2 x 1 Dual-Monitor KVM Dock Switcher

KD-E20

User Manual

AV Access

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Introduction

Overview

KD-E20 is a multi-function 2x1 KVM switch docking for personal home office and entertainment. It can be used as the core device for home or office, which can be connected to two USB-C laptops and two HDMI monitors. This device provides simple device connection and switching methods, sharing a series of external devices between laptops, such as mouse, keyboard, mobile hard disk, camera or speakerphone.

Features

- 2x1 KVM switch docking, switch between two USB-C laptops to two HDMI 2.0 monitors.
- Two full-featured USB-C inputs support 4K@60Hz video transmission, USB 3.0 data, and 100W charging (when an external USB-C power adapter is connected).
- Inputs and outputs support high refresh rates, like 2560×1440@144Hz / 120Hz and 1080P@240Hz / 165Hz / 144Hz / 120Hz.
- Provides multiple peripheral ports, including:
  - ➢ 3x USB 3.0 type-A ports, support USB 3.0 standard, and 5Gbps data transfer rate of per port. Two of the three ports support 5V/1A power output, and the other one supports 5V/1.5A power output;
  - ➢ 1x USB 3.0 type-C port (data only), supports USB 3.0 standard, 5Gbps data transfer rate, and 1.5A current output.
  - ➢ 2x USB 2.0 type-A ports, supports USB 2.0 standard, and 480Mbps data transfer rate;
  - ➢ 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 (work with two USB-C Laptops simultaneously);
  - ➢ 1x 3.5mm TRRS (stereo + mic) headset port.
- Support CEC trigger on HDMI outputs. When the current channel detects an input signal, it sends a CEC Power-ON command to the corresponding HDMI output port.
- Support automatic wake-up function, which automatically wakes up the standby computer when switching.
- Support connecting to the Wired Remote Controller (EXB01) for remote switching.
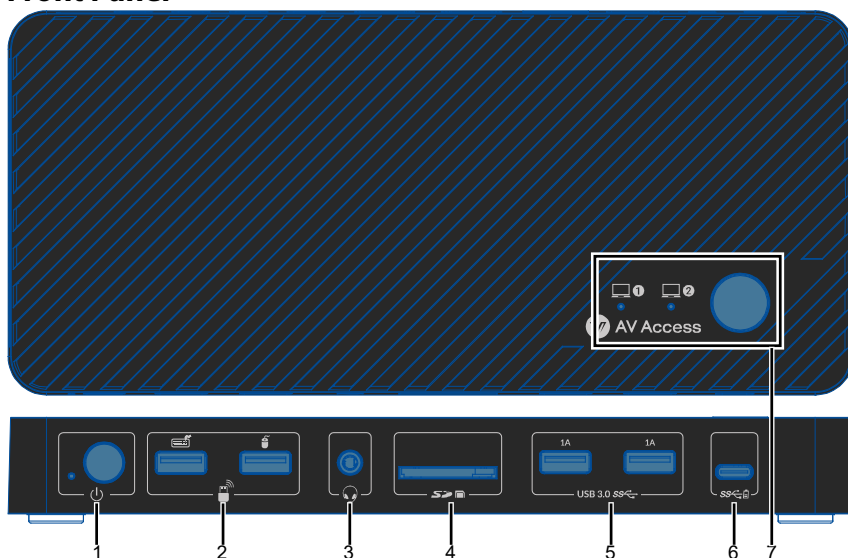
Package Contents

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

- Switcher x 1
- Power Adapter (DC 12V/3A) x 1
- USB 3.2 Gen 2 Type-C to Type-C Cable (L = 1m) x 2
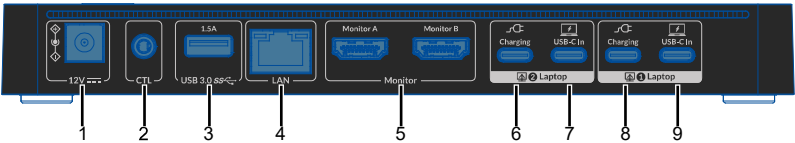- Wired Remote Controller (EXB01) x1
- User Manual x 1

