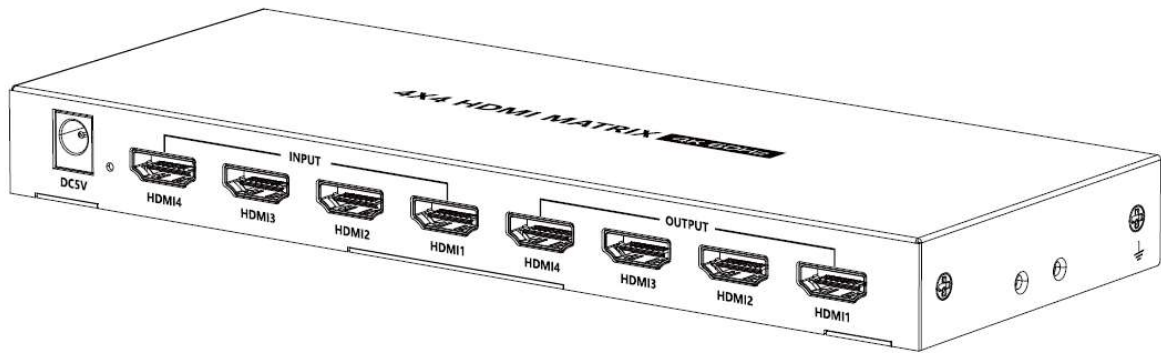# User Manual

14.99.3593

VALUE HDMI 4x4 Matrix Switch, 4K60Hz

Important Safety Instructions

1) To prevent electric shock, please ensure that the device is 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 and 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) 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 4 out HDMI matrix switch, which switch 4 HDMI input signals to 4 HDMI displays. It supports up to 4096x2160@60Hz HDR UHD resolution, and a variety of switching methods (IR remote cotrol, buttons and RS232), flexibly matching input and output devices. Any two of the four HDMI outputs support auto down-scaling. This is a reliable, ultra-high-definition video transmission solution, which is widely used in security monitoring, education and training, exhibition and broadcasting, command center and other applications.
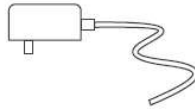
Features

1. Supports 4 HDMI input signals and 4 HDMI output signals.
2. Up to 4096x2160@60Hz resolution, backward compatible
3. HDR10
4. Supports multiple switching modes: IR remote control, buttons, RS232.
5. Setting the EDID of the product is possible.
6. Any two of the four HDMI outputs support auto down-scaling.
7. Lightning protection, surge protection, ESD protection
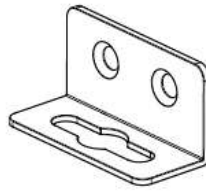
Package Contents

