4K60 HDMI Matrix 4x4

User Manual

VER 1.0

Thank you for purchasing this product

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shook, lighting strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

Table of Contents

1. Introduction

The 4×4 HDMI 2.0 Matrix simultaneously routes four HDMI sources to four HDMI displays. It supports the transmission of video resolution up to 4K×2K@60Hz Ultra HD YUV4:4:4 and supports high resolution digital audio formats such as LPCM 7.1CH, Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio. It works with Blue-Ray players, Set-Top boxes, Home Theater PCs and game consoles. Any source accessible at all times by any display by selecting it via the supplied IR Remote Control, RS-232 or select buttons on the front panel. Support smart EDID management.

2. Features

☆ HDMI2.0, HDCP2.2/HDCP1.4 compliant.
☆ Support video format up to 4k2k@60Hz with 24bit RGB/YCbCr 4:4:4/YCbCr 4:2:2, and up to 4k2k@60Hz with 12bit YCbCr 4:2:0.
☆ Support color space conversions among RGB, YCbCr4:4:4, YCbCr4:2:2 and xvYCC video formats.
☆ Support all HDMI 3D formats up to 2160p@30Hz.
☆ Support high resolution VESA mode video format up to QSXGA@60Hz.
☆ Support reception of any audio data conforming to the HDMI specification such PCM at up to 192kHz, compressed audio (IEC 61937), DSD, DST, DTS and HBR.
☆ Support smart EDID management.
☆ Support RS-232, remote control and on-panel control.

3. Package Contents

① 1× 4×4 HDMI Matrix
② 1× 12V/2.5A Power Adapter
③ 1× User Manual
④ 1× HDMI Matrix IR Remote

4. Specifications

| Technical	
Video Bandwidth	600MHz(18Gbps)
Video Resolution	480i, 576i, 480p, 576p, 720p, 1080i, 1080p24/25/ 30/50/60, 2160P24/25/30/50/60
Input Ports	4×HDMI, 1×RS-232
Output Ports	4×HDMI
HDMI connector	Type A 19 pin female
ESD Protection	Human-body Model: ±8kV (Air-gap discharge), ±4kV (Contact discharge)
Power Supply	12V/2.5A DC (US/EU standards, CE/FCC/UL certified)
Dimensions	150mm(W)×111mm(D)×32.2 mm(H)
Weight	585g
Chassis Material	Metal
Silkscreen Color	Black
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F
Relative Humidity	20~90% RH (non-condensing)
Power Consumption	30W (max)/1W (Standby)

5. Operation Controls and Functions

5.1 Front Panel
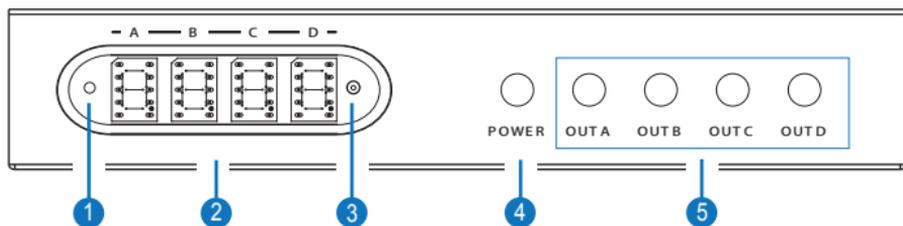
Number	Name	Function description
1	LED	When the LED light is on, it is displayed as standby. When the LED light is not on, it is the equipment is working.
2	Nixie tube	Displays information for each input channel.
3	IR	IR receive window.
4	POWER	Device power key.
5	OUTPUT button	A/B/C/D output channel key.

