# 8K 2x1 Dual-Monitor KVM Dock Switcher

iDock B10



## User Manual

AV Access

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# Introduction

## Overview

This product is a versatile 2x1 8K KVM switch docking station, ideal for both home office and entertainment use. It connects seamlessly to a USB-C laptop for meetings and work tasks, while also supporting desktop setups for gaming and media consumption. The device enables easy switching between devices, allowing users to share two monitors and peripherals like a mouse, keyboard, external hard drive, camera, or speakerphone between their laptop and desktop.

## Features

- 2x1 8K KVM switch docking, switch between one laptop and one desktop for two monitors and share a series peripheral devices.
- Support switching inputs between one USB-C for the laptop and one combined HDMI+DP+USB-C 3.2 host for the desktop:
  - One full-featured USB-C input supports 8K video transmission, USB 3.2 data (up to 10Gbps), 100W charging and 1G network connection;
  - One combined HDMI+DP+USB-C 3.2 host: one HDMI 2.1 input and one DP 2.0 (UHBR 13.5) input support resolutions up to 8K@60Hz and 4K@165Hz, and one USB-C host port, support USB 3.2 data transmission up to 10Gbps and 1G network connection.
- Two monitors with one DisplayPort 2.0 (UHBR 13.5) output (up to 8K@60Hz and 4K@165Hz) and one HDMI 2.1 output (up to 8K@60Hz and 4K@165Hz).
- Provide multiple peripheral ports, including:
  - 2x USB 3.0 type-A ports on front panel, support USB 3.2 standard, 5V/1A power output and 5Gbps data transfer;
  - 2x USB 3.2 type-A ports on front panel, support USB 3.2 standard, 5V/1A power output and 10Gbps data transfer;
  - 1x USB 3.2 type-C port (USB data only), supports USB 3.2 standard, 10Gbps data transfer rate, and 1.5A current output;
  - 1x USB 3.2 type-A port on rear panel, supports USB 3.2 standard, 5V/1.5A power output and 10Gbps data transfer;
  - 1x SDXC card slot, supports up to 2TB SDXC card inserted, and maximum data transmission is 104MB/s;

- 1x LAN port, support for 1Gb Ethernet performance;
- 1x 3.5mm TRRS (stereo + microphone) headset port.

- Support automatic wake-up function, when switch to the standby computer, it will be automatically waken up.
- Support connecting to the Wired Remote Controller (EXB01) for remote switching.

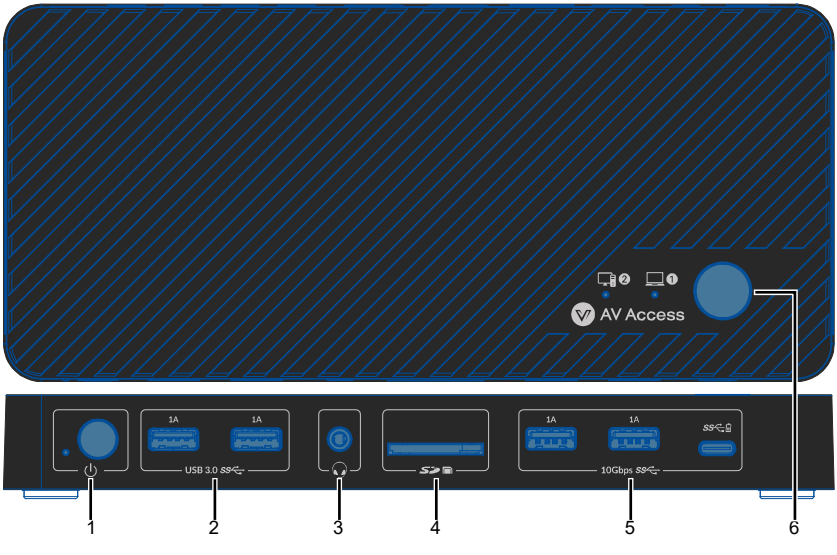
# Package Contents

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

- KVM Dock Switcher x 1
- Power Adapter (DC 20V/6A) x 1
- HDMI 2.1 Cable (L = 1.5m) x 1
- DP 1.4a Cable (L = 1.5m) x 1
- USB 3.2 Gen 2 Type-C to Type-C Cable (L = 1m) x 1
- USB Type-A to USB Type-C Cable (L = 1.8m) x 1
- Wired Remote Controller (EXB01) x1
- User Manual x 1

