

CSC-6011 4K UHD PC/HD & HDMI to HDMI Scaler





Operation Manual



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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

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)	SUMMARY OF CHANGE
RDV1	04/07/16	Preliminary Release



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1. INTRODUCTION

This is a compact yet versatile PC/HD and HDMI to HDMI Scaler Box. It accept a wide-range of PC/HD resolution up to 1080p/WUXGA and 4K2K UHD 6G HDMI signal and scale it to selectable resolution up to 4K2K with both digital and analog audio outputs simultaneously. This device has a comprehensive OSD menu that allows user with easy setting and hot key design for fast timing switching. An ideal device between incompatible PC/HD and HDMI source to display.

2. APPLICATIONS

- PC/HD contents on to HDMI display
- Household PC/HDMI signal enlargement onto HDMI TV/display with audio
- Lecture room/Showroom/Meeting room or Classroom signal display

3. PACKAGE CONTENTS

- 1 x PC/HD and HDMI to HDMI Scaler Box
- 1 x 5V/2.6A DC Power Adaptor
- 1 x Operation Manual

4. SYSTEM REQUIREMENTS

Input HDMI source signal such as PC/Laptop, DVD player, Blu-ray player and ...etc. with output HDMI display and connection cables.



5. FEATURES

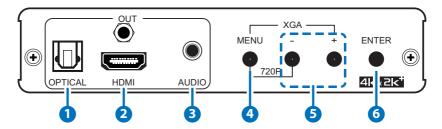
- HDMI with 4Kx2K 6G supported, HDCP2.2 and DVI compliant
- Supports full range of PC resolution from VGA~WUXGA and HDMI resolution from 480i~4K2K_YUV444
- Supports 50/60 frame rate conversion
- Supports 3-D motion video adaptive, 3-D de-interlacing and 3:2/2:2 pull-down detection and recovery
- Automatically detect the factory setting of the connected display and output the corresponding resolution and refresh rate, when the NATIVE output is selected
- Provides scaling output picture adjustment on contrast, brightness, hue, saturation, sharpness, RGB (color tone) level and aspect ratio size
- Supports stereo LPCM analog/digital audio input and stereo LPCM analog/digital output by selecting among the audio input sources in the OSD menu and simultaneously output to HDMI, Optical and phone jack
- Supports USB firmware update

Note: When displaying HDMI 4Kx2K signal, equivalent source signal, output display and HDMI cables are required in order to secure the best image display.



6. OPERATION CONTROLS AND FUNCTIONS

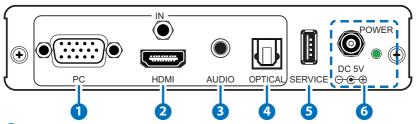
6.1 Front Panel



- 1 OPTICAL OUT: Connect to amplifier or active speaker with optical cable for audio output. LPCM format support 2CH only.
- 2 HDMI OUT: Connect to HDMI TV/monitor for output image display or with AV receiver for audio output.
- 3 AUDIO OUT: Connect to an amplifier or active speaker with 3.5mm phone jack for audio output. Supports LPMC 2CH only, bitstream format will be muted.
- **MENU:** Press this button to enter into the OSD menu and press it again to enter into the selection.
- 5 -/+ Buttons: Press these buttons to
 - i. Press "-" to adjust output L/R audio volume
 - ii. Press "+" to Auto Adjust PC input signal
 - iii. Press "-" together with "MENU" to switch output resolution to 720P@60 instantly
 - iv. Press "+" together with "MENU" to switch output resolution to XGA@60 instantly
 - v. Press both "+" together with "-" and "ENTER" to set the device back to factory reset setting
 - Under OSD selection:
 - vi. Move up/down the OSD selection
 - vii.To adjust the value
- **6 ENTER:** Press this button to switch input between PC/HDMI or when under OSD selection press to confirm the selection.



6.2 Rear Panel



- **PC IN:** Connect from source equipment such as PC/Laptop with D-Sub 15-pin cable or DVD player with D-Sub to RCA adaptor.
- **2 HDMI IN:** Connect from the audio source equipment such as DVD/Blu-ray player or DVI source equipment with DVI to HDMI adaptor.
- 3 AUDIO IN: Connect from the audio source equipment such as PC/Laptop with 3.5mm phone jack for analog audio signal input.
- 4 **OPTICAL IN:** Connect from audio source equipment such as DVD/Blu-ray player with optical cable for digital audio signal input.
- **5 SERVICE**: This is reserved for firmware update use only.
- OC 5V/ POWER LED: Connect the adapter included in the package and connect to AC wall outlet for power supply. The LED will illuminate when the device is connected to an active power supply.



