3x1 Dual Monitor USB-C&HDMI KVM Switcher

iDock B30



User Manual

AV Access

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Introduction

Overview

iDock B30 is a 3x1 USB-C&HDMI KVM Switcher. It supports one USB-C input, two sets of dual channel HDMI + USB inputs and two HDMI outputs. The USB-C input supports DP MST mode, and can output two videos up to 4K@60Hz, it also supports USB data transmission with data rate up to 5Gbps, 65W charging and provides wired LAN connection for the connected laptop. HDMI inputs and HDMI outputs supports resolution up to 4K@60Hz 4:4:4 8bit and HDCP 2.2 compatibility. With multiple peripheral devices, the switcher can share two displays and all USB devices among the three inputs.

The switcher features automatically wake-up the connected PC in standby mode, which can reduce the switching time. It also supports direct switching through buttons on front panel, IR remote and hotkey through keyboard connected to the special USB 1.1 port. It provides a wide compatibility choice for different operating systems, such as Windows, Mac OS and Linux, no driver required and simple plug and play.

Features

- 3x1 USB-C&HDMI KVM Switcher:
  - One full-functional USB-C 3.2 input, which can be extended to two HDMI outputs, supports USB data transmission and 65W charging.
  - Each HDMI input group support two independent HDMI input channels, which can be connected to two HDMI output ports of the PC and extended to two external monitors.
  - Each monitor has independent channel, which can support different resolution.
- USB-C input supports DP MST mode with dual 4K@60Hz outputs. HDMI inputs support output 4K@60Hz resolution. Both USB-C and HDMI inputs support high refresh rate such as 2560x1440@144Hz, 1080P@240Hz / 165 Hz / 144 Hz / 120Hz.
- USB-C input supports USB docking function:
  - It can provide wired network connection for the laptop USB-C port connected.
  - When switch to USB-C input, all USB devices can be connected with the laptop connected to the USB-C port and no need to connect to other USB docking devices.

- Multiple Peripherals interfaces:
  - Three super high-speed USB 3.0 ports.
  - One USB 2.0 port and one USB 1.1 port for keyboard.
  - Provides independent mic input and audio output (3.5mm earphone) ports.
- Supports USB 3.0 data transmission with the speed up to 5Gbps.
- Supports automatic wake-up function – automatically wake up the PC in standby mode when switching.
- Fast switching time of 2-3s, based on the virtual interaction function.
- Supports multiple control options, including IR Remote, front panel buttons and hotkey switch.

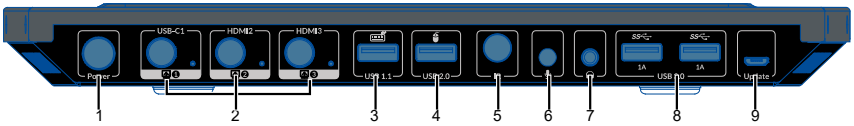
Package Contents

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

- Switcher x 1
- Power Adapter (DC 20V 6A) x 1
- IR Remote x 1
- USB 3.0 Type-A to Type-B Cable x 2
- USB 3.2 Type-C to Type-C Cable x 1
- HDMI Cable x 2
- User Manual x 1

Panel

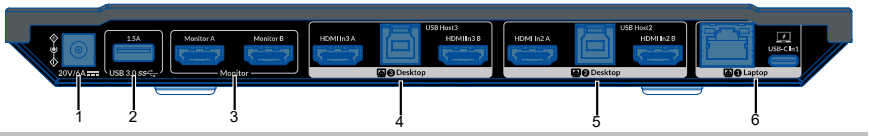
Front Panel



No.	Name	Description
1	Power Button	Press to power on/off the device. When the device is powered on, the backlight of the button will light blue.
2	Switch Button and LED 1~3	Press to select input group among USB-C In1, HDMI In2A & HDMI In2B, and HDMI In3A & HDMI In3B. LED 1~3: **On:** Select USB-C In1 / HDMI In2A & HDMI In2B / HDMI In3A & HDMI In3B as input source. **Off:** The corresponding input / input group is not selected.

No.	Name	Description
3	USB 1.1	USB 1.1 type-A port, can be used to connect to a USB keyboard for hotkey function. (Detail information, please refer to “Hotkey Function” section) **Note:** It is specialized for connecting keyboard and not recommended to connect to other USB slave devices.
4	USB 2.0	USB 2.0 type-A port. Connect to a USB device such as a mouse.
5	IR	IR receiving window. Receive IR signals.
6	MIC In	Connect to a Microphone. The Microphone follows the USB-C Input / USB Host port selected.
7	Line Out	Connect to an earphone. The earphone follows the USB-C Input / USB Host port selected.
8	USB 3.0	USB 3.0 type-A ports, can be used to connect to USB 3.0 high-speed device for KVM function.
9	Update	Micro USB port. Connect to a PC for firmware upgrade.

