User Manual

MP-USB44-3.2

USB3.2 Gen1 4x4 Switcher

Version: MP-USB44-3.2_V1.0

Preface

Read this user manual carefully before using the product. Pictures shown in this manual are for reference only. Different models and specifications are subject to real product.

This manual is only for operation instruction, please contact the local distributor for maintenance assistance. The functions described in this version were updated till Apr 10th，2025. In the constant effort to improve the product, we reserve the right to make functions or parameters changes without notice or obligation. Please refer to the dealers for the latest details.

FCC Statement

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. It has been tested and found to comply with the limits for 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 commercial installation.

Operation of this equipment in a residential area is likely to cause interference, in which case the user at their own expense will be required to take whatever measures may be necessary to correct the interference.

Any changes or modifications not expressly approved by the manufacture would void the user’s authority to operate the equipment.

SAFETY PRECAUTIONS

To ensure the best from the product, please read all instructions carefully before using the device. Save this manual for further reference.

- Unpack the equipment carefully and save the original box and packing material for possible future shipment.
- Follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- Do not dismantle the housing or modify the module. It may result in electrical shock or burn.
- Using supplies or parts not meeting the products' specifications may cause damage, deterioration or malfunction.
- Refer all servicing to qualified service personnel.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Do not put any heavy items on the extension cable in case of extrusion.
- Do not remove the housing of the device as opening or removing housing may expose you to dangerous voltage or other hazards.
- Install the device in a place with fine ventilation to avoid damage caused by overheat.
- Keep the module away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the module immediately.
- Do not twist or pull by force ends of the optical cable. It can cause malfunction.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.
- Unplug the power cord when left unused for a long period of time.
- Information on disposal for scrapped devices: do not burn or mix with general household waste, please treat them as normal electrical wastes.

Table of Contents

1. Product Introduction

MP-USB44-3.2 is a 4x4 USB 3.2 Matrix Switcher. The matrix allowing 4 x USB devices to be shared between 4 x host devices, supporting Plug-and-Play. The USB data transfer rate is up to 5Gbps.

The Matrix provides advanced features including a web interface module for control and configuration of the Matrix, along with RS-232 for seamless control integration.

1.1 Features

- Support USB 3.2 Gen1, 5Gbps
- Backwards compatible with USB 2.0 and 1.1
- Support front panel, GUI and RS232 control
- 5V900mA power supply via USB-A
- Web interface module for control and configuration of the MP-USB44-3.2
- Plug and Play

1.2 Package List

- 1x MP-USB44-3.2.
- 2x Mounting Ears with 4 Screws
- 4x Plastic Cushions
- 1x Power Adapter (24V DC 1.5A) with EU plug
- 1x User Manual

Note: *Please contact your distributor immediately if any damage or defect in the components is found.*

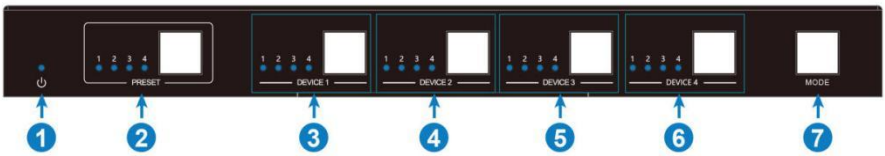
2. Specification

Input	
Input	(4)USB
Input Connector	(4)USB-A (2)USB-C
USB Standard	USB3.2 Gen1
Output	
Output	(4)USB
Output Connector	(4)USB-B
USB Standard	USB3.2 Gen1
Control	
Control port	(1)RS232, (1)TCP/IP
Control Connector	(1)3-pin terminal blocks, (1)RJ45, Buttons
General	
Bandwidth	5Gbps
Operation Temperature	-10 ~ +55℃
Storage Temperature	-25 ~ +70℃
Relative Humility	10% - 90%
Power Supply	DC24V1.5A
Power Consumption	27.4W (Max)
Dimension (W*H*D)	214mm x 23mm x 151mm

Note: *Please adopt high-qualified HDMI cable fully compliant with HDMI 2.1 for reliable transmission and connection.*

3. Panel Description

3.1 Front Panel



① **POWER LED:** The LED illuminates blue when power is applied, the LED illuminates red when it is standby.