5.2 Rear Panel
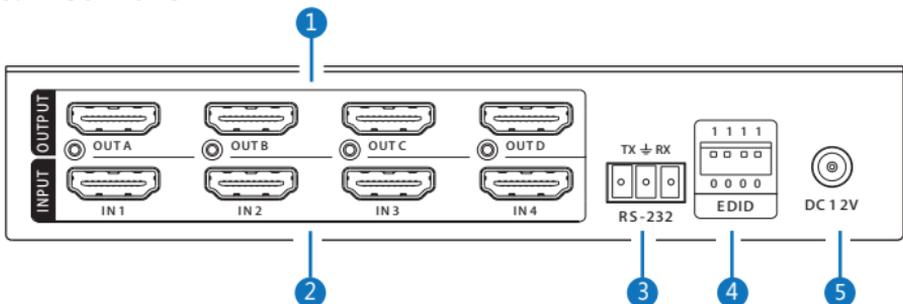
Number	Name	Function descriptions
1	HDMI OUTPUT	Connect to the HDMI output device, such as TV or Monitor.
2	HDMI INPUT	Connect to the HDMI input source device, such as DVD player or Set top box.
3	RS-232	Connect PC or use D-Sub 9-pin line connect the control system to transmit RS-232 commands.
4	EDID	Select HDMI output signal format via EDID Selector.
5	POWER INPUT	DC 12V Power supply interface.

Notice: The following is the EDID schema table.

EDID mode	EDID description
0000	1080p, Stereo Audio 2.0
0001	1080p, Dolby/DTS 5.1
0010	1080p, HD Audio 7.1
0011	1080i, Stereo Audio 2.0
0100	1080i, Dolby/DTS 5.1
0101	1080i, HD Audio 7.1
0110	3D, Stereo Audio 2.0
0111	3D, Dolby/DTS 5.1
1000	3D, HD Audio 7.1
1001	4K2K30_444, Stereo Audio 2.0
1010	4K2K30_444, Dolby/DTS 5.1
1011	4K2K30_444, HD Audio 7.1
1100	4K2K60_444, Stereo Audio 2.0
1101	4K2K60_444, Dolby/DTS 5.1
1110	4K2K60_444, HD Audio 7.1
1111	EDID is controlled by the host computer

6. Remote Control
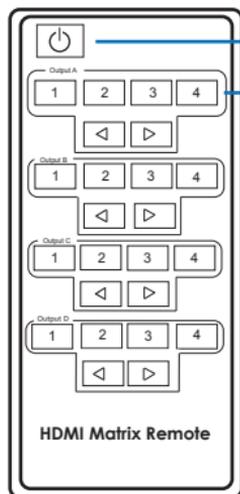
① Press this button to open the power of the Matrix or set it as a standby state.

② Press these keys to select the Output A, Output B, Output C, Output D for output corresponding 1, 2, 3, 4 input port.

7. PC Controller User Guide

Install:

PC controller is a green software, You just need a cable to connect from PC to RS-232. Copy"4×4 HDMI matrix Controller.exe"to PC and complete install.

Preparation:

① Connect PC and Matrix by RS-232 cable(headers of both sides of cable should be FEMALE).

② Power-up Martix.

③ Double click"4×4 HDMI matrix Controller.exe"icon to run it.

