Composite to HDMI Scaler

GTV-COMPSVID-2-HDMIS
User Manual

Version A2

gefen.com
ASKING FOR ASSISTANCE

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Congratulations on your purchase of the Composite to HDMI Scaler. Your complete satisfaction is very important to us.

Gefen TV

Gefen TV is a unique product line catering to the growing needs for innovative home theater solutions. We specialize in total integration for your home theater, while also focusing on going above and beyond customer expectations to ensure you get the most from your hardware. We invite you to explore our distinct product line and hope you find your solutions. Don’t see what you are looking for here? Please call us so we can better assist you with your particular needs.

The Gefen TV Composite to HDMI Scaler

The new GefenTV Composite to HDMI Scaler takes either Composite Video or S-Video as input and converts it to digital HDMI video, then scales it up to a maximum output of 1080p resolution (or 1920x1200 when used with a computer monitor).

How It Works

Simply plug in your Composite or S-Video video source to its input jack on the rear of the Scaler. The Scaler will automatically detect the video frequency and resolution of the source signal, then convert that picture to a digital HDMI video signal. You will then choose the best output resolution and viewing format of the picture on your HDTV via the on-screen menu system by using the buttons on the front of the Scaler.
READ THESE NOTES BEFORE INSTALLING OR OPERATING THE COMPOSITE TO HDMI SCALER

• The Composite to HDMI Scaler will cross convert between some digital and audio formats. All audio outputs (HDMI, digital TOSLINK®, and analog stereo mini-jack) will be active. The Composite & S-video to HDMI Scaler will not, however, down-mix multi-channel audio formats to 2 channel analog stereo. Please see the chart on page 6 for more information.

• To switch between Composite and S-Video inputs, press the “+” button

• Compatible with all HDMI and DVI* displays.
Features

- Inputs S-Video or Composite Video at 480i or 576i resolutions
- Outputs HDMI video at resolutions of up to 1080p
- Input resolution is automatically detected while the output resolution and refresh rate can be selected via the on-screen display (OSD) menu system and front panel push-buttons
- 48MB frame buffer for frame rate conversion
- Scales Composite Video and S-Video to HDMI with embedded audio
- Supports video output resolutions for computer equipment at up to 1920x1200

Package Includes

(1) Composite to HDMI Scaler
(1) 6 ft. 3 RCA Composite Cable (M-M)
(1) 5V 2.6A DC Power Supply - non-locking plug (2.1mm pin, 5.5mm barrel)
(1) Quick-Start Guide
PANEL LAYOUT

Front Panel

Back Panel

1. Toslink
2. R/L
3. HDMI Out
4. Menu
5. -
6. +
7. Audio In
8. L
9. Composite
10. S-Video
11. Toslink
12. 5V DC
13. Power
PANEL DESCRIPTION

1. **TOSLINK® Audio Output**
   Digital TOSLINK® audio output. This port is constantly active. It will output 2 channel PCM, Dolby® Digital, and DTS formats. Output format is dependant on the chosen input format which can be selected through the on-screen GUI.

2. **R/L Analog Audio**
   Stereo analog mini-jack output for analog audio. It will only output a stereo analog signal when the selected input is either from digital or analog stereo source. Multi-channel TOSLINK® tracks will not be converted to stereo.

3. **HDMI Output**
   This connector will accept a standard 19 pin HDMI male cable. Video output is scalable to a maximum resolution of 1080p 60Hz. The output resolution is selected through the on-screen GUI. Audio is permanently active through this connection. Both stereo and multi-channel audio is supported, based on the selected audio input.

4. **Menu Button**
   Pressing this button will activate the on-screen GUI. It is also the confirmation button for all sub menus. Use this button to enter sub menus and to begin adjustment for selected menu items.

5. **Down / - Button**
   This button will scroll down through menu selections and will decrease the selected adjustment value.

6. **Up / + Button**
   This button will scroll up through the menu system and will increase the selected adjustment value. This button will also switch between the composite and s-video input sources.

7. **Analog Audio Inputs**
   Stereo RCA right and left analog audio inputs. Input a stereo analog audio source which will be translated to the digital and analog output ports on the front panel.

8. **Composite Video Input**
   Standard composite RCA input. This input will accept a composite input of 480i and 576i for the conversion to HDMI. This source is selectable by the Up / + button located on the front panel.

9. **S-Video Video Input**
   Standard 4 pin s-video input. This input will accept a s-video input of 480i and 576i for the conversion to HDMI. This source is selectable This source is selectable by the Up / + button located on the front panel.

10. **TOSLINK® Audio Input**
    Digital TOSLINK® audio input. This port will accept multiple audio formats for translation to the digital and analog audio output ports on the front panel. Multiple audio formats are supported, including 2 channel PCM, multi channel PCM, Dolby® Digital, and DTS.

11. **Power Input**
    Input for the included 5V DC power supply. Please only use the included power supply.

