2x2 USB 3.0 Hub Matrix Switch

User's Manual

USB-322MS

1. Introduction

The 2x2 USB 3.0 Hub Matrix Switch allows users share 2 USB devices between 2 different computers. It is USB 3.0 compliant, supports data transfer rate up to 5Gbps and backwards compatible with USB 2.0 and USB1.1. The unit is perfect for high-bandwidth devices, such as hard drive enclosure and USB docking stations or HD cameras.
In addition, it also features push button or hotkey can select which computer needs to use the USB devices on Windows OS or push button switching on Mac OS. Supports memory function, the working memory won't be terminated except restart the unit. With the compact and rugged shape design, you can create a space saving, convenient and productive work environment.

2. Features
➢ Supports USB 3.0 data transfer rates up to 5 Gbps
➢ Fully Compliant with USB specification 1.1, 2.0 and 3.0
➢ Enables 2 computers to share 2 USB 3.0 devices; provides 600mA output current from one PC connection, up to 1.3A from 2 PC connections
➢ Operational Hotkeys: Scroll Lock / Num Lock / Caps Lock.
➢ Different colored LEDs indicate which computer/device is active; Buzzer functions hotkey settings.
➢ Simple port selection via push button or hotkey on Windows OS; push button switching on Mac OS
➢ Bus powered, no additional power adapter required; Over-current protection
➢ Supports memory function, the working memory won't be terminated except restart the unit
➢ Compatible OS thru USB 2.0: Windows 7 / 8 / 8.1 / 10 / 11; Mac OS 8.6 or higher
➢ Compatible OS thru USB 3.0: Windows 7 / 8 / 8.1 / 10 / 11; Mac OS X Mountain Lion or higher
➢ Plug-and-Play, no software or drivers required
➢ 2 USB ports are USB 3.0 Hubs expandable
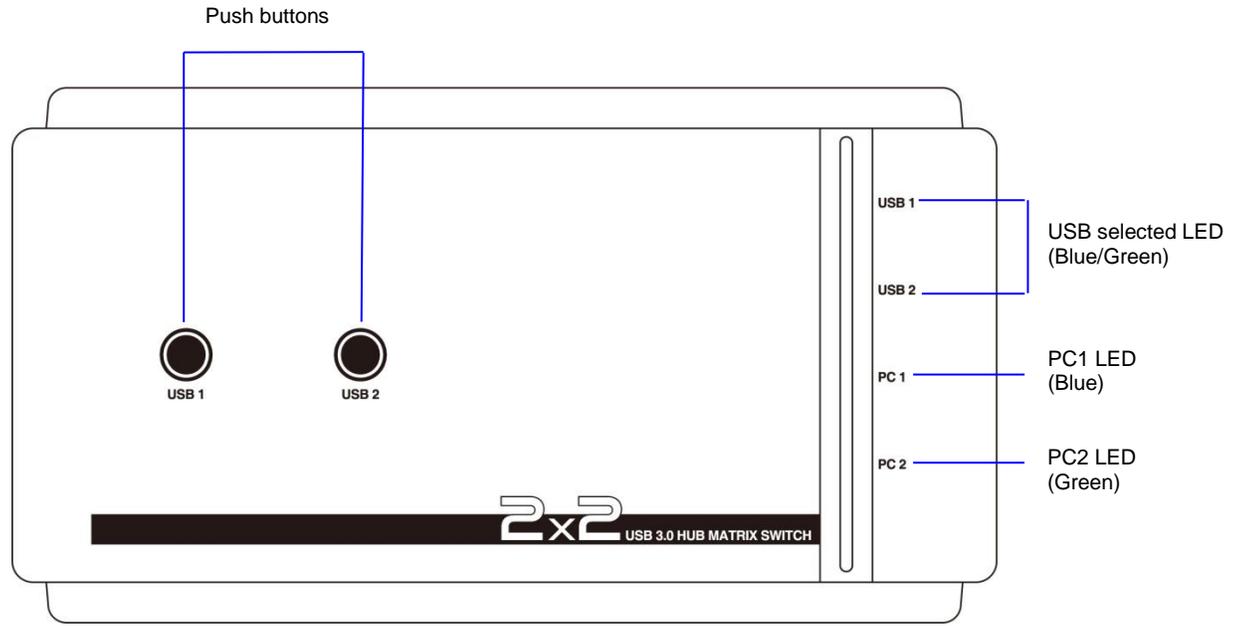
3. Specifications

