SC&T

HDMI Matrix Switcher

User Manual

Model : HS42M-4K6G

4K 60Hz 4 x 2 HDMI Matrix Switcher with Audio Extractor & Scaler

Introduction

HS42M-4K6G is a 4 input 2 output HDMI matrix switch that allows you to route 4 Hi-res HDMI sources to 2 HDMI displays. Moreover, the HDMI audio extraction function allows you to integrate with your existing audio equipment to have superior audiovisual experience.
Last but not least, there are multiple options to control and manage the matrix intuitively, including IR remote, RS-232 and the front panel buttons.

Features

- Resolution up to 4K@60Hz 4:4:4.
- Supports HDMI matrix, distribution, separation (combine video from OUTPUT A with audio from OUTPUT B) modes.
- Built-in optical audio & LPCM audio interfaces for digital to analog audio conversion.
- Built in IR sensor and 3.5mm phone jack for external IR receiver cable for remote control.
- Supports up/ down scaling function, 1080p to 4K or 1080p to 4K.
- Supports chroma resampling function, 4K 4:4:4 to 4:2:0 conversion.
- Supports HDMI ARC(Audio Return Channel) function.
- Built-in OSD (on screen display)
- Support CEC pass through.
- Built-in front panel LED, brightness adjustable.
- Managed via RS232, IR remote, front panel buttons, and mobile APP.

Installation View

Front Panel Function
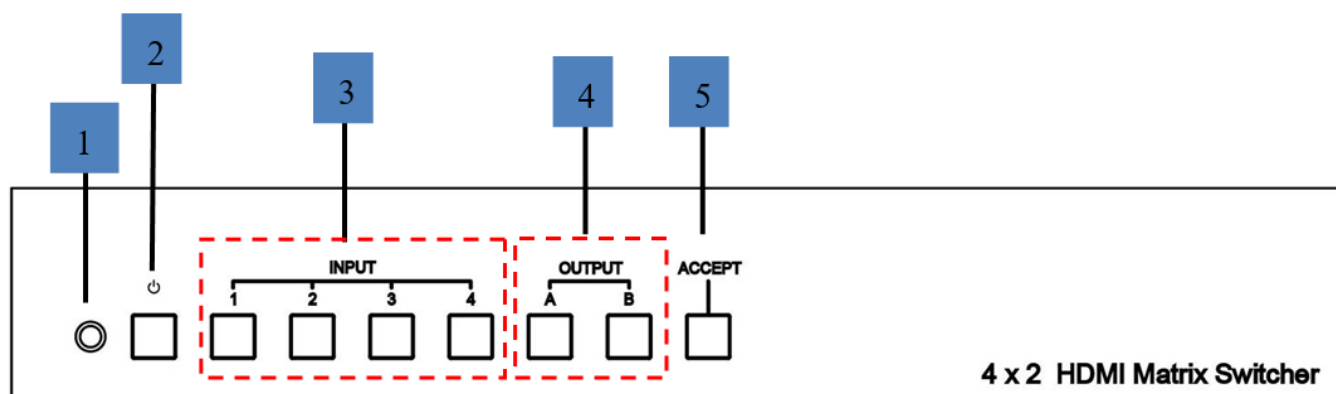
Panel Button Function

No.	Function	LED Status	OSD Status	Description
1	IR	N/A	N/A	Receiving IR remote signal
2	POWER	Blue	N/A	Power on
		Red	N/A	Standby
3	INPUT 1~4	On	Input 1~4	Video input been selected
		Flash		Video input not selected
		Off		No input
4	OUTPUT A~B	On	Output A/B/A+B	Select output to switch (press A and B together to select both) then press INPUT and ENTER to confirm.
5	ENTER	On	Inputresolution and connection	System status / Confirm input selection

IR Remote Control (IR01)

Initial at first time use the remote control or after change battery of remote control, the IR remote control and the equipment IR Remote ID must be using same. The default IR Remote ID is 0.

To setting the Remote ID, Press and hold power button, then press button 0 to complete the setting. ⏻+ 0 (For example)

Remote Control Button Function

Symbol	Function Name	Description	OSD Function
	POWER	Power on / standby	
	UP	Reserved	Move menu function up
	DOWN	Reserved	Move menu function down
	LEFT	Reserved	Reserved
	RIGHT	Reserved	Reserved
	ENTER	System status Confirm input selection	Execution selected function
	MENU	Enter OSD menu Back to upper level of menu	Enter OSD menu Back to upper level of menu
	Input selection	Press to select input 1	
	Input selection	Press to select input 2	
	Input selection	Press to select input 3	
	Input selection	Press to select input 4	
	Reserved		
	Reserved		
	Reserved		
	Reserved		
	Reserved		
	Reserved		
	Output A	Select output A in matrix mode	
	Output B	Select output B in matrix mode	
	Reserved		
	Reserved		