12. **Power LED Indicator**
    This LED indicator will become active once the power supply is properly connected. If the light is not active, the power supply may not be the correct one, or the unit may have a fault. Please contact GefenTV technical support.
How to Connect the Composite to HDMI Scaler

1. Connect the composite or s-video source to the scaler using user supplied cables.

2. Connect the audio source (digital or analog) to the scaler using user supplied cables.

**NOTE:** The Composite to HDMI Scaler will cross convert between some digital and audio formats. All audio outputs (HDMI, digital TOSLINK®, and analog stereo mini-jack) will be active. Composite to HDMI Scaler will not, however, down-mix multi-channel audio formats to 2 channel analog stereo. Please see the chart below to see if audio will be heard out of a particular output based on the audio input format.

<table>
<thead>
<tr>
<th>INPUT ►</th>
<th>HDMI</th>
<th>TOSLINK®</th>
<th>TOSLINK®</th>
<th>ANALOG</th>
<th>ANALOG</th>
</tr>
</thead>
<tbody>
<tr>
<td>OUTPUT ◀</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

3. Connect the HDMI display to the scaler using a user supplied HDMI cable.

4. Connect the desired audio output to the desired audio device using user supplied cables.

5. Connect the included 5V DC power supply to the scaler.

**NOTE:** Once the unit is connected and powered, the displays native resolution will be detected and set as the output on the Composite & S-video to HDMI Scaler.

**OPERATING THE COMPOSITE TO HDMI SCALER**

Both the Composite and S-Video inputs can be connected at the same time but only one source can be viewed at one time. To switch between the Composite and S-Video inputs, press the - button located on the front panel of the unit.

The Composite to HDMI Scaler has a built in GUI for navigating the various functions. The GUI is navigated by the front panel buttons.
Entering the Menu System

Pressing the Menu button on the front panel will display the GUI (graphical user interface) for adjustment options.

The GUI is overlaid onto the outgoing video to the display. Therefore, the source must be outputting a compatible resolution for viewing on the display. If video is not visible on the display, the GUI will also fail to be displayed. To correct this, please reset the unit by following the steps below.

**Reset**

1. Verify that the source is on and outputting a video signal.
2. Verify that the display is connected and powered on.
3. Press and hold the menu button, located on the front panel.
4. While holding the menu button, remove the power supply connector from the unit and wait 5 seconds.
5. While continuing to hold the menu button, re-insert the power supply into the unit and then release the menu button.

This will reset the unit and allow it to detect the display’s native resolution based on its EDID. If an image is still not being displayed, it is possible that either the display’s EDID is corrupt or the Composite to HDMI Scaler cannot output the display’s native resolution. Please call Gefen’s technical support line.

**Navigation**

Navigation of the GUI is accomplished using the front panel buttons. Please see the chart below for the functions of each panel button.

<table>
<thead>
<tr>
<th>Button</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>MENU</td>
<td>Shows the On Screen Menu and acts as the confirmation button in all menus</td>
</tr>
<tr>
<td>+</td>
<td>Moves menu cursor DOWN the menu / Increases adjustment values (Also Switches between the Composite and S-Video Inputs)</td>
</tr>
<tr>
<td>-</td>
<td>Moves menu cursor UP the menu / Decreases adjustment values</td>
</tr>
</tbody>
</table>
CONFIGURING THE COMPOSITE TO HDMI SCALER

MAIN MENU
The following are the main menu options. Use the - and + buttons to choose your desired subcategory and press Menu to enter it.

CONTRAST
BRIGHTNESS
FINE TUNE
COLOR
OUTPUT
OSD
AUDIO
INFORMATION

CONTRAST
Press the - and + buttons to select the CONTRAST option and press the MENU button to select it. Use the - and + buttons to adjust the CONTRAST setting. When you are finished adjusting the CONTRAST press the MENU button to return to the previous menu.

BRIGHTNESS
Press the - and + buttons to select the BRIGHTNESS option and press the MENU button to select it. Use the - and + buttons to adjust the BRIGHTNESS setting. When you are finished adjusting the BRIGHTNESS press the MENU button to return to the previous menu.

FINE TUNE
Press the - and + buttons to select the FINE TUNE option and press the MENU button to select it. There are several sub-categories that are available for adjustment. Select the desired option using the - and + buttons and press the MENU button to begin adjustment. Use the - and + buttons to adjust the selected option and press the MENU button when you are finished. The following options are available:

HUE
Use this option to adjust the image HUE.

SATURATION
Use this option to adjust the color SATURATION.

SHARPNESS
Use this option to adjust the image SHARPNESS.

NR
Use this option to adjust the amount of NOISE REDUCTION to be applied to the video signal.

EXIT
Pressing the MENU button when this option is selected will return you to the MAIN MENU.

