

4X1 HDMI USB2.0 SWITCH 4K@60Hz

User Manual

1. Description

This 4x1 HDMI2.0 KVM Switch provides you with great flexibility in integrating cross-platform computer equipment easily. It makes you available to switch easily and reliably between any HDMI computers using one HDMI compliant display.

The 4x1 HDMI2.0 KVM Switcher not only have 2 USB 2.0 port but also have keyboard and mouse port. While using the mouse and keyboard control, USB2.0 can also be connected to U disk and hub at the same time. By using USB 2.0 hub ports on the KVM, you even can attach USB drive, printer, barcode scanner or other USB devices to the KVM. Switching can be controlled through variable methods, such as the front panel source selector buttons, RS232 and hot keys on keyboard.

2. Main Features

- Using only 1 set of keyboard, mouse and monitor to control 4 computer devices
- Support hot key commands and mouse gesture to switch inputs
- Support RS232 command to switch inputs
- Available to use keyboard without any delay after switch input sources
- Support resolution up to 3840*2160@60Hz 4:4:4
- Compliant with and HDCP 2.2, HDMI2.0
- Support USB 2.0 for printers, USB drives etc
- Support front panel buttons, RS232, keyboard hot keys to control KVM switch.
- Support Unix/Windows/Debian/Ubuntu/Fedora /Mac OS X/Raspbian/Ubuntu for Raspberry Pi and other Linux based system.
- Support hot plug, connect or disconnect devices to the KVM switch in any time and without turn off devices
- Support HDR 10 and Dolby Vision

3. Advantage



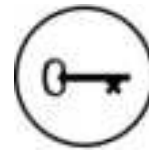
4Kx2K@60Hz



Support 3D



USB 2.0



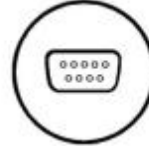
HDCP 2.2; HDMI2.0



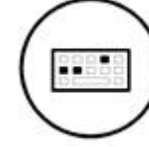
Hot plug and play



Keyboard & mouse



RS232 Control



Hot Key Switch

4. Packing List

1 * 4x1 HDMI KVM Switch

1 * DC to USB Cable

4 * USB Cable(A to B)

1 * User Manual

5. Specification

Specification name		Details
Video	Protocol	HDMI 2.0; HDCP 2.2
	HDMI Data rate	18Gbps
	Resolution	Up to 3840x2160@60Hz 4:4:4
	HDMI Port	HDMI-A x 4
	HDMI Cable	Less than 5meters at1080p@60Hz
RS232	Connector	3 pin connector
	Baud rate	115200bps
	Data bit	8 位
USB Connector	USB2.0	USB2.0 x2 ; type A
	PC1/2/3/4	USB-B x4
	K/M	USB-A, Keyboard and mouse
Supported OS	Unix/Windows/Debian /Ubuntu /Fedora /Mac OS X/ Raspbian /Ubuntu for Raspberry Pi and other Linux based system	
Others	Power adapter	DC 5V
	ESD Protection	Human body model - $\pm 8\text{kV}$ (Air-gap discharge)
	Temperature	$-5^{\circ}\text{C} \sim +70^{\circ}\text{C}$
	Humidity	5% ~ 90%
	Product Dimension	225(L) x 67(W) x 22(H) mm
	Warranty	1 year

6. Switch mode description

1. Button switch:

Press the panel buttons to switch the devices.

2. Mouse switch:

① Press the middle mouse button and do not release it ,then press the left button: Switching to the previous HDMI video signal source.

② Press the middle mouse button and do not release it ,then press the right button: Switching to the next HDMI video signal source.

3. Timed loop switch:

Double-click the [Scroll] + click [S]+ click the number key (5-999s)

For example, double-click the scroll key and then press the S key and then press the number 5 to indicate: the interval of five seconds to automatically switch to the next signal source.

7. Hotkey Setting

USB2.0 port not support hotkey function.

Hotkey Modes

Scroll Mode(factory default)
Num Mode
Caps Mode
Ctrl+Shift Mode(left button)

Scroll Mode Hotkeys

Hotkeys combination	Hotkeys description
[Scroll] ++ [Scroll] + [1/2/3/4][*1]	Switch to PC1/PC2/PC3/PC4
[Scroll] ++ [Scroll] + [→or↓]	Switch to the next PC
[Scroll] ++ [Scroll] + [←or↑]	Switch to the previous PC
[Scroll] ++ [Scroll] + [S]	Turn on/turn off the polling switching function, the default switching time interval is 5 seconds, (press "ESC" to exit)
[Scroll] ++ [Scroll] + [S] + [n][*2]	Set the polling switching time interval, valid range:

	5-999S
[Scroll] ++ [Scroll] + [ESC]	Restore factory default settings
[Scroll] ++ [Scroll] + [T][*3]	Turn on/turn off auto detect function
[Scroll] ++ [Scroll] + [Caps]	Switch to Caps hotkey mode
[Scroll] ++ [Scroll] + [Num]	Switch to Num hotkey mode
[Scroll] ++ [Scroll] + [left/right Ctrl][*4]	Switch to Ctrl+Shift hotkey mode

