CP-302M

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 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
VR0	23/08/12	Preliminary Release
VS1	01/02/13	Updated text/diagrams
VR2	09/04/14	Add Output Support Timing

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1. INTRODUCTION

The HDMI to HDMI Scaler is designed to scale HDMI sources, either HD or PC resolution, to an alternative HDMI resolution (HD or PC). The device is HDMI and DVI compliant and is perfect for the integration of sources where resolution and/or resolution type requires conversion. A simple on-screen display (OSD) allows the user to configure the device with ease.

2. APPLICATIONS

- Convert and integrate HD resolution output to PC systems
- Convert and integrate PC resolution output to HD systems
- Downscale Full HD (1080p) resolution output for HD Ready displays
- Scale 24 fps Blu-ray input to standard 1080p

3. PACKAGE CONTENTS

- HDMI to HDMI Scaler
- 1×5 V/1.2 A DC Power Adaptor
- Operation Manual

4. SYSTEM REQUIREMENTS

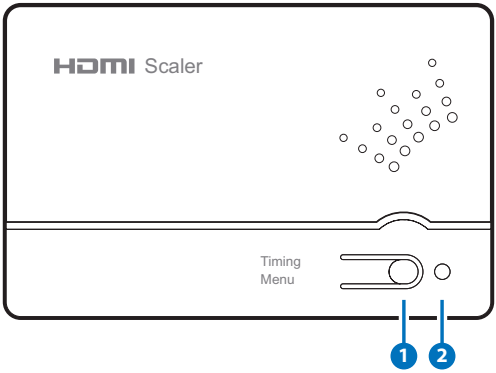
Source equipment such as a PC/laptop or Blu-ray player and an HDTV or HD monitor with HDMI connection cables.

5. FEATURES

- HDMI, HDCP 1.1 and DVI 1.0 compliant
- Upscale the video signal from an HDMI source up to 1080p@50/60
- Accepts a wide range of input resolutions of 480i to 1080p (HDTV) and VGA to WUXGA (PC)
- Supports audio sampling rate up to 192 kHz
- Motion adaptive 3-D deinterlacing algorithm
- 3-D noise reduction in both temporal and spatial domain
- Frame rate conversion
- Adaptive contrast enhancement
- Supports CEC bypass
- Native output resolution setting

6. OPERATION CONTROLS AND FUNCTIONS

6.1 Top Panel



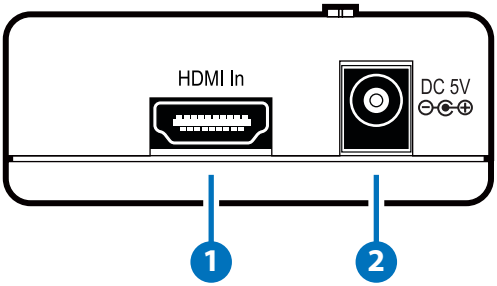
1 Timing Menu

Press the button once to show the display's resolution and while the OSD is on press again to select the required output resolution, the unit will switch to the new resolution after 3 seconds. Press and hold the button for 5 seconds will switch the unit to 720p@60 resolution, confirmed by the LED blinking twice.

2 Power LED

This LED will illuminate when the device is connected to a power supply.

6.2 Left Panel



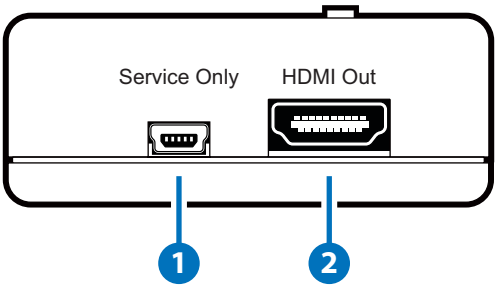
1 HDMI In

Connect to an HDMI source such as a PC/Laptop or DVD player with an HDMI cable.

2 DC 5V

Plug the 5V DC power supply into the unit and connect the adaptor to an AC outlet.

6.3 Right Panel



1 Service Only

Manufacturer use only.

2 HDMI Out

Connect to an HDMI equipped TV/monitor for display of the HDMI source signal.