Rear Panel



No.	Name	Description
1	20V/6A	Connect to the power adapter provided.
2	USB 3.0 (1.5A)	Connect to a USB deice. **Note:** The port supports a high power of 5V 1.5A, it can be used for connecting USB devices with high power, such as connecting a USB Camera.
3	Monitor A & Monitor B	Connect to two displays such as TVs.
4	Desktop 3	HDMI In3A & HDMI In3B: Connect to two HDMI output ports of PC respectively. HDMI In3A and HDMI In3B can be seen as a group, hereinafter referred to as group 3 in this manual. USB Host3: Connect to a host device. USB Host3 is bound with group 3. When select group 3 as sources to input, the USB devices can be

No.	Name	Description
		connected to the host PC connected to USB Host3 port.
5	Desktop 2	HDMI In2A & HDMI In2B: Connect to two HDMI output ports of PC respectively. HDMI In2A and HDMI In2B can be seen as a group, hereinafter referred to as group 2 in this manual. USB Host2: Connect to a host device. USB Host2 is bound with group 2. When select group 2 as sources to input, the USB devices can be connected to the host PC connected to USB Host2 port.
6	Laptop 1	USB-C In1: USB 3.2 type-C port. Supports PD 2.0 specification, maximum 5Gbps data rate. Please use the following cable: USB type-C to type-C cable (USB 3.2 Gen 1 or above). Connect to a USB type-C device such as a laptop. It supports the following functions: • For transmitting video signal as an input source, USB-C In1 port supports DP MST mode, and can output two videos (two 4K@60Hz maximum) at the same time, users can switch to input 1 to select USB-C In1 as input source for two HDMI outputs; **Note:** The laptop connected needs to support DP 1.4a standard and support MST output of its USB-C port to enable the two 4K@60Hz outputs. • For transmitting USB data as a host port, when select USB-C In1 as input source, the USB devices can be connected to the laptop connected with USB-C In1 port; • For charging the connected laptop with the ability of 65W. • The port has a built-in 1G network adapter function. The LAN port can provide Internet access for the connected USB-C laptop through this port.

No.	Name	Description
		LAN: Connect to a local area network for network connection of the source connected with USB-C In1 port.

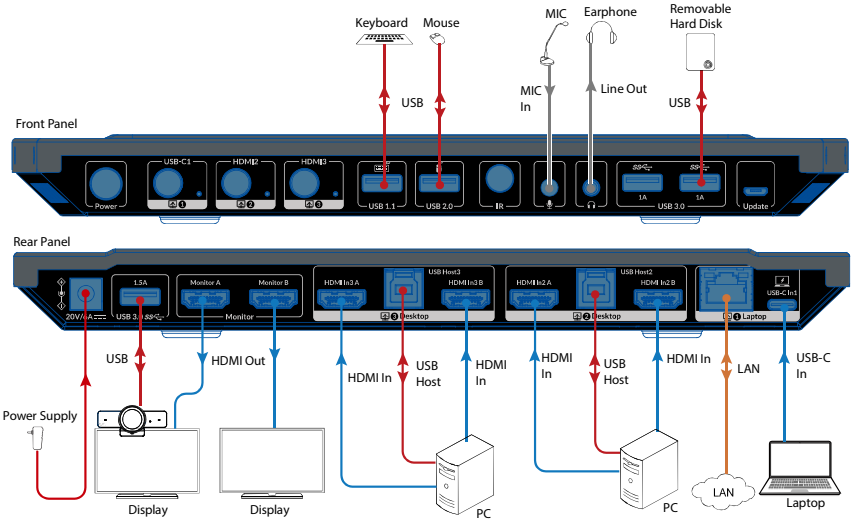
Application

Warnings:

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

When switch input source to USB-C In1, group 2 or group 3:

- The connected USB devices, microphone and earphone can be connected to USB-C In1, group 2 or group 3.
- When switch to USB-C In1, the displays connected to Monitor A and Monitor B will output different video from USB-C In1 (supports DP MST) respectively. When switch to group 2/3, the displays connected to Monitor A and Monitor B will output video from HDMI In 2A/3A and HDMI In 2B/3B respectively.



Control of the Switcher

You can choose to switch input sources at your convenience through front panel button, IR remote or Hotkey function.