Model No.		USB-322MS
Data Transfer Rate		1.5M / 12M / 480M / 5G bps
LED	Host	2 (Blue / Green)
	Device	2 (Blue / Green)
Channel selection		Hotkey or Push button
USB Specification		USB 1.1 / 2.0 / 3.0 compliant
Push button		2
Connector	Upstream	USB 3.0 B Female x 2
	Downstream	USB 3.0 A Female x 2
Power Mode		Bus powered
Power Supply		5VDC 1A (optional)
Connecting length	Host	3m
	Device	3m
Housing		Aluminum
Dimension (L x W x H)		130 x 74 x 30mm

4. Package Contents

➢ 2x2 USB 3.0 Hub Matrix Switch
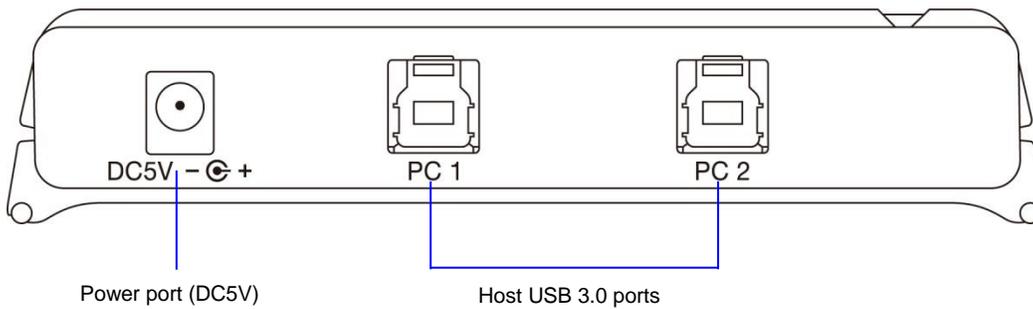➢ 2 sets of USB 3.0 AM/BM Cable

5. Physical Diagram

Top view

Push buttons

USB 1

USB 2

USB selected LED
(Blue/Green)

PC 1

PC1 LED
(Blue)

PC 2

PC2 LED
(Green)

2x2 USB 3.0 HUB MATRIX SWITCH

USB 1

USB 2

Front view

|||||| USB 3.0 SuperSpeed

USB 2

USB 1

USB 3.0 hubs

Rear view

DC5V – ⊝ +

PC 1

PC 2

Power port (DC5V)

