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EGE-6UHD-12VS 4K HDMI Scaler with Audio Output



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SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply.

Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

REVISION HISTORY

VERSION NO.	DATE DD/MM/YY	DD/MM/YY SUMMARY OF CHANGE	
VR0	07/04/16	Preliminary Release	
VR1	02/06/16	Remove HDR from OSD	

CONTENTS

1. Introduction	1
2. Applications	1
3. Package Contents	
4. System Requirements	1
5. Features	2
6. Operation Controls and Functions	3
6.1 Front Panel	3
6.2 Rear Panel	4
6.3 OSD Menu	5
7. Connection Diagram	11
8. Specifications	12
8.1 Technical Specifications	12
8.2 Video Supports Specification	
8.3 Audio Specifications	14



1. INTRODUCTION

The 1 by 2 UHD Scaler with Audio De-Embedded is designed to upscale 1080p signal into 4K2K 6G or downscale 4K2K 6G signal into 1080p with synchronized digital and analog audio output. Friendly and simple design that allow user with direct viewing on input HDMI content and OSD that ease user with output settings/selection. Scaling signal up to 2 simultaneous HDMI output with two different resolutions or generate patterns to output display with assigned resolution allowing on-site display testing. This UHD Scaler is the best define tool between your HD and UHD signal.

2. APPLICATIONS

- On-site equipment testing
- HDMI signal splitting
- Production testing
- R&D design and testing

3. PACKAGE CONTENTS

- 1 x 1 by 2 UHD Scaler with Audio De-Embedded
- 1 x 5V DC Power adaptor
- Operational Manual

4. SYSTEM REQUIREMENTS

Input source equipment such as PS3 or Blu-ray player and output display or TV with equivalent HDMI cables.

5. FEATURES

- HDMI with 6G 4Kx2K supported and HDCP 2.2 compliant
- Supports HDMI signal bypass on both outputs or upscale 1080p signal into 4K2K on output B and downscale 4K2K signal into 1080p on output A
- Supports 4K2K@50/60 (4:4:4) to 4K2K@50/60(4:2:0) conversion
- Supports auto pattern generation with assigned resolution for on-site display testing
- Supports HDMI input of one 6G and HDMI outputs of two 6G
- Supports HDMI signal bypass, upscale and downscale
- Supports EDID selections
- Supports High-Dynamic-Range (HDR) image
- Supports HDR conversion from 4Kx2K@24/25/30(444/422)10 or 12bit to 4096x2160@24/25/30Hz 8bit fix
- Supports UHD resolutions up to 4Kx2K: 3840x2160@24/25/30Hz 3840x2160@50/60 Hz (4:4:4) & 4096x2160 @24/25/30 Hz, 4096x2160@50/60Hz (4:4:4)
- Supports data rate up to 6Gbps (600MHz) and Deep Color up to 1080p 48-bit
- Supports pass-through of HD audio formats of LPCM 2/5.1/7.1CH, Dolby Digital 2~5.1CH, DTS 2~5.1CH, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos and DTS-HD Master Audio
- HDMI compatible with DVI
- Supports OSD with instant I/O resolution display
- Supports Digital to Analog (DAC) audio conversion
- Supports Apple mode signal display
- Supports HDCP 2.2 to HDCP1.4 conversion

Note: When displaying HDMI 4Kx2K/HDR signal, equivalent source signal, output display and HDMI cables are required in order to secure the best image display. It is suggested to use Premium High Speed HDMI cable for 6G HDMI signal.

6. OPERATION CONTROLS AND FUNCTIONS

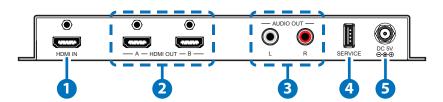
6.1 Front Panel



- **1 POWER LED:** This LED will illuminate when the device is connected with power supply.
- **2 4K2K LED:** This LED will illuminate when the input source contains 4K2K signal.
- **3 SYNC LED:** This LED will illuminate when the input source is sending signal.
- 4 MENU: Press this button to enter into OSD menu and when under OSD selection press this button to exit. Press and hold this button together with TEST PATTERN "-" button for 3 seconds to set the device back to factory default.
- 5 TEST PATTERN -/+: Press these buttons to select patterns to display on outputs instantly. Press these buttons together to switch output timing to 1280x720@60 instantly. When under OSD selection, press these buttons to roll the scroll.
- **6** ENTER: Press this button to enter and confirm OSD selection.

