LENKENG LKV422 4×2 HDMI Matrix Switch User Manual

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Contents

Important Safety Instructions

1. To prevent electric shock, please ensure that all devices are properly grounded.

2. Do not place this device near or over a radiator or heat register, or where it is exposed to direct sunlight.

3. Place the device in a well-ventilated area, do not block any ventilation openings.

4. Do not expose this device to rain or place it near water. Any liquid that goes into the device may cause a failure, fire, or electric shock.

5. Do not place the device on an uneven or unstable surface. The device may fall resulting in a malfunction.

6. Never insert anything metallic into the open parts of this device. This may cause a danger of electric shock.

7. The device should be repaired only by a qualified technician.

8. If a third-party power supply is used, please ensure that the power supply specifications meet the product requirements
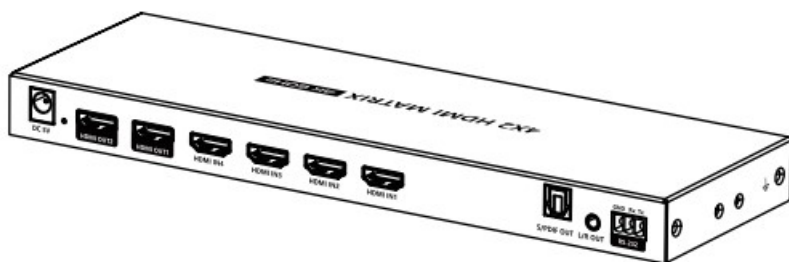
Introduction

This is a 4-in 2-out HDMI matrix switch, which can switch 4 HDMI input signals to 2 HDMI displays as required. It supports up to 4096×2160@60Hz HDR resolution, with multiple switching methods (IR remote control, buttons, RS-232) to flexibly match input and output devices. HDMI outputs supportauto down-scaling. Additional audio output is supported through the S/PDIF port and stereo jack. This device is a reliable, ultra-high-definition video transmission solution widely used in security monitoring, education and training, exhibition and broadcasting, command center, and other scenarios.
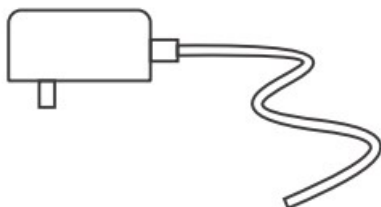
Features

1. Support 4 HDMI input and 2 HDMI output

2. Support up to 4096×2160@60Hz resolution and is backward compatible

3. Support HDR10

4. Support multiple switching mode: IR remote control, buttons, RS-232

5. Support additional audio output from stereo jack and S/PDIF port

6. HDMI outputs support auto down-scaling

7. Lightning protection, surge protection, ESD protection
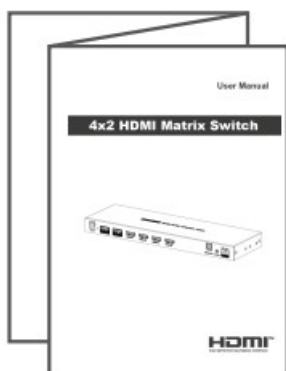
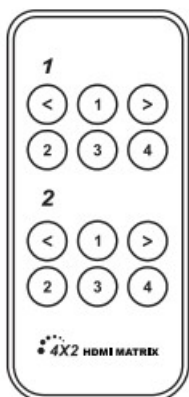## Package Contents

- Matrix switch x1
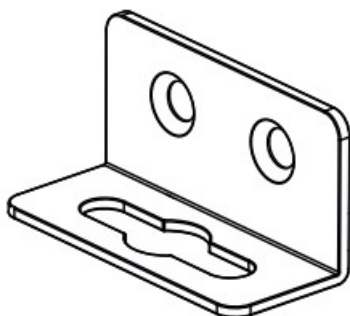
- Power adapter 5V/1A x1

