

Model : ATZ HDMI-444

Description: 4x4 HDMI Matrix Switch w/Remote Control+RS232+EDID Selector



Remark:

The connection of the main adapter to the HDMI Matrix switch must be done at first, afterwards you can connect the main adapter to the power outlet. Any other way of connecting of the main adapter to switch / power outlet can cause the damage of the device.

I. Introduction

This is a high performance HDMI Matrix with four HDMI inputs & four outputs. It allows any source (Blue-Ray player, HD DVD player, satellite receiver, game system, etc.) to be shown on the any of the four displays simultaneously, and supports 4K×2K, 3D, Deep Color. With its 3Gbps bandwidth and the additional features of the latest HDMI standards you can be sure of great HDMI distribution.

II. Features

1. Supports display resolutions up to 4K x 2K@30Hz,1080P@120Hz,and 1080P 3D@60Hz
2. 3D HDMI 1.4a video format support.
3. 3D video support including Frame Packing for all 3D formats up to a 297MHz TMDS clock.
4. Supports deep color up to 48-bit per pixel.
5. HDCP 1.4 support (INPUT), HDCP v1.4a protocol compliant (OUTPUT).
6. Supports reception of any audio data conforming to the HDMI specification 1.4 such ad L-PCM at up to 192kHz,compressed audio(IEC 61937),DSD,DST,DTS and HBR.
7. Full colorimetry including sYCC601, Adobe RGB, Adobe YCC601, xvYCC extended gamut color.
8. Operates for TMDS clock frequencies up to 300MHz.

III. Package

HDMI Matrix -----	1PC
Adaptor -----	1PC
Operation Manual -----	1PC

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Remote Controller-----1PC

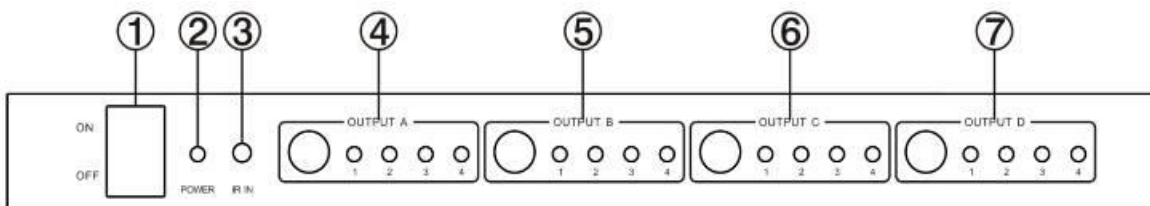
RS232 Serial Cable-----1PC

IV. Specifications

Frequency Bandwidth	297MHZ[10.2Gbps]
Input Ports	4 x HDMI Female input ports
Output Ports	HDMI Female output ports
Power Supply	DC 12V, 2.5A
ESD Protection	Human Body Model: $\pm 8\text{kV}$ (air-gap discharge) $\pm 4\text{kV}$ (contact discharge)
Dimensions (mm)	115(W) X 270 (D) X 45 (H)
Weight (g)	900
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 (Max)	20W

V. Operation Controls and Functions

Front Panel



- 1. ON/OFF:** Power on/off switch.
- 2. POWER:** This red LED illuminates when the device is connected with power supply.
- 3. IR IN:** Remote control signal receive.

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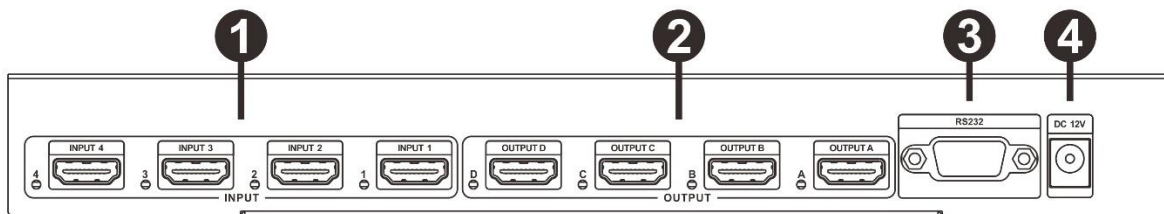
4. OUTPUT A: Press this button to select the input source to HDMI OUTPUT A, and these red LED illuminate when the output select to the corresponding input.

