



18Gbps 4K@60Hz 4X4 HDMI Matrix

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USER MANUAL

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Thank you for purchasing this product

For optimum performance and safety, please read these instructions care-fully before connecting, operating or adjusting this product. Please keep this manual for future reference.

Surge protection device recommended

This product contains sensitive UHD-404R components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

Registration page

Please Activate your warranty by registering our product through the link below - www.orei.com/register

Technical Support

Need Help?

Our experienced Technical Support Team is here for you to answer your questions, give technical advice or help troubleshoot your project to get you installed on time and on budget. Call, email or chat with us now.

OREI Live Technical Support Hours

US team (US/Canada/Mexico): Monday-Friday, 9 a.m. - 6 p.m. Central Time

Support Email - info@orei.com | **Support Number** - 877-290-5530

Or

Chat Live on www.orei.com

Send us an instant message now. Our Technical Support Team will respond momentarily. Available during live support hours.

Introduction

This is a 4 in 4 out HDMI matrix switch, it can 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 control, buttons and RS232) flexibly match input and output devices; Any two of the four HDMI outputs support Auto Down-scaling. This unit 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 scenarios.



Features

1. Support 4 HDMI input signals and 4 HDMI output signals.
2. Support up to 4096x2160@60Hz resolution and is backward compatible.
3. Support HDR10.
4. Support multiple switching mode: IR remote control, buttons, RS232.
5. Support setting the EDID of the product.
6. Any two of the four HDMI outputs support Auto Down-scaling.
7. Lightning protection, surge protection, ESD protection.

Package Contents

- 1 x Matrix Switch
- 1 x Power Adapter 5V/1A
- 1 x User Manual
- 1 x Remote Control
- 1 x Mounting Ear
- 6 x Screw
- 2 x Grounding Screw
- 1 x Terminal block

Function setting

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	<p>PAPXPXPXPX</p>				

Function setting

Function setting

Operation mode two	<p>PAPXPXPX 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</p>
Return value	<p>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 command sent is incorrect, ERR appears.</p>
Reset	Device restart
Recover	Restore device factory setting
BaudXX	Set baud rate value: 9600 (default), 19200

EDID settings

The product has 16 built-in EDID states, which can be set to switch the output resolution through the DIP switch. The DIP switch up means "1" and down means "0".

DIP switch status				Resolution information
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

Function setting

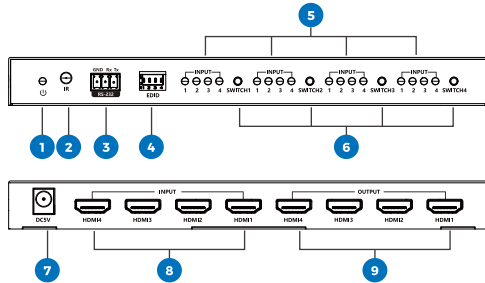
0	1	0	1	1080p@60Hz 5.1CH
0	0	1	1	1080p@60Hz 7.1CH
1	1	1	0	1080i@60Hz 2CH
1	1	0	1	1080i@60Hz 5.1CH
1	0	1	1	1080i@60Hz 7.1CH
0	1	1	1	1080p@60Hz HDR 7.1CH
1	1	1	1	1) Read only the EDID that was first connected to the output 2) Connect 4 outputs at the same time, only read the EDID of HDMI 1 output

Specifications

Items	Description
HDMI version	HDMI2.0 (HDR, YUV4:4:4)
	Compatible with HDCP2.2, HDCP1.4
HDMI interface	4 HDMI input, 4 HDMI output
Transmission rate	18Cbps
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 Digital plus/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 C ~60 C
Storage temperature	-30 C ~70 C
Humidity	0~90%RH(No Condensation)
Housing	Iron
Color	Black
Weight	375g
Dimensions	210.0(L)*80.0(W)*21.0(H) mm
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

Operation controls and functions

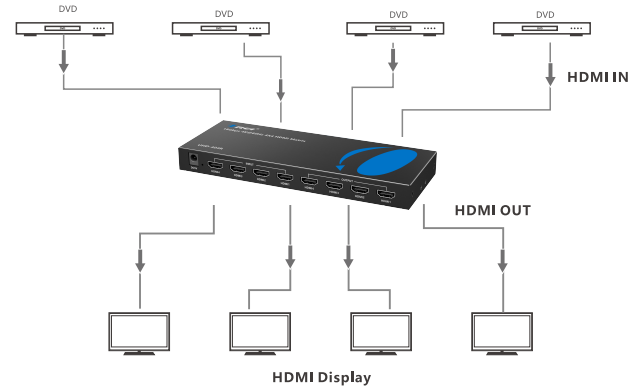
Connection Diagram



- 1 Power indicator :** When there is power, the indicator will light solid yellow
- 2 IR receiving window :** Receive IR signal
- 3 IRS-232 :** Used for RS-232 command control
- 4 EDID DIP :** Switch 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 switch 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

Description

Connection Diagrams



Connection Diagram



RS232
EDID



DC 5V
HDMI IN
HDMI OUT