



HD MATRIX Switcher

User manual

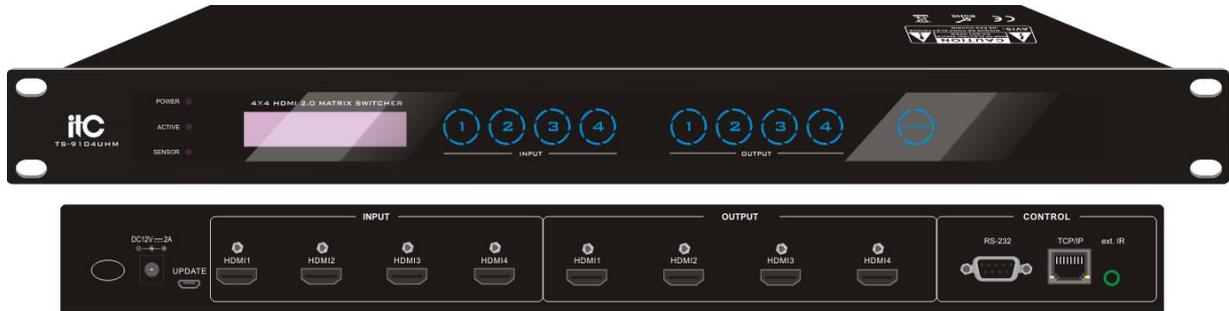
TS-9104UHM

Please read this manual carefully before using the system.

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1. System Introduction



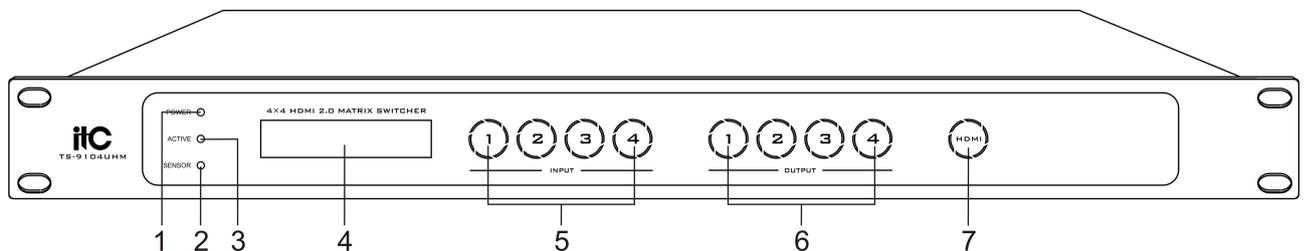
It is an HDMI switcher which supports 4K ultra clear video, 4 HDMI inputs and 4 HDMI outputs.

2. Features

1. Support 4 HDMI inputs, 4 HDMI outputs.
2. Support HDMI 1.4 standard, HDCP1.4 standard.
3. The maximum input and output resolution is 4K, which is compatible with any resolution no bigger than the maximum resolution. And the output resolution is consistent with the input resolution.
4. 12V power supply. The maximum power consumption is 20W.

3. Function introduction of each component of the product

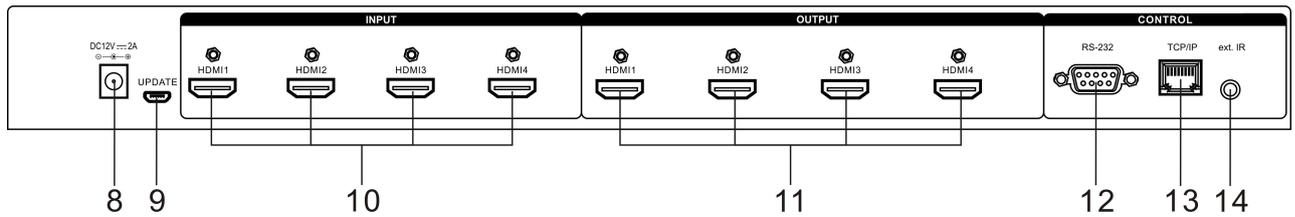
3.1 Front panel



1. The power indicator light;
2. Infrared sensor receiving window;
3. Operation indicator light;

4. LCD display, showing the current working status of the device;
5. 4 input digital buttons;
6. 4 output digital buttons;
7. HDMI mode digital button.

3.2 Rear Panel



- 8、12V/2A DC power input;
- 9、Micro USB program burning port;
- 10、4 HDMI digital video input ports;
- 11、4 HDMI digital video output ports;
- 12、RS232 serial port;
- 13、TCP / IP network control port;
- 14、infrared control port (reserved function).

4. Technical Parameters

Product Model	Content
Technical specifications	
TS-9104UHM Interface	
Digital Video Input	4x HDMI Digital Video Interface
Output interface	4x HDMI Digital Video Interface
Control interface	1x network port 1x RS232 1x IR IN 1x USB UPDATE
Agreement and Standards	
HDMI	HDMI 1.4
HDCP	HDCP 1.4
HDMI Maximum bandwidth	10.2Gbps
HDMI Maximum Transmission Distance	
3840×2160(30Hz);	15m
1080P(60Hz);	20m
Structure and others	
Power Supply	DC 12V
Rated Power Consumption	20W
Dimension (L * W * H)	484*298*45mm
Weight	3.5Kg
Ambient Temperature	-10℃ ~ +45℃
Environmental humidity	10% ~ 80%

