# HDMI 4x4 Matrix Switcher



## User Manual

**VER 1.1**

## 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

This is a high performance 4x4 HDMI Matrix Switcher with four routes HDMI source to four HDMI displays simultaneously. It supports resolution up to 4K2K@ 60Hz YCbCr 4:2:0 and HDCP 2.2. Supporting 16 different EDID configurations that can meet most of use cases. Flexible control via on-panel buttons, IR remote control.

# 2. Features

☆ HDMI 1.4b, HDCP 2.2 and DVI 1.0 compliant
☆ Supports 10.2Gbps bandwidth
☆ Supports four routes HDMI input to four routes HDMI output
☆ Supports resolution up to 4k2k@60Hz YCbCr 4:2:0
☆ Supports up to 7.1 channel of High Definition audio (LPCM, Dolby TrueHD, and DTS-HD Master Audio)
☆ Supports 16 different EDID configurations via dialling the dip switch on-panel
☆ Supports IR EXT port to extend the IR sensor range
☆ Flexible control via on-panel buttons, IR remote control
☆ Compact design for easy and flexible installation

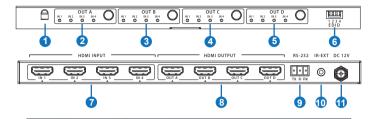# 3. Package Contents

① 1× HDMI 4×4 Matrix Switcher
② 1× 12V/2.5A DC Locking Power Adapter
③ 1× IR Remote Control
④ 1× 38KHz IR receive cable
⑤ 1× Phoenix Connector (3-pin, male)
⑥ 1× User Manual

# 4. Specifications

| Technical | |
|---|---|
| HDMI Compliance | HDMI 1.4b |
| HDCP Compliance | HDCP 2.2 |
| Video Bandwidth | 10.2Gbps |
| Video Resolution | 4k2k@60Hz YCbCr 4:2:0, 4k2k@30Hz, All HDMI 3D TV formats |
| HDMI Audio Formats | PCM 2.0/5.1/7.1CH, Dolby 5.1, DTS 5.1, Dolby-TrueHD, DTS-HD |
| ESD Protection | Human body model—±8kV (Air-gap discharge) & ±4kV (Contact discharge) |
| **Connections** | |
| Input Ports | 4× HDMI Type A (19-pin female) 1× RS-232 (Phoenix jack) 1× IR-EXT (3.5mm Stereo Mini-jack) 1× IR Receiver Window |
| Output Port | 4× HDMI Type A (19-pin female） |
| **Mechanical** | |
| Housing | Metal Enclosure |
| Silkscreen Color | Black |
| Dimensions | 242mm (W) × 102mm (D) × 16mm (H) |
| Weight | 621g |
| Power Supply | Input: AC100 - 240V 50/60Hz, Output: DC 12V/2.5A (US/EU standards, CE/FCC/UL certified) |
| Power Consumption | 9.96W (max), 0.12W (standby) |
| Operation Temperature | -10°C ~ 50°C / 14°F ~ 122°F |
| Storage Temperature | -20°C ~ 60°C / -4°F ~ 140°F |
| Relative Humidity | 20~90% RH (non-condensing) |

# 5. Operation Controls and Functions



| Number | Name | Function description |
|--------|------|----------------------|
| 1 | IR Receiver Window | It accepts the remote control signal of this device only. |
| 2 | OUT A | Pressing the button will select one input source to the OUT A, and the green LED will illuminate when the OUT A port selects the corresponding input source. |
| 3 | OUT B | Pressing the button will select one input source to the OUT B, and the green LED will illuminate when the OUT B port selects the corresponding input source. |
| 4 | OUT C | Pressing the button will select one input source to the OUT C, and the green LED will illuminate when the OUT C port selects the corresponding input source. |
| 5 | OUT D | Pressing the button will select one input source to the OUT D, and the green LED will illuminate when the OUT D port selects the corresponding input source. |
| 6 | EDID | When 4 dip switches are dialled to different position, they can select the EDID to HDMI input ports. (Please check the following EDID schema table. ) |
| 7 | HDMI INPUT | Connect to the HDMI source device such as DVD player or set-top box with an HDMI cable. |
| 8 | HDMI OUTPUT | Connect to the HDMI display device such as TV or Monitor with an HDMI cable. |
| 9 | RS-232 | For firmware updated use. |

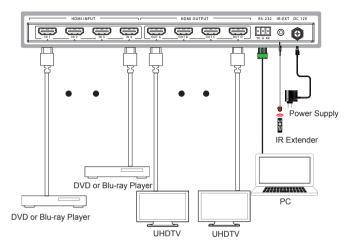| 10 | IR-EXT | If IR receiver window on the front panel is obstructed or the device is installed out of infrared line of sight in a closed area. IR receiver cable can be inserted into the IR EXT port at the rear to extend the IR sensor range. |
| 11 | DC 12V | Plug the DC 12V/2.5A power supply into the unit and connect the adaptor to an AC outlet. |

The following is the EDID schema table.

| EDID position | EDID description |
|---------------|------------------|
| 0000 | 1080I, 2CH AUDIO |
| 0001 | 1080I, DOLBY/DTS 5.1 |
| 0010 | 1080I, HD AUDIO 7.1 |
| 0011 | 1080p, 2CH AUDIO |
| 0100 | 1080p, DOLBY/DTS 5.1 |
| 0101 | 1080p, HD AUDIO 7.1 |
| 0110 | 3D,1080p, 2CH AUDIO |
| 0111 | 3D, 1080p,DOLBY/DTS 5.1 |
| 1000 | 3D, 1080p, HD AUDIO 7.1 |
| 1001 | 4K2K30, 2CH AUDIO |
| 1010 | 4K2K30, DOLBY/DTS 5.1 |
| 1011 | 4K2K30, HD AUDIO 7.1 |
| 1100 | 4K2K60 420, 2CH AUDIO |
| 1101 | 4K2K60 420, DOLBY/DTS 5.1 |
| 1110 | 4K2K60 420, HD AUDIO 7.1 |
| 1111 | PC control mode (Reserved use) |

# 6. Remote Control

⏻ : Turn on the power of the matrix or set it to standby mode.

OUT A: Pressing 1\2\3\4 button will select input source to HDMI OUT A, and the corresponding on-panel LED will be on.

◀ ▶ : Select the last or next input channel to OUT A port.

OUT B: Pressing 1\2\3\4 button will select input source to HDMI OUT B, and the corresponding on-panel LED will be on.

◀ ▶ : Select the last or next input channel to OUT B port.

OUT C: Pressing 1\2\3\4 button will select input source to HDMI OUT C, and the corresponding on-panel LED will be on.

◀ ▶ : Select the last or next input channel to OUT C port.

OUT D: Pressing 1\2\3\4 button will select input source to HDMI OUT D, and the corresponding on-panel LED will be on.

◀ ▶ : Select the last or next input channel to OUT D port.

# 7. Application Example



# 8. FAQ

1. Q: Does this product require an HDMI line length for the connection interface?
A: According to HDMI line length test, HDMI input / output with 4K2K@60Hz 4:2:0 is the longest line length up to 32.8ft /10m. HDMI input with 1080p@60Hz is the longest line length up to 32.8ft /10m. HDMI output with 1080p@60Hz is the longest line length up to 49.2ft /15m.

The use of "Premium High Speed HDMI" cable is highly recommended.