

CSW-2148GAE

Pro AV/IT Integrator Series™ 2x1 HDMI 8K 60Hz 4:4:4 Auto Switcher
with EDID Management, Audio Extraction



User Manual

Safety Instructions

Before using this product, please carefully read the following safety instructions to ensure its proper use and keep this manual for future reference:

- To prevent electric shock, do not attempt to open the product.
- Only qualified personnel should perform any repairs or maintenance.
- Always place the product on a stable, flat surface to prevent it from falling.
- Do not expose the product to water, moisture, or high-humidity environments to avoid the risk of damage.
- To prevent damage from direct sunlight or high temperatures, do not expose the product to such environments.
- Do not place the product near heat sources like radiators, heat registers, stoves, or other heat-producing apparatus.
- Do not place any objects on top of the product to avoid damage.
- Use only the attachments and accessories specified by the manufacturer.
- During lightning storms or prolonged periods of disuse, unplug the power supply to prevent damage.

Introduction

The Comprehensive CSW-2148GAE is a HDMI 2x1 switcher which allows you to switch any of the two (2) 8K HDMI source signals to a single 8K HDMI display. It supports video resolutions up to 8K@60Hz 4:4:4. The CSW-2148GAE 8K switcher includes a 4-pin DIP switch for advanced EDID management and supports digital and analog audio de-embedding. It can be controlled using front panel buttons, an IR remote. This versatile product is ideal for video conferences, demonstrations, multimedia teaching, and other scenarios requiring big-screen displays.

The CSW-2148GAE offers both manual and automatic switching capabilities, ensuring a seamless experience when transitioning between the HDMI inputs, with the "First-In, Last-Out" rule, the switcher intelligently detects and prioritizes the most recently activated input, eliminating the need for manual intervention during the switching process.

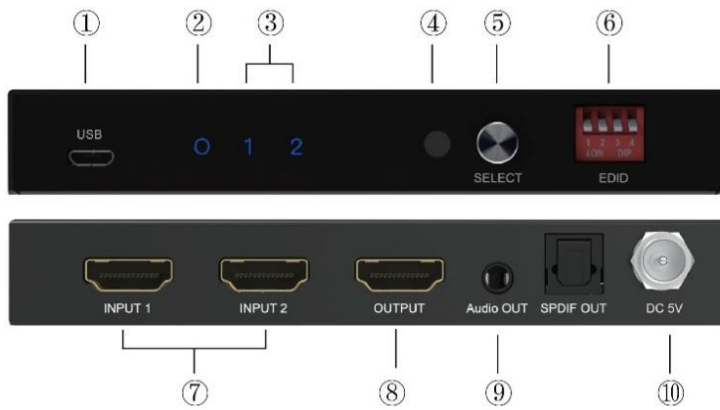
Features

- Video resolutions up to 8K 60 4:4:4 or 4K 120Hz
- HDCP 2.3/2.2/1.4 compliant
- HDR, HDR10, HDR10+, Dolby Vision, ALLM/VRR pass-through
- HDMI audio formats pass-through: LPCM, Dolby Digital/Plus/EX, Dolby
- True HD, Dolby Atmos, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD
- Digital and analog audio de-embedding (analog audio output with gain control)
- Supports Consumer Electronics Control (CEC) function
- Auto or manual switching mode
- Advanced EDID management
- Control via front panel buttons, IR remote
- Compact design for easy and flexible installation
- 3 Year Worry-Free Warranty

Note:

1. If you would like to output 8K@60Hz, 4K@120Hz and 1080P@240Hz via the switcher in your displays, please make sure your source devices, your cable and your monitors can all support the resolution and refresh rate you need to output before.
2. You need to connect a standard HDMI-compatible 2.1 cable to enjoy 8K visual effects

Panel Description



1. USB (Service): For Factory Use Only
2. IR Receiver port
3. O: HDMI Output LED Indicator
4. 1-2: HDMI Input 1-2 LED Indicator
5. SELECT: Change the Input Source Select Button
6. EDID: DIP Switch for Bypass EDID and Fifteen Default EDID modes
7. INPUT 1-2: HDMI Input 1-2 port
8. OUTPUT: HDMI Output port
9. Audio Output and SPDIF Output: Connect to the Audio Output Devices via 3.5mm Cable and SPDIF Cable
10. DC/5V: DC 5V Input