Press and hold this button together with the MENU button for 3 seconds to enter into firmware update mode. The LEDs will illuminate in circle from left to right. Plug in the USB thumb drive with updated firmware inside and the LEDs will stop illuminating. Once the update procedure completed or successfully, all LEDs will illuminate together but if update failed no LED will illuminate. The device will automatically reboot after 10 seconds or user may re-power on the device manually.

6.2 Rear Panel



- **1 HDMI IN:** This slot is to connect with source equipment such as PS3 or Blu-ray player.
- **2 HDMI OUT:** These slots are to connect with UHD display/TV for images display. Each output can be displaying with different timing and pattern and image.
- 3 AUDIO OUT L/R: These slots are to connect with audio equipment such as amplifier or speakers for audio signal output PCM 2CH that is synchronized with HDMI input audio signal.
- **General Service:** This slot is reserved for factory firmware update only.
- 5 DC 5V: Plug the 5V DC power supply into the unit and connect the adaptor to an AC outlet.

6.3 OSD Menu

1 st LEVEL	2 ND LEVEL	3 RD LEVEL	4 [™] LEVEL
			PASS THROUGH
	OUTPUT A	INPUT 4K2K	DOWN 1080P*1
	OUTPUTA		FIX 4K2K(420) ^{*2}
			FIX 8 BITS ^{*5}
		INPUT 1080P	PASS THROUGH
OUTPUT			UP 4K2K ^{*3}
	OUTPUT B		UP 4K2K(420) ^{*4}
		INPUT 4K2K	PASS THROUGH
			FIX 4K2K(420)
			FIX 8 BITS ^{*5}
	INT	YES/NO	
	4K(6G-2CH)		_
		YES/NO	
	4K(3G-2CH) INT		-
	4K(420-2CH)	YES/NO	
	INT		_
	1080P(2CH)	YES/NO	
EDID	EXT	YES/NO	
	OUT A		-
	EXT	YES/NO	
	OUT B EXT		_
	OUT A (2CH)	YES/NO	
	EXT		-
	OUT B (2CH)	YES/NO	
	HDCP SUPPORT OFF		
HDCP	REFER TO SOURCE		
	REFER TO DISPLAY		
		ON	
	DISPLAY INFO.	OFF	
		5 SEC.	
OSD		10 SEC.	
		15 SEC.	
	OSD TIME OUT	20 SEC.	
		25 SEC.	
		30 SEC.	-
		35 SEC.	-
		40 SEC.	-
		OFF	

1 ST LEVEL	2 ND LEVEL	3 RD LEVEL	4 [™] LEVEL
	MODE	ON	
		AUTO PATTERN	
		AUTO TIMING	
		WHITE COLOR	
		RED COLOR	
		GREEN COLOR	
TEST PATTERN A		BLUE COLOR	
	PATTERN	MEGENTA COLOR	
		YELLOW COLOR	
		CYAN COLOR	
		COLOR BAR	
		RAMP	
		TOGGLE	
		720X480P@60	
		720X576P@50	
		1280X720P@50	
	RESOLUTION	1280X720P@60	
		1920X1080P@50	
		1920X1080P@60	
		3840X2160P@24	
		3840X2160P@25	
		3840X2160P@30	
		4096X2160P@24	
		4096X2160P@25	
		4096X2160P@30	
	HDCP	DISABLE	
		ENABLE	
		10 SEC.	
		20 SEC.	
		30 SEC.	
		40 SEC.	
	SWITCH TIME	50 SEC.	
		1 MIN.	
		2 MIN.	
TEST PATTERN A		3 MIN.	
		5 MIN.	