5. OUTPUT B: Press this button to select the input source to HDMI OUTPUT B, and these red LED illuminate when the output select to the corresponding input.

6. OUTPUT C: Press this button to select the input source to HDMI OUTPUT C, and these red LED illuminate when the output select to the corresponding input.

7. OUTPUT D: Press this button to select the input source to HDMI OUTPUT D, and these red LED illuminate when the output select to the corresponding input.

Rear Panel



1. INPUT PORTS: LED1-4 illuminate when the HDMI signal plug in INPUT 1-4 port.

INPUT 1-4 ports are where you connect the HDMI source.

2. OUTPUT PORTS: LED A-D illuminate when the TV plug in OUTPUT A-D ports.

OUTPUT A-D ports are where you connect the HDTV or monitor with HDMI cable

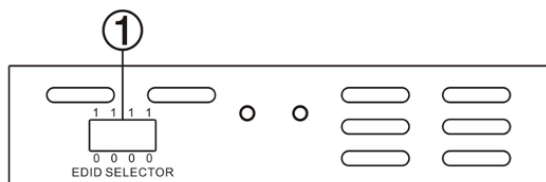
3. RS232: This port can control the matrix via PC.

4. DC 12V: Plug the 12V DC power supply into the unit and connect the adaptor to AC wall outlet.

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Right Panel



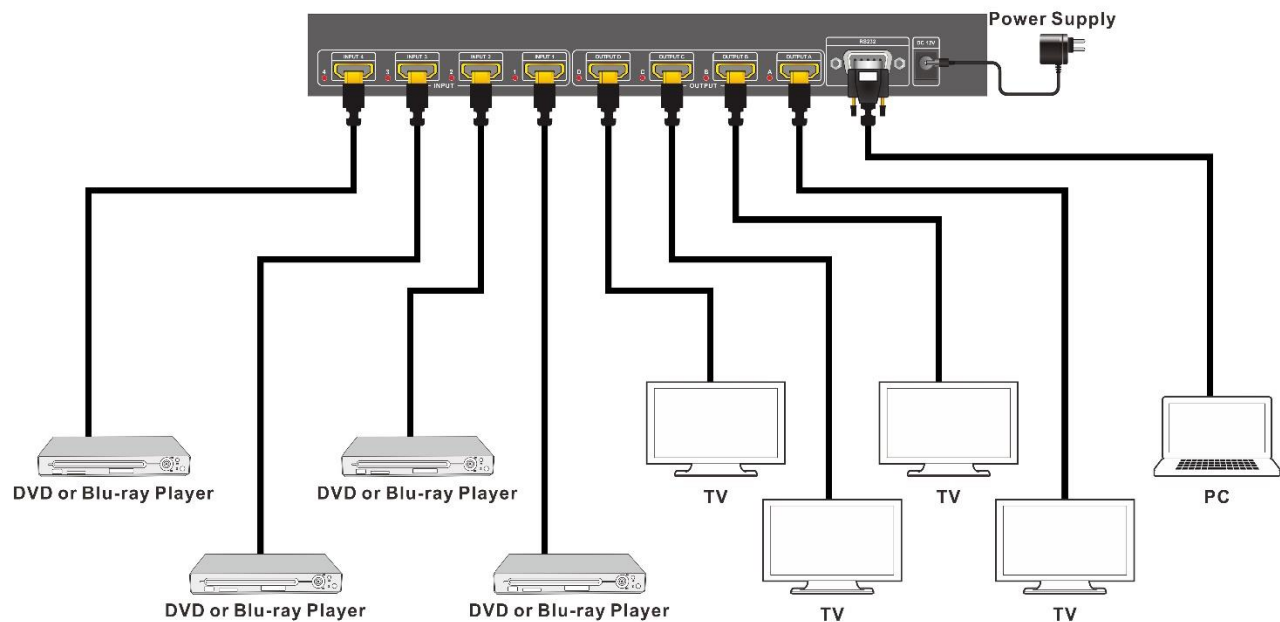
1. EDID Selector: Select HDMI output signal format via EDID Selector.