② **PRESET 1~4 LED：**

③ **DEVICE1 1~4 LED:** The LED illuminates blue when host is connected, which host is connected, the led number is bright.

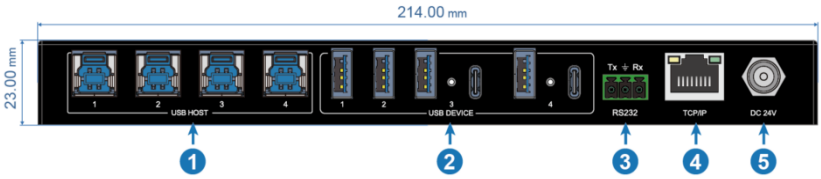
④ **DEVICE2 1~4 LED:** The LED illuminates blue when host is connected, which host is connected, the led number is bright.

⑤ **DEVICE3 1~4 LED:** The LED illuminates blue when host is connected, which host is connected, the led number is bright.

⑥ **DEVICE4 1~4 LED:** The LED illuminates blue when host is connected, which host is connected, the led number is bright.

⑦ **MODE:** There are 2 modes, Switch or Matrix mode. Use the MODE button to choose.

3.2 Rear Panel



① **USB HOST 1 ~ 4:** Two type-A female HDMI input ports and 2 type-c USB input ports to connect HDMI and USB sources. The input 1 port supports eARC.

② **USB DEVICE**：USB-C input port to connect with PD PSU, support max 100W charging (PD PSU excluded in the package).

③ **RS232:** 3-pin terminal block to connect the RS232 control device (e.g. PC) or a third-party device to be controlled by RS232 commands.

④ **TCP/IP:** RJ45 port to connect the control device (e.g. PC) to control the switcher by GUI.

⑤ **DC 24V:** DC port to connect a 24V 1.5A power adapter.

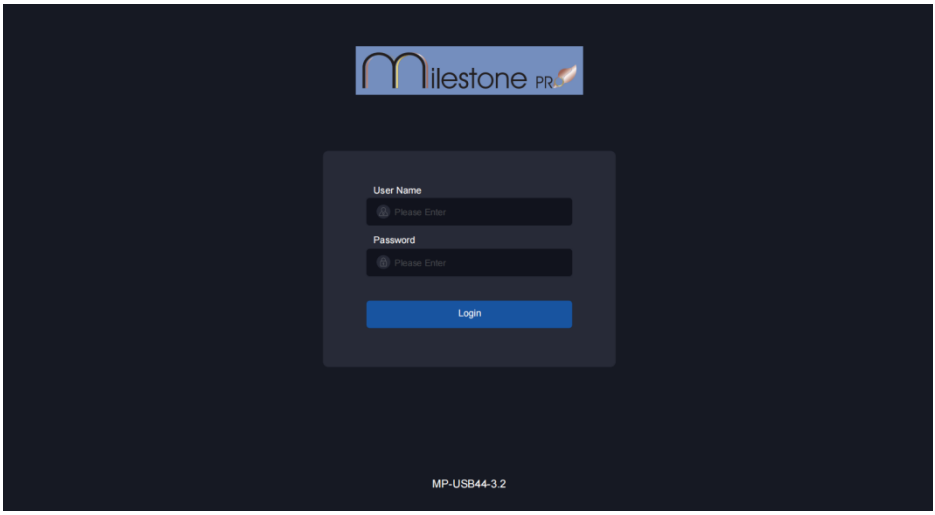
4. GUI Control

The switcher can be controlled via TCP/IP. The default IP settings are:

IP Address: 192.168.0.178

Subnet Mask: 255.255.255.0

Type ***192.168.0.178*** in the internet browser, it will enter the below log-in web page:

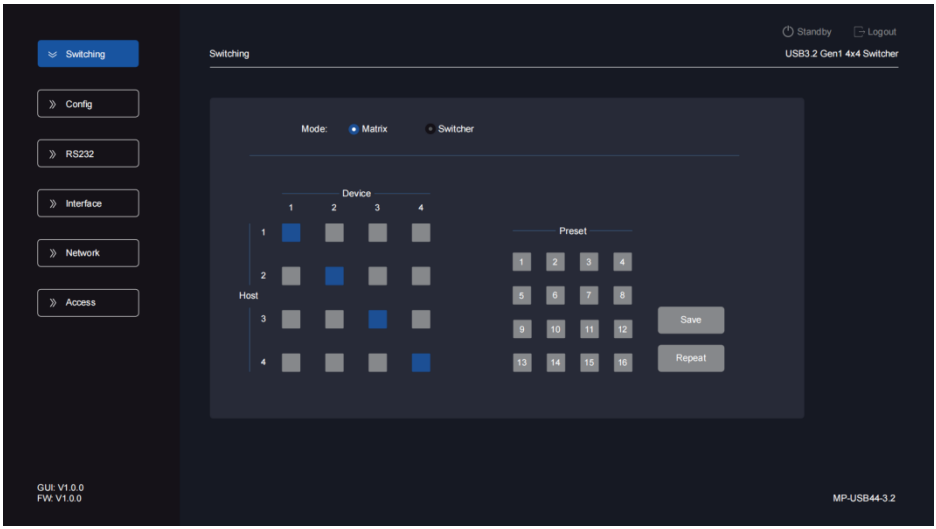


Username: Admin@1234

Password: Admin@1234

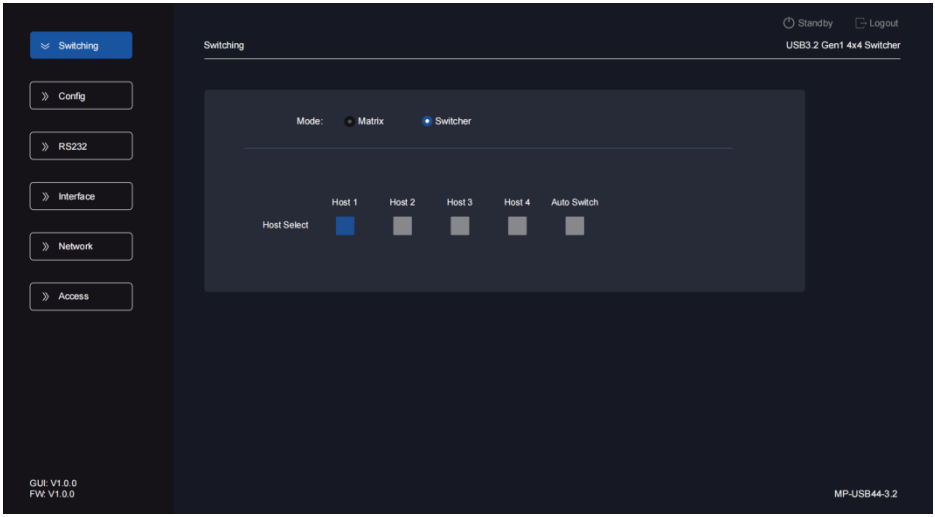
Type the user name and password, and then click **Login** to enter the section

4.1 Switching Tab



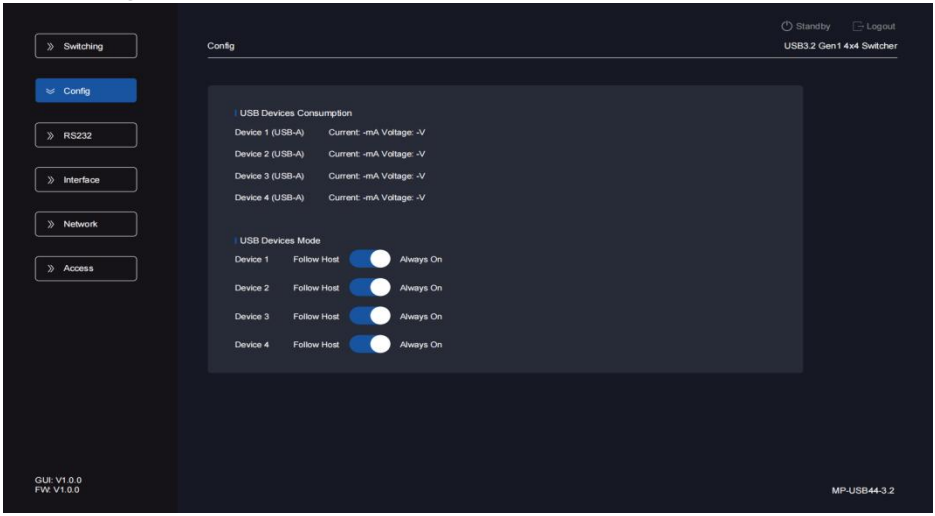
- Set Mode firstly: Matrix or Switcher
- When choose **Matrix** mode, to choose Host and Device accordingly
- Preset: there are total 16 modes for presetting, when you set, you can save. Repeat is the function when you need.

