



KA234A HDMI V2.0 SEAMLESS MATRIX 8X8 WITH MULTIVIEWER & VIDEO WALL – KAMEHA



Introduction

The 18Gbps 8x8 Seamless Matrix is a perfect solution for video transmission from 8 HDMI sources to 8 HDTV displays. Video resolution is up to 4K@60Hz 4:4:4. Each output supports resolution downscaling individually. It features video wall, multi-view function and built-in WEB server. It also has 8 routes L/R audio output channels to output balanced audio. And seamless switching ensures a smooth picture transition without frame loss. This matrix can be controlled via front panel buttons, IR remote, RS-232 and Web GUI.

Features

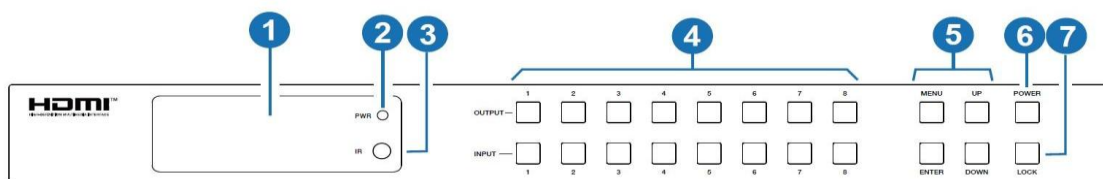
- HDCP 2.2 compliant
- Support video resolution up to 4K@60Hz 4:4:4 and 18Gbps video bandwidth, as specified in HDMI 2.0b
- Support seamless switching
- Support 12 display categories in multi-view mode
- Support 8 route L/R balanced audio output
- Each output supports horizontal mirror and vertical mirror
- Blank screen, blue screen and output off are optional when no signal outputs
- HDMI audio format: LPCM, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio
- Support CEC control, and multiple video resolution output
- Support power-off memory and advanced EDID management
- Control via front panel buttons, IR remote, RS-232, and Web GUI
- Compact design for easy and flexible installation, standard height of 1U

Specifications

Technical			
HDMI Compliance	HDMI 2.0b		
HDCP Compliance	HDCP 2.2		
Video Bandwidth	594MHz/18Gbps		
Video Resolution	Up to 4K@60Hz 4:4:4		
Color Space	RGB, YCbCr 4:4:4 / 4:2:2. YUV 4:2:0		
Color Depth	8/10/12bit		
Audio Formats	HDMI IN/OUT: LPCM, Dolby Digital/Plus/EX, Dolby True HD, Dolby Atmos, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD AUDIO Extracted: Optical Outputs: LPCM 2.0CH/Dolby/DTS 5.1CH Balanced Analog Audio Outputs: LPCM 2CH		
IR Level	5Vp-p		
IR Frequency	Wideband 20K-60KHz		
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) & ±4kV (Contact discharge)		
Connection			
Input ports	8 × HDMI INPUT [Type A, 19-pin female]		
Output ports	8 × HDMI OUTPUT [Type A, 19-pin female] 8 × OPTICAL AUDIO OUT [S/PDIF] 8 × L/R AUDIO OUT [3.5mm, 5pin Phoenix Connector]		
Control ports	1 × TCP/IP [RJ45] 1 × RS-232 [D-Sub 9] 1 × IR EXT [3.5mm, Stereo Mini-jack]		
Mechanical			
Housing	Metal Enclosure		
Color	Black		
Dimensions	440mm [W] × 300mm [D] × 44.5mm [H]		
Weight	3.95kg		
Power Supply	Input: AC 100-240V 50/60Hz, Output: DC 24V/3.75A (US/EU standard, CE/FCC/UL certified)		
Power Consumption	70W (Max)		
Operating Temperature	32 - 104°F / 0 - 40°C		
Storage Temperature	-4 - 140°F / -20 - 60°C		
Relative Humidity	20 - 90% RH (no-condensing)		
Video Resolution	4K60	4K30	1080P60
HDMI Cable Length (HDMI IN / OUT)	5m/16ft	10m/32ft	15m/50ft