EGE-6UHD-12VS 4K HDMI Scaler with Audio Output

Pattern Pattern Pathern NODE 0 950 YES/NO 1280X720P #50 YES/NO 1280X720P #50 YES/NO 1280X720P #50 YES/NO 1280X720P #50 YES/NO 1280X720P #60 YES/NO 1280X720P #50 YES/NO 1280X720P #60 YES/NO 1280X720P #50 YES/NO 1280X720P #60 YES/NO 1280X720P #50 YES/NO 3840X2160P #24 YES/NO 3840X2160P #24 YES/NO 3840X2160P #24 YES/NO 4096X2160P #24 YES/NO 4096X2160P #25 YES/NO 4096X2160P #25 YES/NO 4096X2160P #26 YES/NO 4096X2160P #26 120X100P AUTO TIMING RED COLOR RED COLOR RED COLOR READ YES/NO 720X480P #650 1280X720P #50 1280X720P #50	1 st LEVEL	2 ND LEVEL	3 RD LEVEL	4 [™] LEVEL	
1280X720P @ 50 YES/NO 1280X720P @ 60 YES/NO 1920X1080P @ 50 YES/NO 1920X1080P @ 60 YES/NO 1820X720P @ 60 YES/NO 1820X720P @ 60 YES/NO 1820X780P @ 60 YES/NO 1820X780P @ 60 YES/NO 3840X2160P @ 24 YES/NO 3840X2160P @ 23 YES/NO 3840X2160P @ 23 YES/NO 4096X2160P @ 24 YES/NO 4096X2160P @ 23 YES/NO 4096X2160P @ 23 YES/NO 4096X2160P @ 30 YES/NO AUTO TIMING BUE FF ON AUTO TIMING BUE FERVEX PATERN RED COLOR RED COLOR BLUE COLOR RELUE COLOR TOGGLE TOGGLE 1200X1080P @ 50 1200X720P @ 50 </td <td></td> <td rowspan="2"></td> <td>720X480P@60</td> <td>YES/NO</td>			720X480P@60	YES/NO	
Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strength Image: Provide of the strengt Image: Provide of the			720X576P@50	YES/ NO	
Instant Part Part Part Part Part Part Part Par			1280X720P@50	YES/ NO	
AUTO TIMING SELECT 1920X1080P @60 YES/NO 3840X2160P @24 YES/NO 3840X2160P @25 YES/NO 3840X2160P @24 YES/NO 3840X2160P @24 YES/NO 4096X2160P @25 YES/NO MODE ON NOT TIMING YES/NO NODE ON AUTO TIMING WHTE COLOR RED COLOR BLUE COLOR BLUE COLOR BLUE COLOR GREEN COLOR CUON COLOR PATTERN PATTERN MEGENTA COLOR YES/NO GUAN COLOR YES/NO YEAN COLOR YEAN COLOR YEAN COLOR YEAN COLO			1280X720P@60	YES/NO	
AUTO TIMING SELECT INEXT PAGE 3840X2160P @24 YES/NO 3840X2160P @230 YES/NO 3840X2160P @24 YES/NO 3840X2160P @24 YES/NO 4096X2160P @24 YES/NO 4096X2160P @25 YES/NO MODE ON AUTO TIMING YES/NO NODE ON AUTO TIMING WHITE COLOR RED COLOR BLUE COLOR BLUE COLOR CION RAR YELOW COLOR YELOW COLOR YELOW COLOR YELOW COL			1920X1080P@50	YES/NO	
34002160P@24 YES/NO 384002160P@25 YES/NO 384002160P@30 YES/NO 409602160P@24 YES/NO 409602160P@23 YES/NO 409602160P@30 YES/NO NODE ON AUTO PATTERN OFF RAP RED COLOR BLUE COLOR BLUE COLOR BLUE COLOR BLUE COLOR VELLOW COLOR YELLOW COLOR YELLOW COLOR YELLOW RAMP YELS/NO COLOR 1280X720P@50 1280X720P@50 1280X720P@60 1280X720P@60 13840X2160P@24 3840X2160P@24 3840X2160P@24 3840X2160P@24			1920X1080P@60	YES/NO	
3840X2160P@25 YES/NO 3840X2160P@30 YES/NO 4096X2160P@24 YES/NO 4096X2160P@230 YES/NO 4096X2160P@30 YES/NO AUTO FILIP ON AUTO FAITERN ON BLUE COLOR BLUE COLOR BLUE COLOR BLUE COLOR PATTERN MEGENTA COLOR YELLOW COLOR COLOR BAR RAMP TOGGLE TOGGLE 720X56P@50 1280X720P@60 1840X2160P@24 1920X1080P@60 3840X2160P@24 3840X2160P@24 3840X2160P@24		AUTO TIMING SELECT	NEXT PAGE		
B40X2160P @30 YES/NO 4096X2160P @24 YES/NO 4096X2160P @30 YES/NO 4096X2160P @30 YES/NO 4096X2160P @30 YES/NO 006X2160P @30 YES/NO 096X2160P @30 YES/NO 096X2160P @30 YES/NO 006X2160P @30 YES/NO 006X2160P @30 YES/NO 006X2160P @30 YES/NO 006X2160P @30 YES/NO 000E ON 0010 TOTIMING WITE COLOR RED COLOR BLUE COLOR BLUE COLOR BLUE COLOR RED COLOR YELLOW COLOR YELLOW COLOR COLOR BAR TOGGLE TOGGLE 1000X180P @60 1280X20P@50 1280X20P@50 1280X20P@50 1920X1080P @60 3840X2160P @24 3840X2160P @24 3840X2160P @24			3840X2160P@24	YES/ NO	
4096X2160P@24 YES/NO 4096X2160P@25 YES/NO 4096X2160P@25 YES/NO 4096X2160P@26 YES/NO 006X2160P@26 YES/NO PREVIOUS PREVIOUS PREVIOUS PREVIOUS 006X2160P@26 YES/NO 006X2160P@26 YES/NO 006X2160P@26 YES/NO 006X2160P@26 NO 000E ON AUTO PATTERN ON RED COLOR RED COLOR BLUE COLOR BLUE COLOR BLUE COLOR YELLOW COLOR CVAN COLOR YELLOW COLOR TOGGLE COLOR BAR RAMP TOGGLE 1200720P@50 1200720P@50 1200720P@50 1200720P@50 120071080P@60 364002160P@25			3840X2160P@25	YES/ NO	
4096X2160P@25 YES/NO 4096X2160P@30 YES/NO PREVIO PREVIO NODE OFF 0N AUTO PATTERN AUTO TIMING NOT RED COLOR GREN COLOR GREN COLOR BLUE COLOR BLUE COLOR COLOR GREN COLOR COLOR GREN COLOR BLUE COLOR BLUE COLOR COLOR BLUE COLOR COLOR BAR FAMP TOGGLE TOGGLE 720X40P@60 720X570P@50 1280X720P@50 1280X720P@60 1920X1080P@650 1920X1080P@650 1920X1080P@60 1920X1080P@610 3840X2160P@24			3840X2160P@30	YES/NO	
