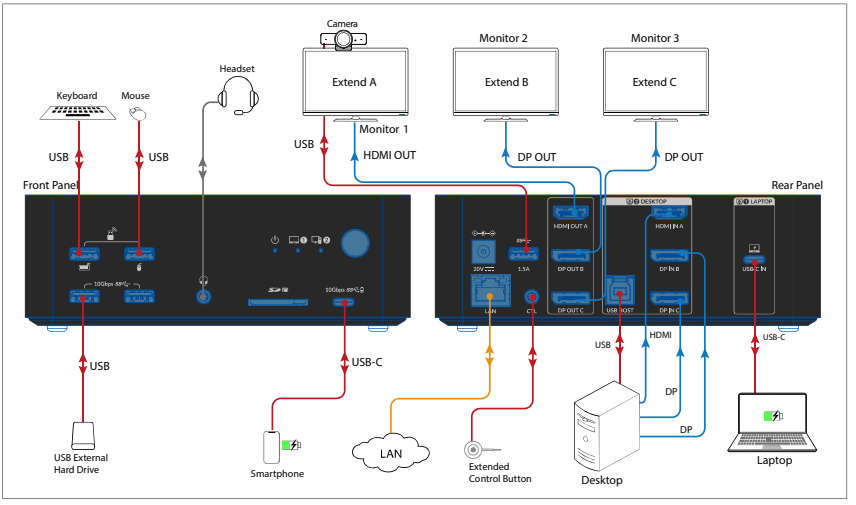


①: 2 x USB-A (10Gbps) | ② & ③: USB-A (5Gbps) | ④: 3.5mm Combo Audio Jack | ⑤: SDXC Slot | ⑥: USB-C (10Gbps) | ⑦: Power LED | ⑧: Input LEDs (1–2) | ⑨: Switch Button



①: LAN | ②: CTL | ③: HDMI OUT (A) & DP OUT (B–C) | ④: USB HOST | ⑤: HDMI IN (A) & DP IN (B–C) | ⑥: USB-C IN | ⑦: POWER IN | ⑧: USB-A (5Gbps, 1.5A)

Application



When switching input channels between **LAPTOP** (Group 1) and **DESKTOP** (Group 2):

- All USB peripherals connected via the USB-A ports, as well as the connected headset and the SD card, will switch in sync to the currently selected host.
- When Group 1 is selected, the displays connected to HDMI OUT A, DP OUT B, and DP OUT C will show content from the USB-C IN. After switching to Group 2, the three displays link to Group 2 will display content from HDMI IN A, DP IN B, and DP IN C accordingly.

Note:

The **USB HOST** and **USB-C IN** ports on this device integrate a network pass-through module. Regardless of which input source is currently selected, both computers connected via the USB HOST and USB-C IN ports can access the network through this device.

Button Control

Users can switch input sources between **LAPTOP** and **DESKTOP** using the front panel button or the external button switch. Please ensure that this device and all related equipment are properly connected and powered on.

Multi-Display Configuration

The device's USB-C IN port supports DisplayPort (DP) Alt Mode and DP Multi-Stream Transport (MST), allowing it to output up to three independent video signals simultaneously.

Actual output resolutions depend on the DisplayPort standard of the USB-C (or Thunderbolt) port on the connected laptop.

For Windows:

Display Configuration	Maximum Resolultion Supported		
	HDMI Out A	DP Out B	DP Out C
Single Display	4K@60Hz	—	—
	—	8K@30Hz / 4K@120Hz	—
	—	—	8K@30Hz / 4K@120Hz
Dual Display	4K@60Hz	4K@60Hz	—
	4K@60Hz	—	4K@60Hz
	—	4K@60Hz	4K@60Hz
Triple Display	4K@60Hz + 4K@60Hz + 4K@30Hz		

Note: Output ports are flexible; any combination of the displays can be used.

For macOS (Intel or M-series chips):

- macOS doesn't support MST due to system limitations.
- When connecting three external displays, all screens will mirror the same content.