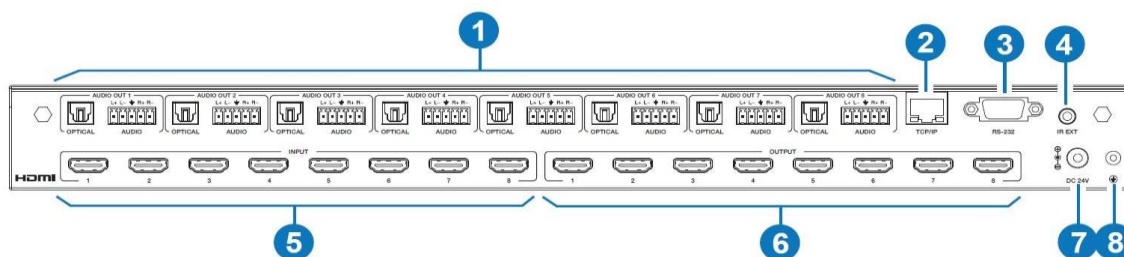
Operation Controls and Functions

Front Panel



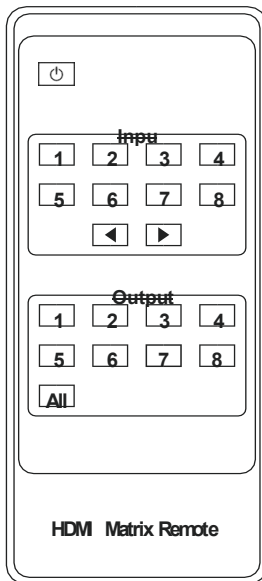
NO.	Name	Function Description
1	OLED screen	Display matrix switching status, input/output port, EDID, baud rate, IP address, etc.
2	PWR LED	The LED is on green when the device is working. The LED is on red when the device is on standby.
3	IR	IR signal receiver, receiving the signal from the IR remote.
4	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.
5	MENU / ENTER / UP / DOWN	<p>Take RESET, for example.</p> <ol style="list-style-type: none"> On the initial OLED display screen, press “MENU” button. There are OUTPUT/ INPUT/EXTAUDIO/SETUP items to be selected. Press the “UP/DOWN” button to select "SETUP" item. Press the “ENTER” button to enter into the next level menu. There are LCD ONTIME/BAUD RATE/IP INFO/REBOOT/RESET items to be selected. Press the “UP/DOWN” button to select "RESET" item. Press the “ENTER” button to confirm the selection. Press the “ENTER” button, and then it will prompt: SUCCESS! <p>Note:</p> <ul style="list-style-type: none"> Pressing the “MENU” button will return to the previous menu. In any level menu, it will return to the initial screen if no operation goes on within 10 seconds.
6	POWER button	Long press the button for 3 second to enter the standby mode, then short press it to wake up the device.
7	LOCK button	Short press the button to lock front panel buttons (Except the power button); press it again to unlock.


Rear Panel





NO.	Name	Function Description
1	AUDIO OUT (1~8)	OPTICAL: Optical audio output port, connected to an audio output device such as audio amplifier.
		L/R AUDIO: Analog audio output port, supporting balanced audio output (with a maximum support of 2Vrms) and unbalanced audio output. Balanced audio connection method: L+, L-, $\frac{1}{2}$, R+, R- Unbalanced audio connection method: L+, $\frac{1}{2}$, R+
2	TCP/IP	TCP/IP control port, connected to a PC or router with CAT cable.
3	RS-232 port	Connect to a PC or control system by D-Sub 9-pin cable to transmit RS-232 commands.
4	IR EXT	IR signal receiving port. 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 connected to the "IR EXT" port to receive the IR remote signal.
5	HDMI INPUT ports (1~8)	HDMI input ports, connected to HDMI source devices such as Blu-ray player or PC with an HDMI cable.
6	HDMI OUTPUT ports (1~8)	HDMI output ports, connected to HDMI display devices such as TV, monitor or projector with an HDMI cable.
7	DC 24V	Connect to 24V/3.75A power supply.
8	GND	Connect the housing to the ground.

IR Remote



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

Input 1/2/3/4/5/6/7/8: Press these buttons to select the input source.

 : Select the last or next input source.

Output 1/2/3/4/5/6/7/8: Press these buttons to select the output display device.

All: Select all output channels simultaneously. For example, when you press the “All” button and then press input “1” button, at this time the input “1” source will be output to all display devices.

Application Example