General page
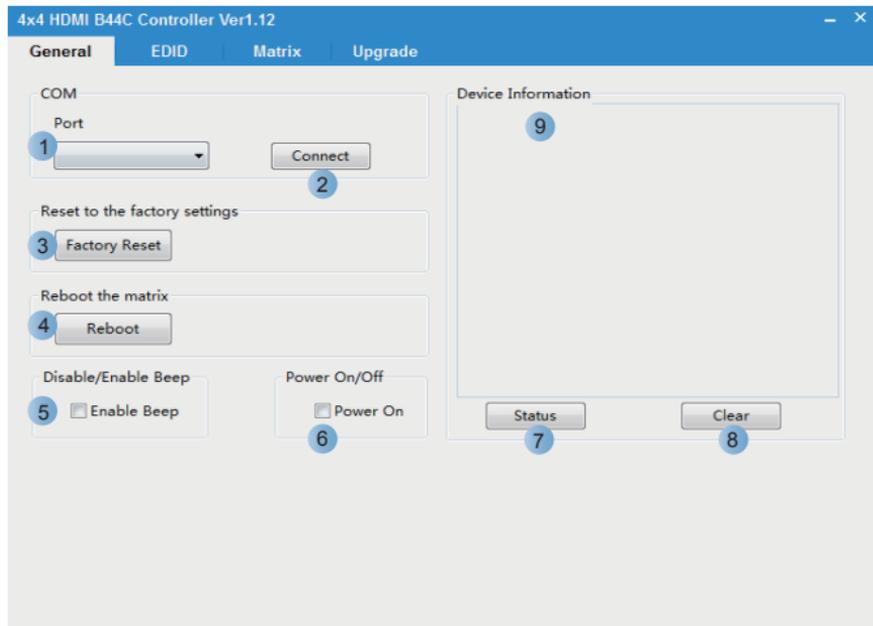
① Select the RS-232 COM port.
② Click to connect the matrix, no click will not connect the matrix.
③ Click reset to factory settings state.
④ Click to restart the matrix.
⑤ Select'Enable Beep', the matrix button sound open. No select and the
　sound is off.
⑥ The matrix has been selected'Power on'at work, When the user is
　deselected and the matrix will go in standby mode.
⑦ Click refresh device status.
⑧ Click to clear device information.
⑨ Device information display column.

## EDID page
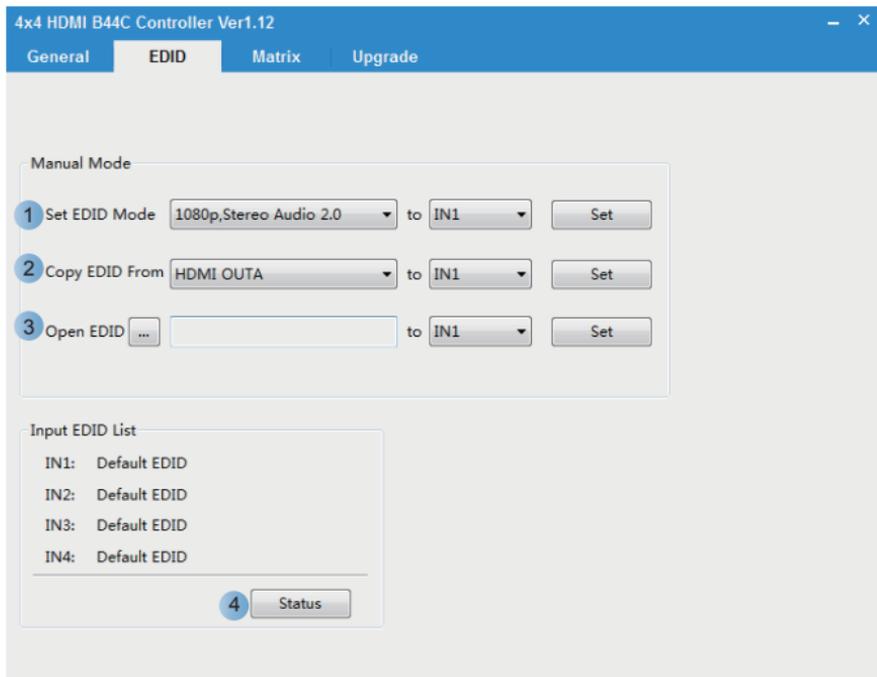
The controller have 3 ways to set theEDID mode:'manual mode','Copy mode'and 'Open EDID file mode'.
① Select the need EDID for the input, then click the'set'button.
    EDID will be selected to HDMI input.
② Copy selected HDMI input or HDBT output EDID, then click'set'button
    to select HDMI input.
③ Open the user defined EDID file, then click'set'button to select HDMI input.
④ Click the'status'button for input EDID status again.

