HALL RESEARCH

SC-CSV-HDMI

Composite & S-Video
To
HDMI Video Processor

UMA1173 Rev. NC

CUSTOMER SUPPORT INFORMATION

Order toll-free in the U.S. 800-959-6439
FREE technical support, Call **714-641-6607** or fax **714-641-6698**
Mail order: **Hall Research**, 1163 Warner Ave. Tustin, CA 92780
Web site: www.hallresearch.com E-mail: info@hallresearch.com

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FEDERAL COMMUNICATIONS COMMISSION

RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been designed to comply with the limits for a Class A computing device in accordance with the specifications in Subpart B of Part 15 of FCC rules, which are intended to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at there own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of the Canadian Department of Communications.

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1. Introduction

1.1 General

The SC-CSV-HDMI has the ability to scale the analog video signal from Composite and S-Video sources into a digital HDMI output with a wide range of HDTV and PC resolutions; up to 1080p.

Along with scaling the video, the SC-CSV-HDMI converts the input analog or digital optical fiber (TOSLink) audio signals into both an analog and digital format for simultaneous output on the HDMI, Optical Fiber (TOSLink) and analog 3.5mm L/R connectors.

The SC-CSV-HDMI has an easy to use OSD menu for configuration, picture setup, system information and other advanced options.

1.2 Features

- HDMI 1.2, HDCP 1.1 and DVI 1.0 Compliant
- Scales CV or SV analog video to PC (VGA-WUXGA) or HD(480i-1080P) resolutions
- Can automatically detect the connected monitors' NATIVE resolution and adjust the output scaling to match.
- Supports 50/60 Hz frame rate conversion
- Supports 3D motion video adaptive, 3D de-interlacing and 3:2/2:2 pull down detection and recovery
- Provides OSD with contrast, brightness, hue, saturation, sharpness, RGB (color tone) and aspect ratio size
- Supports high resolution output
- Supports stereo LPCM analog/digital audio input and stereo LPCM analog/digital output.
- Easy- to- use push buttons and OSD menu control.

2. Installation

2.1 Connections

Connect the video source to the Composite and/or S-VIDEO video input connectors.

Connect the audio source to the analog L/R input connectors or use the TOSLink connecter if using an optical fiber audio input.

Connect the display device to the HDMI output connector

Connect the audio output device to either 3.5mm Audio output connector or the TOSLink (Optical Fiber) connector. Note that audio comes from all simultaneously.

2.2 Connection Block Diagram

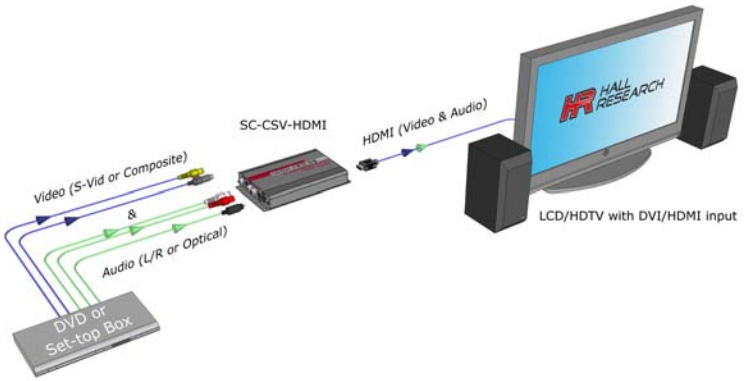

Figure 1 – Connection Block Diagram

3. Configuration & Operation

3.1 Input and Output

Figure 2 - Input

Figure 3 - Output

3.2 Menus and Adjustments

Pressing the Menu button will bring up the OSD menu controls on the screen. Use the up and down arrows to select the desired item, and then press MENU to select and enter into that items sub menu. Select EXIT from a submenu to go back to the main menu or from the main menu to exit the OSD.

CONTRAST
Adjusts image contrast (default = 25)

BRIGHTNESS
Adjusts image brightness (default = 50)

FINETUNE
When selected, a sub menu of input signal capture adjustments will appear.