5.1.1 Switching Tab



- When choose **Switcher** mode
- You can choose from Host 1 to Host 4
- Auto switch is available during Host Switching

4.2 Config Tab



This page for USB Devices Consumption monitoring and USB Device Mode setting.

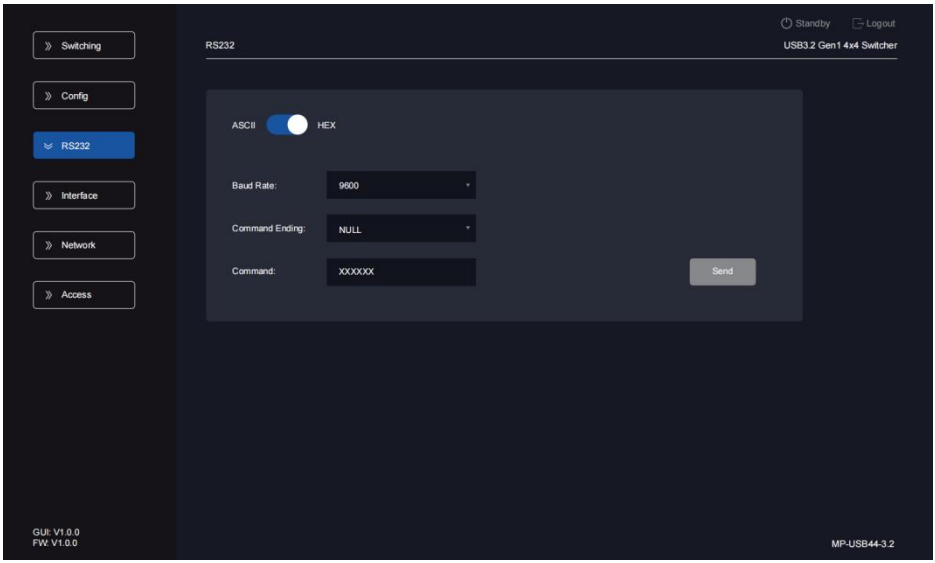
- USB Devices Consumption

  Device 1 to Device 4, for Devices Current and Voltage monitoring

- USB Device Mode

  Device 1 to Device 4, to choose follow Host or Always on.

