User Manual

G7 H!A L44!I G6 ' &%

4x4 USB 3.2 Matrix

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 by April, 2022. 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 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

Thanks for choosing theSCT-MX44-USB321 4x4 USB 3.2 Matrix.

The matrix allowing 4 x USB devices to be shared between 4 x host devices, supporting Plug-and-Play. The USB data transfer rates is up to 5Gbps.

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

1.1 Features

● Support USB 3.2 gen 1

● Data transfer rates up to 5Gbps

● Backwards compatible with USB 2.0 and 1.1

● Support front panel, GUI, IR and RS232 control

● 5V900mA power supply via USB-A

● Web interface module for control and configuration of the MUB44

● Plug and Play

1.2 Packing List

- 1x SCT-MX44-USB321
- 2x Mounting Ears with 4 Screws
- 4x Plastic Cushions
- 1x RS232 cable
- 1x IR Receiver
- 1x Remote control
- 1x USB3.2 cable (USB A to USB B, 1m)
- 1x Power Adapter (DC 24V/1.25A)
- 1x User Manual

1.3 Customer Service

We provide limited warranty for the product within **three years** counting from date of purchase (The purchase invoice shall prevail).

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
USB Standard	USB3.2 Gen1
Output	
Output	(4) USB
Output Connector	(4) USB-B
USB Standard	USB3.2 Gen1
Control	
Control port	(1)IR IN, (1)RS232, (1)TCP/IP
Control Connector	(1)3.5mm mini jack, (1)3-pin terminal blocks, (1)RJ45
General	
Bandwidth	5Gbps
Operation Temperature	-10 ~ +55℃
Storage Temperature	-25 ~ +70℃
Relative Humility	10% - 90%
Power Supply	DC24V1.25A
Power Consumption	20.4 (Max)
Dimension (W*H*D)	200mm x 36mm x 159mm
Net Weight	840g

3. Panel Description

3.1 Front Panel
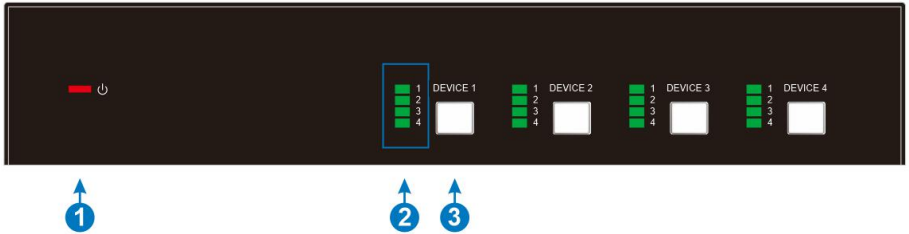
① **Power LED:** Red and green indicator light, the green light is always on when the machine is powered on, the red light is always on in standby mode, and the indicator light is off when the power is off.

② **Selection LED:** The illuminated number corresponds to the USB Host the selected USB Device is routed to.

③ **Select Button:** Press to cycle the selected USB Device through each USB Host output.

3.2 Rear Panel
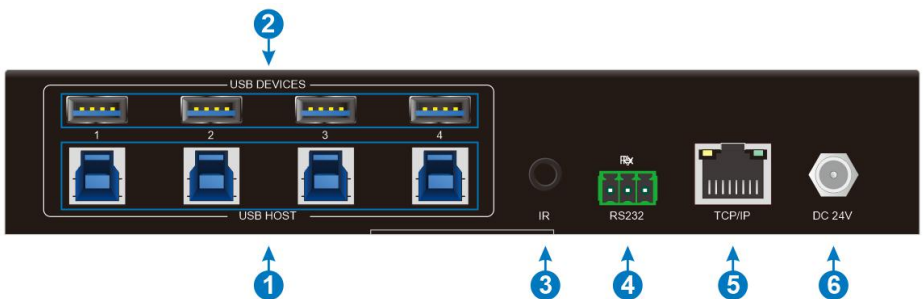
① **HOST:**. Connects to USB port of Host device

② **DEVICES:** Connects to USB Devices.

③ **IR IN:** 3.5mm jack to connect IR Receiver.

④ **RS232:** 3-pin terminal block to connect a computer to control the matrix by sending RS232 commands.

⑤ **TCP/IP:** Ethernet port to connect with a computer to control the matrix via GUI.