Host USB 3.0 ports
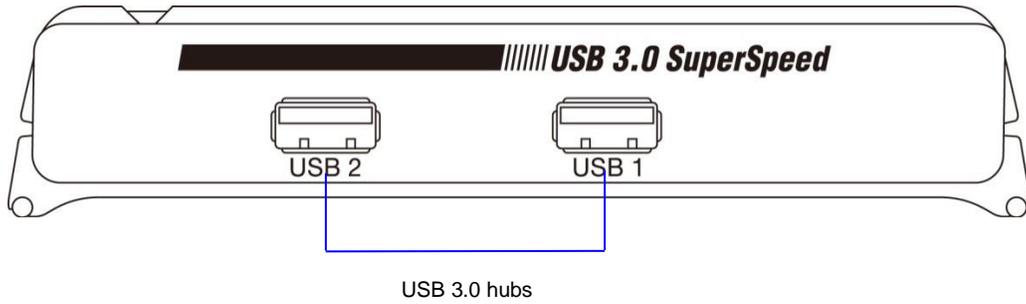
6. Connecting

Typical Application

USB 3.0 devices

USB 3.0 cable

USB 3.0 SuperSpeed

USB 2   USB 1

DC5V −⊖+   PC 1   PC 2

USB 3.0 cable

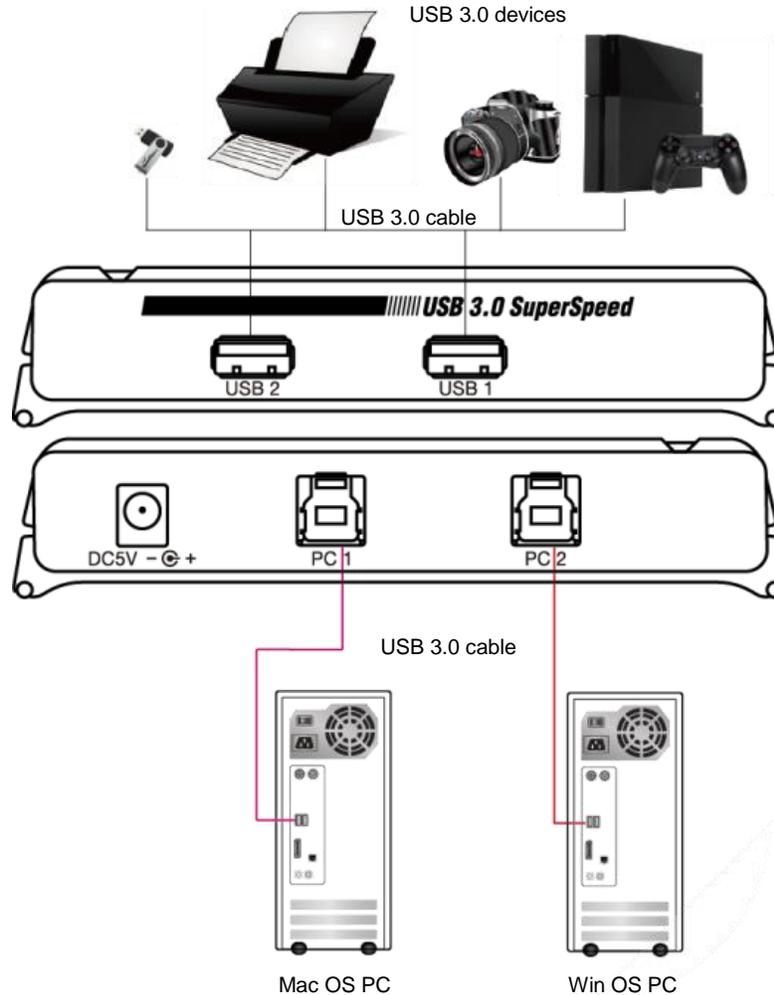Mac OS PC   Win OS PC

The 2x2 USB 3.0 Hub Matrix Switch is installed between 2 different OS PCs and connected with the USB 3.0 devices.

7. Installation

7.1. System Requirements:

1　Computer: Two PCs with 1 spare USB port each
2　Operating system: Windows 7 (32/64bit), 8.1 (32/64bit), 10 (32/64bit); Mac OSX or later.
3　USB 3.0 cable: USB 3.0 cable with Type-A end and Type-B end
4　Other USB devices to USB downstream ports.

7.2. Hardware installation:

1　Connects USB port of computer 1 to the PC1 port of the 2x2 Matrix switch.
2　Connects USB port of computer 2 to the PC2 port of the 2x2 Matrix switch.
3　Connects other USB devices to USB 3.0 Hub downstream ports.
4　Turn on the two computers and make sure that the USB ports are enabled and working properly.

