Lideo

Lideo SW41A2-8K

48Gbps 4x1 Switcher with ARC/eARC Functio

USER MANUAL

Thank you for purchasing this product

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

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 4x1 Switcher can switch any of the four HDMI source signals to one HDMI display, with video resolution up to 8K@60Hz 4:2:0. It supports advanced EDID management, CEC control, ARC/eARC and audio de-embedded function (Output through the optical and analog audio port). Furthermore, firmware upgrade via USB Type C port is supported.

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 FRL and 18Gbps TMDS video bandwidth
☆ Video resolution is up to 8K@60Hz 4:2:0 12bit, 8K@30Hz 4:4:4 12bit, 4K@120Hz 4:4:4 12bit, as specified in HDMI 2.1
☆ HDMI 2.1 protocol: VRR, ALLM, QMS, QFT, SBTM are supported
☆ Support HDR, HDR10, HDR10+, Dolby Vision, HLG pass-through
☆ Support HDMI audio formats: LPCM 7.1CH, Dolby TrueHD, Atmos and DTS-HD Master, DTS:X Audio pass-through
☆ Features 4 x HDMI inputs routed to 1 x HDMI output
☆ Support HDMI input and TV eARC audio de-embedded to SPDIF and L/R audio output
☆ Support HDMI input and TV eARC audio to output to SONOS ARC & Beam or any eARC soundbar
☆ Support CEC control from TV at output to source at input
☆ Support CEC volume control from TV to any eARC sound system
☆ Support advanced EDID management

3. Package Contents

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

4. Specifications

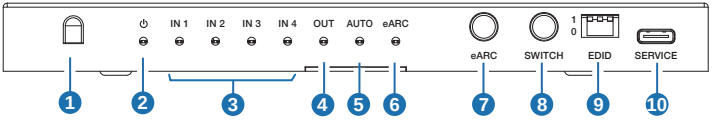
Technical	
HDMI Compliance	HDMI 2.1
HDCP Compliance	HDCP 2.3
Video Bandwidth	48Gbps FRL and 18Gbps TMDS
Audio Latency	No Latency
Video Latency	No Latency
Video Resolution	Up to 8K@60Hz 4:2:0 12bit, 8K@30Hz 4:4:4 12bit, 4K@120Hz 4:4:4 12bit
Color Depth	8/10/12bit
Color Space	RGB_4:4:4, YCbCr_4:4:4, YCbCr_4:2:2, YCbCr_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, DTS:X, DSD **eARC Audio Out:** LPCM, Dolby Digital/Plus/EX, Dolby True HD, Dolby Atmos, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DTS:X ,DSD **Audio De-embedded Output:** Optical: LPCM 2.0CH/Dolby/DTS 5.1CH Analog: LPCM 2.0CH
HDR	HDR, HDR10, HDR10+, Dolby Vision, HLG
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) & ±4kV (Contact discharge)

Connection	
Input	4 × 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	176mm [W] × 68mm [D] × 18mm [H]
Weight	315g
Power Supply	Input: AC100-240V 50/60Hz, Output: DC 5V/1A (US/EU standards, CE/FCC/UL certified)
Power Consumption	2.5W (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.				

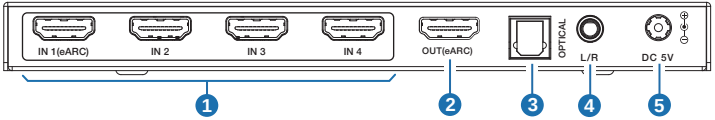
5. Operation Controls and Functions

5.1 Front Panel



No.	Name	Function Description
1	IR Window	IR input signal receiving window.
2	Power LED	The red LED is on when the device is powered on.
3	IN LED (1~4)	When the HDMI IN 1/2/3/4 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 a display device, 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 AUTO LED will be on.
6	eARC LED	▪ **On:** The ARC/eARC function is turned on. CEC communication and ARC/eARC is working properly. ▪ **Flashing:** The ARC/eARC function is turned on. CEC communication and ARC/eARC is not working properly. ▪ **Off:** The ARC/eARC function is turned off.
7	eARC switch	Press the button to turn on/off ARC/eARC function.
8	SWITCH button	Used to select signal source for OUT port. ▪ Short press this button to circularly switch HDMI input signal to the OUT port. ▪ Long press for 3 seconds to turn on/off the auto switching function.
9	EDID DIP switch	Use the DIP switch to set EDID. 111 - Copy OUT port sink EDID (as default) 110- Video EDID copy sink EDID, Audio EDID Copy soundbar EDID 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
10	SERVICE	Firmware update and debug port.

5.2 Rear Panel



No.	Name	Function Description
1	IN 1/2/3/4	HDMI input ports, connected to HDMI source device such as DVD, PS4 or Set-top Box with HDMI cable. **Note:** When the ARC/eARC function is turned off, connect the “IN 1(eARC)” port to HDMI source device to work as a signal input port; When the ARC/eARC function is turned on, connect the“IN 1(eARC)” port to a Soundbar or amplifier with ARC/eARC function to output the audio signal from other HDMI source, or the audio returned from the TV connected to the “OUT(eARC)” port. Please refer to “7. Application Example” for details.
2	OUT (eARC)	HDMI output port, connect to HDMI display device such as HDTV or Projector with HDMI cable.
3	OPTICAL	Optical fiber audio output port.
4	L/R	Analog audio output port.
5	DC 5V	DC 5V/1A power input port.

6. IR Remote

eARC:

Press this button to turn on/off ARC/eARC function.