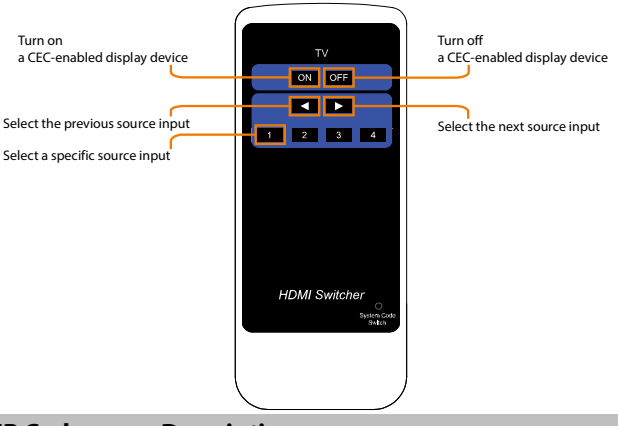
Front Panel Control

Users can choose to use front panel buttons to do basic switching operations. Connect the switcher as required and power on all the attached devices. Then users can switch source through the button on front panel by pressing it.

IR Remote Control

The included remote handset can be used to switch three inputs to two display devices.

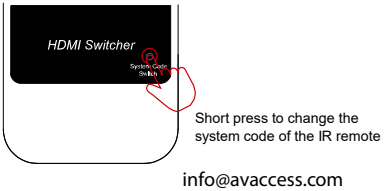
Point the remote handset directly at the IR windows on front panel.



Button	IR Codes	Description
ON	0x1D	Turn on the CEC enabled display.
OFF	0x1F	Turn off the CEC enabled display.
◀	0x1B	Switch to the previous input (Cycle from group 3 to USB-C In1).
▶	0x11	Switch to the next input (Cycle from USB-C In1 to group 3).
1	0x17	Switch to USB-C Input 1.
2	0x12	Switch to input group 2.
3	0x59	Switch to input group 3.
4	0x08	Reserved.

System Code Switch

The IR Remote provided with the switcher is shipped in "00" IR system code. In the event that Remote's IR signal interferes with IR devices, e.g., TV, DVD player, the



Remote can be switched to "4E" code by short pressing the System Code Switch on the Remote panel.

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 USB-C In 1.
Press “Hotkey” +”2”	Switch to input group 2.
Press “Hotkey” +”3”	Switch to input group 3.
Press “Hotkey” + “Left”	Switch to previous input group (Cycle from group 3 to USB-C In 1).
Press “Hotkey” + “Right”	Switch to next input group (Cycle from USB-C In 1 to group 3).

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.

Specifications

Technical	
Input & Output Ports	1 x USB-C In (USB 3.2 Gen 1); 4 x HDMI In; 2 x USB Host (USB 3.0 Type-B port); 1 x LAN; 3 x USB Device (USB 3.0 Type-A port); 1 x USB 1.1 (USB 1.1 Type-A port); 1 x USB 2.0 (USB 2.0 Type-A port); 1 x Line Out; 1 x Mic In; 1 x DC 20V/6A
Input/Output Signals	USB-C Input: USB 3.2, supports DP MST mode, can output two videos (resolutions up to 4K@60Hz 4:4:4

Technical	
	8bit) at the same time HDMI Input/Output: HDMI 2.0 with resolutions up to 4K@60Hz 4:4:4 8bit / 4K@60 4:2:0 12bit with HDCP 2.2 compatibility
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
HDR Format Supported	All HDR formats, including HDR 10, HLG, HDR 10+ and Dolby Vision
Audio Format Supported	**HDMI:** 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 **MIC IN:** Stereo **LINE OUT:** Stereo
Max Data Rate	HDMI: Up to 18Gbps USB-C: 5Gbps
Maximum Pixel Clock	HDMI: 600MHz
Control Method	Front panel buttons, IR Remote, Hotkeys

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	85W (Max)
Device Dimensions (W x H x D)	269.6mm x 27.5mm x 142.6mm/ 10.61″ x 1.08″ x 5.61″
Product Weight	0.92kg/2.03lbs

Transmission Distance

Cable Type	Range	Supported Video
HDMI	Input/Output: 7.5m/25ft (passive cable) 15m/50ft (active cable)	1080P@60Hz 24bpp 4K@30Hz 4:4:4 24bpp
	Input/Output: 5m/16ft	4K@60Hz 4:4:4 24bpp
USB-C	Input: 1m/3.3ft (USB 3.2 Gen 1 or above)	4K@60Hz 4:4:4 24bpp

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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