⑥ **DC 24V:** DC connector for power adapter connection.

4. System Connection

The following diagram illustrates typical input and output connections that can be utilized with the Converter:
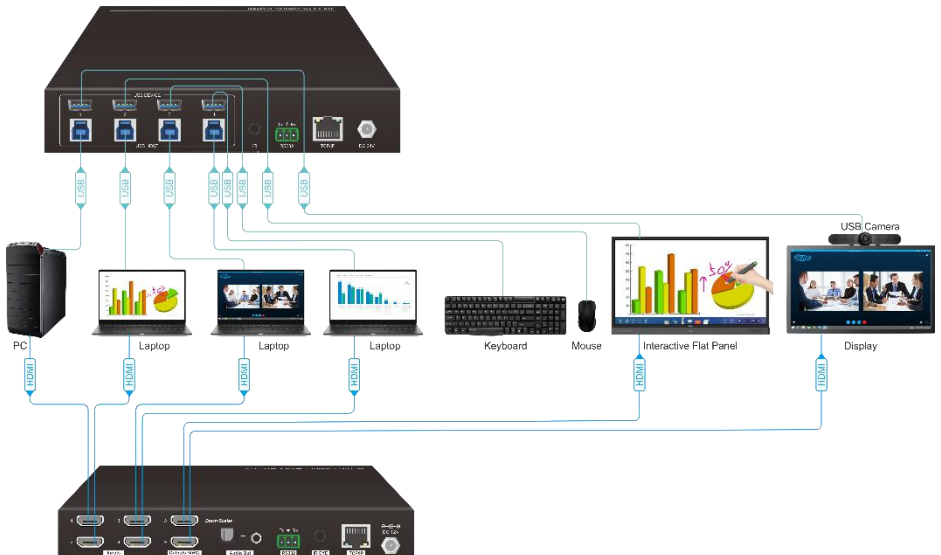
5. IR Remote Control

- Press the **STANDBY** button to enter or exit Standby mode.

- To switch the selected input for one or more of the outputs, first press the number corresponding to the desired **INPUT**, then press one or more **OUTPUTS** or the **ALL** button, then press the **ENTER** button to execute the change.

Examples:

- ✓ To send input 3 to output 2, first press the **INPUTS 3** button, then press the **OUTPUTS 2** button, and finally press the **ENTER** button to execute the change.

- ✓ To send input 1 to outputs 1 and 4, first press the **INPUTS 1** button, then press both the **OUTPUTS 1** and **4** buttons, and finally press the **ENTER** button to execute the change.

- ✓ To send input 4 to all outputs, first press the **INPUTS 4** button, then press the **ALL** button, and finally press the **ENTER** button to execute the change.
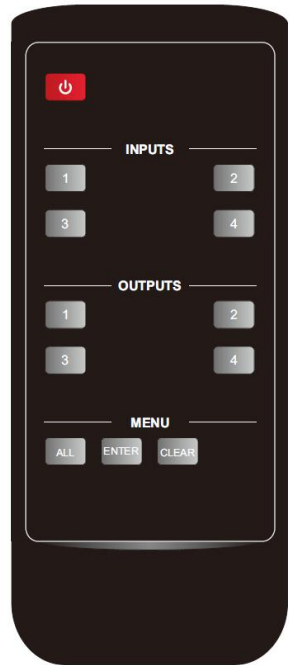
6. GUI Control

The SCT-MX44-USB321 can be controlled via TCP/IP. The default IP settings are:

IP Address:192.168.0.178

Subnet Mask:255.255.255.0

Gateway:192.168.0.1

Please type the IP Address of the control PC in the internet browser, and it will enter the below log-in webpage.

Username: admin

Password: admin

Please type the username and the password, and then click **LOGIN**.

6.1 Control Tab

Use the 4x4 button grid on the page to set which inputs are directed to which outputs. For example, clicking the button on the Input 1 row and Output 1 column, directs input 1 to output 1.

Use the 6 numbered buttons under scene area to save and load layout presets.

- To save a given layout, first click one of the numbered buttons, then click the Save button.

- To load a previously saved layout, first click one of the numbered buttons, then click the Recall button.

6.2 RS232 Tab

Control	RS232	Interface	Network	Access

ASCII ● HEX ○

Baud Rate: 9600 ▼

Command Ending: NULL ▼

Command: xxxxxx

Confirm Cancel

● ASCII or HEX command format can be selected.