5. Instructions

1. Equipment:

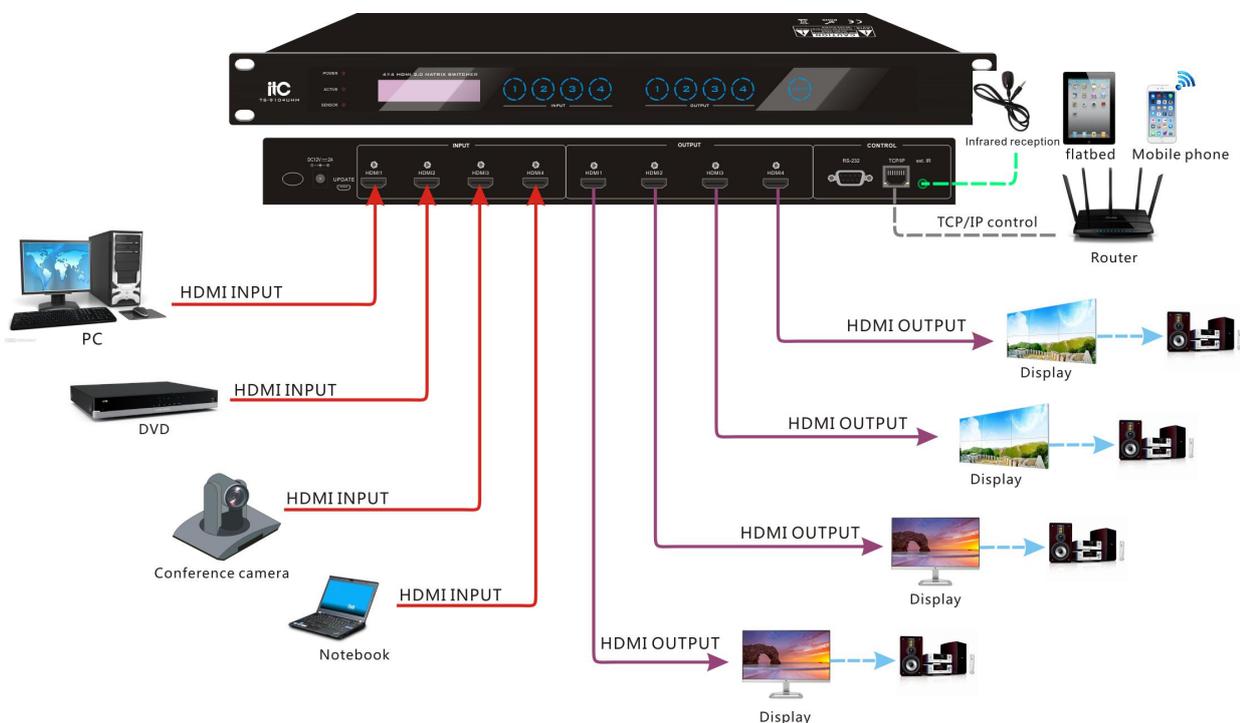
Signal source: HDMI;

Wire: HDMI line, audio line, network line, serial line;

Monitor: Monitor with HDMI interface, router;

A sound system or speaker;

2. Connect the audio and video sources and displays according to the diagram:



3. Operation Description:

(1) Power on

The blue power indicator “POWER” and “ACTIVE” on the rear panel of the power-on normal are always on. The buzzer will give a short beep to indicate that the device starts. The LCD screen activates and displays the initialization interface. The nine white touch lights are all on. During the startup of the device, the touch button operation on the panel is invalid, and the infrared receiving port of the panel does not receive the remote command.

Within about 10 seconds, the touch light is completely extinguished, and the buzzer gives a short

beep to indicate that the device has completely started up. Thereafter, if there is no operation, the LCD screen will go out within 30 seconds. The LCD screen can be reactivated by pressing any of the touch buttons on the panel.

(2) Audio and video switching

The "HDMI" button on the TS-9104UHM panel is used to enter or exit the video switching interface. After entering the video switching interface, the four input channel button lights will flash to prompt the operation; Only when the input channel is selected can the output channel be selected and become valid; When the output channel selection is valid, press once to indicate the selection and press again to indicate that it is not selected. The LCD panel has a corresponding display; the power-off memory is supported.

(3) Network port setting instructions

All the functions of this device can be configured through the web page connected to the TCP/IP network port. The "TCP/IP" network port supports connecting to a switch or router.

Use TCP debugging tools and set parameters (default configuration parameters)

Subnet mask: 255, 255, 255, 0

Gateway: 192, 168, 15, 1

Local address: 192, 168, 15, 212

MAC address: 0x00, 0x08, 0xDC, 0x01, 0x02, 0x22

(4) Serial command setting

All functions of this device can be realized by RS232 serial port command.

Baud rate: 115200bps;

Data bit: 8bits;

Stop bit: 1 bit;

Check digit: None.

For a list of specific instructions, see Appendix I, Serial Port Control Instruction List to ensure that the function of each instruction is normal.

6. Appendix: Serial Port Control Instruction List

Computer Send Code	Command Function	Device Return Code	Remarks
aVx,y,z.	Video switching	Video Switch Success!	Remarks: a is the HDMI input port (1~4); x, y, z are the output ports (1~4)
xALL.	All output channels are switched to the same input channel at the same time		x is the input channel (0-4)
<#SPORT[5000]>	Set the network port number	Network Port=5000	Re-powered
<#SIPR[192].[168].[0]. [2]>	Set network IP	<Set Network Succeed!>	Re-powered
<#GAR[192].[168].[0]. [1]>	Set the network gateway number	<Set Network Succeed!>	Re-powered
<#SUBR[255].[255].[255].[0]>	Set the network subnet mask	<Set Network Succeed!>	Re-powered
<#SHAR[00].[11].[22].[33].[44].[55]>	Set the network hardware address	<Set Network Succeed!>	Re-powered
<#NETDEFAULT>	Network configuration restore factory value	<Set Network Succeed!>	Re-powered
<#GETNETADDR>	Query network address		

Note: After modifying the IP address, you must restart the host to make the new address take effect.

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