

8K HDMI KVM Switch 2x1

8KSW21-KVM



User Manual



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Introduction

Overview

This product is an 2x1 8K KVM switcher. It is able to share multiple USB 3.0 devices (such as USB camera, speakerphone or other conference devices) between two sets of HDMI 2.1 input ports and USB-B ports. It supports resolutions up to 8K@60Hz 4:2:0 10bit and 4K@120Hz 10bit in FRL mode, and up to 10K@120Hz 4:2:0 12bit in DSC mode. The switcher is also compatible with latest HDCP 2.3. It also supports front panel button switching and Hotkey switching (the USB keyboard must be connected to USB 1.1 port).

Features

- New HDMI 2.1 2x1 KVM Switch.
- HDMI 2.1 standard with 40Gbps FRL and 18Gbps TMDS dual mode support.
- 2x1 KVM switch with two sets of HDMI 2.1 + USB 3.0 inputs/outputs.
- Supports 8K@60Hz, 4K@144Hz and 4K@120Hz uncompressed resolution, and 10K@120Hz, 8K@120Hz with DSC compressed resolution.
- Supports all HDR formats, such as HDR 10, HLG, HDR 10+ and Dolby Vision.
- HDMI 2.1 new feature support, including VRR, FVA, ALLM etc.
- Supports EDID emulation at 4K@60Hz and below resolution.
- Supports multiple USB peripheral ports, including 4 x USB 3.0 device ports, 1 x USB 1.1 keyboard (hotkey) port.
- Supports 1 x 3.5mm TRRS headset (Mic in + stereo out) port, and following input source selection.
- Supports button switch and hotkey switch (Keyboard must be connected to USB 1.1 port).
- Supports automatic wake-up of the selected computer when switching.
- Supports CEC trigger on HDMI output.
- Support firmware upgrade through Micro USB port.

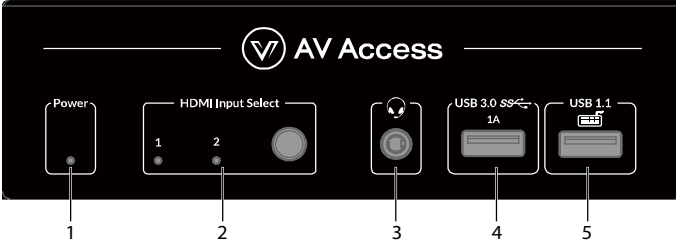
Package Contents

- Switcher x 1
- Power Adapter (DC 12V 3A) x 1
- HDMI Cable x 2
- USB 3.0 Type-B to USB Type-A Cable x 2

- Mounting Brackets (with Screws) x 2
- User Manual x 1

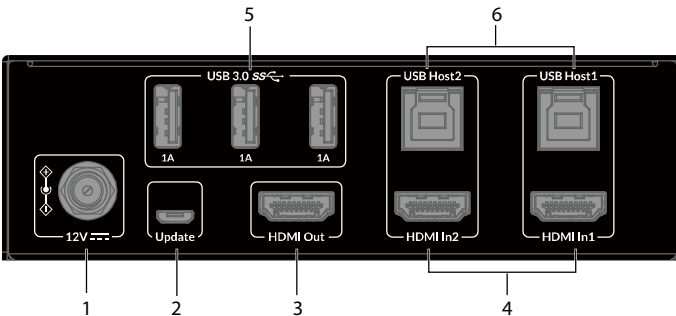
Panel

Front Panel



No.	Name	Description
1	Power LED	On: The device is power on. Off: The device is powered off.
2	HDMI Input Select (Button and LEDs)	Button: Press the button to select input source for output between HDMI In 1&2. LEDs (1&2) are located on the left of the button. On: The corresponding input source is selected. Off: The corresponding input source is not selected.
3	Headset	3.5mm TRRS headset (Mic in + stereo out) port. Connect to a headset with mic. It will follow the selected source to connect.
4	USB 3.0	USB type-A ports. Connect to USB devices such as USB camera, USB speakerphone.
5	USB 1.1	Connect to USB keyboard. It can be used for hotkey function.

Rear Panel



No.	Name	Description
1	DC 12V In	Connect to the power adapter provided.

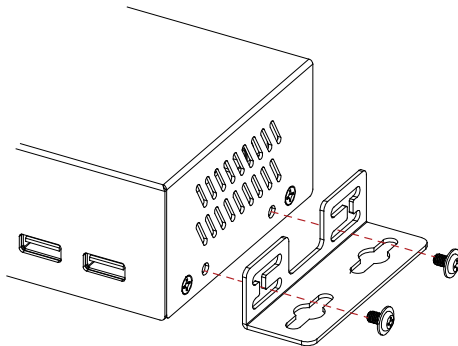
No.	Name	Description
2	Update	Micro-USB port. The firmware can be upgraded through this port.
3	HDMI Out	Connect to an HDMI display.
4	HDMI In (1&2)	Connect to HDMI sources.
5	USB 3.0	USB type-A ports. Connect to USB devices such as USB camera, USB speakerphone.
4	USB (1&2) Host	USB Type-B port. Connect to a USB host device. USB Host 1 and 2 are bound with HDMI In 1 and 2 separately. When select HDMI In 1/2 as input source, the connected USB slave devices will be connected to USB Host 1/2.