Number	EDID Selector	Description
1	0000	Auto mode(default)
2	0001	1080I,Stereo Audio 2.0
3	0010	1080I,Dolby/DTS 5.1
4	0011	1080I,HD Audio 7.1
5	0100	1080P,Stereo Audio 2.0
6	0101	1080P,Dolby/DTS 5.1
7	0110	1080P,HD Audio 7.1
8	0111	3D,Stereo Audio 2.0
9	1000	3D,Dolby/DTS 5.1
10	1001	3D,HD Audio 7.1
11	1010	4K2K,Stereo Audio 2.0
12	1011	4K2K,Dolby/DTS 5.1
13	1100	4K2K,HD Audio 7.1
14	1101	1024x768 DVI
15	1110	1920x1080 DVI
16	1111	PC Software control mode

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VI. Application Example



VII. Remote control

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OUT A: Press 1\2\3\4 button will to select input source to HDMI OUT A, and the LED will indicate the corresponding input source.

OUT B: Press 1\2\3\4 button to select input source to HDMI OUT B, and the LED will indicate the corresponding input source.

OUT C: Press 1\2\3\4 button to select input source to HDMI OUT C, and the LED will indicate the corresponding input source.

OUT D: Press 1\2\3\4 button to select input source to HDMI OUT D, and the LED will indicate the corresponding input source.

VIII. Matrix controller user guide

Installation

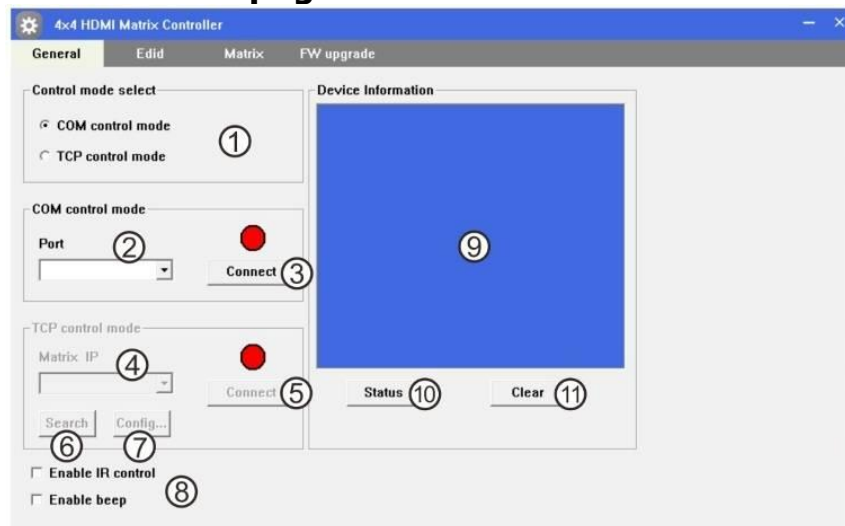
Matrix controller is a green software. Just copy MatrixController.exe to PC which is used to control the Matrix by RS232 COM port or TCP/IP to complete installation.

Preparation

- Connect PC and Matrix by RS232 cable (headers of both sides of cable should be FEMALE) or TCP/IP(local area network)
- Power-up Matrix
- Double click MatirxController.exe icon to run it

How to control Matrix

◆ “General” page



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- ① Select RS232 COM or TCP mode
- ② Select RS232 COM port
- ③ Click to connect or disconnect PC and Matrix
- ④ Select Matrix IP
- ⑤ Connet to Matrix IP
- ⑥ Search Matrix IP
- ⑦ Configure Matrix IP and MAC
- ⑧ Enable or disable IR /beep
- ⑨ Device information display area
- ⑩ Click to refresh device status: include device information displayed in ⑨ area and Input/Output Settings on "Matrix" page

➤ Configure TCP

After action of ⑦ , edit form will pop-up as below:

A screenshot of a 'TCP configuration' dialog box. The dialog has a title bar with 'TCP configuration' and a close button. Inside, there's a 'Device Information' section. It contains two radio buttons: 'Auto IP' (selected) and 'Static IP'. Below these are input fields for 'IP address' (192, 168, 8, 118) and 'MAC' (00, 00, 15, 80, 6A, 90). The IP address and MAC fields are each divided into six boxes. At the bottom are 'OK' and 'Cancel' buttons. Circled numbers 1, 2, and 3 are overlaid on the 'Auto IP' radio button, the first IP address box, and the first MAC address box respectively.

