

4K 2x2 Vertical & Horizontal TV Wall Controller

Specification & User Guide

Model: LM-TV04HP



or



Product Type	4K TV wall controller for 2-4 display splicing and rotation
Interfaces	2 x HDMI inputs, 4 x HDMI outputs, 1 x 3.5 mm audio output

1. Product Overview

This 4K TV wall controller supports HDMI input up to 4K@60Hz 4:4:4 and HDCP 2.2. It can route either HDMI input to four HDMI outputs and provides quick switching between multiple splicing modes through the IR remote control and front panel buttons.

The unit is designed for 2-screen to 4-screen display splicing and supports both landscape and portrait installation. With image rotation, masking, and stable four-screen display, it is well suited for home entertainment, offices, digital signage, control rooms, classrooms, conference rooms, and other AV applications.

2. Key Features

- 2 x HDMI inputs with automatic input recognition and switching.
- Supports HDMI input up to 4K@60Hz 4:4:4 and HDCP 2.2.
- Maximum output resolution up to 1920x1200@60Hz or 1920x1080@60Hz with automatic display adaptation.
- Supports 0 degrees, 90 degrees, 180 degrees, and 270 degrees image rotation for each output, helpful when displays are mounted in different orientations.
- Provides 3.5 mm stereo audio output.
- Supports bezel compensation / edge masking adjustment for a more natural video wall presentation.
- Supports higher-resolution splicing combinations within a 4-screen system, such as 1x4 at 7680x1080@60Hz and 4x1 at 1920x4320@60Hz.
- Supports quick splicing mode switching from the front panel or remote control.
- Supports IR remote control and front-panel button operation.

3. Technical Specifications

Item	Specification
Video input	HDMI 1-2, up to 4K@60Hz RGB 4:4:4, backward compatible
Video output	HDMI 1-4, supports 1920x1200@60Hz and 1080P output, auto-adaptive to connected displays, backward compatible
Audio output	3.5 mm audio output, stereo left/right channels, switches in sync with AV signal
Power supply	DC 12V 2A
Power consumption	9 W
Splicing modes	Simple 4-screen splicing control; supports 1x1, 1x2, 1x3, 1x4, 2x1, 2x2, 3x1, and 4x1 modes
Control methods	IR remote control and front-panel buttons
Unit weight	0.5 kg
Product dimensions	212.6 x 100 x 26 mm
Packed weight	0.8 kg

Packed dimensions	270 x 236 x 81 mm
Packing list	1 x Main unit, 1 x Power adapter, 1 x IR remote control, 2 x Mounting ears

4. Front Panel Buttons and Indicators

The front panel includes status indicators for power, active HDMI input, and splicing mode, plus dedicated shortcut buttons for mode selection, rotation, and splicing control.



Label	Function
IR	IR remote receiver
ON	Power-on status indicator
HDMI 1	HDMI 1 input indicator
2x2	2 x 2 splicing mode indicator
1x1	1 x 1 splicing mode indicator
1x2	1 x 2 splicing mode indicator
2x1	2 x 1 splicing mode indicator
OFF	Standby indicator
HDMI 2	HDMI 2 input indicator
1x3	1 x 3 splicing mode indicator
3x1	3 x 1 splicing mode indicator
1x4	1 x 4 splicing mode indicator
4x1	4 x 1 splicing mode indicator
1x3	Shortcut key for 1 x 3 splicing mode
1x4	Shortcut key for 1 x 4 splicing mode
2x2	Shortcut key for 2 x 2 splicing mode
ROTATE	Rotates output image through 0 / 90 / 180 / 270 degrees
SPLICING	Turns splicing mode on or off

