

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 |



CONTENTS

| | |
|---|-----------|
| 1. Introduction..... | 1 |
| 2. Applications..... | 1 |
| 3. Package Contents | 1 |
| 4. System Requirements..... | 1 |
| 5. Features | 2 |
| 6. Operation Controls and Functions..... | 3 |
| 6.1 Top Panel | 3 |
| 6.2 Left Panel | 4 |
| 6.3 Right Panel..... | 4 |
| 6.4 OSD Menu | 5 |
| 6.5 Input Resolutions | 6 |
| 6.6 Output Resolutions..... | 7 |
| 7. Connection Diagram | 8 |
| 8. Specifications | 9 |
| 9. Acronyms | 10 |





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

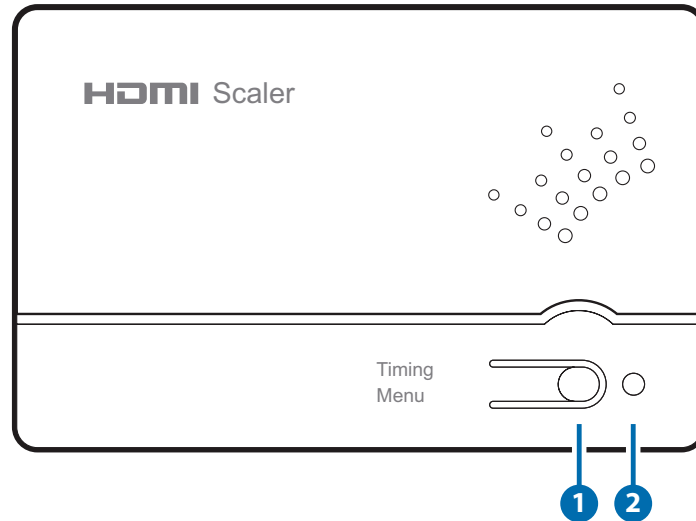
Source equipment such as a PC/laptop or Blu-ray player and an HDTV or HD monitor with HDMI connection cables.

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



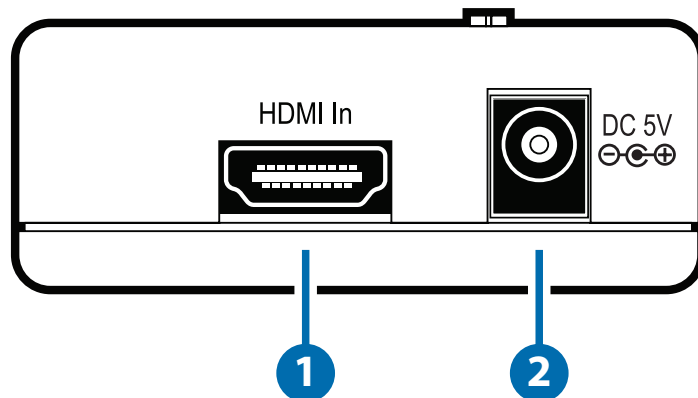
1 Timing Menu

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



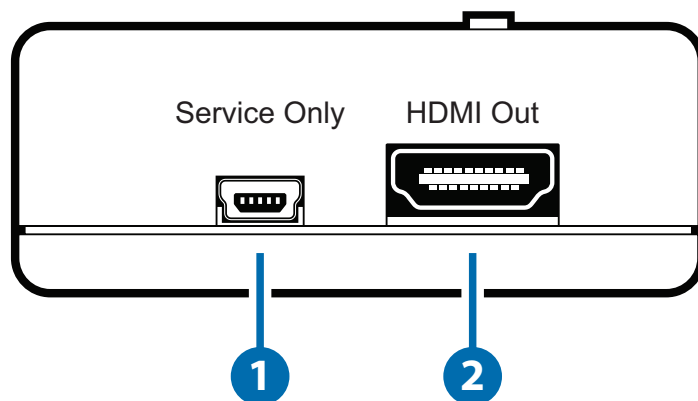
1 HDMI In

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

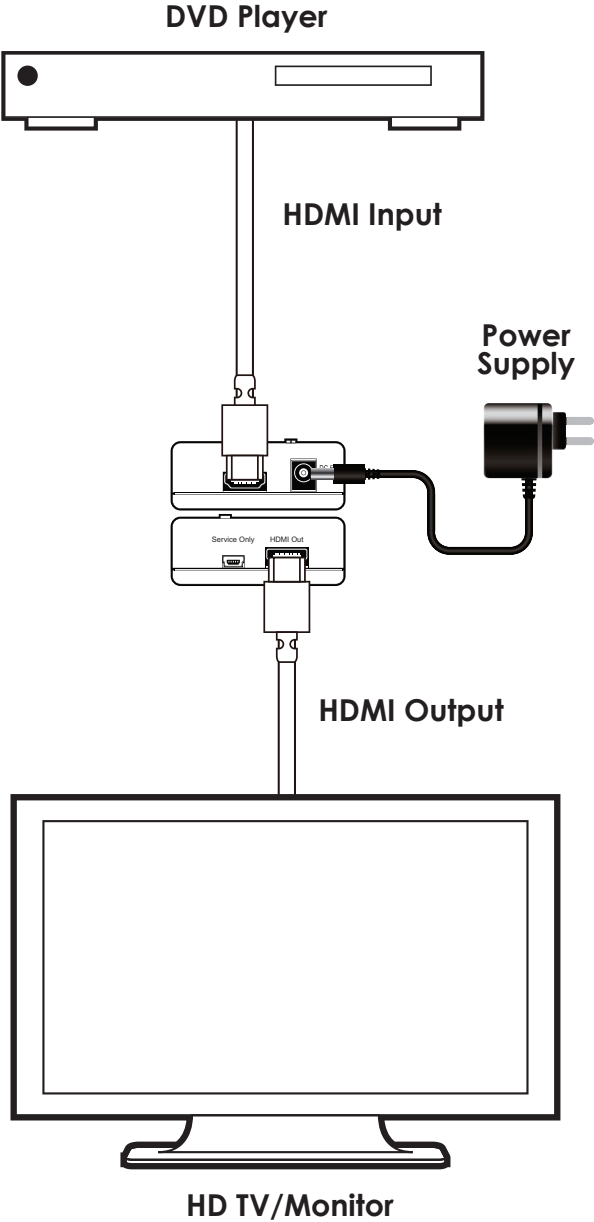
| RESOLUTIONS | FREQUENCY |
|-------------|--------------------|
| 480i | 59 |
| 480p | 60 |
| 576i | 50 |
| 576p | 50 |
| 720p | 25, 30, 50, 60 |
| 1080i | 50, 60 |
| 1080p | 24, 25, 30, 50, 60 |
| 640×480 | 60, 72, 75, 85 |
| 720×400 | 70 |
| 800×600 | 56, 60, 72, 75, 85 |
| 1024×768 | 60, 70, 75, 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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