Caps Mode Hotkeys	
Hotkeys combination	Hotkeys description
[Caps] ++ [Caps] + [1/2/3/4]	Switch to PC1/PC2/PC3/PC4
[Caps] ++ [Caps] + [→or↓]	Switch to the next PC
[Caps] ++ [Caps] + [←or↑]	Switch to the previous PC
[Caps] ++ [Caps] + [S]	Turn on/turn off the polling switching function, the default switching time interval is 5 seconds, (press "ESC" to exit)
[Caps] ++ [Caps] + [S] + [n]	Set the polling switching time interval, valid range: 5-999S
[Caps] ++ [Caps] + [ESC]	Restore factory default settings
[Caps] ++ [Caps] + [T]	Turn on/turn off auto detect function
[Caps] ++ [Caps] + [Scroll]	Switch to [Scroll]++[Scroll] hotkey mode
[Caps] ++ [Caps] + [Num]	Switch to [Num]++[Num] hotkey mode
[Caps] ++ [Caps] + [Ctrl]	Switch to [Ctrl]+[Shift] hotkey mode

Num Mode Hotkeys	
Hotkeys combination	Hotkeys description
[Num] ++ [Num] + [1/2/3/4]	Switch to PC1/PC2/PC3/PC4
[Num] ++ [Num] + [→or↓]	Switch to the next PC
[Num] ++ [Num] + [←or↑]	Switch to the previous PC
[Num] ++ [Num] + [S]	Turn on/turn off the polling switching function, the default switching time interval is 5 seconds, (press "ESC" to exit)
[Num] ++ [Num] + [S] + [n]	Set the polling switching time interval, valid range: 5-999S
[Num] ++ [Num] + [ESC]	Restore factory default settings
[Num] ++ [Num] + [T]	Turn on/turn off auto detect function
[Num] ++ [Num] + [Scroll]	Switch to [Scroll]++[Scroll] hotkey mode
[Num] ++ [Num] + [Caps]	Switch to [Caps]++[Caps] hotkey mode
[Num] ++ [Num] + [Ctrl]	Switch to [Ctrl]+[Shift] hotkey mode

Ctrl+Shift Mode Hotkeys	
Hotkeys combination	Hotkeys description
[Ctrl] ++ [Ctrl]	Switch to the next PC

[Ctrl + Shift + 1/2/3/4][*5]	Switch to PC1/PC2/PC3/PC4
[Ctrl + Shift + →or↓]	Switch to the next PC
[Ctrl + Shift + ←or↑]	Switch to the previous PC
[Ctrl + Shift + S]	Turn on/turn off the polling switching function, the default switching time interval is 5 seconds, (press "ESC" to exit)
[Ctrl + Shift + S + n]	Set the polling switching time interval, valid range : 5-999S
[Ctrl + Shift + ESC]	Restore factory default settings
[Ctrl + Shift + T]	Turn on/turn off auto detect function
[Ctrl + Shift + Scroll]	Switch to [Scroll]++[Scroll] hotkey mode
[Ctrl + Shift + Caps]	Switch to [Caps]++[Caps] hotkey mode
[Ctrl + Shift + Num]	Switch to [Num]+[Num] hotkey mode

Other Hotkeys	
Hotkeys combination	Hotkeys description
[* + 1/2/3/4]	Switch to PC1/PC2/PC3/PC4
[Middle mouse button + Right mouse button]	Switch to the next PC
[Middle mouse button + Left mouse button]	Switch to the previous PC

Notice:

[*1]: “++” means press 2 times in quick succession, [Scroll] ++ [Scroll] + [1] means press Scroll key twice in quick succession, then press the number "1" again, the detection timeout between each hotkey code is 2 seconds, if the Scroll key is pressed for the first time, then press the Scroll key after more than 2 seconds, this hotkey combination will be invalid.

[*2]: "n" can be 1/2/3 numbers, "Scroll ++ Scroll + S + 1 + 2 + 0" means to press the "Scroll" key twice in quick succession, and then press the number "S" and release it, press the number "1" key and release it, then press the number "2" key and release it, and then press the number "0" key and release it, that means set the polling time interval to 120 seconds.

[*3]: After the auto-detection function is turned on, the switch will automatically detect the connection of the computer's USB interface and perform intelligent switching. If it detects that a new computer's USB interface is connected, it will automatically switch to the newly connected computer; If the USB interface is disconnected, it will automatically switch to the next connected computer. If it is detected that the USB interface of the non-enabled computer is disconnected, the connections will not be switched. If you turn on the auto-detection function and then turn on the auto-polling scan function, it will automatically skip the computer which is unconnected to the USB port.

[*4]: "CTRL" and "SHIFT" can be used regardless of left or right.

[*5]: The hotkey [Ctrl + Shift + 1] means pressing the "Ctrl" key and not releasing it, then pressing the "Shift" key and then not releasing it, and then pressing the number "1" key, then release all keys.

[*6]: **SPECIAL ATTENTION**: Only one of the four hotkey switch modes can be used at the same time. For example, When you use the "Scroll" mode to switch, another three modes will not work. If you want to switch to other hotkey mode, pls operate according to the above tables.

8. RS232 Port Description

The serial communication data format is: baud rate 115200, one seventy bits, eight data bits, one stop bit, no parity bit.

Hexadecimal Command Packet	Function Description
57 AB 32 01 59 8E 57 AB 32 01 5A 8F 57 AB 32 01 5B 90 57 AB 32 01 5C 91	Switch to the specified PC
57 AB 33 00 35	Switch to the next PC
57 AB 34 00 36	Switch to the previous PC

8. Panel Description



9. Connection Diagram