Panel

Front Panel

No.	Name	Description
1	Power Button & LED	Power Button: Press the button to power on/off the device. Power LED: On: The device is powered on. Off: The device is powered off.
2	USB Device	USB 2.0 Type-A ports. It is recommended to connect to the keyboard, mouse and wireless receiver.
3	Headphone	3.5mm TRRS headphone jack. Connect to a

| No.	Name	Description
		headphone with microphone. The headphone switching follows the USB-C in port selected and need to select "AV Access KD-E20" on the connected host device.
4	SD Slot	SDXC port. Insert SDXC card.
5	USB 3.0 (1.0A)	USB 3.0 type-A ports, can be used to connect to USB 3.0 high-speed device for KVM function. Supports 5V/1A power output.
6	USB-C (data only)	USB 3.0 type-C port. Connect to USB device with USB-C port. The port is used to transmit USB data only, and output 1.5A current.
7	Switch Button & Input LEDs	Switch Button: Press the button to switch input source. Input LEDs: On: The corresponding input is selected. Off: The corresponding input is not selected.

Rear Panel

No.	Name	Description
1	DC 12V	Connect to the power adapter provided.
2	CTL	Connect to the Wired Remote Controller (EXB01) to control input switching.
3	USB 3.0 (1.5A)	USB 3.0 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	LAN	Connect to a network switch or router. It can provide a 1G network for two USB-C laptops simultaneously.
5	Monitor (A&B)	Connect to HDMI monitors.
6 & 8	Charging	Special port for charging. Connect an additional USB-C power adapter (up to 100W) to charge a laptop connected to

No.	Name	Description
		USB-C In (Ports 7 & 9). Note: • This port can only charge the laptop, not power the switcher. • It is recommended to use the USB-C power adapter that comes with the laptop, or an adapter of equivalent power.
7 & 9	USB-C In	USB 3.0 type-C ports. Connect to USB-C sources such as laptops. When select to USB-C In 1/2 as input source, all peripherals will be connected to the laptop the USB-C port connected. Supports the following three functions: • Supports transmitting video, audio, USB and ethernet signals. • Supports DP MST mode, can output two videos (two 4K@60Hz maximum) at the same time. **Note:** The connected laptop needs to support DP 1.4a standard and MST output to outputting two 4K@60Hz video channels. • Supports PD 2.0. The port can charge the connected laptop (up to 100W) when the corresponding Charging port is connected to the external power source. The following cable is recommended: USB type-C to type-C cable (USB 3.2 Gen 2 or above).

Charging

This KVM switcher provides an additional USB-C charging port for each USB-C In port. This port can be connected to any USB-C charger (not included) to charge the laptop connected to the USB-C In port.

This port supports a maximum charging power of 100W.

It is recommended to connect the USB-C charger that comes with the laptop

or a charger with equivalent specifications (power).
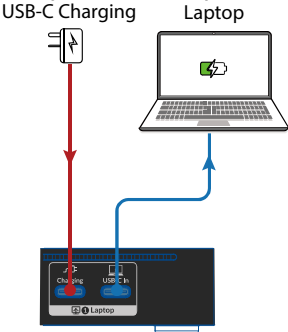
Note:

- The adapter connected to the Charging port will only charge the laptop connected to the USB-C In port, and will not provide power to the KVM switcher. The KVM switcher must be connected to the power adapter in the accessories.

- Using a low-power USB-C charger will cause the laptop to display a warning message. Please use an adapter with the specifications required by the laptop.

Resolution

Both the two USB-C In ports support DP alt mode and support DP MST outputs. Each USB-C In port can output two different videos at the same time. Maximum supports two 4K@60Hz outputs.

The actual product output resolution depends on the DP standard of the USB-C port of the connected laptop. Refer to the table below:

For Windows:

	DP 1.4 HBR3 with DSC		DP 1.4 HBR3 witout DSC		DP 1.2 HBR2	
	Out 1	**Out 2**	**Out 1**	**Out 2**	**Out 1**	**Out 2**
Single	4K@60Hz	/	4K@30Hz	/	4K@30Hz	/
	/	4K@60Hz	/	4K@30Hz	/	4K@30Hz
Dual	4K@60Hz	4K@60Hz	1080P@60Hz	1080P@60Hz	1080P@60Hz	1080P@60Hz

For MacOS:

	Macbook with M series	
	Out 1	**Out 2**
Single	4K@60Hz	/
	/	4K@60Hz
Dual	4K@60Hz	4K@60Hz (Mirrored)