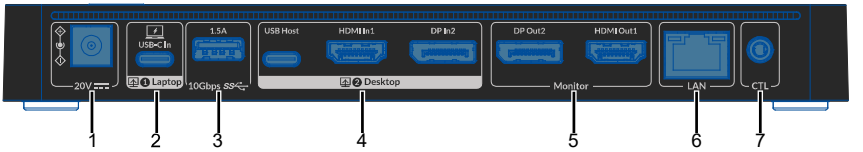
# Panel

## Front Panel



| No. | Name | Description |
|---|---|---|
| 1 | Power Button and LED | Power Button: Press to power on/off the device.<br>Power LED:<br>On/Off: The device is powered on/off. |
| 2 | USB Device | USB 3.0 Type-A ports. Connect to USB devices such as keyboard, mouse or wireless receiver, and each port supports 5V/1A power output. |
| 3 | Headset | 3.5mm TRRS headset jack. Connect to a headset with microphone. The headset switching follows the USB-C input port selected and need to select "AV Access iDock" on the connected host device. |
| 4 | SD Slot | SDXC port. Insert SDXC card. |
| 5 | USB-A (1.0A) + USB-C | USB 3.2 (1.0A): Two USB 3.2 type-A ports, can be used to connect to USB 3.2 high-speed devices for KVM function. Supports 5V/1A power output.<br>USB-C: One USB 3.2 type-C port. Connect to USB device with USB-C port. The port is used to transmit USB data only, and outputs 1.5A current. |
| 6 | Input Switch Button + LEDs | Switch Button: Press the button to switch input source.<br>Input LEDs:<br>On: The corresponding input is selected.<br>Off: The corresponding input is not selected. |

## Rear Panel




| No. | Name | Description |
|---|---|---|
| 1 | DC 20V | Connect to the provided power adapter. |
| 2 | Laptop 1 (USB-C In) | USB 3.2 type-C ports. Connect to USB-C device, such as laptops. When you select USB-C In 1 as the input source, all connected |

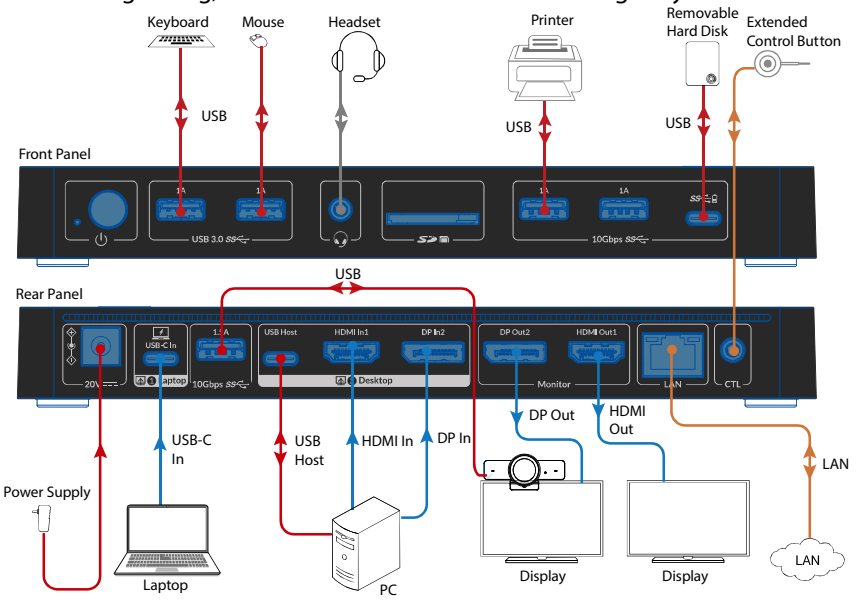
| No. | Name | Description |
|---|---|---|
| | | peripherals will be routed to the laptop connected to this USB-C port.<br>Supports the following functions:<br>• Supports transmitting video, audio, USB and ethernet signals.<br>• Supports DP MST mode, can output two videos (two 4K@60Hz maximum) at the same time.<br>**Note:** The connected laptop must support the DP 1.4a standard and MST output to drive two 4K@60Hz video channels.<br>• Supports PD 2.0. The port can charge the connected laptop (up to 100W).<br>The following cable is recommended:<br>USB type-C to type-C cable (USB 3.2 Gen 2 or above). |
| 3 | USB-A (1.5A) | USB 3.2 type-A ports. With 5V/1.5A supported, it can be used for connecting USB devices with high power, such as connecting a USB Camera. |
| 4 | Desktop 2 | • DP In A: Connect to DP out port of the PC.<br>• HDMI In B: Connect to HDMI out port of the PC.<br>• USB Host: USB 3.2 type-C port. Connect to the USB type-A port of the PC.<br>The three ports are in a group, when switch to this group, all connected peripherals will be routed to the PC connected to three ports. |
| 5 | Monitor | Connect to monitors. |
| 6 | LAN | Connect to a local area network. Regardless of which device is selected as the input source, both the laptop connected to the USB-C In port and the PC connected to the USB-C Host port can access this network through the port simultaneously. |
| 7 | CTL | Connect to the Wired Remote Controller |

| No. | Name | Description |
|---|---|---|
| | | (EXB01) to control input switching. |

# Application

**Warnings:**

- Before wiring, disconnect the power from all devices.
- During wiring, connect and disconnect the cables gently.




- When select USB-C In laptop as input source, HDMI Out 1 and DP Out 2 output the signals from USB-C's MST dual-screen. All peripherals including all USB devices, headset (the PC needs to select the "AV Access iDock"), and SDXC card will be connected to the laptop connected.
- When select Desktop 2 as input source, HDMI Out 1 and DP Out 2 output the signals from HDMI In and DP In respectively. All peripherals including all USB devices, headset (the PC needs to select the "AV Access iDock"), and SD card will be connected to the host PC Desktop 2 connected.
- Both the laptop (connected via USB-C) and the desktop (connected via USB Host) will maintain network connectivity regardless of the selected source.