Matrix page
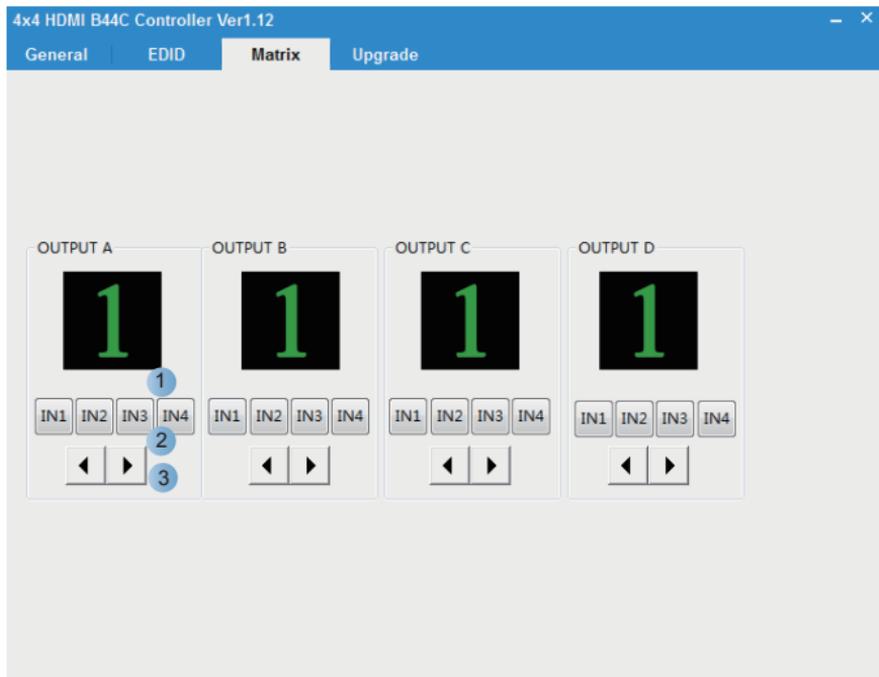
① LED which display Input number for respective Output.
② Click to select Input port for respective Output port.
③ Click to select the previous or the next Input port for respective Output port.

Upgrade page
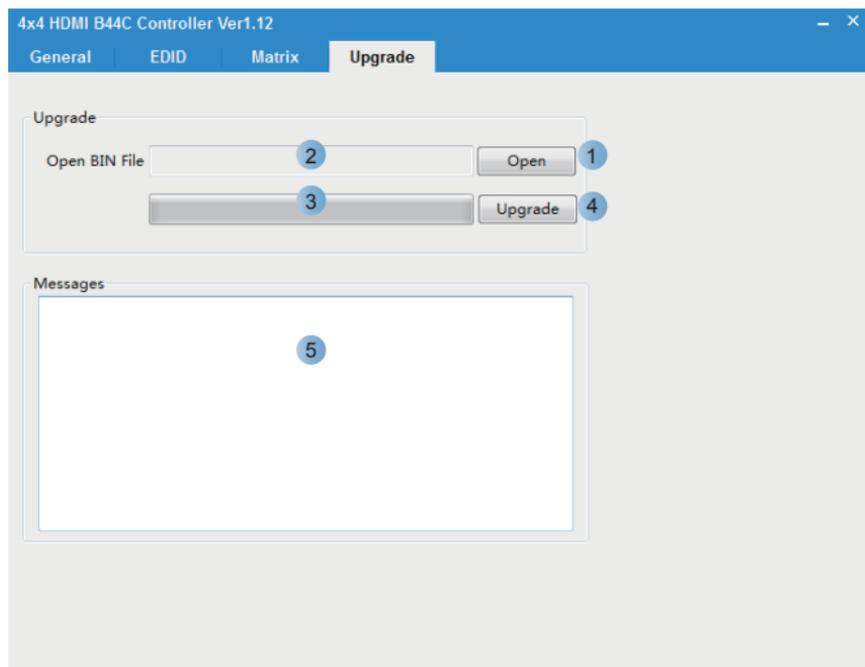
① Click to open FW file(file extension is ".fw").
② Display the FW file path.
③ Display the progress of the software upgrade.
④ Click to upgrade the Matrix software.
⑤ Display the message of the software upgrade.

8. Application Example