



VLMX-0404

4x4 HDMI 2.0 Matrix with output
4K to 1080p downscaling 18Gbps



User Manual

VER 1.02

Thank you for purchasing this product

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

A surge protection device recommended

This product contains sensitive electrical components that electrical spikes may damage, surges, electric shocks, lightning strikes, etc. The use of surge protection systems is highly recommended to protect and extend the life of your equipment.

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1. Introduction

The 4x4 HDMI Matrix supports video signal transmission (up to 4K2K@60Hz YCbCr 4:4:4) with multichannel digital audio from up to four high-definition sources to up to four HDMI outputs. Each output supports more downscale functionality. It can display the same or different screen on four displays (the user can choose the display screen for any signal source). Also, the product has a distribution mode and switching mode.

2. Features

- ☆ HDCP 2.2 compliant
- ☆ Up to 4K2K@60Hz with 24bit RGB/YCbCr 4:4:4
- ☆ HDR, HDR10, HDR10+, Dolby Vision pass-through
- ☆ Support LPCM 7.1CH, Dolby TrueHD, and DTS-HD Master Audio
- ☆ Support 4K -> 1080P Downscaler
- ☆ Support advanced EDID management
- ☆ Flexible control via panel or IR remote control

3. Package Contents

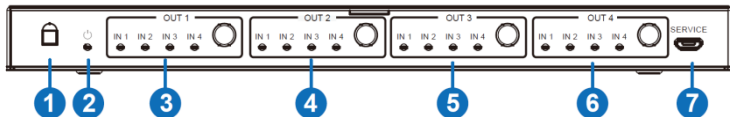
- ① 1× 4×4 HDMI Matrix
- ② 1× 12V/2.5A Power Adapter
- ③ 1× Matrix IR Remote Control
- ④ 1× User Manual
- ⑤ 2× Mounting Ears

4. Specifications

Technical	
HDCP Compliant	HDCP 2.2 / 1.x
Video Bandwidth	594MHz / 18Gbps
Video Resolution	480i ~ 1080p 50/60Hz, 4Kx2K@24/30Hz, 4K2K@60Hz
Color Space	RGB, YCbCr 4:4:4 / 4:2:2. YUV 4:2:0
Color Depth	8-bit, 10-bit, 12-bit (1080p@60Hz) 8-bit (4K2K@60Hz YUV4:4:4) 8-bit, 10-bit, 12-bit (4K2K@60Hz YCbCr 4:2:2 / 4:2:0)
HDMI Audio Formats	LPCM 7.1CH, Dolby TrueHD, and DTS-HD Master Audio
ESD Protection	Human-body Model: ±8kV (Air-gap discharge) , ±4kV (Contact discharge)
Connection	
Inputs	4×HDMI Type A [19-pin female] 1×IR Receiver Window 1×Micro USB
Outputs	4×HDMI Type A [19-pin female]
Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	220mm(W)×205mm(D)×19mm(H)
Weight	535g
Power Supply	Input: AC100~240V 50/60Hz Output: DC 12V/2.5A(US/EU standard, CE/FCC/UL certified)
Power Consumption	11.04W
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-Condensation)

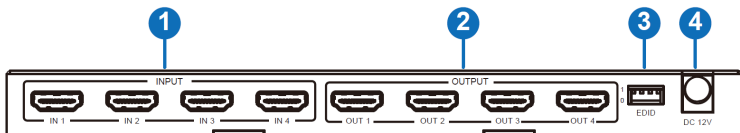
5. Operation Controls and Functions

5.1 Front Panel



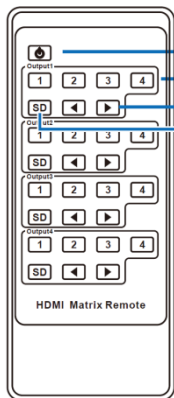
No.	Name	Function Description
1	IR	IR receive window
2	Power LED	The red LED illuminates when the device is working or on standby.
3	OUT 1	Button: Short press to switch the input selected by OUT 1; Long press for 3s to turn on/off the downscale corresponding to OUT 1. LED: When switching to the corresponding input source, the corresponding input LED illuminates green; Otherwise, the LED will not light up.
4	OUT 2	Button: Short press to switch the input selected by OUT 2; Long press for 3s to turn on/off the downscale corresponding to OUT 2. LED: When switching to the corresponding input source, the corresponding input LED illuminates green; Otherwise, the LED will not light up.
5	OUT 3	Button: Short press to switch the input selected by OUT 3; Long press for 3s to turn on/off the downscale corresponding to OUT 3. LED: When switching to the corresponding input source, the corresponding input LED illuminates green; Otherwise, the LED will not light up.
6	OUT 4	Button: Short press to switch the input selected by OUT 4; Long press for 3s to turn on/off the downscale corresponding to OUT 4. LED: When switching to the corresponding input source, the corresponding input LED illuminates green; Otherwise, the LED will not light up.
7	SERVICE	Connect to PC via Micro to USB cable for firmware upgrade.

5.2 Rear Panel



No.	Name	Function Description
1	INPUT	Connect to HDMI source devices such as DVD player or PC.
2	OUTPUT	Connect to HDMI display devices such as TV or Projector.
3	EDID	EDID SWITCH control. 0000 1080P, Stereo Audio 2.0 0001 1080P, Dolby/DTS 5.1 0010 1080P, HD Audio 7.1 0011 4K2K30_444, Stereo Audio 2.0 0100 4K2K30_444, Dolby/DTS 5.1 0101 4K2K30_444, HD Audio 7.1 0110 4K2K60_444, Stereo Audio 2.0 SDR 0111 4K2K60_444, Dolby/DTS 5.1 SDR 1000 4K2K60_444, HD Audio 7.1 SDR 1001 4K2K60_444, Stereo Audio 2.0 HDR 1010 4K2K60_444, Dolby/DTS 5.1 HDR 1011 4K2K60_444, HD Audio 7.1 HDR 1100 COPY OUTPUT 1 1101 COPY OUTPUT 2 1110 COPY OUTPUT 3 1111 COPY OUTPUT 4
4	DC 12V	DC 12V power supply interface.

6. Remote Control



- ① Power button: Press this button to power on the device or put it into standby mode.
- ② 1/2/3/4: Press buttons 1~4 to select the required source for Output1.
- ③ ◀ ▶ : Select the last or next input channel among 1/2/3/4, to select the required source for Output1.
- ④ SD: Press this button to turn on / off the downscale function.

The corresponding button function of Output2/
Output3/Output4 is the same as that of Output1.

7. Application Example