6.4 OSD Menu

1	IN	640×480@85		
	OUT	1080p@60		
	OUTPUT SELECT			
	480p			
	576p			
	720p	50	59.94	60
	1080i	50	59.94	60
	1080p	50	59.94	60
2	1024×768			
	1280×800			
	1366×768			
	1600×900			
	1680×1050			
	1920×1200			
3	Native			
4	Information			
5	Exit			

1. **IN/OUT:** Current input and output resolutions.
2. **Output Select:** Output resolution selection.
3. **Native:** Select output display's native resolution. The device will read Native 1's EDID information first and then Native 2. If both native timings are not within the output selection of the device then the device will output 720p@60.
4. **Information:** Display both source and display information and the device's firmware version.
5. **Exit:** Leave the OSD menu.

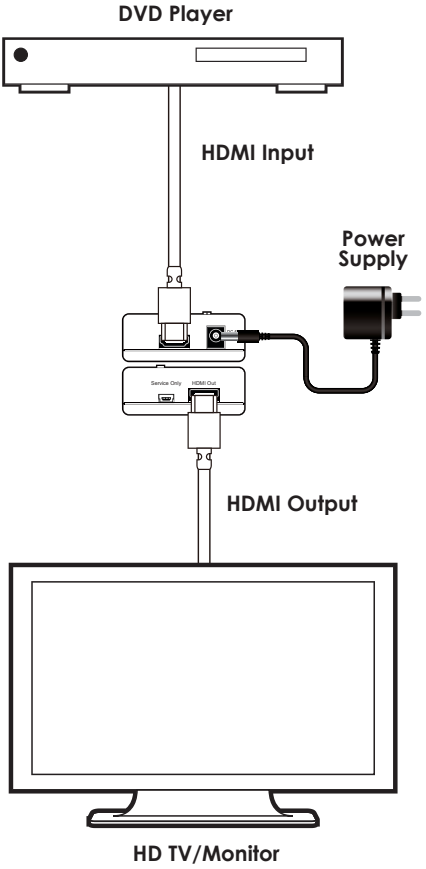
6.5 Input Resolutions

RESOLUTIONS	FREQUENCY
480i	59
480p	60
576i	50
576p	50
720p	25, 30, 50, 60
1080i	50, 60
1080p	24, 25, 30, 50, 60
640×480	60, 72, 75, 85
720×400	70
800×600	56, 60, 72, 75, 85
1024×768	60, 70, 75, 85
1152×864	70, 75
1280×720	60 (CVT)
1280×768	60 (RB), 60, 75
1280×800	60 (RB), 60, 75
1280×960	60
1280×1024	60, 60 (CVT), 75
1360×768	60
1366×768	60 (RB),60
1400×1050	60 (RB),60
1440×900	60 (RB),60,75
1600×900	60 (RB)
1600×1200	60
1680×1050	60 (RB), 60
1920×1200	60 (RB)

6.6 Output Resolutions

HD RESOLUTIONS	PC RESOLUTIONS	
480p@60	1024×768@60	NATIVE
576p@50	1280×800@60	
720p@50/59.94/60	1366×768@60	
1080i@50/59.94/60	1600×900@60 (RB)	
1080p@50/59.94/60	1680×1050@60	
	1920×1200@60 (RB)	

7. CONNECTION DIAGRAM



8. SPECIFICATIONS

Maximum Pixel Rate	165 MHz
Input Ports	1×HDMI, 1×USB (For manufacturer use only)
Output Ports	1×HDMI
Audio Sampling Rate	44.1, 48, 96,192 kHz
HDMI Cable In	15 m/1080p@8-bit
HDMI Cable Out	15 m/1080p@8-bit
ESD Protection	Human body model: ± 8kV (Air-gap discharge) ±4kV (Contact discharge)
Power Supply	5 V/1.2 A switching power adaptor (with universal plug, CE/FCC/UL certified)
Dimensions	63.5 mm (W)×99.5 mm (D)×25 mm (H)
Weight	180 g
Chassis Material	Plastic
Silkscreen Colour	White
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 (non-condensing)
Power Consumption	5.5 W

Note: Figures provided in this manual are reference only, actual performance may depend on the source and display used as well as the cable specification.

9. ACRONYMS

ACRONYM	COMPLETE TERM
HDCP	High-bandwidth Digital Content Protection
HDMI	High-Definition Multimedia Interface
USB	Universal Serial Bus
VGA	Video Graphics Array
WUXGA	Wide Ultra Extended Graphics Array

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