Application

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

- When select USB-C In 1/2 laptop as input source, monitor A and B output the signals from USB-C's MST dual-screen. All peripherals including all USB devices, the connected headphone (the laptop needs to select the "AV Access KD-E20"), and SDXC card will be connected to the laptop connected (if inserted).
- When charging the connected laptop through USB-C In port in Laptop 1/2 group, users need to connect an external power source (up to 100W) through the Charging port in Laptop 1/2 group.
- Regardless of whether the two USB-C In is selected as the input source, the laptop connected to this port can access the network the LAN port connected.
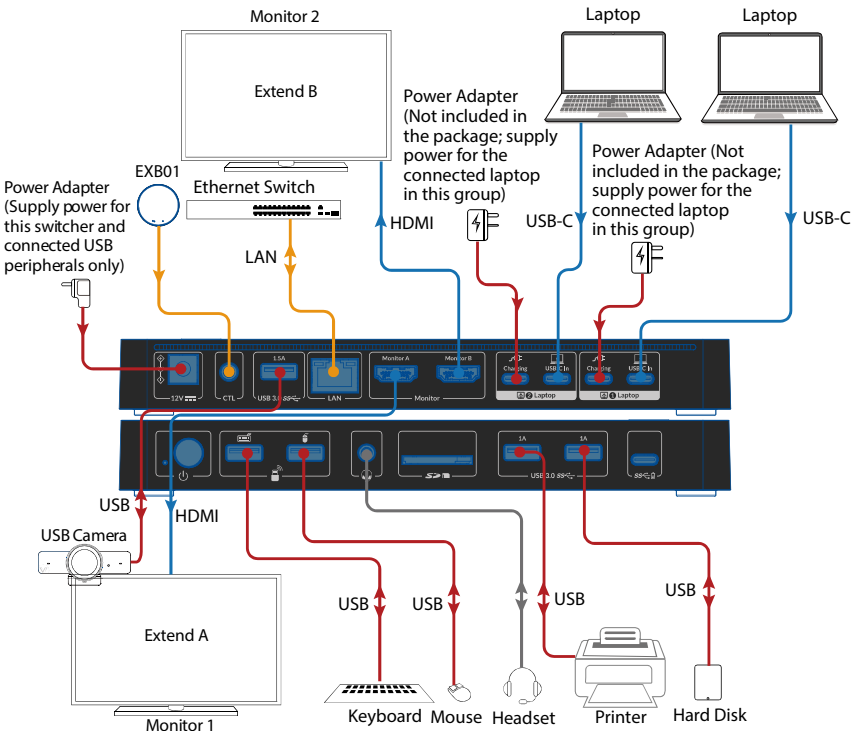
Specifications

Technical	
Input	USB-C supports: 100W Charging (PD 2.0), USB 3.0 (up to 5Gbps), and up to 4K@60Hz (DP MST) two video transmission
Output	HDMI 2.0b, up to 4K@60Hz 4:4:4 8bit and HDCP 2.2
Peripheral and Expansion	**USB-C x1:** Up to 5Gb/s, 1.5A power output. **USB-A x5:** • Three USB 3.0 ports, up to 5Gb/s, and two of them supports 1A power output, and the other one supports 1.5A power output • Two USB 2.0 ports, up to 480Mb/s **SDXC card:** Up to 104MB/s, maximum support 2TB. **LAN:** RJ-45 connector, support for 1Gb Ethernet performance (work with two USB-C Laptops simultaneously)
Input/Output Resolution Supported	**SMPTE:** 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], 2560x1080[9], 3840x1080[9], 3840x2160[2,3,5,6,8], 4096x2160[2,3,5,6,8] **VESA:** 800x600[8], 1024x768[8], 1280x768[8], 1280x800[8], 1280x960[8], 1280x1024[8], 1360x768[8], 1366x768[8], 1400x1050[8], 1440x900[8], 1600x900[8], 1600x1200[8], 1680x1050[8], 1920x1200[8], 2560x1440[1,2,3,4,5,6,7,8,9,10] 1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30 Hz, 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 Out:** Fully supports audio formats in HDMI 2.0 specification, including PCM 2.0/5.1/7.1, Dolby TrueHD, Dolby Atmos, DTS-HD Master Audio, and DTS:X **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 **Headphone:** Stereo

General	
Operating Temperature	0°C to + 45°C (32 to + 113 °F)

General	
Storage Temperature	-20 to +70℃ (-4 to + 158 ℉)
Humidity	20% to 90%, non-condensing
Power Consumption	28.2W (Max)
Device Dimensions (W x H x D)	220mm x 25.2mm x 100mm/ 8.66" x 0.99" x 3.94"
Product Weight	0.72kg/1.59lbs

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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