4096X2160P@30 YES/NO PREVIOUE PREVIOUE 0FF ON AUTO PATTERN AUTO PATTERN AUTO TIMING NODE PRED COLOR RED COLOR GREEN COLOR BLUE COLOR BLUE COLOR BLUE COLOR VHITE COLOR CYAN COLOR COLOR BAR COLOR BAR TOGGLE 720X480P@60 T20X720P@50 1280X720P@50 1280X720P@50 1280X720P@60 1920X1080P@60 3840X2160P@24 3840X2160P@24 3840X2160P@24			4096X2160P@24	YES/ NO	
Image: Precision of the pr			4096X2160P@25	YES/ NO	
MODE OF NOT ON AUTO PATTERN AUTO TIMING MUTO TIMING RED COLOR RED COLOR BLUE COLOR BLUE COLOR BLUE COLOR VELLOW COLOR CYAN COLOR VELLOW COLOR COLOR BAR TOGGLE TOGGLE 1280X720P@60 1280X720P@60 1920X1080P@610 1920X1080P@610 1920X1080P@610 3840X2160P@24 3840X2160P@25 3840X2160P@25			4096X2160P@30	YES/ NO	
MODE ON AUTO PATTERN AUTO TIMING AUTO TIMING RED COLOR RED COLOR GREEN COLOR BLUE COLOR BLUE COLOR VIELLOW COLOR VELLOW COLOR VELLOW COLOR CVAN COLOR TEST PATTERN COLOR BAR RAMP TOGGLE 1280X720P660 1280X720P650 1280X720P660 1920X1080P660 1920X1080P660 3840X2160P@24 3840X2160P@25 3840X2160P@25			PREVIO	US PAGE	
AUTO PATTERN AUTO TIMING AUTO TIMING BUE COLOR RED COLOR BLUE COLOR BLUE COLOR VELLOW COLOR VELLOW COLOR VELLOW COLOR COLOR BAR RAMP TOGGLE 1280X720P@60 1280X720P@50 1920X1080P@60 3840X2160P@24 3840X2160P@25			OFF		
AUTO TIMING AUTO TIMING WHITE COLOR RED COLOR GREEN COLOR BLUE COLOR BLUE COLOR YELLOW COLOR YELLOW COLOR CVAN COLOR COLOR BAR RAMP TOGGLE 1280X720P@60 1280X720P@50 1280X720P@50 1920X1080P@60		MODE	ON		
FIEST PATTERN WHITE COLOR RED COLOR GREEN COLOR BLUE COLOR BLUE COLOR BLUE COLOR YELLOW COLOR VELLOW COLOR CVAN COLOR COLOR BAR RAMP TOGGLE 720X480P@60 1280X720P@60 1280X720P@60 1920X1080P@50 1920X1080P@60 1920X1080P@60 3840X2160P@224 3840X2160P@25 3840X2160P@25			AUTO PATTERN		
RED COLOR GREEN COLOR BLUE COLOR BLUE COLOR HEGENTA COLOR YELLOW COLOR YELLOW COLOR COLOR BAR COLOR BAR 100GLE 100GLE 1280X720P@50 1280X720P@50 1280X720P@60 1920X1080P@50 1920X1080P@60 1920X1080P@50 1920X1080P@50 1920X1080P@50 1920X1080P@50 1920X1080P@50 1920X1080P@60 3840X2160P@24 3840X2160P@25			AUTO TIMING		
FATTERN GREEN COLOR BLUE COLOR BLUE COLOR YELLOW COLOR YELLOW COLOR CVAN COLOR COLOR BAR RAMP TOGGLE 720X480P@60 720X576P@50 1280X720P@60 1280X720P@60 1920X1080P@60 1920X1080P@60 3840X2160P@24 3840X2160P@25		PATTERN	WHITE COLOR		
PATTERN BLUE COLOR MEGENTA COLOR YELLOW COLOR YELLOW COLOR CVAN COLOR COLOR BAR RAMP TOGGLE 720X480P@60 1280X720P@50 1280X720P@50 1920X1080P@50 1920X1080P@60 1920X1080P@60 3840X2160P@24 3840X2160P@25 3840X2160P@25			RED COLOR		
PATTERN MEGENTA COLOR YELLOW COLOR CYAN COLOR CVAN COLOR COLOR BAR RAMP TOGGLE Y20X480P@60 720X576P@50 1280X720P@60 1280X720P@60 1920X1080P@50 1920X1080P@60 1920X1080P@60 3840X2160P@24 3840X2160P@25 3840X2160P@25			GREEN COLOR		
TEST PATTERN YELLOW COLOR CYAN COLOR COLOR BAR RAMP TOGGLE 720X480P@60 720X576P@50 1280X720P@60 1280X720P@60 1920X1080P@60 1920X1080P@60 3840X2160P@24 3840X2160P@25			BLUE COLOR		
CYAN COLOR COLOR BAR RAMP TOGGLE 720X480P@60 720X576P@50 1280X720P@60 1920X1080P@50 1920X1080P@60 3840X2160P@24 3840X2160P@25			MEGENTA COLOR		
TEST PATTERN B COLOR BAR RAMP TOGGLE 720X480P@60 720X576P@50 1280X720P@50 1280X720P@60 1920X1080P@50 1920X1080P@50 1920X1080P@60 3840X2160P@24 3840X2160P@25 1000000000000000000000000000000000000			YELLOW COLOR		
B COLOR BAR RAMP TOGGLE 720X480P@60 720X576P@50 1280X720P@60 1280X720P@60 1920X1080P@50 1920X1080P@60 3840X2160P@24 3840X2160P@25			CYAN COLOR		
TOGGLE 720X480P@60 720X576P@50 1280X720P@50 1280X720P@60 1920X1080P@50 1920X1080P@60 3840X2160P@24 3840X2160P@25			COLOR BAR		
720X480P@60 720X576P@50 720X576P@50 1280X720P@60 1920X1080P@50 1920X1080P@60 3840X2160P@24 3840X2160P@25			RAMP		
720X576P@50 1280X720P@50 1280X720P@60 1920X1080P@50 1920X1080P@60 3840X2160P@24 3840X2160P@25			TOGGLE		
1280X720P@50 1280X720P@60 1920X1080P@50 1920X1080P@60 3840X2160P@24 3840X2160P@25			720X480P@60		
1280X720P@60 1920X1080P@50 1920X1080P@60 3840X2160P@24 3840X2160P@25			720X576P@50		
1920X1080P@50 1920X1080P@60 3840X2160P@24 3840X2160P@25			1280X720P@50		
1920X1080P@60 3840X2160P@24 3840X2160P@25			1280X720P@60		
3840X2160P@24 3840X2160P@25			1920X1080P@50		
3840X2160P@25			1920X1080P@60		
			3840X2160P@24		
RESOLUTION 3840X2160P@30			3840X2160P@25		
		RESOLUTION	3840X2160P@30		

