



KA266 HDMI MATRIX 16 IN 16 OUT VERSION 2.0 WITH ARC



Introduction

The 18Gbps 16x16 HDMI Matrix supports the transmission of video (resolution up to 4K2K@60Hz YUV 4:4:4) and multi-channel high resolution digital audio from 16 HDMI sources to 16 HDMI displays. Audio de-embedded to coaxial audio is supported from 16 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 16x16 HDMI Matrix supports 4K2K to 1080P downscaler independently. Control via front panel buttons, IR remote, RS-232, LAN and Web GUI.

Features

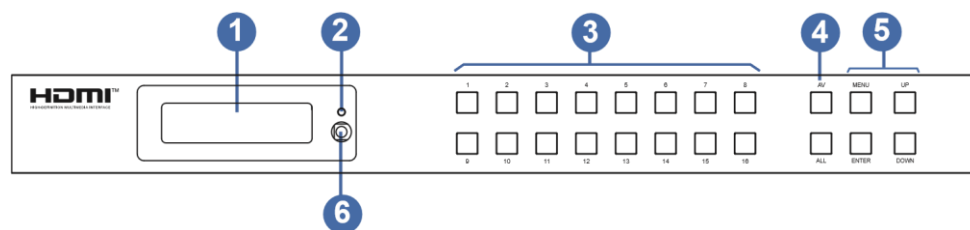
- HDMI 2.0b, HDCP 2.2/1.x and DVI 1.0 compliant
- Video resolution up to 4K2K@60Hz (YUV 4:4:4) on all HDMI ports
- Support 18Gbps video bandwidth
- HDR, HDR10, HDR10+, Dolby Vision and HLG are supported.
- Support 4K->1080P Down Scaler for each output port
- HDMI audio pass-through up to 7.1CH HD audio (LPCM, Dolby TrueHD and DTS-HD Master Audio)
- Audio de-embedded is supported via 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

Technical			
HDMI Compliance	HDMI 2.0b		
HDCP Compliance	HDCP 2.2/1.x		
Video Bandwidth	18Gbps		
Video Resolution	Up to 4K2K@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		
HDR formats	HDR10, HDR10+, Dolby Vision, HLG		
ESD Protection	Human-body Model: ±8kV (Air-gap discharge) , ±4kV (Contact discharge)		
Connection			
Input Ports	16×HDMI Type A [19-pin female]		
Output Ports	16×HDMI Type A [19-pin female] 16×Coax Audio (RCA)		
Control Ports	1×TCP/IP [RJ45] 1×RS-232 [D-Sub 9]		
Mechanical			
Housing	Metal Enclosure		
Color	Black		
Dimensions	440mm (W)×200mm (D)×44mm (H)		
Weight	3.1kg		
Power Supply	Input: AC 100 - 240V 50/60Hz, Output: DC 24V/3.75A (US/EU standard, CE/FCC/ULcertified)		
Power Consumption	76.8W		
Operating Temperature	-10°C ~ 45°C / 14°F ~ 113°F		
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F		
Relative Humidity	20~90% RH (non-condensing)		
Resolution/ Cable length	4K60 – Feet / Meters	4K30 - Feet / Meters	1080P60 - Feet / Meters
HDMI IN / OUT	16ft / 5M	32ft / 10M	50ft / 15M
The use of “Premium High-Speed HDMI” cable is highly recommended.			

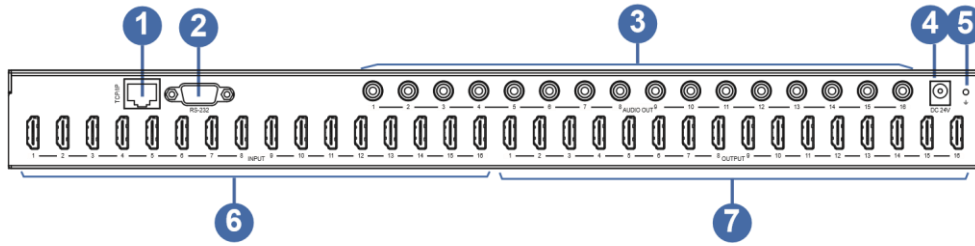
Operation Controls and Functions

Front Panel



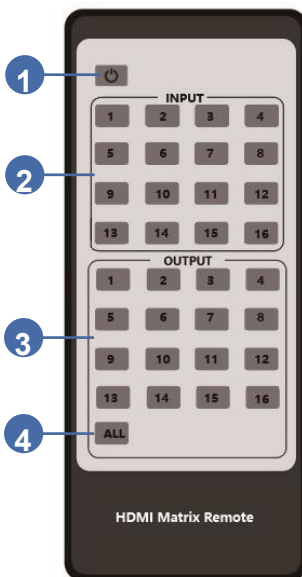
No.	Name	Function Description
1	OLED screen	Display matrix switching status, input / output port, EDID, Baud rate, IP Address.
2	Power LED	The LED will illuminate in green when the product is connected to power supply, and red when the product is on standby.
3	Input / Output buttons	You need to press input button (1~16) firstly, then press the “AV” button, finally press output button (1~16, including “ALL”) to select the corresponding input and output ports.
4	AV/ALL buttons	Input and output ports for the output AV: Used to switch signal source to output port e.g. Pressing “1→AV→3” represents signal source 1 is output to display 3. All: It represents all the output ports. e.g. Pressing “1→AV→ALL” represents signal source 1 is output to all displays.
5	MENU / ENTER / UP / DOWN	<ol style="list-style-type: none"> EDID check: On the initial OLED display screen, press “MENU” button to enter the Matrix switching status interface, then press “UP/DOWN” button to check the switching state of all ports. 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. 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. 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.
6	IR Window	IR receiver window, it only receives the IR remote signal from this product.

Rear Panel



No.	Name	Function Description
1	TCP/IP port	TCP/IP control port, connect to PC or router with an RJ45 cable.
2	RS-232 port	Connect to a PC or control system by D-Sub 9-pin cable to transmit RS-232 command.
3	AUDIO OUT (1-16)	Coaxial audio output port, connect to audio output device such as audio amplifier via a coaxial cable.
4	DC 24V	Connect to 24V power adapter.
5	GND	Connect the housing to the ground.
6	INPUT ports (1-16)	HDMI input ports, connect to HDMI source device such as DVD or set-top box with an HDMI cable.
7	OUTPUT ports (1-16)	HDMI output ports, connect to HDMI display device such as TV or monitor with an HDMI cable.

IR Remote



- Power on or Standby:** Power on the Matrix or set it to standby mode.
- Input 1/2/3/4/5/6/7/8/9/10/11/12/13/14/15/16:** Select input source button.
- Output 1/2/3/4/5/6/7/8/9/10/11/12/13/14/15/16:** Select output source button.
- All:** Select all output sources simultaneously.

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

Operation instruction: You need to press the input button firstly and then press output button. For example, Press Input-Y (Y means input button from 1 to 16) Then press Output-X (X means output button from 1 to 16, including “All” button)

Application Example