HUE – (default = 48)
SATURATION – (default = 63)
SHARPNESS – (default = 20)
NOISE REDUCTION - (default = off)

COLOR
When selected, a sub menu of input signal capture adjustments will appear.

RED – Adjust RED RGB value (default = 50)

GREEN – Adjust GREEN RGB value (default = 50)

BLUE – Adjust BLUE RGB value (default = 50)

SIZE
Select this option to toggle between FULL, PANSCAN, LETTERBOX, UNDERSCAN or OVERSCAN display modes.

OUTPUT
Use arrows to adjust output mode. Refer to Section 5.2 below for a list of all available modes.

The default output resolution after a factory reset is “NATIVE” with the input source set to “AV”.

The unit has non-volatile memory and memorizes all your settings before power off and recalls those settings on the next power on.

At any time, pressing the **UP ARROW ▲** and **MENU** button together will change the output resolution to XGA@60Hz. Pressing the **MENU** and **DOWN ARROW ▼** together will change the output resolution to 480P@60 Hz.

OSD
When selected, a sub menu of input signal capture adjustments will appear.

H-POSITION – Adjust horizontal position of the OSD on the screen. (default = 10)

V-POSITION – Adjust vertical position of the OSD on the screen. (default = 90)

TIMER – Select the number of seconds for the OSD to be displayed on the screen before turning off. (default = 10)

BACKGROUND – Changes opacity of the OSD background on the screen. (default = 63)

Factory Reset
Select this option to reset all values to the factory defaults. Since this sets the INPUT source as “AV”, you may need to select the “S-VIDEO” source by pressing the “-“ button with no OSD selected to get a picture.

Information
Displays source type, Input resolution, output resolution and firmware version.

Mirror
If enabled; this function will flip the image horizontally on the screen.

4. Troubleshooting

There are no field serviceable parts or circuits in the device. If you think that the device is malfunctioning (or you have no picture output), please first try to reset to factory default settings.

4.1 Contacting Hall Research

If you determine that your SC-CSV-HDMI is malfunctioning, do not attempt to repair the unit. Contact the Hall Research Technical Support department at 714-641-6607.

Before you do, make a record of the history of the problem. We will be able to provide more efficient and accurate assistance if you have a complete description.

4.2 Shipping and Packaging

If you need to transport or ship your unit:

- Package it carefully. We recommend that you use the original container.
- Before you ship the units back to Hall Research for repair or return, contact us to get a Return Authorization (RMA) number.

5. Specifications

5.1 General

Input ports	(1) RCA (CV) (1) S-VIDEO (1) TOSLink (Optical Fiber Input) (2) RCA (Audio L/R)
Output ports	(1) HDMI Output (1) 3.5mm Analog Audio Output (1) TOSLink (Optical Fiber Output)
Power Supply	5V/2.6A DC (CE/FCC/UL certified)
Dimensions	4” (W) x 7.375” (D) x 1” (H) (101.6mm) x (187.3mm) x (25.4mm)
Weight	0.90 Lbs (0.41kg)
Chassis	Aluminum
Operating Temp	32 to 122 DegF (0 to 50 DegC)

5.2 Output Resolutions Available

Output Resolutions Available	
NATIVE	
640x480 (VGA)	60 Hz
800x600 (SVGA)	60 Hz
1024x768 (XGA)	60 Hz
1280x800 (WXGA)	60 Hz
1440x900 (WXGA+)	60 Hz
1280x1024 (SXGA)	60 Hz
1400x1050 (SXGA+)	60 Hz
1600x1200 (UXGA)	60 Hz
1680x1050 (WSXGA)	60 Hz
1920x1200 (WUXGA)	60 Hz
480I	60 Hz
480P	60 Hz
576I	50 Hz
576P	50 Hz
720P50	50 Hz
720P60	60 Hz
1080I50	50 Hz
1080I60	60 Hz
1080P50	50 Hz
1080P60	60 Hz

Notes

Notes

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