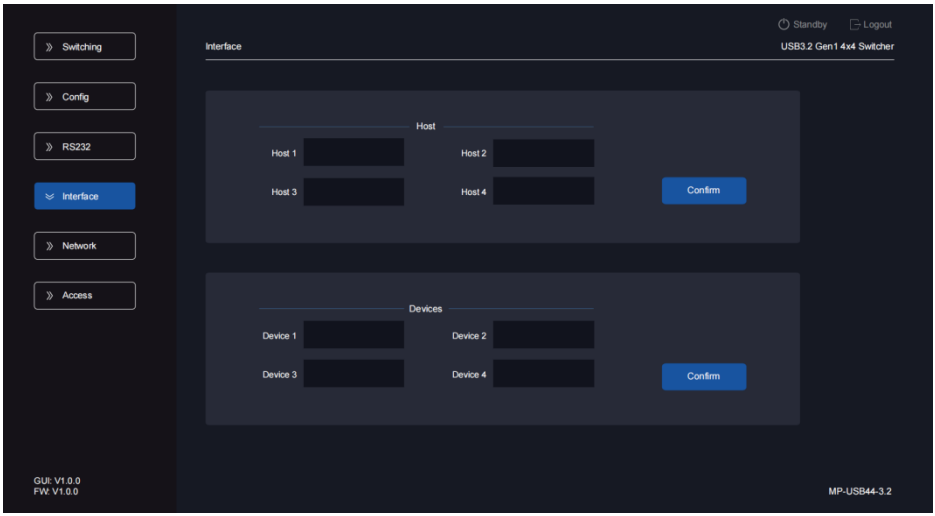
4.3 RS232 Tab



RS232

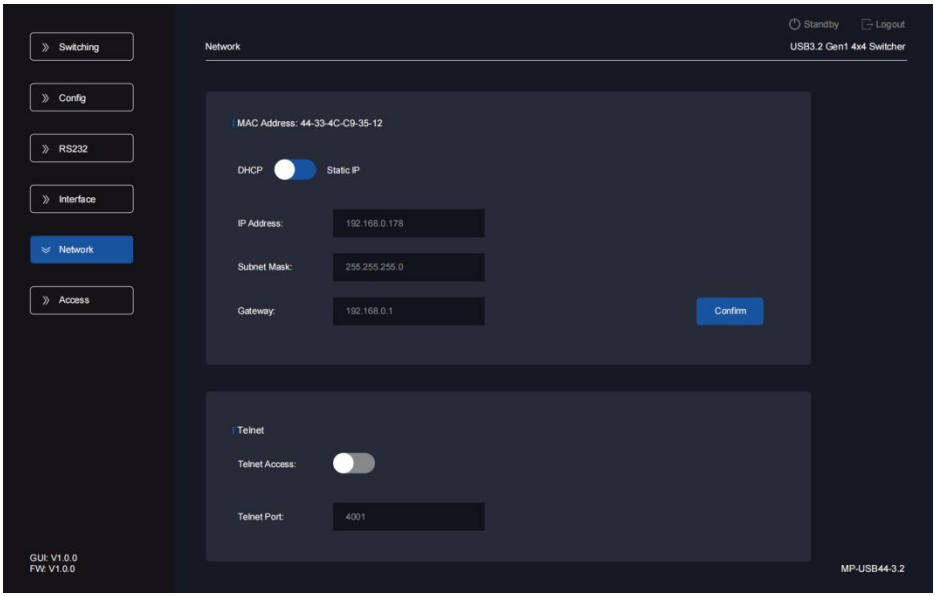
- ASCII and HEX can be chose.
- Baud Rate: Supports 9600, 19200, 38400, 57600, 115200
- Command Ending: NULL, CR, LF or CR+LF.
- Command: Type the command in the box to control the third-party device which is connected to the RS232 port of the MP-USB44-3.2