● Baud Rate: Supports 9600, 19200, 38400, 57600 or 115200.

● Command Ending: NULL, CR, LF or CR+LF can be chosen.

● Command: Type the command in this box to control the third-party device which is connected to the RS232 port of the matrix switcher.

6.3 Interface Tab

Modify the HOST names

Modify the Devices names

6.4 Network Tab

●

ynamic Host Configuration Protocol (DHCP).

● Modify the static IP Address, Subnet Mask, and Gateway.

6.5 Access Tab

- Modify the login password
- Choose the firmware upgrade file and click confirm to upgrade the firmware
- Lock or unlock the front panel buttons

6.6 GUI Upgrade

Please visit at http://192.168.0.178.100 for GUI online upgrade.

Type the username and password (the same as the GUI log-in setting, modified password will be available only after rebooting) to login the configuration interface.

After that, click **Administration** in the source menu to get to **Upload Firmware** as show below:
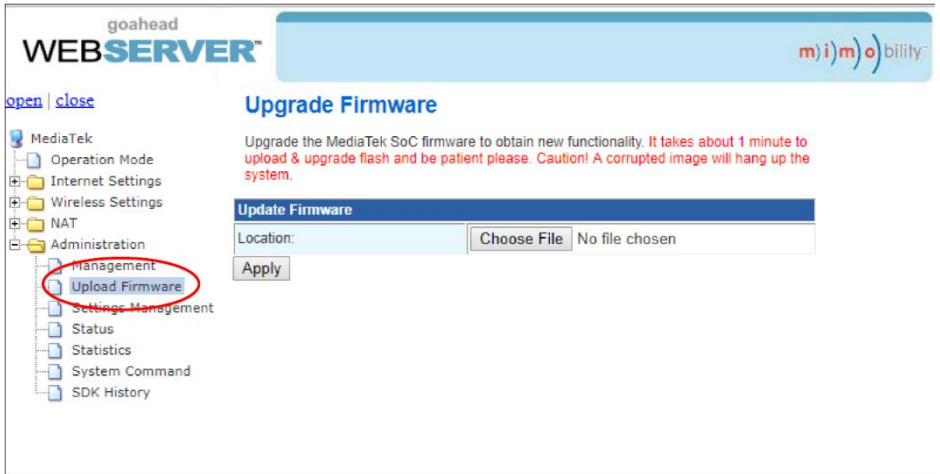
Select the desired update file and press **Apply**, it will start upgrading then.

7. RS232 control

7.1 RS232 control software

- **Installation**: Copy the control software file to the control PC
- **Uninstallation**: Delete all the control software files in corresponding file path.

7.2 Basic Setting:

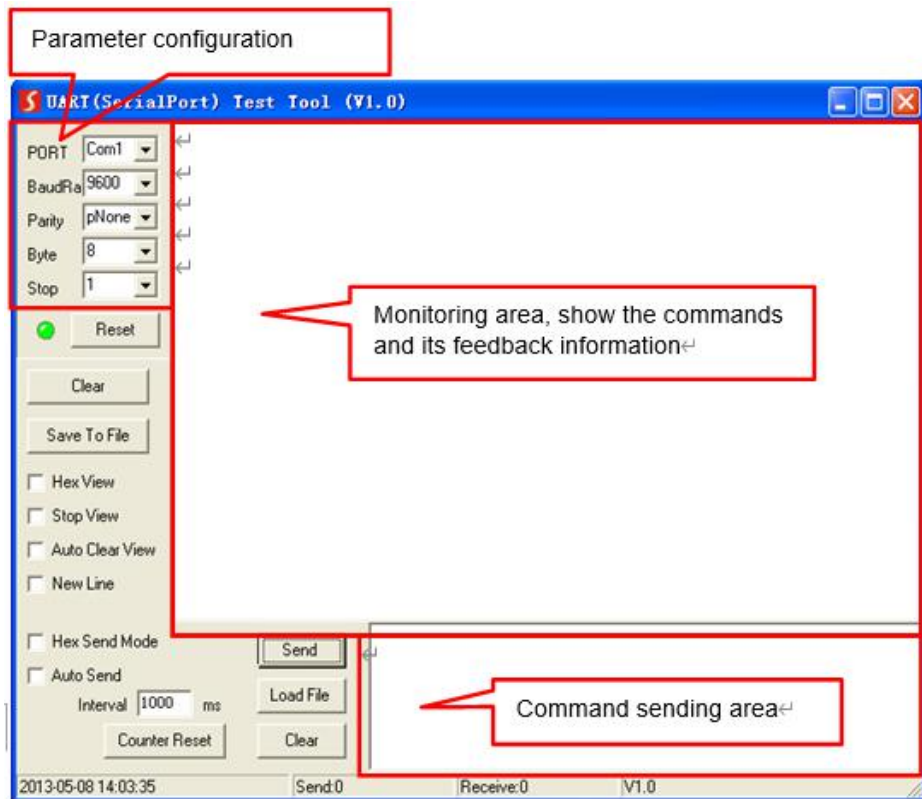Connect the Matrix with all input devices and output devices needed, then to connect it with a PC which is installed with RS232 control software. Double-click the software icon to run this software.