OSD MENU Function

Main Menu	Sub Menu	Description
OPERATION MODE	MATRIX MODE	Independent input for output A & B
	SPLITTER MODE	Same input for both output A & B
	SEPARATION MODE	Set output A video only and output B audio only
	EXIT	Back to menu
OUTPUT A	UP SCALING	Upscale 1080p resolution to 4K60
	4 : 4 : 4 → 4 : 2 : 0	Convert 4K60 4:4:4 to 4K60 4:2:0
	EXIT	Back to menu
OUTPUT B	DOWN SCALING	Downscale 4K60 resolution to 1080p
	4 : 4 : 4 → 4 : 2 : 0	Convert 4K60 4:4:4 to 4K60 4:2:0
	EXIT	Back to menu
EDID	OUTPUT A	Use monitor EDID from output A
	OUTPUT B	Use monitor EDID from output B
	MERGE	Merge EDID from output A and B
	EXIT	Back to menu
	*Will use 4K60, 4:4:4, LPCM 2ch if selected output EDID not existed	
CEC	ENABLE CEC	Enable CEC function at output A
	POWER ON SYNC	Power on when received CEC command "active source" from DVD/STB box
	STANDBY ON SYNC	Standby when received CEC command "standby" from monitor
	EXIT	Back to menu
	* Power on and standby sync function only works when CEC enabled	
AUDIO OUTPUT	HDMI AUDIO	SPDIF and Analog audio from HDMI
	ARC	SPDIF and Analog audio form ARC
	MUTE	Turn off SPDIF and Analog audio output
	EXIT	Back to menu
	* ARC only works when CEC enabled	
LED BRIGHTNESS	MAXIMUM	Set LED brightness to maximum
	MEDIUM	Set LED brightness to medium
	MINIMAL	Set LED brightness to minimal
	AUTO	Auto adjust to maximum in operation or input source changed, after 10 seconds it will back to minimal
	EXIT	Back to menu
MISCELLANEOUS	Main MCU V1.01	Show main MCU firmware version
	Sub MCU V1.00	Show sub MCU firmware version
	EXIT	Back to menu

RS232 Remote Control Command

Connect the RS232 CONSOLE port to the COM port of the host by an F/M RS232 straight cable (pin 2 to pin 2; pin 3 to pin 3, pin 5 to pin 5)
Communication format is 9600, 8, N, 1 (9600 bps, 8 data bits, no parity check, 1 stop bit)

Operation Instruction Format

[Command]		[Description]
X	n	Select output A or B from input 1,2,3 4
n	x	Select input & output and disable auto scan.
POWER	y	System activate or standby.
OPERATION	n	Select operation mode, 1=Matrix, 2=Splitter, 3=Separation.
UPSCALING	y	Upscaling function
DOWNSCALING	y	Downscaling function
A_SUBSAMPLING	y	Output A chroma subsampling function
B_SUBSAMPLING	y	Output B chroma subsampling function
A_MUTE	y	Output A Mute in Separation Mode
EDID	n	Select EDID mode, 1=Output A, 2=Output B, 3=Merge Output A & B.
CEC	y	CEC Function
CEC_POWER_ON_SYNC	y	CEC Power control function
CEC_STANDBY_SYNC	y	CEC Power sync function
AUDIO	n	1=HDMI Audio, 2=ARC, 3=Mute.
LED	n	LED Brightness adjustment, 1=Maximum, 2=Medium, 3=Minimal, 4=Auto.
STATUS		Display Input signal status
VERSION		Display firmware version
?		Show all commands.

[SYMBOL]	[PARAMETER]
n	1 | 2 | 3 | 4
x	A | B
y	ON | OFF

Space characters between the command and parameters can be ignored

Package

Item	Quantity
HS42M	x 1

5

DC 5V 2A Adapter	x 1
IR Receiver Cable	x 1
IR01	x 1
User Manual	x 1

Specification

ITEM NO.	HS42M-4K6G
Support	
Compliance	HDMI 2.0, HDCP 2.2, HDCP 1.4, 3D, HDR, CEC
Max. HDMI Resolution	4K@60Hz 4:4:4
Video Bandwidth	18 Gbps
Audio Format	LPCM 7.1@192KHz, Dolby TrueHD, DTS-HD MA
RS232 Baud Rate	9600 bps
IR Support	45°, 5M
Ports & Interfaces	
Video Input	4 x HDMI Type A
Video Output	2 x HDMI Type A
Digital Audio Output	1 x TOSLINK
Analog Audio Output	2 x RCA Jack
RS232 Interface	1 x DB9 (Female)
IR Interface	1 x 3.5mm Phone Jack
Power Interface	1 x (5.5 x 2.5mm) DC Jack
Power	
Power Supply	DC 12V 1.5A
Power Consumption	800mA (Max)
Ambient Temperature	
Operation	0 to 60℃
Storage	-20 to 85℃
Humidity	up to 95%
Physical Characteristics	
Dimensions	253 x 139 x 40mm
Weight	850g

RoHS CE