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HDMI MATRIX

8x8 18Gbps HDMI Matrix with ARC Function AHDMX-V2088A

PRODUCT DESCRIPTION

The 18Gbps 8x8 HDMI Matrix supports the transmission of video (up to 4K2K@60Hz YUV 4:4:4) and multi-channel high resolution digital audio from 8 HDMI sources to 8 HDMI displays. Audio de-embedded to analog and coaxial audio is supported from 8 HDMI output ports. While HDMI output ARC function is enabled, the ARC audio from HDMI display devices will be extracted to coaxial audio output. Each HDMI output of this 8x8 HDMI Matrix supports 4K2K to 1080P downscaler independently. Control is via front panel buttons, IR remote,RS-232, LAN and Web GUI.

PRODUCT KEY FEATURES

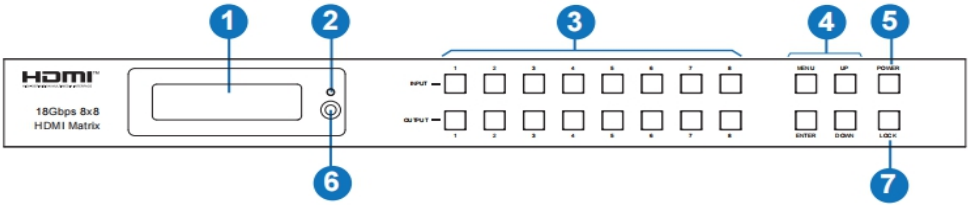
→HDMI 2.0b, HDCP 2.2 and HDCP 1.4 compliant
→Video resolution up to 4K2K@60Hz (YUV 4:4:4) on all HDMI ports
→Support 18Gbps video bandwidth
→Dolby Vision, HDR10+ and HLG are supported.
→Support 4K->1080P Down Scaler for each output port
→HDMI audio pass-through up to 7.1CH HD audio (LPCM, Dolby TrueHD and DTS-HD Master Audio)
→Audio de-embedded is supported via analog and coax ports
→ARC, CEC and smart EDID management are supported
→1U rack mounted design with front panel OLED display
→Control via front panel buttons, IR remote, RS-232, LAN and Web GUI

SPECIFICATIONS

HDMI Compliance.....HDMI 2.0b
HDCP Compliance.....HDCP 2.2 and HDCP 1.4
Video Bandwidth.....18Gbps
Video Resolution.....Up to 4K2K@50/60Hz (4:4:4)
Color Space.....RGB, YCbCr 4:4:4/4:2:2/4:2:0
Color Depth.....8-bit, 10-bit, 12-bit
HDMI Audio Formats (Pass-through).....LPCM 2/5.1/7.1, Dolby Digital, DTS 5.1, Dolby Digital+, Dolby TrueHD, DTS-HD Master Audio, Dolby Atmos, DTS:X
Coax Audio Formats.....LPCM 2.0, Dolby Digital / Plus, DTS 5.1
L/R Audio Formats.....PCM2.0
HDR formats.....HDR10,HDR10+,Dolby Vision, HLG
ESD Protection.....Human-body Model:±8kV (Air-gap discharge) , ±4kV (Contact discharge)
Input Ports.....8×HDMI Type A [19-pin female] 1×IR EXT [3.5mm Stereo Mini-jack]
Output Ports.....8×HDMI Type A [19-pin female] 8×Coax Audio (RCA) 8×L/R Audio [3.5mm Stereo Mini-jack]
Control Ports.....1×TCP/IP [RJ45],1×RS-232 [D-Sub 9]