4.4 Interface Tab



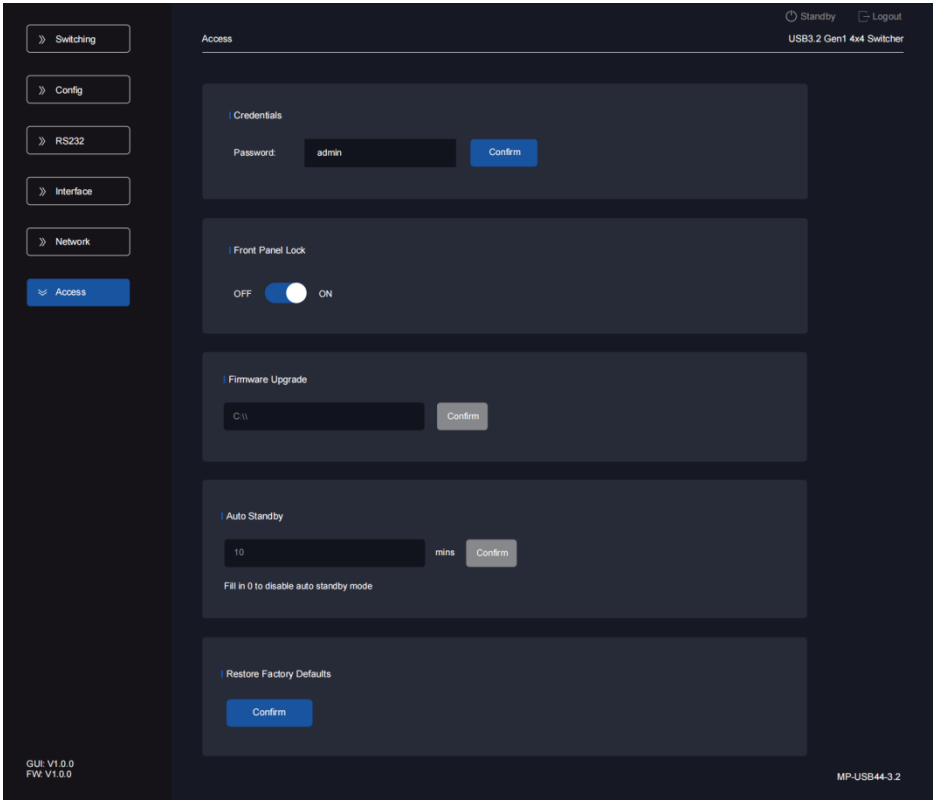
- To customize the HOST names
- To customize the Devices names

4.5 Network Tab



- Static IP or Dynamic Host Configuration Protocol (DHCP).
- Modify the static IP Address, Subnet Mask, and Gateway.

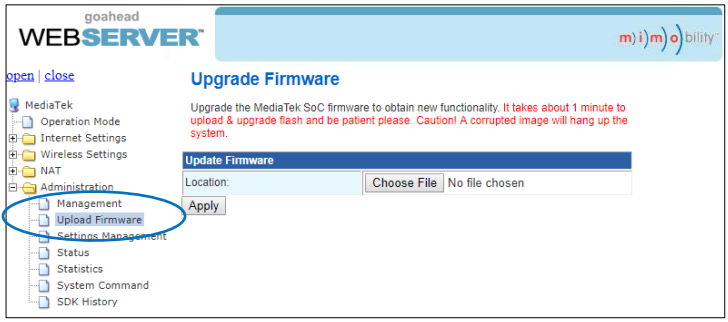
4.6 Access Tab



- Modify the login password.
- Lock or unlock the front panel buttons.
- Choose the firmware upgrade file and click confirm to upgrade the firmware.
- Set the auto standby on/off, set the standby time.
- Restore Factory Defaults

4.7 GUI Update

Web-based GUI for the Seamless Switcher supports online update in http://192.168.0.178:100. First, the Switcher is running. Type the username and password (the same as the GUI log-in settings, modified password will be available only after rebooting) to log in the configuration interface. After that, click **Administration** at the source Tab to get to **Upload Program** as shown below:



Select the desired update file and press “Apply”, it will start upgrading then. Last, check whether where is a reminder named check ok, if yes, the GUI was updated successfully, otherwise, the GUI updating is fail, and then follow the above steps to update again.

5. RS232 Control

Connect the RS232 port to control device (e.g. PC) with RS232 cable. The switcher can be controlled by sending RS232 commands.

The below command lists are used to control the switcher. The RS232 control software (e.g. docklight) needs to be installed on the control PC to send RS232 commands.

After installing the RS232 control software, please set the parameters of COM number, bound rate, data bit, stop bit and the parity bit correctly, and then you are able to send command in command sending area.