1 ST LEVEL	2 ND LEVEL	3 RD LEVEL	4 [™] LEVEL
		4096X2160P@24	
		4096X2160P@25	
		4096X2160P@30	
		3840X2160P@50	
		3840X2160P@60	
		4096X2160P@50	
		4096X2160P@60	-
		10 SEC.	
		20 SEC.	
		30 SEC.	
		40 SEC.	
	SWITCH TIME	50 SEC.	
		1 MIN.	
		2 MIN.	
TEST PATTERN B		3 MIN.	
		5 MIN.	
	HDCP	DISABLE	
		ENABLE	
	AUTO TIMING SELECT	720X480P@60	YES/NO
		720X576P@50	YES/ NO
		1280X720P@50	YES/ NO
		1280X720P@60	YES/NO
		1920X1080P@50	YES/ NO
		1920X1080P@60	YES/NO
		NEXT	PAGE
		3840X2160P@24	YES/ NO
		3840X2160P@25	YES/ NO
		3840X2160P@30	YES/ NO
		4096X2160P@24	YES/ NO
		4096X2160P@25	YES/ NO
		4096X2160P@30	YES/NO
		3840X2160P@50	YES/ NO
		3840X2160P@60	YES/ NO
		4096X2160P@50	YES/ NO
		4096X2160P@60	YES/ NO
		PREVIO	US PAGE
		INPUT	XXX