COLOR
Press the MENU button to select the COLOR option. There are several sub-categories that are available for adjustment. Select the desired option using the - and + buttons and press the MENU button to begin adjustment. Use the - and + buttons to adjust the selected option and press the MENU button when you are finished. The following options are available:
COLOR

Press the MENU button to select the COLOR option. There are several sub-categories that are available for adjustment. Select the desired option using the - and + buttons and press the MENU button to begin adjustment. Use the - and + buttons to adjust the selected option and press the MENU button when you are finished. The following options are available:

RED  Use this option to adjust the amount or RED in the video signal.
GREEN Use this option to adjust the amount or GREEN in the video signal.
BLUE  Use this option to adjust the amount or BLUE in the video signal.
EXIT Pressing the MENU button when this option is selected will return you to the MAIN MENU.

SIZE

Press the - and + buttons to select the SIZE option and press the MENU button to select it. There are several sub-categories that are available for adjustment. Select the desired option using the - and + buttons and press the MENU button to begin adjustment. Use the - and + buttons to adjust the selected option and press the MENU button when you are finished. The following options are available:

4:3 Source

- **Full** - Stretches the image to fill the screen
- **Pan Scan** - Stretches the image to 4:3 aspect ratio without underscan
- **Letterbox** - Stretches the image to 16:9 aspect ratio without underscan
- **Underscan** - Stretches the image to fullscreen and just within the border of the screen
- **Overscan** - Stretches the image to fullscreen and just beyond the border of the display
CONFIGURING THE COMPOSITE TO HDMI SCALER

OUTPUT
Press the - and + buttons to select the OUTPUT option and press the MENU button to select it. There are several sub-options that are available for selection. Select the desired option using the - and + buttons and press the MENU button to select it and exit. The following options are available:

<table>
<thead>
<tr>
<th>VGA</th>
<th>UXGA</th>
<th>1080i 60</th>
<th>720p 50</th>
<th>WSXGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVGA</td>
<td>480i</td>
<td>1080p 60</td>
<td>1080i 50</td>
<td>WUXGA</td>
</tr>
<tr>
<td>XGA</td>
<td>480p</td>
<td>576i</td>
<td>1080p 50</td>
<td>Native</td>
</tr>
<tr>
<td>SXGA</td>
<td>720p 60</td>
<td>576p</td>
<td>WXGA</td>
<td></td>
</tr>
</tbody>
</table>

AUDIO
Press the MENU button to select the AUDIO option. There are several sub-categories that are available for adjustment. Select the desired option using the - and + buttons and press the MENU button to begin adjustment. Use the - and + buttons to adjust the selected option and press the MENU button when you are finished. The following options are available:

SOURCE
Use this option to select the audio SOURCE. Options are L/R (analog stereo input) and OPTICAL (digital audio input).

DELAY
Use this option to adjust the audio DELAY. Options are 40, 110, and 150 milliseconds of DELAY.

SOUND
Use this option to mute all SOUND from the output.

EXIT
Pressing the MENU button when this option is selected will return you to the MAIN MENU.

OSD
Press the MENU button to select the OSD option. There are several sub-categories that are available for adjustment. Select the desired option using the - and + buttons and press the MENU button to begin adjustment. Use the - and + buttons to adjust the selected option and press the MENU button when you are finished. The following options are available:

H-POS
Use this option to select the HORIZONTAL POSITION of the on-screen display.

V-POS
Use this option to select the VERTICAL POSITION of the on-screen display.

TIMER
Use this option to adjust how long the on-screen display will remain on the display, in seconds, when there is no user input. After this time period the menu will automatically close.

BACKGROUND
Use this option to adjust the opacity of the on-screen display’s background.

EXIT
Pressing the MENU button when this option is selected will return you to the MAIN MENU.
CONFIGURING THE COMPOSITE TO HDMI SCALER

FACTORY RESET
This option will reset the entire unit to factory settings.
Press the MENU button to select the FACTORY RESET option. Press the MENU button once and a confirmation will appear with the word YES. Press the MENU button once more to confirm a FACTORY RESET.

INFORMATION
Press the MENU button to view information on the current status of the unit. The following categories are displayed:

SOURCE This will display the currently selected source.
INPUT This will display the resolution of the currently selected source.
OUTPUT This will display the current output resolution.
VERSION This will display the current firmware revision.

Pressing the MENU button will return you to the MAIN MENU.
Digital Video Amplifier Bandwidth ............................................................ 165 MHz
VGA Amplifier Bandwidth ........................................................................... 10 MHz
Input DDC Signal .................................................................................. 5 Volts p-p (TTL)
S-Video Connector .................................................................................. Mini-DIN
Composite Connector ............................................................................. RCA Jack
Power Consumption ............................................................................... 10 Watts (max)
Power Supply ................5V 2.6A DC, non-locking plug (2.1mm pin, 5.5mm barrel)
Dimensions (W X H X D) ...............4.1" x 1.2" x 7" (104.2mm x 30mm x 178mm)
Shipping Weight ....................................................................................2.25 lbs. (1 kg)

* Features and specifications are subject to change without notice. All trademarks are the property of their respective owners.
For the latest warranty coverage information, refer to the Warranty and Return Policy under the Connect section of the Gefen website at