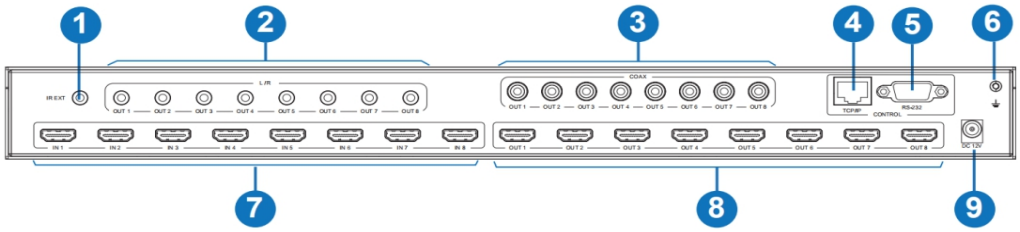
Operation Controls and Functions

Front Panel



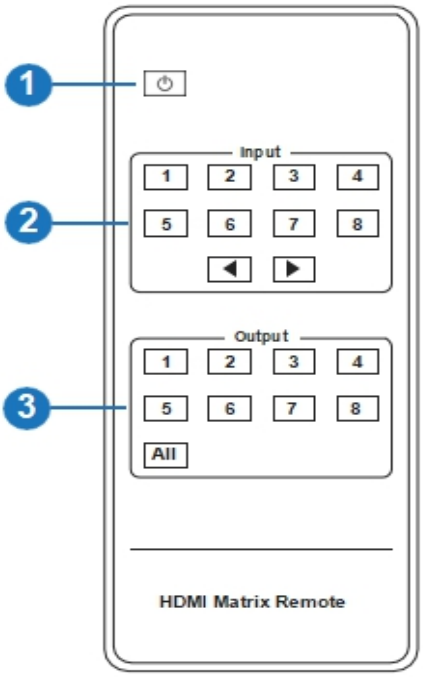
NO.	Name	Function Description
1	OLED screen	Display matrix switching status, input / output port, EDID, Baud rate, IP Address.
2	Power LED	The LED will illuminate in green when the product is connected to power supply, and red when the product is on standby.
3	Input / Output buttons	You need to press an output button (1~8) firstly and then press an input button (1~8) to select the corresponding input source for the output port.
4	MENU / ENTER / UP /DOWN	①**EDID Check:**On the initial OLED display screen, press "MENU" button to enter the Matrix switching state interface, then press "UP/DOWN" button to check the current EDID information of each HDMI input port. ②**EDID setting:** On the initial OLED display screen, press "MENU" button to enter the EDID setting interface, press "UP/DOWN" button to select the required EDID, and press the "ENTER" button. A prompt "copy to input :" will appear. Then press "UP/DOWN" button to select the input port you need to set, and press "ENTER" button again to confirm. ③**Baud rate setting:** On the initial OLED display screen, press "MENU" button to enter the Baud rate interface, and press "UP/DOWN" button to select the required Baud rate, finally press the "ENTER" button to confirm the setting. ④**IP Address Check:** On the initial OLED display screen, press "MENU" button to enter the IP interface, then press "UP/DOWN" button to check the current IP address. Pressing the "MENU" button again will return to the initial OLED display status.
5	POWER button	Long press the POWER button for 3 seconds to enter the standby mode, then short press it to wake up the device.
6	IR Window	IR receiver window, it only receives the IR remote signal from this product.
7	LOCK button	Short press the LOCK button to lock front panel buttons (Except the power button); Press it again to unlock.

Rear Panel



No.	Name	Function Description
1	IR EXT	If the IR receiver window of the unit is blocked or the unit is installed in a closed area out of infrared line of sight, the IR receiver cable can be inserted to the "IR EXT" port to receive the IR remote signal.
2	L/R OUT(1-8)	Analog audio output port, connect to an amplifier or speaker via a 3.5mm audio cable.
3	COAX OUT (1-8)	Coaxial audio output port, connect to audio output device such as audio amplifier via a coaxial cable.
4	TCP/IP port	TCP/IP control port, connect to PC or router with an RJ45 cable.
5	RS-232 port	Connect to a PC or control system by D-Sub 9-pin cable to transmit RS-232 command.
6	GND	Connect the housing to the ground.
7	INPUT ports (1-8)	HDMI input ports , connect to HDMI source device such as DVD or set-top box with an HDMI cable.
8	OUTPUT ports (1-8)	HDMI output ports, connect to HDMI display device such as TV or monitor with an HDMI cable.
9	DC 12V	Connect to 12V/5A power adapter.

IR Remote



① **Power on or Standby:** Power on the Matrix or set it to standby mode.