1 ^{s⊤} LEVEL	2 ND LEVEL	3 RD LEVEL	4 [™] LEVEL
INFORMATION	RESOLUTION	OUTPUT A	XXX
		OUTPUT B	XXX
	HDCP	OUTPUT A	DISABLE/ENABLE
		OUTPUT B	DISABLE/ENABLE
	FIRMWARE	VERSION	VX.XX
FIRMWAR	NO		
UPDATE	YES		
FACTORY SETTING	NO		
	YES		

Default settings are in Italian bold font

Note: When input timing is non-VESA standard, OSD may be disable. To enter into OSD selection, press hot keys to enter into test pattern mode and do the OSD selection.

* 1 Input \rightarrow Output

 $3840x2160@24 \rightarrow 1920x1080p@24$ $3840x2160@25 \rightarrow 1920x1080p@25$ $3840x2160@30 \rightarrow 1920x1080p@30$ $3840x2160@50 \rightarrow 1920x1080p@50$ $3840x2160@60 \rightarrow 1920x1080p@60$ $4096x2160@25 \rightarrow 1920x1080p@25$ $4096x2160@30 \rightarrow 1920x1080p@30$ $4096x2160@50 \rightarrow 1920x1080p@50$ $4096x2160@60 \rightarrow 1920x1080p@50$

* 2 Input \rightarrow Output

 $3840x2160 @ 50(RGB,YCbCr444,Ycbcr422) \rightarrow 3840x2160 @ 50(YCbCr420)$ $3840x2160 @ 60(RGB,YCbCr444,Ycbcr422) \rightarrow 3840x2160 @ 60(YCbCr420)$ $4096x2160 @ 50(RGB,YCbCr444,Ycbcr422) \rightarrow 4096x2160 @ 50(YCbCr420)$ $4096x2160 @ 60(RGB,YCbCr444,Ycbcr422) \rightarrow 4096x2160 @ 60(YCbCr420)$

* 3 Input \rightarrow Output

 $\begin{array}{c} 1920x1080p @ 24 \rightarrow 3840x2160 @ 24 \\ 1920x1080p @ 25 \rightarrow 3840x2160 @ 25 \\ 1920x1080p @ 30 \rightarrow 3840x2160 @ 30 \\ 1920x1080p @ 50 \rightarrow 3840x2160 @ 50 \\ 1920x1080p @ 60 \rightarrow 3840x2160 @ 60 \end{array}$

