18G 4K60 4X4 Matrix Switcher with audio out selection and IR remote

<u>HDTVFIX44-LITE</u>

Version: V1.01.01

Safety Reminder

To protect the device and operating personnel from electrostatic discharge, you need to check and ensure that the device is grounding well before the device is powered on. Please observe the following when you install, use, maintain this equipment.

Make sure the device ground connection.

➢ Please use single-phase three wire system AC 220V power supply, and ensure all transmission system is grounding well.

➢ To protect operating personnel and the device，please turn off all power supplies and pull the plug before moving the device or doing some specific works which need to be done when the electricity is turned off . Please turn off the main power switch on rainy days or when not in use for a long time.

➢ Please do not put anything upon the cables, or tread the cables.

➢ To avoid damaging the device, please turn off power supply before plugging cable into the device or pulling cable from device. The damage caused by plugging/ pulling cables without turning off power supply is outside the scope of the warranty.

➢ The power of the device gives out heat when it works, so it's necessary to keep the work environment ventilated to protect the device from the damage caused by over temperature.

➢ Do not place the device in very cold or very hot places. Do not sprinkle any corrosive chemicals or liquid on or around the device.

➢ To avoid accident or any further damage ,non-professionals please do not dismantle or maintain the device without permission.

1. Product Introduction

This is a new series of the fixed 4K60 HDMI2.0 Matrix Switcher, with 4 in and 4 out. Every HDMI input and output supports 1080p full HD plus 3D formats and up to 4K60 with HDCP compliant on all ports. It can work with Blu-Ray players, Set-Top boxes, Home Theater PCs, and game consoles which connect to an HDMI display. Supports independent EDID management. Supports RS-232 serial port commands, infrared remote control and front dip switch adjust output resolution. Supports audio de-embedding, and each output can be switched to different audio output independently.

2. Product Feature

➢ Supports 4K60hz HDMI2.0 inputs and outputs

➢ Supports LPCM 7.1CH, Dolby True HD, Dolby Digital Plus and DTS-HD Master Audio

➢ Allows any source to be displayed on multiple displays at the same time

➢ Allows any HDMI display to view any HDMI source at any time

➢ Supports one channel audio de-embedding

➢ Supports front panel dip switch adjusting output resolution

➢ Supports RS-232 commands and infrared remote control

3. Specification

Model	HDTVFIX44-LITE
Name	FIXED HDMI 2.0 4K60 MATRIX SWITCHER
Resolution	1920X1080,1920X2160,4K30,4K60
Input ports	4*HDMI, 1*RS-232(control)
Output ports	4*HDMI, 1*3.5mm, 1*SPDIF audio out
ESD Protection	Human-body Model: ± 8kV (Air-gap discharge), ± 4kV (Air-gap discharge)
ESD Protection	DC 12 V, 1.5 A
Controlling	IR remote control, RS232 serial command and front buttons
Power Consumption	23 W (Max)/ 0.5w (stand by)

Dimension(mm)	280 mm (W)*118 mm (D)*44 mm (H)
Weight	940g
Operating Temperature	0 ºC~40 ºC/32 ºF~104 ºF
Storage Temperature	−20 ºC~60 ºC/−4 ºF~140 ºF

4. Packing

No.	Name	Qty	Unit
1	Matrix switcher set	1	Pcs.
2	DC power adapter	1	Pcs
3	Remote Controller	1	Pcs

## 5. Front panel
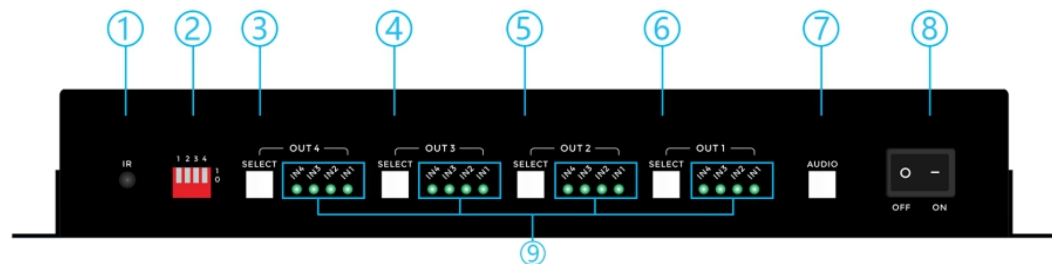
| No	Name	Description
1	IR receiver	Receive commands from IR sender
2	EDID dip switch	DIP switch adjust the resolution
3	OUT4 selection	Select input source for out4
4	OUT3 selection	Select input source for out3
5	OUT2 selection	Select input source for out2
6	OUT1 selection	Select input source for out1
7	Audio	Each output can switch different audio
8	ON/OFF	power off/on switch

