

# 48Gbps 4x1 HDMI/USB-C Switcher



## User Manual

VER 1.0

## 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.

## Table of Contents

1. Introduction.....	1
2. Features.....	1
3. Package Contents.....	2
4. Specifications.....	2
5. Operation Controls and Functions.....	4
6. IR Remote.....	5
7. Application Example.....	6

## 1. Introduction

This 48Gbps 4x1 Switcher is an ultrathin auto switcher, with three HDMI video inputs, one USB-C input and one HDMI output. The video resolutions is up to 8K@60Hz 4:2:0 12-bit (HDMI) and 8K@30Hz 4:2:2 10-bit (USB-C). It supports HDR10, HDR10+, Dolby Vision and multichannel audio format. Built-in EDID can be set via 3-pin DIP switch on the front panel, and EDID info is shown on the displayer. Furthermore, the firmware update at service port is supported.

## 2. Features

- ☆ DP 1.4 and HDCP 2.3 compliant
- ☆ Support HDMI video bandwidth up to 48Gbps FRL and 18Gbps TMDS
- ☆ Support HDMI video resolution up to 8K@60Hz 4:2:0 12-bit, 8K@30 4:4:4 12-bit, 4K@120Hz 4:4:4 12-bit, as specified in HDMI 2.1
- ☆ Support USB-C video bandwidth up to 32Gbps
- ☆ Support USB-C video resolution up to 8K@30Hz 4:2:2 10-bit, 4K@120Hz 4:2:2 10-bit
- ☆ Support HDR, HDR10, HDR10+, Dolby Vision, HLG pass-through
- ☆ HDMI 2.1 protocols: VRR, ALLM, QMS, QFT, SBTM are supported
- ☆ LPCM 7.1CH, Dolby TrueHD, Atmos and DTS-HD Master, DTS:X Audio pass-through
- ☆ 3x HDMI and 1x USB-C inputs routed to 1x HDMI output
- ☆ Control via front panel button and IR remote
- ☆ Support auto input switching and manual input switching
- ☆ CEC control from TV at output to source at input
- ☆ Advanced EDID management

## 3. Package Contents

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

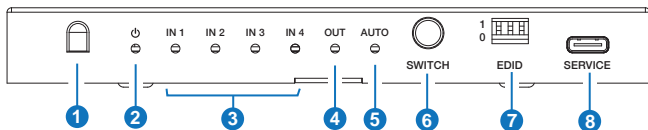
## 4. Specifications

Technical	
HDMI Compliance	HDMI 2.1
HDCP Compliance	HDCP 2.3
DP Compliance	DP 1.4
Video Bandwidth	HDMI: Up to 48Gbps FRL and 18Gbps TMDS USB-C: Up to 32Gbps
Video Resolution	HDMI: Up to 8K@60Hz 4:2:0 12-bit, 4K@120Hz 4:4:4 12-bit USB-C: Up to 8K@30Hz 4:2:2 10-bit, 4K@120Hz 4:2:2 10-bit
Color Depth	8-bit,10-bit,12-bit
Color Space	RGB_4:4:4, YCbCr_4:4:4, YCbCr_4:2:2, YCbCr_4:2:0
HDMI Audio Formats	LPCM, Dolby Digital/Plus/EX, Dolby True HD, Dolby Atmos,DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) & ±4kV (Contact discharge)
Connection	
Input	3 × IN [HDMI Type A, 19-pin female] 1 × IN [USB Type C, 24-pin female]
Output	1 × OUT [HDMI Type A, 19-pin female]
Control	1 × SERVICE [USB Type C, update port] 1 × IR Receive Window