- User manual x1

- Remote control x1

- Mounting ear x2

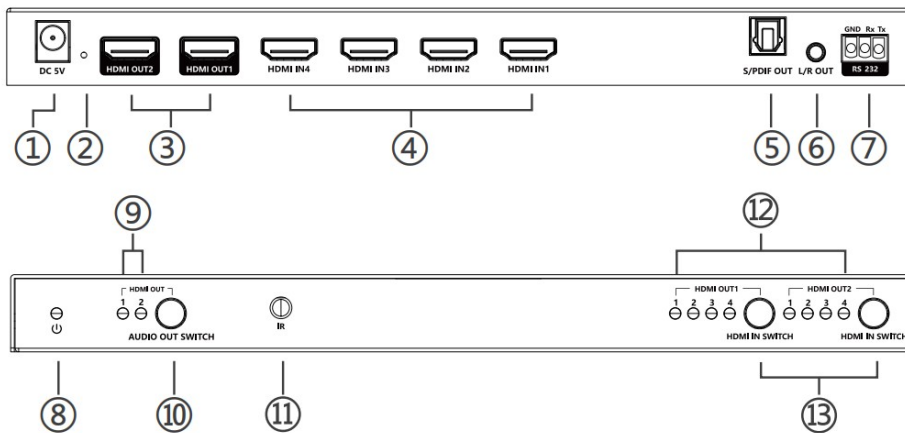- Screw x6

- Grounding screw x2

- Terminal block x1

Installation Requirements

1. HDMI source device (DVD, game console, PC, etc.)
2. HDMI display device (TV, projector, LED screen, etc.)

Panel Description

①	Power input	Connect with DC 5V/1A power adapter
②	Reset pinhole	Press the pinhole reset button with a straightened paper clip
③	HDMI output 1,2	Connect with HDMI display devices
④	HDMI input 1,2,3,4	Connect with HDMI source devices
⑤	S/PDIF out	Connect to the audio device with optical audio cable
⑥	3.5mm L/R out	Connect to the audio device with stereo audio cable
⑦	RS-232	Used for RS-232 command control
⑧	Power indicator	The indicator will be solid yellow if there is power
⑨	Audio output indicator 1,2	Corresponding to the audio output of HDMI 1, 2
⑩	Audio switch	Audio output can be switched between HDMI 1, 2
11	IR window	Receive IR signal

12	HDMI input indicator 1,2,3,4	Corresponding to HDMI inputs 1,2,3,4
13	HDMI outputswitch 1,2	Choose an output from HDMI inputs 1,2,3,4

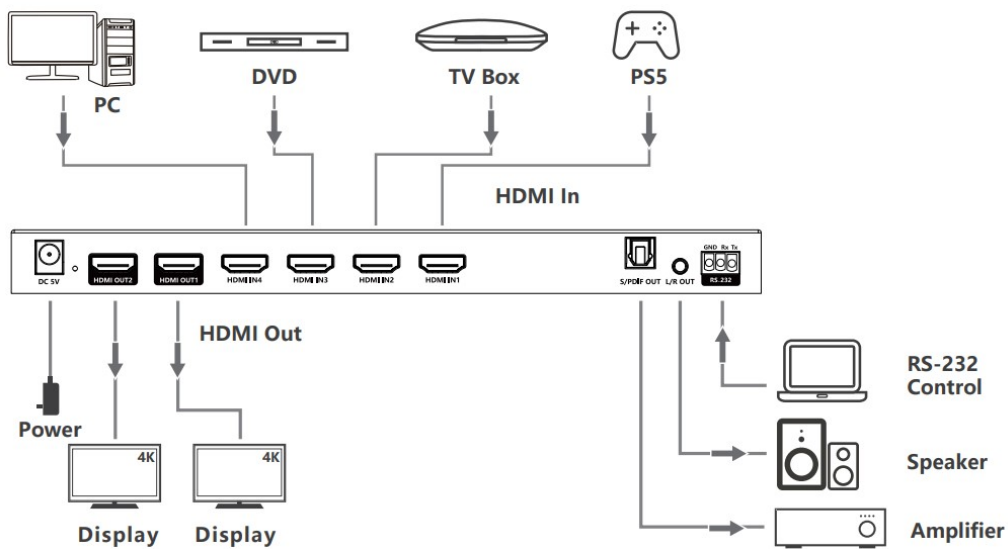**Remote Control**
The remote control is used to switch inputs and outputs.