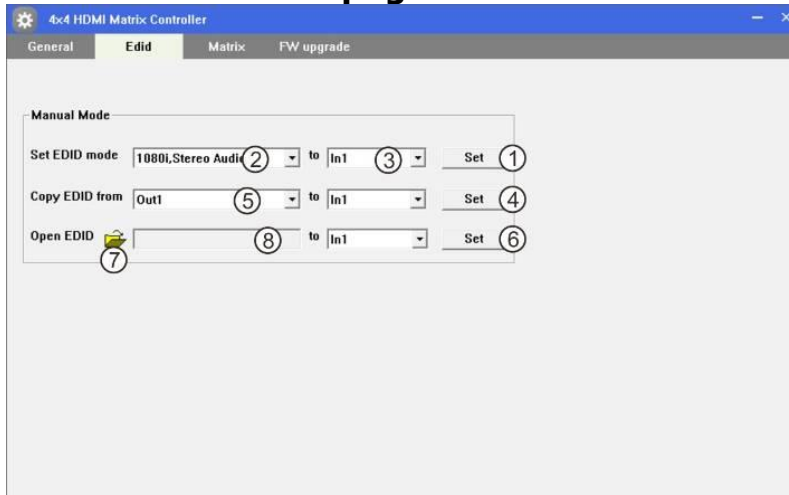
- ① Select auto or static IP
- ② Rewrite the Matrix IP
- ③ Rewrite the Matrix MAC

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◆ “EDID control” page

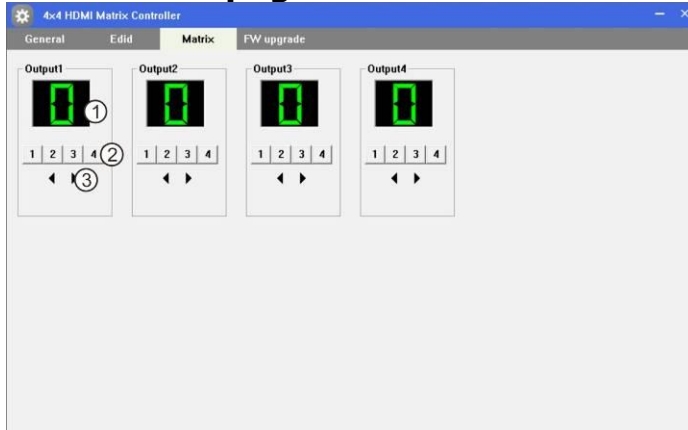


- ① Set EDID mode for selected Input port or All Input ports, click “Set” button to complete action
- ② Select EDID
- ③ Select Input port
- ④ Copy EDID from Output port to selected Input port or All Input ports, click “Set” button to complete action.
- ⑤ Select Output port
- ⑥ Download EDID content to selected Input port or All Input ports, click “Download” button to complete action.
- ⑦ Open EDID binary file
- ⑧ Display EDID binary file path

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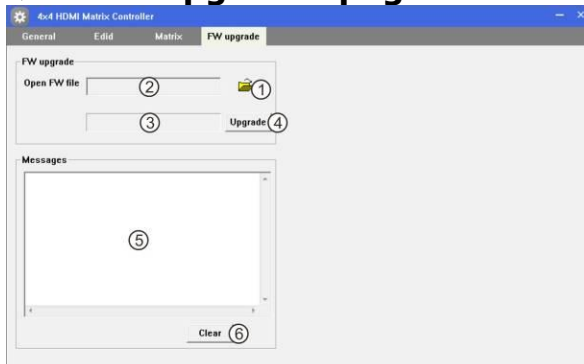
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◆ “Matrix” page



- ① LED which display Input number for respective Output
- ② Click to select Input port for respective Output port
- ③ Click to select previous or next Input port for respective Output port

◆ “FW upgrade” page



- ① Click to open FW file(file extension is “.fw”)
- ② Display the FW file path
- ③ Displaying the progress of the software upgrade
- ④ Click to upgrade the Matrix software
- ⑤ Display the message of the software upgrade
- ⑥ Clear the message of the software upgrade