Here takes the software **CommWatch.exe** as example:

The interface of the control software is showed as below:

Set the parameters(baud rate, data bit, stop bit and parity bit) correctly to ensure reliable RS232 control

7.3 RS232 Command

Command	Description	Command Example and Feedback
>Help	>Help	<RS232 Commands: >GetStatus Print Status >SetPower [param1] Set System Power On Or Off param1 = On, Off >SetKey [param1] Set panel keys to lock or unlock param1 = On, Off >Reboot Syestem reboot >FactoryReset Reset System To Default Setting >SetUSB [param1]:[param2] Set USB Device [param1] To Host [param2] param1 = 01~04: USB Device 1 ~ 4 param2 = 01~04: USB Host 1 ~ 4 param1 = 0: All USB Device >SetRS232Baud [param1] Set RS232 Baud param1 = 9600(Default), 19200, 38400, 57600, 115200 >RecallPreset [param1] Recall The Preset [param1] param1 = 1~6 >SavePreset [param1] Save The Preset [param1] param1 = 1~6 >SetDHCP On Set DHCP On >SetIP:[param1] Set Static IP Address param1 = xxx.xxx.x.xxx >SetTelnetPort [param1] Set Telnet Port [param1] param1 = 1~9999 >SetTelnet [param1] Set Telnet Port On Or Off param1 = On, Off >GETIP Get IP
>GetStatus	>GetStatus	<MUB44 <FW Version: 1.0.0 <USB DEVICE 1 2 3 4 HOST 1 1 1 1 <Preset 1 DEVICE 1 2 3 4 HOST 1 1 1 1 <Preset 2 DEVICE 1 2 3 4 HOST 2 2 2 2 <Preset 3 DEVICE 1 2 3 4 HOST 3 3 3 3 <Preset 4 DEVICE 1 2 3 4 HOST 4 4 4 4 <Preset 5 DEVICE 1 2 3 4

		HOST 1 1 1 1
		<Preset 6 DEVICE 1 2 3 4 HOST 1 1 1 1 <RS232Baud: 9600 <Telnet On <TelnetProt: 4001 <DHCP Off <IP: 192.168.0.178
>SetRS232Baud	>SetRS232Baud 9600	<SetRS232Baud: 9600
>Reboot	>Reboot	<Reboot
>SetPower	>SetPower On	<Power On
	>SetPower Off	<Power Off
>SetUSB	>SetUSB 01:03	<SetUSB DEVICE 1 HOST 3
>FactoryReset	>FactoryReset	<FactoryReset
>SetDHCP On	>SetDHCP On	<SetDHCP On
>SetTelnetPort	>SetTelnetPort 4001	<SetTelnetPort: 4001
>SetTelnet	>SetTelnet 0n/0ff	<SetTelnet On <SetTelnet Off
>SetIP	>SetIP 192.168.0.178	<SetDHCP Off <SetIP: 192.168.0.178
>RecallPreset	>RecallPreset 01	<RecallPreset 1 DEVICE 1 2 3 4 HOST 1 1 1 1
>SavePreset	>SavePreset 01	<SavePreset 1 DEVICE 1 2 3 4 HOST 1 2 3 4
>GetIP	>GetIP	<GetIP: 192.168.0.178
>SetKey	>SetKey On/Off	<SetKey On <SetKey Off

8. Panel Drawing