Matrix Switch x1

Power adapter x1

User manual x1

Remote Control x1

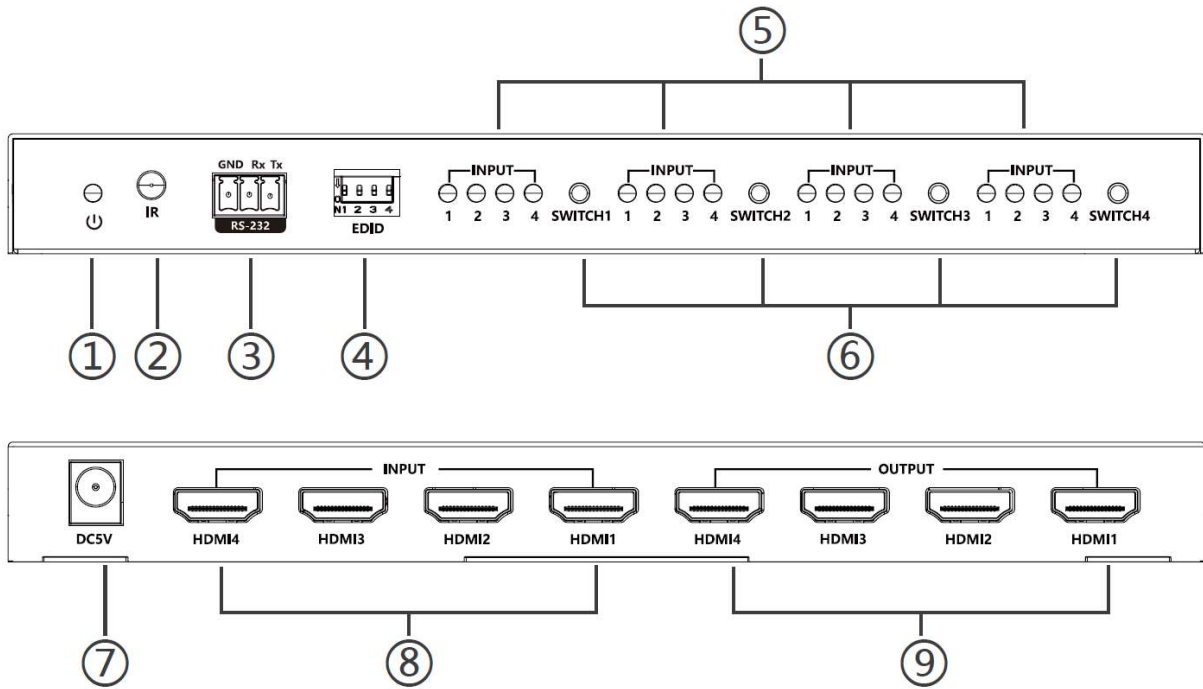Mounting ear x2

Screw x6

Grounding Screw x2

Terminal block x1

Installation Requirements

1. Source device: signal source with HDMI output interface, such as PS4, TV box, PC, etc.
2. Display device: 4K or 1080P display device with HDMI input interface, such as TV or projector.
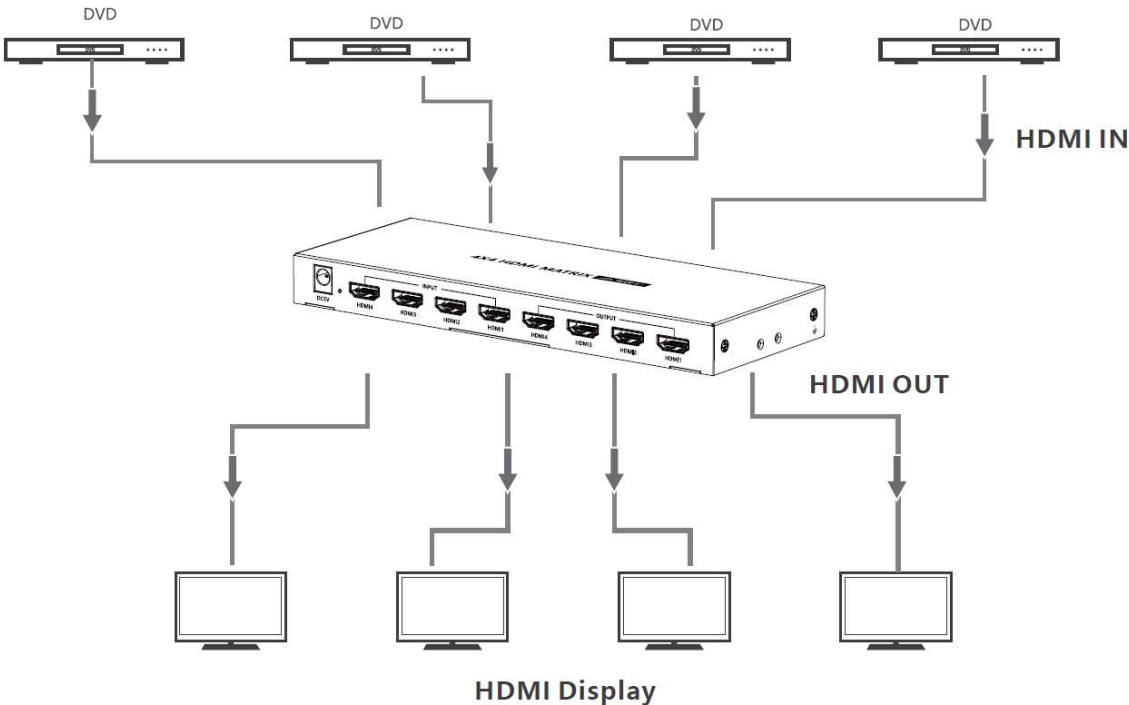
Panel Description

1	Power indicator	Indicates if the device is powered.
2	IR receiving window	Receives IR signal
3	RS-232	Used for RS-232 command control
4	EDID DIP	Switches output display resolution
5	HDMI input indicator 1,2,3,4	Corresponding to HDMI input 1,2,3,4 respectively
6	HDMI output Switch 1,2,3,4	Control the switching of HDMI output 1,2,3,4 respectively
7	DC5V	Connect with DC5V/1A power adapter
8	HDMI input 1,2,3,4	Connect with HDMI source device
9	HDMI output 1,2,3,4	Connect with HDMI display device

Remote Control

The remote control is just used for switching of inputs and outputs.