Installation Procedures

1. Connection Diagrams

2. Connection Instructions

   1. Connect the source devices to the HDMI input ports with HDMI cables.
   2. Connect the display devices to the HDMI output ports with HDMI cables.
   3. If using RS-232 control, connect the control device to the RS-232 port.
   4. If you need to output audio additionally, connect the audio device to the L/R port and/or S/PDIF port with stereo or optical audio cable.
   5. Power on the devices to get started.

3. RS-232 control

- Baud rate: 9600
- Data bits: 8
- Stop bits:
- Parity: none

Operation mode one	/	HDMI1input	HDMI2input	HDMI3input	HDMI4input
	HDMI1output	PS11R	PS12R	PS13R	PS14R
	HDMI2output	PS21R	PS22R	PS23R	PS24R
	HDMI1/2output	PA1R	PA2R	PA3R	PA4R

Operation mode two	PAPXPXPA is the command prefix, and the "X" of PX can be any number from 1 to 4; P1 represents HDMI 1 source content for output, P2 represents HDMI 2 source content for output.E.g. PAP3P1 represents:Output port HDMI 1 outputs content from input port HDMI 3. Output port HDMI 2 outputs content from input port HDMI 1.
Return value	PAXXR is the command to read the status of all interfaces; after sending the command, OKPXPX is displayed, where X is 1 to 4; if the command sent is incorrect, ERR appears.
Reset	Device restart
Recover	Restore device factory setting
BaudXX	Set baud rate value: 9600 (default), 19200

FAQ

Q: No video or audio signal output on the displays?
A

1. Make sure the matrix switch is powered on and all the cables are connected properly.
2. Please check and make sure the input channel of displays are correct.

Q: Picture quality is not fluent and stable?
A

1. Please check and make sure all HDMI cables are connected firmly.
2. Try to connect the source device to display device directly, or change to another source device for a try to see the picture quality if is improved.
3. Please use high quality HDMI cable for 4K signal.

Specification

Items	Description
HDMI version	HDMI 2.0 HDR, YUV444
	Compatible with HDCP 2.2, HDCP 1.4
HDMI interface	4 HDMI input, 2 HDMI output
Transmission rate	18Gbps
Resolutions	480i@60Hz, 480p@60Hz, 576i@50Hz, 576p@50Hz,720p@50/60Hz, 1080i@50/60Hz, 1080p@50/60Hz,3840×2160@24/25/30/50/60Hz,4096×2160@24/25/30/50/60Hz

Audio format	LPCM7.1/DTS-HD/DTS-Audio/Dolby Digital plus/ Dolby TrueHD 7.1/Dolby Digital 7.1CH/Dolby Atmos
RS-232	3 Pin (GND/Rx/Tx), Baud rate 9600
Voltage	DC 5V/1A
Power consumption	4W
Working temperature	-20℃~60℃
Storage temperature	-30℃~70℃
Humidity	0~90%RH (No Condensation)
Housing	Iron
Color	Black
Weight	375g
Dimensions	250.0(L) x 80.0(W) x 21.0(H) mm
Protection	ESD protection1a Contact discharge level 2 (±4KV) 1b Air discharge level 3 (±8KV)Implementation of the standard: IEC61000-4-2
	Lightning protection, Surge protection

Disclaimer

Documents / Resources

| | **LENKENG LKV422 4x2 HDMI Matrix Switch** [pdf] User Manual
LKV422 4x2 HDMI Matrix Switch, LKV422, 4x2 HDMI Matrix Switch, HDMI Matrix Switch, Matrix Switch, Switch |