Baud rate: 9600

Data bit: 8

Stop bit: 1

Parity bit: none

Note:

- *In the commands, "[" and "]" are symbols for easy reading and do not need to be typed in actual operation.*
- *Type the command carefully, it is case-sensitive.*

The ending mark of command is “"\r\n"

Command	Description	Command & Feedback Example
HELP	Get the command status	List commands 01.HELP 02.STATUS 03.RESET 04.REBOOT 05.BAUDRATE <x> 06.POWER:ON 07.POWER:OFF 08.POWER STATUS 09.USB <x>:<y> 10.SWITCH MODE 11.MATRIX MODE 12.AUTOSWITCH:ON 13.AUTOSWITCH:OFF 14.AUTOSWITCH STATUS 15.LOCKED 16.UNLOCKED 17.DEVICE POWER MODE <x>:<y> 18.DEVICE POWER CONSUMPTION 19.SET IP <xxx.xxx.xxx.xxx> 20.SET MASK <xxx.xxx.xxx.xxx> 21.SET GATEWAY <xxx.xxx.xxx.xxx> 22.SET ETHMAC <xx-xx-xx-xx-xx-xx> 23.DHCP:ON 24.DHCP:OFF 25.DHCPSTATUS 26.RS232SEND:<y>:<z>:<aaa> 27.STANDBYTIME <x> 28.PRESET SAVE <x> 29.PRESET APPLY <x> 30.PRESET RESET <x>

Command	Description	Command & Feedback Example
		31.PRESET STATUS <x> 32.NETTN:ON 33.NETTN:OFF 34.NETTN PORT <x> 35.NETTN STATUS
STATUS	Get the system status	'- Model name: MP-USB44-3.2 - Model type: USB3.2 Gen1 4x4 Switcher - FW Version: 1.0.0 - Power: on - Front panel: unlocked - RS232 baudrate: 57600 - MAC: 00-B7-0F-30-5E-6A - DHCP: off - IP addr: 192.168.0.178 - IP Mask: 255.255.255.0 - IP Gateway: 192.168.0.1 - Telnet: on - Telnet port: 23 - Mode: switch - Auto switch: on - Device 1: host 1 - Device 2: host 1 - Device 3: host 1 - Device 4: host 1 - USB device 1 power mode: follow host - USB device 2 power mode: follow host - USB device 3 power mode: follow host - USB device 4 power mode: follow host - Standby mode delay time: 10 mins
RESET	Factory Default	OK: Factory Default.

Command	Description	Command & Feedback Example
REBOOT		OK: System Reboot.
BAUDRATE:<x>	Set the RS232 baud rate. <x>=1 ~ 7 1 - 2400 2 - 4800 3 - 9600 4 - 19200 5 - 38400 6 - 57600 7 - 115200	SET BAUDRATE 9600 OK: Set baud rate to 9600.
POWER:ON	Power on	OK: Power on.
POWER:OFF	Power off	OK: Power off.
POWER STATUS	Get the power status	- Power: on
USB[x]:<y>	Switch the USB [x] indicates the device number.value 0-4; 0 indicates the all device. <y> indicates that HOST Y is selected,value 1-4;	USB1:1 USB0:1 OK: Device 1 switch to host 1. OK: All Devices switch to host 1.
SWITCH MODE	Set the switcher mode	OK: Set switch mode.
MATRIX MODE	Set the matrix mode	OK: Set matrix mode.
AUTOSWITCH:ON	Turn on auto switch mode	OK: Auto switch mode on.
AUTOSWITCH:OFF	Turn off auto switch mode	OK: Auto switch mode off.
AUTOSWITCH STATUS	Get the auto switch mode status	- Auto switch: on
LOCKED	Lock the front panel button	OK: Front panel locked.
UNLOCKED	Unlock the front panel button	OK: Front panel unlocked.
DEVICE POWER MODE[x]:<y>	Set the device power supply mode [x] indicates the device number. 0 indicates the all device. <y> value 1-2 1: Follow Host(default) 2: Always On	OK: Set USB device 1 power mode follow host. OK: Set all USB devices power mode always on.
DEVICE POWER CONSUMPTION	Enquiry Device Current/Voltage Status	- Device voltage:[5096,5096,5050,505