6.3 OSD Menu

	CONTRAST	0~100 (50)
PICTURE	BRIGHTNESS	0~100 (50)
	EXIT	
	HUE	0~100 (50)
FINETUNE	SATURATION	0~100 (50)
HDMI/YPbPr	SHARPNESS	0~100 (50)
	NR	OFF /LOW/MIDDLE/HIGH
	EXIT	
	PHASE	0~100
	CLOCK	0~100
FINETUNE PC	H – POSITION	0~100
	V – POSITION	0~100
	EXIT	
	RED	0~100 (50)
COLOR	GREEN	0~100 (50)
	BLUE	0~100 (50)
	EXIT	
	SOURCE	PC/YPbPr, HDMI
ОИТРИТ	RESOLUTION	NATIVE, 640x480/60, 800x600/60, 1024x768/60, 1280x768/60, 1360x768/60, 1280x800/60, 1280x1024/60, 1440x900/60, 1400x1050/60, 1680x1050/60, 1600x1200/60, 1920x1200/60RB, 480P60, 576P50, 720P50, 720P60, 1080P50, 1080P60, 4K2K/24, 4K2K/25, 4K2K/30 4K2K/50, 4K2K/60, 4K2K/50 420, 4K2K/60
	4K2K MODE	4K2K 3840 /4K2K 4096

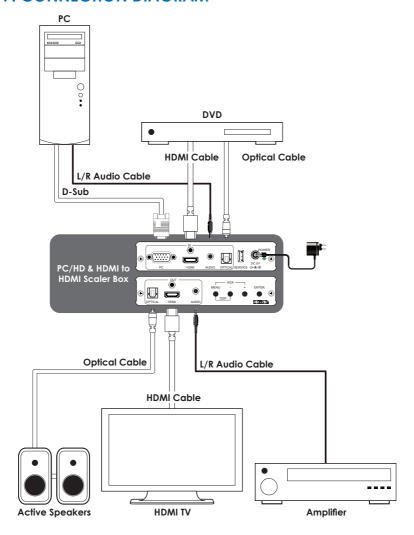


ОИТРИТ	SIZE	FULL/OVER SCAN/UNDER SCAN/LETTER BOX/PAN SCAN/BEST FIT
	EXIT	
	HDMI INPUT	AUTOMATIC/EMBEDDED/ ANALOG/OPTICAL
	PC INPUT	ANALOG/OPTICAL
AUDIO	VOLUME (L/R OUT)	0~ 100 (VOL 100->2Vrms Analog Out L/R)
	EXIT	
	TIMER	OFF, 5~100 (10)
OSD	DISPLAY	INFO/ON/OFF
	EXIT	
EDID MANAGE (HDMI Only)	EDID COPY	DEF. 1080P / DEF. 4K2K(6G)/ DEF. 4K2K(420)/ DEF. 4K2K(3G)/ OUTPUT
, , , , , , , , , , , , , , , , , , , ,	EXIT	
	AUTO SYNC OFF	OFF/FAST(≈10 sec.)/ SLOW(≈120 sec.)
	AUTO INPUT	OFF/ AUTO SWITCH
ADVANCED	HDCP ON INPUT	OFF/ ON (HDMI Only)
	AUTO ADJUST	OFF/ON (PC Only)
	EXIT	
FACTORY	RESET	NO/YES
FACIORI	EXIT	

Default settings are in **Bold** or () print. <u>Scaling 4K2K resolution with the same frame rate the OSD selection in italic font will be muted.</u>



7. CONNECTION DIAGRAM





8.1 Technical Specification

Video Bandwidth 600MHz/18Gbps

Input Ports 1 x HDMI 1 x D-Sub 15-pin, 1 x Optical, 1 x

3.5mm Phone Jack, 1 x USB(Service)

Output Ports 1 x HDMI, 1 x Optical, 1 x 3.5mm Phone

Jack

Supported Resolutions VGA~WUXGA@60,

480i~1080p@24/50/60

4K2K@24/25/30/50/60(YUV444)