Back panel
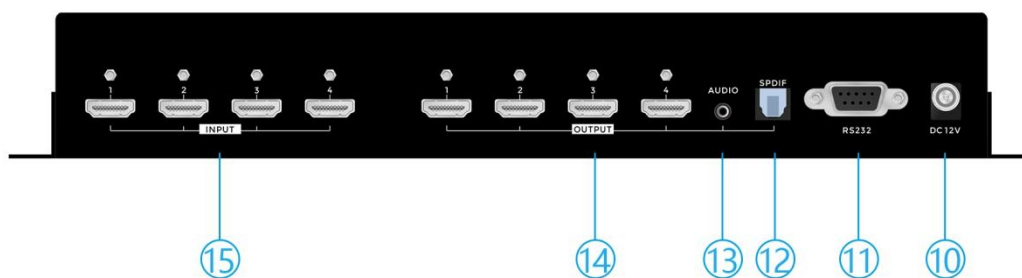
| No.	Name	Description
10	DC 12V	power supply port
11	RS232	Female RS232 port for the R232 control
12	SPDIF	SPDIF audio output
13	AUDIO	3.5mm audio output
14	OUTPUT	4 female HDMI output ports
15	INPUT	4 female HDMI input ports

6. Connection diagram
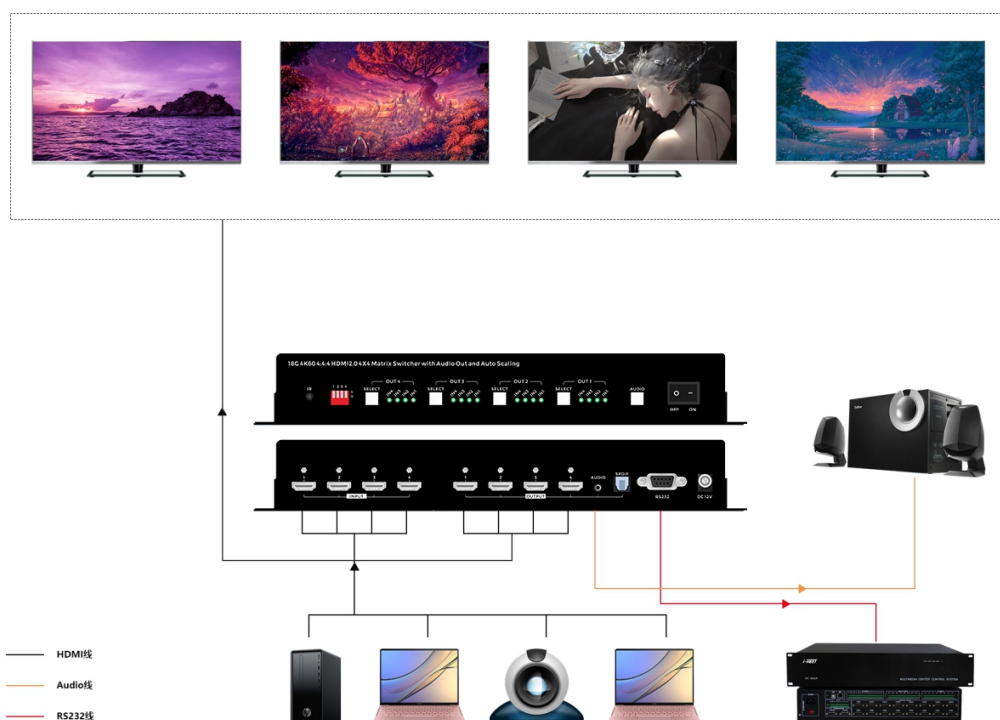
7. IR remote controller, EDID switching and the RS232 control command

7.1 IR Remote control
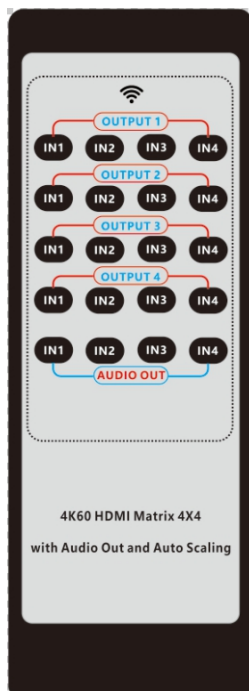
As the IR remote control printing, users will only need to press the Input buttons according to the that specific Output.

