

# 4K HDMI Audio Extractor With Up/Down Scaler Series

## ITEM NO.: HAE01 4K HDMI Audio Extractor With Up/Down Scaler 1 in 2 out



The HAE01 is an HDMI multifunction tool: allow you to extract 4K HDMI for both digital optical S/PDIF (Toslink) and stereo analog audio signal for use by an amplifier or AV receiver. With a special feature to do upscale 1080p signal up to 4K or Downscale 4K signal to 1080p. Full OSD operation by using 5 way joystick switches for easy set up and doing EDID management. It is a perfect solution for integrating a 4K source into a 1080P HD system or vice versa.

### HAE01 4K HDMI Audio Extractor with Up/Down Scaler 1 in 2 out

- Support HDMI 2.0, HDCP 2.2, 4K@60Hz 4:4:4 18Gbps (6Gbps per color) 3D,HDR.
- Support extracts the 4K HDMI audio and output to a multi-channel digital or analog audio signal.
- Allows you to route HDMI audio simultaneously via S/PDIF and 3.5mm stereo audio outputs.
- HDMI audio output: LPCM7.1@192KHz, Dolby TrueHD, DTS-HD MA.
- Input: HDMI x 1, Output: HDMI x 2, Optical out x 1, analog stereo out x 1.
- Support uncompressed audio such as LPCM.
- Support 1080p to 4K upscale and 4K to 1080p downscale.
- Support HDCP 2.2 convert to HDCP 1.4.
- Support 4K 4:4:4 convert to 4:2:0.
- Audio output support: up to 7.1 channel
- Support CEC pass-through
- Built in EDID management, 2/5.1/7.1 patched EDID.
- Built in 5 way joystick switch for full OSD operation.