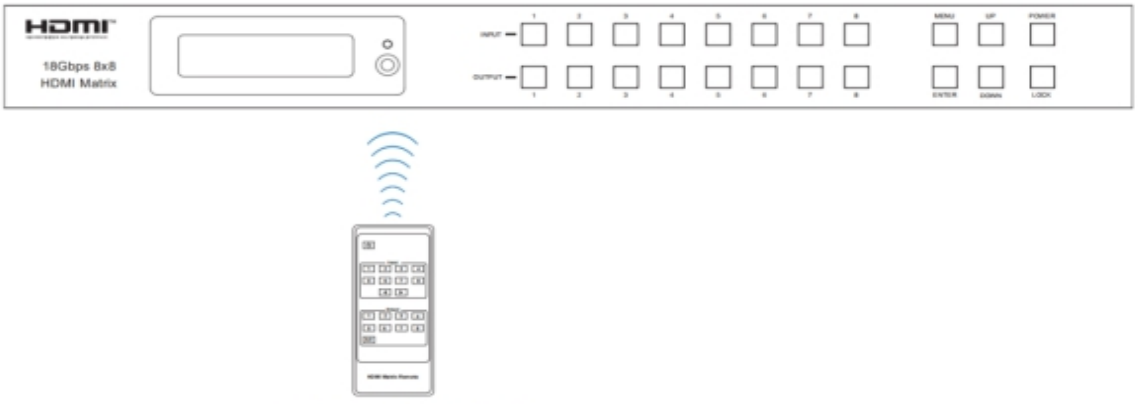
②**Input 1/2/3/4/5/6/7/8:** Select input source button.
◀ ▶ : Select the last or next input source button.

③ **Output 1/2/3/4/5/6/7/8:** Select output source button.
All: Select all output source simultaneously. For example, when you press the "All" button and then press input "1" button, at this time the input "1" source will output to all display devices.

Operation instruction: You need to press the output button firstly and then press input button to select the corresponding input source. For example,
Press Output-X
(X means output button from 1 to 8 , including "All" button)
Then press Input-Y
(Y means input button from 1 to 8)

The Matrix can be selected input and output source by using the IR remote. There are two ways to receive the IR remote signal.

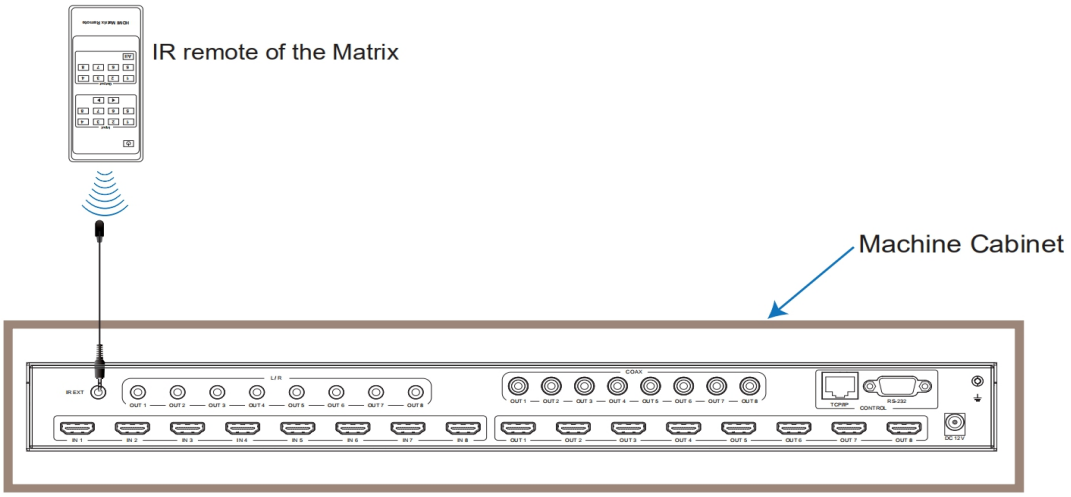
The first way: The IR window accepts the IR remote signal. When using the IR remote, the furthest distance is 7 meters and the angle is ± 45°. The diagram is shown as below:



IR remote of the Matrix

The second way: If the IR receiver window of the Matrix is blocked or the Matrix is installed in a closed area out of infrared line of sight, the IR receiver cable can be inserted to the "IR EXT" port to receive the IR remote signal. The furthest distance of using the IR remote is 7

meters and the IR remote is directly faced to the IR receiver head. The diagram is shown as below.



IR Cable Pin Assignment