Caution: Apply a DC 5V power adaptor to the power port of this unit once you connect the USB devices need a lot of power current from their upstream such as USB hard drive enclosure, USB fan, handheld game console, USB CD player etc.

8. **Operations**

8.1. Push buttons Operation

    a. One of the 2 computers may select USB 1 and/or USB 2 device by push button. If both LEDs of USB 1 and USB 2 are turned to Blue, the unit switches channel to PC 1 with USB 1 and USB 2. If only the LED of USB 2 is turned to Green, the unit switches USB 2 to PC 2.

    b. Alternatively press the push button of USB 1 or USB 2, the buzzer beeps once.

8.2. USB Selection

Host/USB Indicator
The LEDs on the Top case of this unit indicates the host/USB ports status:

➢   **PC 1:** Indicates the PC 1 port is connected.
➢   **PC 2:** Indicates the PC 2 port is connected.
While the computer connects to PC 1 or PC 2, the LED of PC 1 or PC 2 light on. If the PC 1 computer shutdown (make sure the computer's USB port is disabled), the unit will switch channel to PC 2 automatically; and vice versa.

➢   **USB 1:** Indicates the USB 1 port is selected.
➢   **USB 2:** Indicates the USB 2 port is selected.
It enables the device (USB 1 & USB 2) port's LED to illuminate the corresponding color from PC. Both push buttons are cycling on PC 1→PC 2→PC 1. Press the USB 1 push button once; it switches USB 1 to PC 1, the LED of USB 1 is turned to Blue. Press the USB 1 push button again; it switches USB 1 to PC 2, the LED of USB 1 is turned to Green. And so on…

8.3. Operational Hotkey -- Scroll Lock / Num Lock / Caps Lock (Applicable to Windows OS PC only)

    1. At the first installation, if the unit is connected an external power without having a computer connection; the default setting is at PC 1 with USB 1 and USB 2. If the unit connects to PC 2 firstly, it switches channel to PC 2 with USB 1 and USB 2 automatically; and vice versa. If shut down all powers (including the USB port of 2 computers), the unit will turn to the default setting.

    2. Hotkey
        a. Press [Scroll Lock] twice from any one of the 2 computers, the buzzer beeps once; switch channel to USB 1. Press [Caps Lock] twice, the buzzer beeps twice and the LED of USB 1 blinks; block channel on USB 1. Press [Caps Lock] twice again, the buzzer beeps long and the LED of USB 1 lights on; unblock channel from USB 1.

        b. Press [Num Lock] twice from any one of the 2 computers, the buzzer beeps once; switch channel to USB 2. Press [Caps Lock] twice, the buzzer beeps twice and the LED of USB 2 blinks; block channel on USB 2. Press [Caps Lock] twice again, the buzzer beeps long and the LED of USB 2 lights on; unblock channel from USB 2.

Caution: You may not unblock USB channel by **Push Button** except press [Caps Lock] twice from the previous switching PC. Or you have to shut down all powers to restart the unit and turn to the default setting.
The buzzer will beep as warble if you have wrong hotkey operations.

The working memory (last channel setting) won't be terminated except shut down all powers and restart the unit.

Regulatory Compliance

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CE Certification
This equipment complies with the requirements relating to electromagnetic compatibility.
It has been manufactured under the scope of RoHS compliance.

FCC Compliance Statement
This equipment generates and uses radio frequency and may cause interference to radio and television reception if not installed and used properly. This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

You are cautioned that changes or modification not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation

WEEE (Waste of Electrical and Electronic Equipment), Recycling of Electronic Products

In 2006 the European Union introduced regulations (WEEE) for the collection and recycling of all waste electrical and electronic equipment. It is no longer allowable to simply throw away electrical and electronic equipment. Instead, these products must enter the recycling process.

Each individual EU member state has implemented the WEEE regulations into national law in slightly different ways. Please follow your national law when you want to dispose or any electrical or electronic products. More details can be obtained from your national WEEE recycling agency.