HDMI Cable Distance 5m@4K2K/60_YUV444

10m@1080p/12-bit

10m@1080p/8-bit

Power Supply 5VDC/2.6A (US/EU standards, CE/FCC/ UL

certified)

ESD Protection Human Body model:

± 8kV (air-gap discharge) ± 4kV (contact discharge)

Chassis Material Aluminum

Silkscreen color Black

Dimensions 145mm (W) x 192mm (D) x 30mm (H) (Jacks

excluded)

145mm (W) x 201.2mm (D) x 30mm (H)

(Jacks included)

Weight 578g

Operating Temperature $0^{\circ}\text{C} \sim 40^{\circ}\text{C}/32^{\circ}\text{F} \sim 104^{\circ}\text{F}$

Storage temperature $-20^{\circ}\text{C}\sim60^{\circ}\text{C}/-4^{\circ}\text{F}\sim140^{\circ}\text{F}$

Relative Humidity 20~90% RH (no condensation)

Power Consumption 8.47W



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 Audio Specification Chart

Input Level/Freq.	Output Terminal	Output Level	THD+N	Frequency Response	SNR	Crosstalk
Digital 0dB/1kHz	Digital	0dB ~ -1db	<0.01%	±1dB	>80dB	<-80dB
Analog 1Vrms/1kHz	Digital	0dB ~ -1.5db	<0.1%	±3dB	>70dB	<-60dB
Digital 0dB/1kHz	Analog	0.5Vrms ±10%	<0.1%	±3dB	>80dB	<-60dB
Analog 1Vrms/1kHz	Analog	0.5Vrms ±10%	<0.1%	±3dB	>70dB	<-60dB

8.3 Supported Resolutions

	INPUT		OUTPUT	
	PC	HD	PC	HD
640x480@60/72/75/85	✓		√ @60	
800x600@56/60/72/75/85	✓		√ @60	
1024x768@60/70/75/85	✓		√ @60	
1280x1024@60/75/85	✓		√ @60	
1360x768@60	✓		✓	
1280x800@60	✓		✓	
1280x1024@60	✓		✓	
1440x900@60	✓		✓	
1400x1050@60	✓		✓	
1600x1200@60	✓		✓	
1680x1050@50/60	✓		√ @60	
1920x1200@60	✓		✓	



	INPUT		OUTPUT	
	PC	HD	PC	HD
480i/576i		✓		
480p/576p		✓		✓
720p@50/60		✓		✓
1080i@50/60		√		√ @50/60 Only
1080p@24/50/60		✓		✓
3840x2160@24/25/30/50/60		✓		✓
4096x2160@24/25/30/50/60		✓		✓

Input	Output	ByPass Mode	Scaler Mode
Any Timing	640x480/60	Χ	✓
Any Timing	800x600/60	X	✓
Any Timing	1024x768/60	X	✓
Any Timing	1280x768/60	Χ	✓
Any Timing	1360x768/60	X	✓
Any Timing	1280x800/60	X	✓
Any Timing	1280x1024/60	Χ	✓
Any Timing	1440x900/60	X	✓
Any Timing	1400x1050/60	X	✓
Any Timing	1680x1050/60	Χ	✓
Any Timing	1600x1200/60	X	✓
Any Timing	1920x1200/60RB	X	✓
Any Timing	480P60	X	✓
Any Timing	576P50	X	✓
Any Timing	720P50	Χ	✓



Any Timing	720P60	Χ	✓
Any Timing	1080P50	Χ	✓
Any Timing	1080P60	X	✓
Not 4K2K/24	4K2K/24	X	✓
Not 4K2K/25	4K2K/25	X	✓
Not 4K2K/30	4K2K/30	X	✓
Not 4K2K/50	4K2K/50	X	✓
Not 4K2K/60	4K2K/60	Χ	✓
Not 4K2K/50	4K2K/50 420	Χ	✓
Not 4K2K/60	4K2K/60 420	X	✓
4K2K/24	4K2K/24	✓	Χ
4K2K/25	4K2K/25	✓	Χ
4K2K/30	4K2K/30	✓	Χ
4K2K/50	4K2K/50	✓	Χ
4K2K/60	4K2K/60	✓	X
4K2K/50	4K2K/50 420	✓	X
4K2K/60	4K2K/60 420	✓	Χ