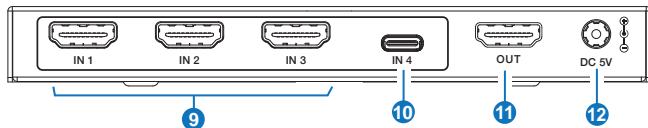
<b>Mechanical</b>				
Housing	Metal			
Color	Black			
Dimensions	145mm [W] × 68mm [D] × 18mm [H]			
Weight	258g			
Power Supply	Input: AC 100~240V 50/60Hz, Output: DC 5V/1A (US/EU standards, CE/FCC/UL certified)			
Power Consumption	2.25W (Max)			
Operation Temperature	0°C ~ 40°C / 32°F ~ 104°F			
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F			
Relative Humidity	20~90% RH (non-condensing)			
<b>Recommended HDMI Cable</b>				
<b>Video Resolution</b>	8K	4K60	4K24	1080P
<b>HDMI Cable Length (HDMI IN / OUT)</b>	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 signal receiving window.
2	Power LED	When the device is powered on, the red power LED is on.
3	IN 1/2/3/4 LED	When the IN 1/2/3/4 port is selected as an input channel of the signal source, the corresponding green LED will be on.
4	OUT LED	When a TV or displayer is connected to the OUT port, the green LED will be on.
5	AUTO LED	When the auto switching mode is enabled, the green LED will be on.
6	SWITCH button	Input signals switching button. <ul style="list-style-type: none"><li>▪ Short press to switch to the next input port.</li><li>▪ Long press for 3 seconds to disable the auto switching mode.</li></ul>
7	EDID DIP switch	Used for EDID setting. <ul style="list-style-type: none"><li>111- Copy OUT port sink EDID (as factory default)</li><li>110- 4K@60Hz 4:4:4, Audio 2ch PCM</li><li>101- FRL 12G_8K_HDR, Audio 2ch PCM</li><li>100- FRL 12G_8K_HDR, Audio 5.1ch PCM/DTS/DOLBY</li><li>011- FRL 12G_8K_HDR, Audio 7.1ch PCM/DTS/DOLBY/HD</li><li>010- FRL 10G_8K_HDR, Audio 2ch PCM</li><li>001- FRL 10G_8K_HDR, Audio 5.1ch PCM/DTS/DOLBY</li><li>000- FRL 10G_8K_HDR, Audio 7.1ch PCM/DTS/DOLBY/HD</li></ul>

No.	Name	Function Description
8	SERVICE	Used to update MCU firmware.
9	IN 1/2/3	HDMI signal input ports, connected to HDMI source devices such as DVD or PS5 with HDMI cable.
10	IN 4	USB signal input port, connected to an USB-C source device.
11	OUT port	HDMI signal output port, connected to an HDMI display device such as TV or Monitor with HDMI cable.
12	DC 5V	DC 5V/1A power input port.

## 6. IR Remote



### **Auto:**

Press this button to enable or disable auto switching for input signal sources.

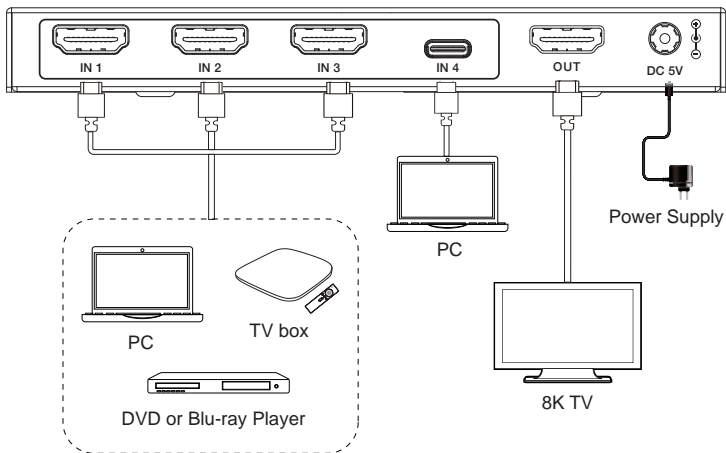
### **1/2/3/4 :**

Press 1/2/3/4 button to select the corresponding signal input channel.

### **↻:**

Press this button to circularly switch the HDMI signal source to the OUT port.

## 7. Application Example



**HDMI™**  
HIGH-DEFINITION MULTIMEDIA INTERFACE

The terms HDMI and HDMI High-Definition Multimedia interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.