5. Rear Panel Ports



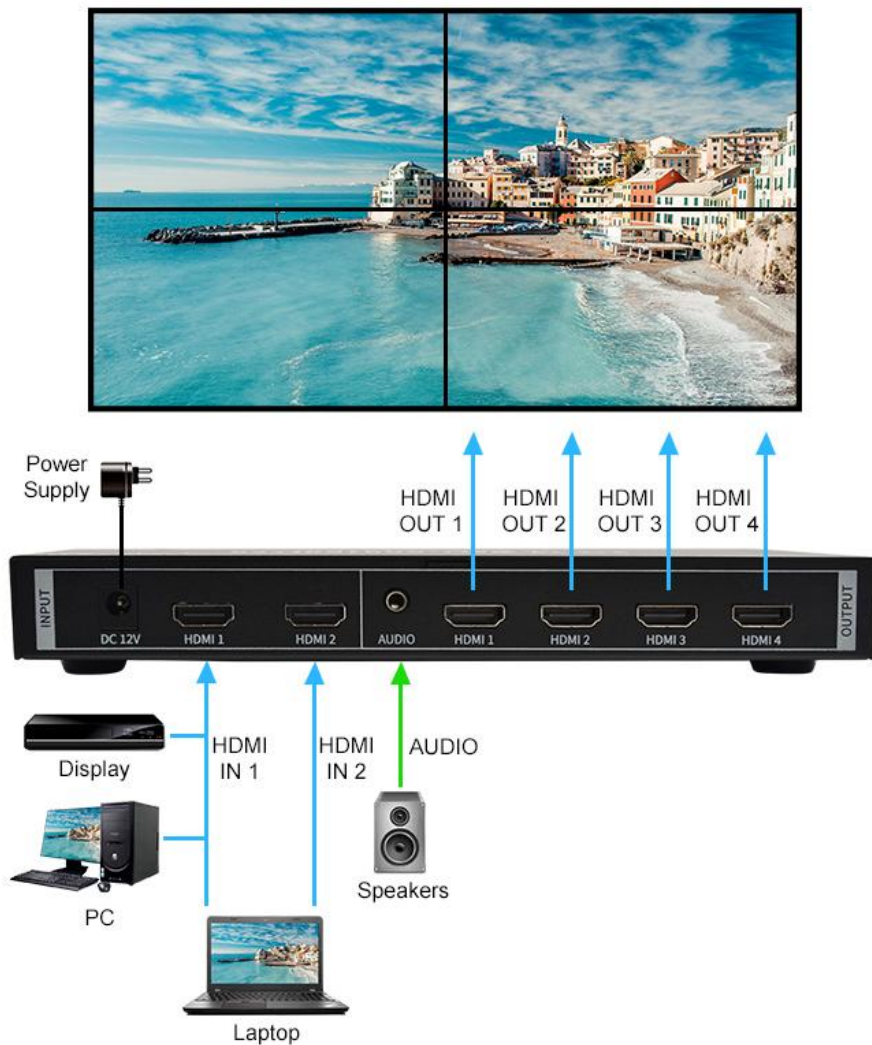
Port	Description
DC 12V	12 V DC power input
HDMI 1	HDMI input 1
HDMI 2	HDMI input 2
AUDIO	3.5 mm audio output
HDMI 1-4	HDMI outputs 1 to 4

6. Remote Control Functions



Button	Function
OFF / ON	Standby / power on
HDMI 1 / HDMI 2	Select HDMI input channel 1 or 2
USB	Reserved / not used
RESET	Restore the unit
VOL- / VOL+	Decrease / increase audio volume
MUTE	Mute audio output
INFO	Information
SPLICING	Enable or disable splicing mode
INPUT	Input source selection
MENU / EXIT / OK	Menu navigation and confirmation
1x1 / 1x2 / 1x3	Select corresponding splicing mode
2x1 / 2x2 / 3x1	Select corresponding splicing mode
1x4 / 4x1	Select corresponding splicing mode
ROT 1 / ROT 2 / ROT 3 / ROT 4	Rotate the image for output 1 / 2 / 3 / 4

7. Connection Diagram



8. Basic Connection Guide

- Connect the included 12 V power adapter to the DC 12V input.
- Connect one or two HDMI source devices to HDMI IN 1 and HDMI IN 2.
- Connect up to four displays or HDMI OUT 1-4.
- If external audio is required, connect an audio device to the 3.5 mm AUDIO output.
- Power on the controller and the connected displays.
- Select the desired input source and splicing mode using the front panel or remote control.
- If the displays are installed vertically or upside down, use the ROTATE function to adjust the image orientation for each output.

9. Notes

- Use high-quality HDMI cables to ensure stable 4K signal transmission.
- For best results, use displays with the same panel size, resolution, and bezel width.

- When building a video wall, confirm the output rotation and splicing mode carefully before final installation.
- If the image does not display correctly, check the active input source, cable connection, and display compatibility, then reset the unit if necessary.

10. Supported Splicing Modes

① Landscape splicing modes



2x2



2x1



3x1



4x1



1x2



1x3



1x4

② Portrait splicing modes



1x2



2x2

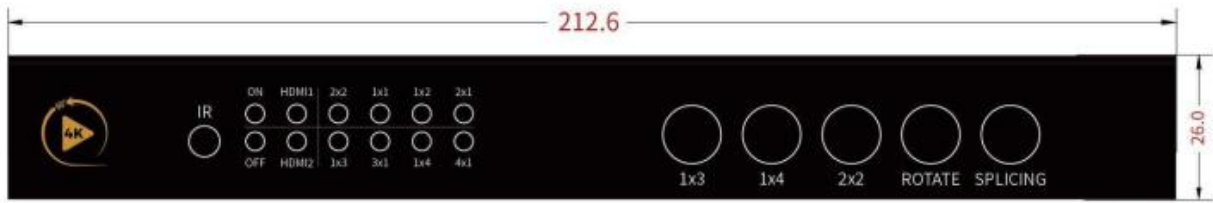


1x3



1x4

11. Product Dimensions



12. Product Appearance