Such as to switch Input 1 to Output 1:
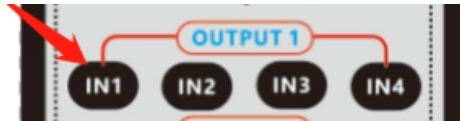
For the Audio out, since there's only one 3.5mm audio out port on the back of the matrix switcher, so users can select the audio sources from any of the 4 HDMI inputs by pressing the button:

Such as want to hear the sound from HDMI input 2:
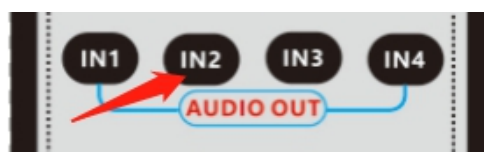
7.2 EDID Management setting table

No	DIP code	Description	No	DIP code	EDID Description
1	0000	7CH_4K60_444	9	1000	5CH_4K60_444
2	0001	2CH_4K30	10	1001	7CH_1080P_3D
3	0010	5CH_4K60_420	11	1010	2CH_4K60_420
4	0011	7CH_1080P	12	1011	5CH_1080P
5	0100	2CH_4K60_444	13	1100	7CH_4K60_420
6	0101	5CH_1080P_3D	14	1101	2CH_1080P_3D
7	0110	7CH_4K30	15	1110	5CH_4K30
8	0111	2CH_1080P	16	1111	Pass through

7.3 RS232 control command

7.3.1: HDMI input switching

RS232: Connect by RS232 direct cable

Baud rate: 19200(default) N, 8, 1

Command: TXRX. TX=T0,T1,T2,T3; RX=R0,R1,R2,R3.

TX stands for the output numbers, T0=OUTPUT1, T1=OUTPUT2...

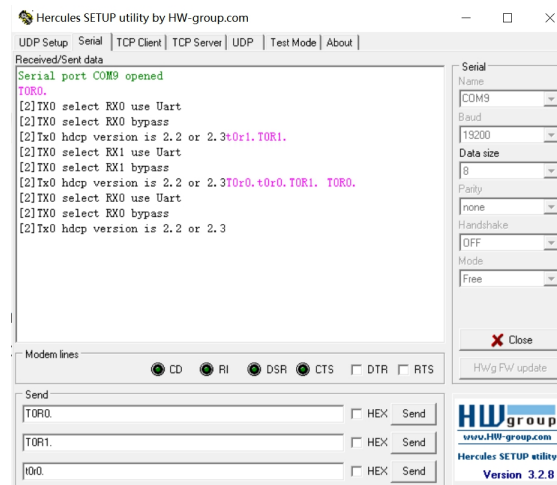RX stands for the output numbers, R0=INPUT1, R1=INPUT2...

Examples:

To output 2 to show input 1, the command will be **T1R0.**

To output 2 to show input 2, the command will be **T1R1.**

To output 4 to show input 3, the command will be **T3R2.**

*Note: The T and R in the commands have to be capital letters, and when that output or input is not connected, the commands will no send successfully.

7.3.2：Audio switching

Command: **ARx.**

Example:

Switch audio from input 1: **AR0.**

Switch audio from input 2: **AR1.**

8. Common Problem Shooting

Q: Serial port operation is out of order, can not control to switch?

A: The serial port is damaged or not started

Solution: Make sure the port uses direct serial port line, check the connection of PC software serial port.

Power failure: Check the power fuses and connecting lines;

Signal interference: Make sure the cables and plugs are connected well, the cables meet the requirements, the system is ground connected well, the AC power between devices have the same grounding system;

Accidental damage： Sent back to the manufacturer for recondition.

9. After-Sales

9.1 Warranty Information

The Company warrants that the process and materials of the product are not defective under normal use and service for 2 (2) years following the date of purchase from the

Company or its authorized distributors.

If the product does not work within the guaranteed warranty period, the company will choose and pay for the repair of the defective product or component, the delivery of the equivalent product or component to the user for replacement of the defective item, or refund the payment which users have made.

The replaced product will become the property of the Company.

The replacement product could be new or repaired.

Whichever is longer, any replacement or repaired of the product or component is for a period of ninety (90) days or the remaining period of the initial warranty. The Company shall not be responsible for any software, firmware, information, or memory data contained in, stored in, or integrated with the product repaired by the customer's return, whether or not during the warranty period.

9.2 Warranty limitations and exceptions

Except above limited warranty, if the product is damaged by over usage, incorrectly use, ignore, accident, unusual physical pressure or voltage, unauthorized modification, alteration or services rendered by someone other than the Company or its authorized agent, the company will not have to bear additional obligations. Except using the product properly in the proper application or normal usage