Installation and Application

Brackets Installation

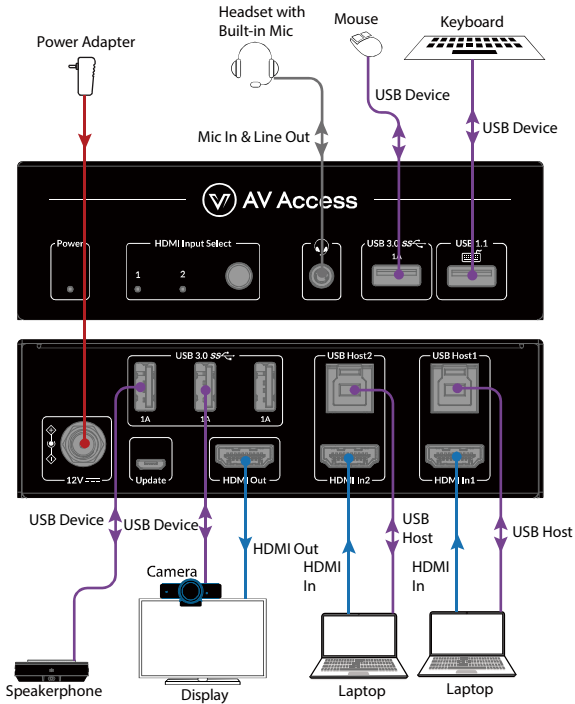
Note: Before installation, please ensure the device is disconnected from the power source.

1. Attach the installation bracket to the back panel using the screws provided in the package separately. As shown in the figure.



2. Attach the brackets to the surface you want to hold the unit against using the screws (provided by others).

Application



Hotkey Function

One USB 1.1 port on front panel of the switcher supports keyboard Hotkey function. This function is enabled by default, and can be set to disabled/enabled through combined keys on the connected keyboard.

Supported Hotkey: **Tab (default), Caps Lock**

Key Operation	Function
Press "Ctrl" ("Left") + "Alt" + "Shift" + "["	Enable hotkey.
Press "Ctrl" ("Left") + "Alt" + "Shift" + "]"	Disable hotkey.
Press the "Hotkey" twice quickly	Switch to this hotkey.
Press "Hotkey" + "1"	Switch to input group 1.

Key Operation	Function
Press "Hotkey" + "2"	Switch to input group 2.
Press "Hotkey" + "Left"	Switch to previous input group (Cycle group 2->1).
Press "Hotkey" + "Right"	Switch to next input group (Cycle group 1->2).

For example:

If you want to use the "Caps Lock" as a hotkey, please ensure the hotkey function is enabled, and press the "Caps Lock" key twice quickly to switch the hotkey to it, and other hotkeys are invalid. If you need to use other hotkeys, please repeat the above steps.

Note: When switch to the PC in standby mode, click the hotkey of the connected keyboard can wake up this PC.

Specifications

Technical	
Input / Output Signal Type	Up to 8K@60Hz 4:2:0 10bit in FRL mode and up to 10K@120Hz 4:2:0 12bit in DSC mode, HDCP 2.3
Input / Output Resolution	<p>VESA: 800 x 600⁶, 1024 x 768⁶, 1280 x 768⁶, 1280 x 800⁶, 1280 x 960⁶, 1280 x 1024⁶, 1360 x 768⁶, 1366 x 768⁶, 1440 x 900⁶, 1600 x 900⁶, 1600 x 1200⁶, 1680 x 1050⁶, 1920 x 1200⁶, 2048 x 1152⁶, 2560 x 1440^{6,7,8,9,10}, 3440 x 1440^{6,7,8,9,10}</p> <p>CTA: 1280x720P^{5,6}, 1920x1080P^{1,2,3,4,5,6,7,8,9,10,11}, 3840x2160P^{1,2,3,4,5,6,7,8}, 4096x2160P^{1,2,3,4,5,6,7,8}, 5120x2880^{1,2,3,5,6,8}, 7680x4320^{1,2,3,5,6,7,8}, 10240 x 4320P^{1,2,3,4,5,6,7,8}</p> <p>1 = at 24 (23.98) Hz, 2 = at 25 Hz, 3 = at 30 (29.97) Hz, 4 = at 48 Hz, 5 = at 50 Hz, 6 = 60 (59.94) Hz, 7 = at 100Hz, 8 = at 120Hz, 9 = 144Hz, 10 = 165Hz, 11 = 240Hz.</p> <p>Note: Resolutions beyond 8K@60Hz require both the source and display device to support DSC 1.2 compression.</p>
Maximum Data Rate	<p>FRL Mode: 40Gbps TMDS Mode: 18Gbps</p>
Audio Format	HDMI In/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

Technical	
	Headset: Stereo

General	
Operating Temperature	32°F to 113°F (0°C to 45°C)
Storage Temperature	-4°F to 158°F (-20°C to 70°C)
Humidity	10% to 90%, non-condensing
ESD Protection	Human-body Model: ±8kV (Air-gap discharge)/ ±4kV (Contact discharge)
Power Supply	DC 12V 3A
Power Consumption	14W
Dimensions (W x H x D)	140mm x 42mm x 80.2mm/5.51" x 1.65" x 3.16"
Product Weight	0.45kg/0.99lb

Transmission Distance

Cable	Range	Supported Video
HDMI 2.0	Input/Output: 15m/49ft	1080P@60Hz
	Input/Output: 10m/33ft	4K@30Hz 4:4:4 24bpp
	Input/Output: 5m/16ft	4K@60Hz 4:4:4 24bpp
HDMI 2.1	Input/Output: 5m/16ft (Ultra High-Speed HDMI Cable)	4K@120Hz 4:4:4 30bpp
		5K@120Hz 4:2:2 36bpp
		8K@60Hz 4:2:0 30bpp
		8K@120Hz 4:2:2 36bpp (DSC)
		10K@120Hz 4:2:0 36bpp (DSC)

Warranty

Products are backed by a limited 1-year parts and labor warranty. For the following cases AV Access Technology Limited 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 Technology Limited) 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 Technology Limited 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 Technology Limited preserves the right for interpretation of these cases above and to make changes to them at any time without notice.

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Customer/Technical Support: support@avaccess.com