Specifications

Technical	
Video Input	**Laptop:** • 1 x USB-C IN (Rear panel): DP Alt mode, MST/SST, DSC, DP 1.4a **Desktop:** • 1 x HDMI IN: HDMI 2.1 • 2 x DP IN: DP 1.4a & DP 2.0 (UHBR 13.5)
Video Output	• 1 x HDMI OUT: HDMI 2.1 • 2 x DP OUT: DP 1.4a & DP 2.0 (UHBR 13.5)
Peripheral and Expansion Ports	• USB-C x 1: - 10Gbps (Front panel): USB 3.2 Gen 2×1 (10Gbps), supports 5V/1.5A output • USB-A x 5: - 10Gbps x 2: USB 3.2 Gen 2×1 (10Gbps) - x 1 & x 1: USB 3.0 (5Gbps) - 1.5A x 1 (Rear panel): USB 3.2 Gen 2×1 (5Gbps) • SDXC slot: - Data rate up to 104MB/s, with capacity up to 2TB • Audio Jack x1: - 3.5mm TRRS Microphone + Headphone combo jack (4-pole) • LAN (RJ-45): - Supports 1G Ethernet passthrough for both USB-C IN and USB-B Host

Technical	
	• CTL x1: - Connect to EXB01 for local input switching
Resolutions	**LAPTOP:** • HDMI: Up to 4K@60Hz (Single) • DP: Up to 8K@30Hz or 4K@120Hz (Single) • DP + HDMI or DP + DP: 4K@60Hz + 4K@60Hz • DP + DP + HDMI: 4K@60Hz + 4K@60Hz + 4K@30Hz **DESKTOP:** • HDMI IN/OUT: Up to 8K@60Hz, 4K@165Hz/144Hz/120Hz • DP IN/OUT: Up to 8K@60Hz, 4K@165Hz/144Hz/120Hz
Max Video Data Rate	USB-C IN: 10Gbps (per lane) | HDMI: 48Gbps | DP: 54Gbps (13.5Gbps per lane)

General	
Operating Temperature & RH	0°C to 45°C (32 to 113°F), 20% to 90%, non-condensing
Storage Temperature & RH	-20 to 70°C (-4 to 158°F), 20% to 90%, non-condensing
Power Consumption	17W (Max, without USB load and charging)
Device Dimensions (W x H x D)	6.61'' x 2.24'' x 4.33'' (168mm x 57mm x 110mm)
Product Net Weight	1.61lbs (0.73kg)

Resolutions and AWG

Resolution	Input Cable Length	Output Cable Length	AWG
8K@60Hz	≤ 2m	≤ 2m	30AWG
4K@165Hz	≤ 2m	≤ 2m	30AWG
4K@120Hz	≤ 2m	≤ 2m	30AWG
4K@60Hz	≤ 3m	≤ 3m	30AWG

Note:

- For optimal performance, use high-quality HDMI and DP cables that comply with official certification standards.
- All data were obtained under controlled laboratory conditions and may vary depending on usage environment.

Warranty

Products are backed by a limited 1-year parts and labor warranty. For the following cases AV Access shall charge for the service(s) claimed for the product if the product is still remediable and the warranty card becomes unenforceable or inapplicable.

1. The original serial number (specified by AV Access) labeled on the product has been removed, erased, replaced, defaced or is illegible.
2. The warranty has expired.
3. The defects are caused by the fact that the product is repaired, dismantled or altered by anyone that is not from an AV Access authorized service partner. The defects are caused by the fact that the product is used or handled improperly, roughly or not as instructed in the applicable User Guide.
4. The defects are caused by any force majeure including but not limited to accidents, fire, earthquake, lightning, tsunami and war.
5. The service, configuration and gifts promised by salesman only but not covered by normal contract.
6. AV Access preserves the right for interpretation of these cases above and to make changes to them at any time without notice.

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