# Resolution

- When select Desktop 2 as input source, HDMI Out 1 and DP Out 2 output the signals from HDMI In and DP In respectively, and each output port supports outputting resolutions up to 8K@60Hz or 4K@165Hz.
- When select USB-C In laptop as input source, HDMI Out 1 and DP Out 2 output the signals from USB-C's MST dual-screen. The actual product output resolution depends on the DP standard of the USB-C port of the connected laptop. Refer to the table below:

| | DP 1.4 HBR3 with DSC | | DP 1.4 HBR3 without DSC | | DP 1.2 HBR2 | |
|---|---|---|---|---|---|---|
| | HDMI Out 1 | DP Out 2 | HDMI Out 1 | DP Out 2 | HDMI Out 1 | DP Out 2 |
| **Single** | 8K@30Hz or 4K@120Hz | | 4K@60Hz | | 4K@30Hz | |
| **Dual** | 4K@60Hz | 4K@60Hz | 4K@30Hz | 4K@30Hz | 1080P@60Hz | 1080P@60Hz |

**Note:** For macOS with Intel chip or M-series chip, it doesn't support MST which is limited by itself, the external 2 displays will show the same content.

# Specifications

| **Technical** | |
|---|---|
| Input | • **USB-C In:** 100W Charging; USB 3.2 Gen 2 (up to 10Gbps); 8K@30Hz or 4K@120Hz video signal transfer<br>• **HDMI In:** HDMI 2.1, up to 8K@60Hz or 4K@165Hz<br>• **DP In:** DP 2.0, up to 8K@60Hz or 4K@165Hz<br>**Note:** DP input supports UHBR 13.5 (13.5 Gbit/s per lane) standard in DP 2.0. |
| Output | • **HDMI:** HDMI 2.1, up to 8K@60Hz or 4K@165Hz<br>• **DP:** DP 2.0, up to 8K@60Hz or 4K@165Hz<br>**Note:** DP output supports UHBR 13.5 (13.5 Gbit/s per lane) standard in DP 2.0. |
| Peripheral and Expansion | **USB-C x1:** Up to 10Gbps, 1.5A power output.<br>**USB-A x5:**<br>• Two USB 3.2 type-A ports on front panel, supports 1A power output, and 10Gbps data transfer;<br>• Two USB 3.2 type-A ports, supports 1A power output, and 5Gbps data transfer; |

| **Technical** | |
|---|---|
| | • One USB 3.2 type-A port on rear panel, supports 1.5A power output, 10Gbps data transfer;<br>**SDXC card:** Up to 104MB/s, maximum support 2TB.<br>**LAN:** RJ-45 connector, supports for 1Gb Ethernet performance. |
| Input/Output Resolution Supported | **SMPTE:**<br>1280x720P[1,2,3,4,5,6,7,8],1920x1080I[6,8], 1920x1080P[1,2,3,4,5,6,7,8,9,10,11,12], 3840x2160[2,3,5,6,8,9,10,11], 4096x2160[2,3,5,6,8,9,10,11], 5120x2880[2,3,5,6,8,9], 7680x4320[2,3,5,6,8]<br>**VESA:**<br>800x600[8], 1024x768[8], 1280x76[8], 1280x800[8], 1280x960[8], 1280x1024[8], 1360x768[8], 1366x768[8], 1400x1050[8], 1440x900[8], 1600x900[8], 1600x1200[8], 1680x1050[8], 1920x1200[8], 2560x1440[1,2,3,4,5,6,7,8,9], 3440x1440[2,3,5,6,8,9,10,11], 840x1080[2,3,5,6,8,9,10,11], 3840x 1440[2,3,5,6,8,9,10,11],<br>1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = at 60 Hz, 9 = 120Hz, 10 = 144Hz, 11 = 165Hz, 12 = 240Hz |
| Audio Format Supported | **HDMI/DP Out:** Fully supports audio formats in DP 1.4/HDMI 2.1 specification, including PCM 2.0/5.1/7.1, Dolby TrueHD, Dolby Atmos, DTS-HD Master Audio, and DTS:X<br>**USB-C In:** Fully supports multiple channel audio formats, including PCM 2.0/5.1/7.1, Dolby TrueHD, Dolby Atmos, DTS-HD Master Audio and DTS:X<br>**Headset:** Stereo |

| **General** | |
|---|---|
| Operating Temperature | 0°C to + 45°C (32 to + 113 °F) |
| Storage Temperature | -20 to +70°C (-4 to + 158 °F) |
| Humidity | 20% to 90%, non-condensing |
| Power Consumption | 120W (Max) |
| Device Dimensions (W x H x D) | 220mm x 25.2mm x 100mm / 8.66″ x 0.99″ x 3.94″ |
| Product Weight | 0.33kg/0.73lb |

# 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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