 ↓ = HIGH ↑ = LOW

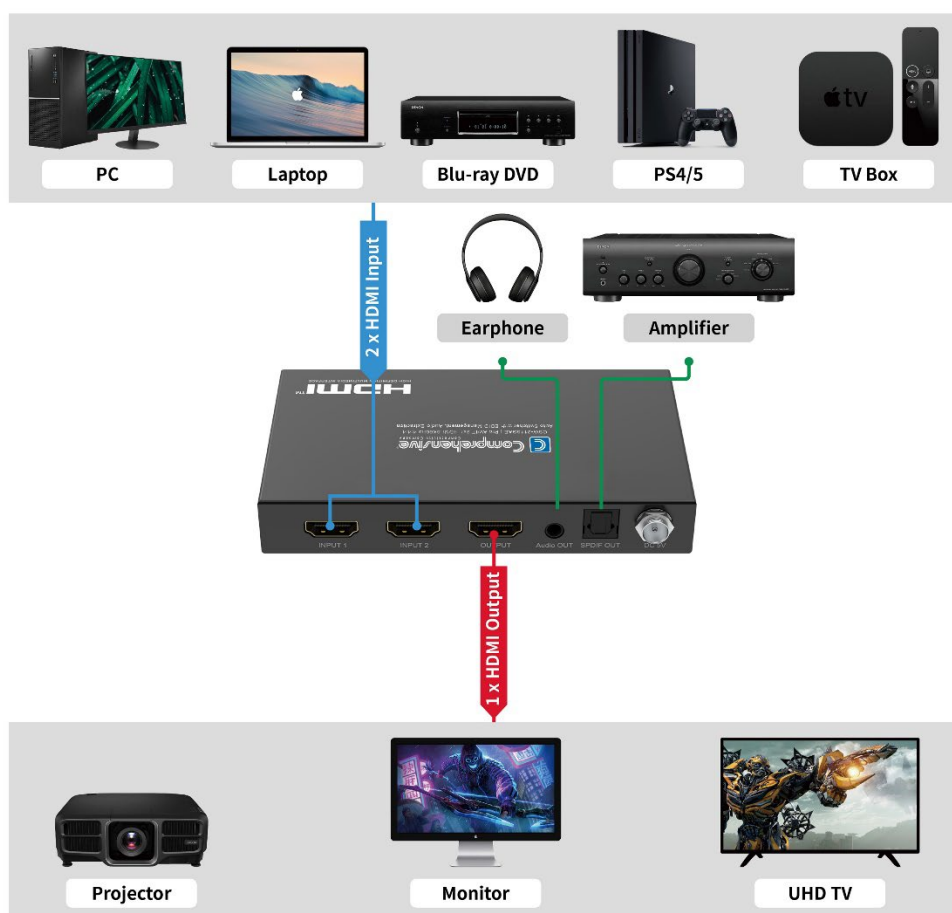
Binary Code	4 3 2 1	EDID Setting Description
0000	↓↓↓↓	Copy EDID from HDMI Output1
0001	↓↓↓↑	8Kx4K@60 4:4:4/8Kx4K@30 4:4:4/4Kx2K@120Hz 4:4:4, 48G, HDR10, 2CH AUDIO
0010	↓↓↑↓	8Kx4K@60 4:4:4/8Kx4K@30 4:4:4/4Kx2K@120Hz 4:4:4, 48G, HDR10, DOLBY/DTS 5.1
0011	↓↓↑↑	8Kx4K@60 4:4:4/8Kx4K@30 4:4:4/4Kx2K@120Hz 4:4:4, 48G, HDR10, HD AUDIO
0100	↓↑↓↓	4Kx2K@60, 18G, HDR10, 2CH AUDIO
0101	↓↑↓↑	4Kx2K@60, 18G, HDR10, DOLBY/DTS 5.1
0110	↓↑↑↓	4Kx2K@60, 18G, HDR10, HD AUDIO
0111	↓↑↑↑	4Kx2K@60, 10.2G, HDR10, 2CH AUDIO
1000	↑↓↓↓	4Kx2K@60, 10.2G, HDR10, DOLBY/DTS 5.1
1001	↑↓↓↑	4Kx2K@60, 10.2G, HDR10, HD AUDIO
1010	↑↓↑↓	1080p, 2CH AUDIO
1011	↑↓↑↑	1080p, DOLBY/DTS 5.1
1100	↑↑↓↓	1080p, HD AUDIO
1101	↑↑↓↑	1280x720p@60 DVI
1110	↑↑↑↓	1920x1080p@60 DVI
1111	↑↑↑↑	4Kx2K@30, 10.2G, HDR, 2CH AUDIO

Specifications

Input Ports	HDMI x2
Output Ports	HDMI x1
Vertical Frequency Range	50/60Hz
Video Amplifier Bandwidth	12Gbps/1200MHz per channel (48Gbps all channels)
Interlaced(50&60Hz)	480i,576i,1080i
Progressive(50&60Hz)	480p,576p,720p,1080p,4K@24/30Hz,4K@50/60/120Hz, 8K@24/30/50/60Hz
Warranty	3 Year
Operating Temperature	0°C to 70°C
Storage Humidity	5% to 90% RH non-condensation
Power Supply	USB Power Cable
Power Consumption (Max)	5W
Switcher Unit Cert	FCC, CE, RoHS
Power Supply Cert	FCC, CE, RoHS
Power Adapter Standard	US, EU, UK, AU Standard etc.
Dimensions (LxWxH)	122*70.5*18.5mm
Net Weight	192g

Note: Specifications are subject to change without notice.

Connection Diagram



Package Contents

1x CSW-2148GAE (2x1 HDMI 8K Switcher)
1x IR Remote
1x 5V/1A Locking Power Supply
1x User Manual

Troubleshooting Possible Issues

Q: Power light is off and product is not working. How can I fix this?

A: First, please check the following items:

- 1.Ensure that your device's power supply is properly connected and power it on.
- 2.Check the HDMI port of display is selected correctly and properly connected as using.

Q: My display flickers when I use the switcher. What could be causing this?

A: This may be caused by one or more of the following:

- 1.Make sure the HDMI cable and splitter are securely connected.
- 2.Ensure the HDMI cable is a standard HDMI 2.1 cable, and the length is under the splitter limited length 2 meters HDMI in and out at 8K/60Hz 4:4:4, 4K@60Hz can reach 4m in and 4m out.
- 3.Change to another port to have a try of the display.
- 4.Change to another EDID mode to check if the display is operating or not.

Q: The switcher can't output 8K resolution to the display. Is that normal?

A: No, the CSW-2148GAE can support 8K resolution. Ensure the input source, display and the HDMI cable support the 8K resolution. If one of the devices does not support the higher resolution, please change another lower resolution to display.



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