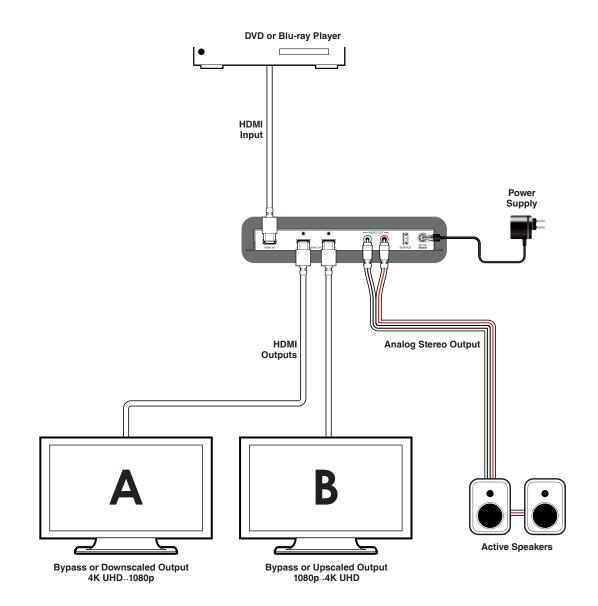
* 4 Input \rightarrow Output

 $1920x1080p @ 50 (RGB, YCbCr444, Ycbcr422) \rightarrow 3840x2160 @ 50 (YCbCr420) \\ 1920x1080p @ 60 (RGB, YCbCr444, Ycbcr422) \rightarrow 3840x2160 @ 60 (YCbCr420) \\ \label{eq:starses}$

* 5 Input → Output

4K2K@24/25/30(RGB, YCbCr444, YCbCr422) 10/12/16bit → 4K2K@24/25/30(RGB, Ycbcr444, Ycbcr422) 8bit 4K2K@50/60(YCbCr420) 10/12/16bit -> 4K2K@50/60(YCbCr420) 8bit

7. CONNECTION DIAGRAM



<u>geratech</u>

8. SPECIFICATIONS

EGE-6UHD-12VS

8.1 Technical Specifications

VideoBandwidth	600MHz/18G
	1 x USB (Service only)
Output ports	2 x HDMI
	1 x R/L
HDMI Cable Length	15 m@1080p/8-bit, 10 m@1080p/12-bit,
	5 m@4K
Power Supply	5V DC/2.6A (US/EU standards, CE/FCC/UL
	certified)
ESD Protection	Human body model:
	±8kV (air-gap discharge)
	±4kV (contact discharge)
Dimensions	231.5mm (W) x 108mm (D) x 25mm (H)/Jack
	Excluded
	231.5mm (W) x 117mm (D) x 25mm (H)/Jack
	Included
Weight	616g
Chassis Material	Metal
Silkscreen Color	Black
Operating Temperature	0°C~40°C / 32°F ~ 104°F
Storage Temperature	-20°C~60°C / -4°F ~ 140°F
Relative Humidity	20~90% RH (no condensation)
Power Consumption	5.8W

Note: HDMI cable distance might affected by material or design of cable. It is suggested to use Premium High Speed HDMI cable for 6G HDMI signal.

8.2 Video Supports Specification

DVI and HDMI Supported	Input	Output
640x480i@60	~	~
640x480p@60	~	√
720x480p@60	~	~
720x576i@50	~	~
720x576p@50	~	~
800x600@56/60/72/75/85	✓	✓
1024x768@60/70/75/85	✓	✓
1280x720p@50/60	✓	✓
1280x768@60/75	~	~
1280x800@60/75	✓	✓
1280x1024@60/75	\checkmark	~
1366x768@60	✓	✓
1400x1050@60/75	\checkmark	\checkmark
1440x900@60/75	✓	✓
1600x900@60	~	~
1600x1200@60	~	✓
1680x1050@60	~	~
1920x1080i@50/60	~	~
1920x1080p@24/25/30/50/60	~	~
1920x1200@60	~	~
3840x2160@24/25/30/50/60	~	~
4096x2160@24/25/30/50/60	\checkmark	\checkmark

8.3 Audio Specifications

Input Level/Freq	Output Terminal	Output Level	THD+N	Frequence Response	SNR	Crosstalk
	HDMI	0dB~-1dB	<0.01%	±1dB	>80dB	<-80dB
0dBFS 20 \ 1K \ 20KHz	L/R	Vrms±10%	<0.1%	±3dB	>70dB	<-60dB