Installation

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) Power on the devices to get started.

3. RS-232 control

Baud rate: 9600
Data bits: 8
Stop character: 1
Parity: none

	/	HDMI1 input	HDMI2 input	HDMI3 input	HDMI4 input
Operation mode one	HDMI1 output	PS11R	PS12R	PS13R	PS14R
	HDMI2 output	PS21R	PS22R	PS23R	PS24R
	HDMI3 output	PS31R	PS32R	PS33R	PS34R
	HDMI4 output	PS41R	PS42R	PS43R	PS44R
	HDMI1/2/3/4 output	PA1R	PA2R	PA3R	PA4R

| Operation mode two |

	Content for output port HDMI 4
	Content for output port HDMI 3
	Content for output port HDMI 2
	Content for output port HDMI 1

PA 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, and so on to P4.
E.g. PAP3P1P4P2 represents:
Output port HDMI 1 outputs content from input port HDMI 3
Output port HDMI 2 outputs content from input port HDMI 1
Output port HDMI 3 outputs content from input port HDMI 4
Output port HDMI 4 outputs content from input port HDMI 2 |

Return value	PAXXXR is the command to read the status of all interfaces. After sending the command, OKPXPXPXPX is displayed, where X is 1 to 4. If the sent command is incorrect, ERR is shown.
Reset	Device restart
Recover	Restore device factory settings
BaudXX	Set baud rate value: 9600 (default), 19200

4. EDID settings

The product has 16 built-in EDID states that can be set via the DIP switch to change the output resolution. The DIP switch upwards means "1" and downwards means "0".

DIP switch status				Resolution
1	**2**	**3**	**4**	
0	0	0	0	4K@60Hz 2CH
1	0	0	0	4K@60Hz 5.1CH
0	1	0	0	4K@60Hz 7.1CH
0	0	1	0	4K@60Hz HDR 7.1CH
0	0	0	1	4K@30Hz 2CH
1	1	0	0	4K@30Hz 5.1CH
1	0	1	0	4K@30Hz 7.1CH
1	0	0	1	4K@30Hz HDR 7.1CH
0	1	1	0	1080p@60Hz 2CH
0	1	0	1	1080p@60Hz 5.1CH
0	0	1	1	1080p@60Hz 7.1CH
1	1	1	0	1080i@60Hz 2CH
1	1	0	1	1080i@60Hz 5.1CH
1	0	1	1	1080i@60Hz 7.1CH
0	1	1	1	1080p@60Hz HDR 7.1CH
1	1	1	1	1) Reads only the EDID that was first connected to the output. 2) Connect 4 outputs simultaneously, onlys read the EDID of HDMI 1 output.

FAQ

Q: The displays show no video or audio signal
A:
1) Please check and make sure that the matrix switch is connected well and powered on.
2) Please check and make sure that all HDMI cables are connected well.
3) Please check and make sure that the input channels of the displays are correct.

Q: The picture quality is not stable
A:
1) Please check and make sure that all HDMI cables are connected well.
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.
3) Please use a high-quality HDMI cable if you are inputting an HDMI 4K signal.

Specification

Item	Description
HDMI version	HDMI 2.0 (HDR; YUV4:4:4)
	Compatible with HDCP2.2, HDCP1.4
HDMI interface	4 HDMI inputs, 4 HDMI outputs
Transmission rate	18Gbps
Bandwidth	600Mhz
Resolution	480i@60Hz, 480p@60Hz, 576i@50Hz, 576p@50Hz, 720p@50/60Hz, 1080i@50/60Hz, 1080p@50/60Hz,3840×2160@24/25/30/60Hz, 4096×2160@24/25/30/60Hz
Audio format	LPCM7.1/DTS-HD/DTS-Audio/Dolby TrueHD 7.1/Dolby Digital 7.1CH/Dolby Atmos
RS-232	3 Pin(GND/Rx/Tx), Baud rate 9600
Voltage	DC5V/1A
Power consumption	< 4W
Working temperature	-20℃ ~ 60℃
Storage temperature	-30℃ ~ 70℃
Humidity	0 ~ 90% RH (No Condensation)
Housing	Iron
Color	Black
Weight	375g
Protection	ESD protection 1a Contact discharge level 2 (±4KV) 1b Air discharge level 3 (±8KV) Implementation of the standard: IEC61000-4-2
	Lightning protection, Surge protection