Command	Description	Command & Feedback Example
		4](mV) - Device current:[4, 2, 79, 7](mA)
SET IP <xxx.xxx.xxx.xxx>	Set GUI IP address	OK: IP addr: 192.168.0.178
SET MASK <xxx.xxx.xxx.xxx>	Set GUI IP mask	OK: IP Mask: 255.255.255.0
SET GATEWAY <xxx.xxx.xxx.xxx>	Set GUI IP gateway	OK: IP Gateway: 192.168.0.1
SET ETHMAC <xx-xx-xx-xx-xx-xx>	Set Ethernet Mac address	OK: ETH MAC: 01-02-03-04-05-06
DHCP:ON	Turn on DHCP	OK: DHCP on.
DHCP:OFF	Turn off DHCP	OK: DHCP off.
DHCPSTATUS	Get the HDCP status	- DHCP: off
RS232SEND[x]:<y>:<z>:<aaa>	The local RS232 to control third-party devices [x] Indicates local or remote <y> =1 ~ 7 1 - 2400 2 - 4800 3 - 9600 4 - 19200 5 - 38400 6 - 57600 7 - 115200 <z> =1 ~ 2 1 - ASCii code 2 - HEX code <aaa> Indicates the data to be sent. Space must be added between HEX codes	RS232SEND:3:1:123456 RS232SEND:3:2:31 32 33 34 35 36 OK: RS232SEND: 3:1:123456 123456 OK: RS232SEND: 3:2:31 32 33 34 35 36 123456
STANDBYTIME <x>	STANDBYTIME:0 STANDBYTIME:5	OK: Nerver go into standby mode. OK: Set 5 mins go into standby mode.
PRESET SAVE <x>	Save current preset <x> <x> value 1-16	OK: Preset 1 save. - Preset 1: Device 1: host 1

Command	Description	Command & Feedback Example
		Device 2: host 2 Device 3: host 3 Device 4: host 4
PRESET APPLY <x>	Reset apply <x> <x> value 1-16	OK: Preset 1 apply. - Preset 1: Device 1: host 1 Device 2: host 2 Device 3: host 3 Device 4: host 4
PRESET RESET <x>	Reset<x> <x> value 1-16	OK: Preset 1 reset. - Preset 1: Device 1: host 1 Device 2: host 1 Device 3: host 1 Device 4: host 1
PRESET STATUS <x>	Query the default state <x>. <x> value 0-16, 0=All	'- Preset 1: Device 1: host 1 Device 2: host 1 Device 3: host 1 Device 4: host 1 - Preset 2: Device 1: host 2 Device 2: host 2 Device 3: host 2 Device 4: host 2 - Preset 3: Device 1: host 3 Device 2: host 3 Device 3: host 3 Device 4: host 3 - Preset 4: Device 1: host 4 Device 2: host 4 Device 3: host 4 Device 4: host 4 - Preset 5: Device 1: host 1 Device 2: host 1

Command	Description	Command & Feedback Example
		Device 3: host 1 Device 4: host 1 - Preset 6: Device 1: host 1 Device 2: host 1 Device 3: host 1 Device 4: host 1 - Preset 7: Device 1: host 1 Device 2: host 1 Device 3: host 1 Device 4: host 1 - Preset 8: Device 1: host 1 Device 2: host 1 Device 3: host 1 Device 4: host 1 - Preset 9: Device 1: host 1 Device 2: host 1 Device 3: host 1 Device 4: host 1 - Preset 10: Device 1: host 1 Device 2: host 1 Device 3: host 1 Device 4: host 1 - Preset 11: Device 1: host 1 Device 2: host 1 Device 3: host 1 Device 4: host 1 - Preset 12: Device 1: host 1 Device 2: host 1 Device 3: host 1 Device 4: host 1 - Preset 13: Device 1: host 1

Command	Description	Command & Feedback Example
		Device 2: host 1 Device 3: host 1 Device 4: host 1 - Preset 14: Device 1: host 1 Device 2: host 1 Device 3: host 1 Device 4: host 1 - Preset 15: Device 1: host 1 Device 2: host 1 Device 3: host 1 Device 4: host 1 - Preset 16: Device 1: host 1 Device 2: host 1 Device 3: host 1 Device 4: host 1
NETTN ON	Telnet port on	OK: Telnet on.
NETTN OFF	Telnet port off (4001 port）	OK: Telnet off.
NETTN PORT <x>	Set the Telnet port.	OK: Telnet port 23.
NETTN STATUS	Query the Telnet port information.	- Telnet: off - Telnet port: 23

6. Panel Drawing