ADERTECH

VS-U8H-21A

48Gbps 2x1 Switcher



User Manual

VER 1.1

Thank you for purchasing this product

We have done everything possible to ensure that our equipment pleases our consumers. When solving any problems in the operation and connection ADERTECH equipment, it is best to contact authorized companies and specialists who work with our equipment. Our equipment is intended for professional use, so you have professional skills in using such equipment. ADERTECH is a manufacturer of a wide range of multimedia solutions.

Surge protection device recommended

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

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1. Introduction

This 48Gbps 2x1 Switcher can switch any of the two HDMI source signals to one HDMI display. It supports video resolution up to 8K@60Hz 4:2:0. It supports advanced EDID management and audio de-embedding function (output through the optical and analog port). This multi-functional product can be widely applied in scenarios of demonstration, video conference, multimedia teaching and other occassions requiring for big-screen demonstration.

2. Features

☆ HDCP 2.3 compliant
☆ Support 48Gbps video bandwidth
☆ Support video resolution up to 8K@60Hz YCbCr 4:2:0 12bit, 4K@120Hz RGB/YCbCr 4:4:4 12bit, as specified in HDMI 2.1
☆ VRR, FVA, ALLM are supported
☆ Support HDR, HDR10, HDR10+, Dolby Vision, ALLM/VRR pass-through
☆ Support HDMI audio formats: LPCM, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD
☆ Built-in Equalizer, Retiming and Driver
☆ Advanced EDID management
☆ Support audio de-embedding function (output through the optical and analog port)
☆ Support IR remote control and front panel button control

3. Package Contents

① 1 × 48Gbps 2x1 Switcher
② 1 × IR Remote
③ 1 × 5V/1A Multinational Power Supply
④ 1 × User Manual

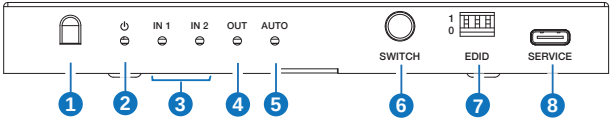
4. Specifications

Technical	
HDMI Compliance	HDMI 2.1
HDCP Compliance	HDCP 2.3
Video Bandwidth	48Gbps
Video Resolution	Up to 8K@60Hz YCbCr 4:2:0 12bit, 4K@120Hz RGB/YCbCr 4:4:4 12bit
Color Depth	8/10/12bit
Color Space	RGB, YCbCr 4:4:4 / 4:2:2 / 4:2:0
Audio Formats	**HDMI input/output:** LPCM, Dolby Digital/Plus/EX, Dolby True HD, Dolby Atmos, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD **Audio de-embedding output:** Optical: LPCM/Dolby/DTS 5.1CH Analog: LPCM 2CH
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) & ±4kV (Contact discharge)
Connection	
Input	2 × HDMI IN [Type A, 19-pin female]
Output	1 × HDMI OUT [Type A, 19-pin female] 1 × OPTICAL [S/PDIF] 1 × L/R [3.5mm Stereo Mini-jack]
Control	1 × SERVICE [USB Type C, Update port]
Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	145mm [W] × 68mm [D] × 18mm [H]
Weight	258g
Power Supply	Input: AC 100-240V 50/60Hz, Output: DC 5V/1A (US/EU standards, CE/FCC/UL certified)
Power Consumption	3W (Max)
Operation 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-condensing)

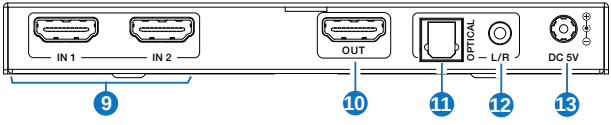
Recommended HDMI Cable				
Video Resolution	8K	4K60	4K24	1080P
HDMI Cable Length (HDMI IN / OUT)	2m/6.6ft (Ultra HDMI 2.1)	8m/26ft	12m/39ft	15m/49ft
The use of “Premium High Speed HDMI” cable is highly recommended.				

5. Operation Controls and Functions

Front Panel



Rear Panel



No.	Name	Function Description
1	IR Window	IR input signal receiving window.
2	POWER LED	The power LED lights in green when the device is working, and red when the device is in standby.
3	IN LED (1~2)	When the HDMI IN 1/2 port is selected as the signal source input channel, the corresponding green LED will be on.
4	OUT LED	When the HDMI OUT port connects to a display device and outputs signal, the green LED will be on.
5	AUTO LED	When the auto switching function (switch to the corresponding signal input channel when the signal source is connected.) is turned on, the green LED will be on.
6	SWITCH button	Used to select signal source for OUT port. Short pressing this button will allow the device to switch any of the two HDMI input signals to the OUT port. Long pressing this button for 3 seconds will turn on/off the auto switching function.

No.	Name	Function Description
7	EDID DIP switch	Use the DIP switch to set EDID. 111- Copy OUT port sink EDID (as factory default) 110- 4K@60Hz 4:4:4, Audio 2ch PCM 101- FRL 12G_8K_HDR, Audio 2ch PCM 100- FRL 12G_8K_HDR, Audio 5.1ch PCM/DTS/DOLBY 011- FRL 12G_8K_HDR, Audio 7.1ch PCM/DTS/DOLBY/HD 010- FRL 10G_8K_HDR, Audio 2ch PCM 001- FRL 10G_8K_HDR, Audio 5.1ch PCM/DTS/DOLBY 000- FRL 10G_8K_HDR, Audio 7.1ch PCM/DTS/DOLBY/HD
8	SERVICE	Firmware update and debug port.
9	IN port (1~2)	HDMI signal input port, connecting to HDMI source device such as DVD or PS5 with an HDMI cable.
10	OUT port	HDMI signal output port, connecting to HDMI display device such as TV or Monitor with an HDMI cable.
11	OPTICAL	Optical fiber audio output port.
12	L/R	Analog audio output port.
13	DC 5V	DC 5V/1A Power input port.

6. IR Remote

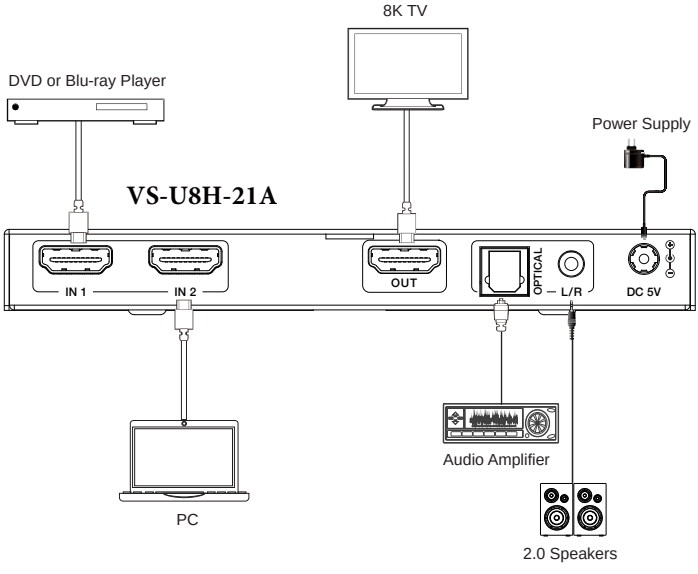


⏻ **:** Power on the product or set it to standby mode.

1/2 : Press 1/2 button to select HDMI signal source IN 1/2 to the OUT port.

: Press this button to cyclically switch HDMI signal source IN 1/2 to the OUT port.

7. Application Example



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