#### Application 1: 4K HDMI Audio Extractor



#### Application 2: 4K HDMI Up/Down Scaler with Audio Extractor



**HDCP 2.2 to 1.4 and 4:4:4 to 4:2:0 and Up/Down Scale Capable  
Full OSD operation for all setup/EDID management**

## 5 way Joystick Switch Function:



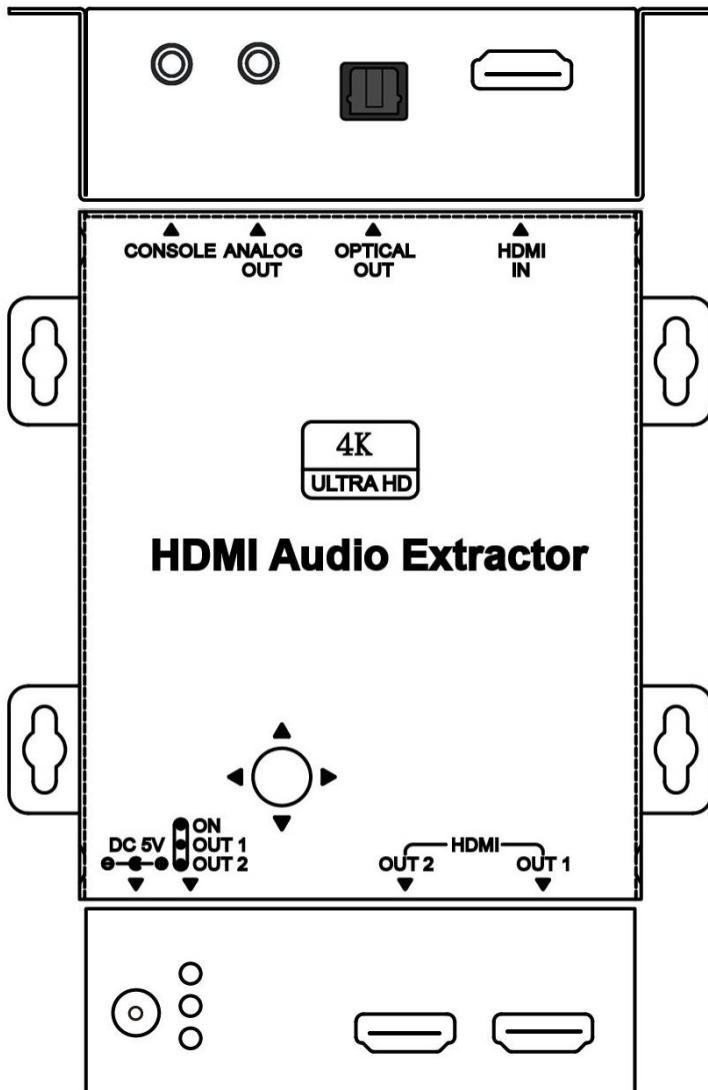
### MENU Operation

SW1	Function
▲	Up
▼	Down
◀	Left
▶	Right
○	confirm

### MENU :

Main Menu	Sub Menu	Sub Menu Function
OUTPUT 1 MODE	NORMAL	Output video same as input Video
	UPSCALE	1080P Upscale to 4K
	EXIT	Exit Sub Menu
OUTPUT 1 SUBSAMPLING	NORMAL	Output color subsampling same as Input
	4:4:4 →4:2:0	4K 4:4:4 convert to 4K 4:2:0
	NORMAL	Output color subsampling same as Input
OUTPUT 1 AUDIO MODE	OUTPUT 1 AUDIO MODE	Audio Selection
	NORMAL	audio output
	MUTE	No audio output
	EXIT	Exit Sub Menu
OUTPUT 2 MODE	AUDIO ONLY	Audio output only
	DOWNSCALE	4K downscale to 1080P
	SPLITTER	Distribution Mode ( Output signal same as OUTPUT 1 )
	EXIT	Exit Sub Menu
EDID(VIDEO)	AUTO	Use OUTPUT 1 EDID as priority, if OUTPUT 1 and OUTPUT 2 not connected with TV, Default as 4K
	OUTPUT 1	Use OUTPUT 1 EDID
	OUTPUT 2	Use OUTPUT 2 EDID
	PRESET 4K	Default 4K 60Hz 8bit
	PRESET 1080P	Default 1080P 60Hz 8bit
	EXIT	Exit Sub Menu
EDID(AUDIO)	AUTO	Use OUTPUT 2 as priority, If OUTPUT 1 and OUTPUT 2 not connected with TV, Default as LPCM 2.0
	OUTPUT 1	Use OUTPUT 1 EDID
	OUTPUT 2	Use OUTPUT 2 EDID
	5.1 AUDIO	Default LPCM 5.1
	2.0 AUDIO	Default LPCM 2.0
	EXIT	Ext Sub Menu

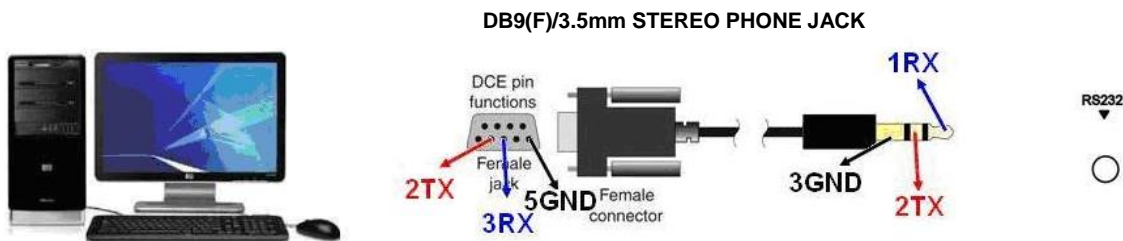
**Panel View:**



**LED Indication:**

Color	LED
GREEN	Power
BLUE	Output 1
RED	Output 2

**RS232 Define:**



**DB9(F)/3.5mm STEREO PHONE JACK**

RS232		3.5 mm Phone Jack	
Footprint	Define	Footprint	Define
Pin 2	TX	Pin 1	RX
Pin 3	RX	Pin 2	TX
Pin 5	GND	Pin 3	GND

**Trouble Shooting:**

1. CEC function only works Output 1.
2. Any HDMI output with HDCP2.2 compatible issues will cause HDMI no video output, Under HDCP 2.2 mode: any one monitor HDCP authorization failed will cause no video status, other connecting monitors will be also failed. Then monitor testing must be one by
3. Up/down scale mode only support resolution conversion, frequency will be not changed.
4. Under HDMI 2.0 mode, must use Premium certified HDMI cable.

**HAE01 Package Include:**

HAE01 x 1 pcs  
DC5V 1Amp Power Adapter x 1 pcs  
DB9(F)/3.5mm STEREO PHONE JACK x 1 pcs  
Mounting Screw pack x 2 bags

**Specification:**

ITEM NO	HAE01
HDMI Input	HDMI Type A x 1
HDMI Output	HDMI Type A x 2
HDMI Video Support	Up to 4096x2160/60Hz/4:4:4(18Gbps) 、 3D 、 HDR
HDMI Audio Support	Up to 7.1 LPCM 192KHz / Dolby TrueHD / DTS-HD MA
Digital Audio Connector	TOSLINK Type x 1
Analog Audio Connector	3.5mm Phone Jack x 1
Firmware updated Interface	DB9(F)/3.5mm STEREO PHONE JACK
Power Supply	Regulated DC5V / 1A
Power Consumption	4W
Temperature	Operation : -10~45°C, Storage : -30~70°C, Humidity : up to 95%
Dimension	mm
Weight	g