Auto:

Press this button to turn on/off the auto switching function.

1/2/3/4:

Press 1/2/3/4 button to select HDMI signal source IN 1/2/3/4 to output.

:

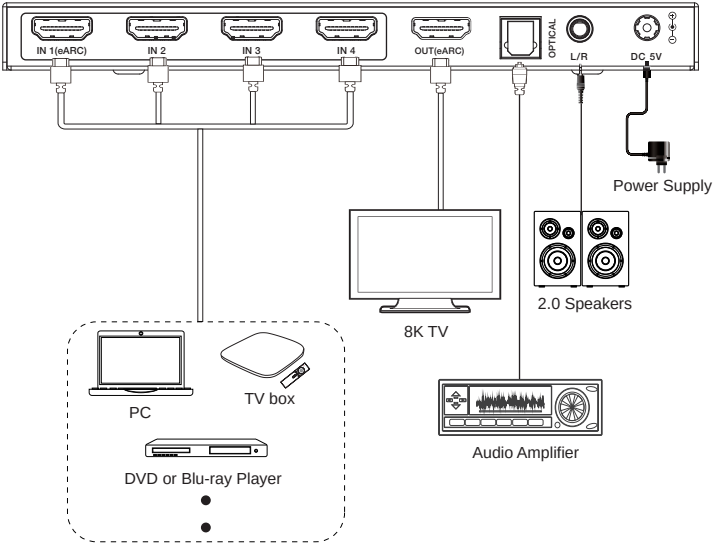
Press this button to select the next HDMI signal source circularly.

7. Application Example

Situation 1

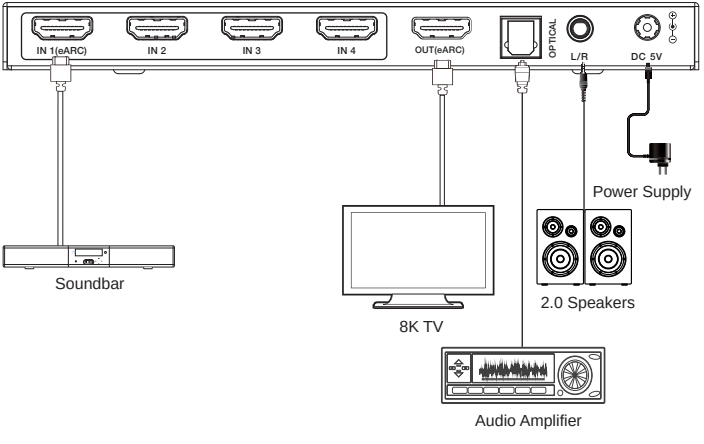
When the ARC/eARC function is turned off, the connection diagram is as following.

At this moment, the optical audio or L/R audio is from the selected input channel.



Situation 2

When the ARC/eARC function is turned on, select the input port 1 by pressing the "SWITCH" button on the front panel or the **1** button on the IR remote, then connect the "IN 1(eARC)" port to a Soundbar to output the audio signal returned from the "OUT (eARC)" port, as shown in the figure below. (For example, when the user watches TV APP, the Switcher will pass-through TV eARC/ARC audio to the Soundbar.)
At this moment, the optical audio or L/R audio is from the returned audio of the 8K TV connected to OUT(eARC).



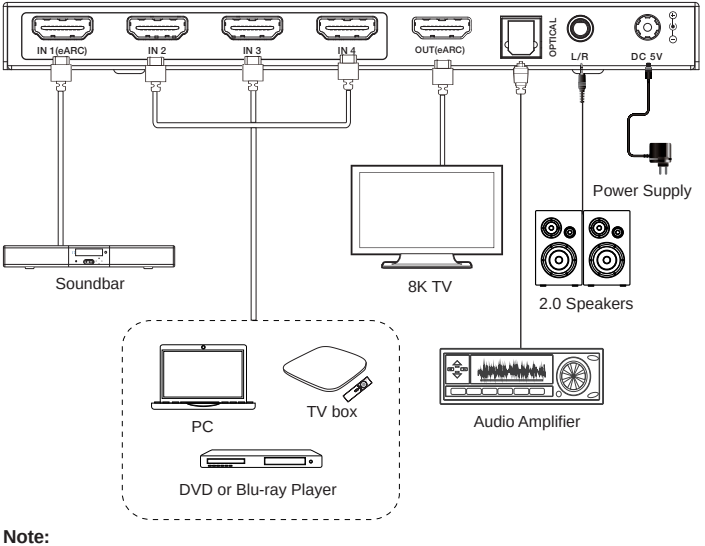
Note:

1. If the 8K TV supports ARC/eARC function, the Soundbar will receive the audio signal returned from the TV, and then emit the sound; otherwise it will not emit sound.
2. The IN 1 channel will be locked when it is selected as the input source. At this moment, other input channels will not be identified automatically even if the Auto Switching is enabled. For example, if the IN 3 is connected to a source device now, and it will not be output as the signal source automatically because the IN 1 is locked.

Situation 3

When the ARC/eARC function is turned on, select the input port 2/3/4 by pressing the "SWITCH" button on the front panel or the buttons on the IR remote. If connect the "IN 1(eARC)" port to a Soundbar now, it will output the audio signal from the selected input channel.

At this moment, the optical audio or L/R audio is also from the selected input channel.



Note:

In this situation, the Soundbar will not output the audio returned from the 8K TV connected to the OUT port, no matter the 8K TV supports ARC/eARC or not.

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