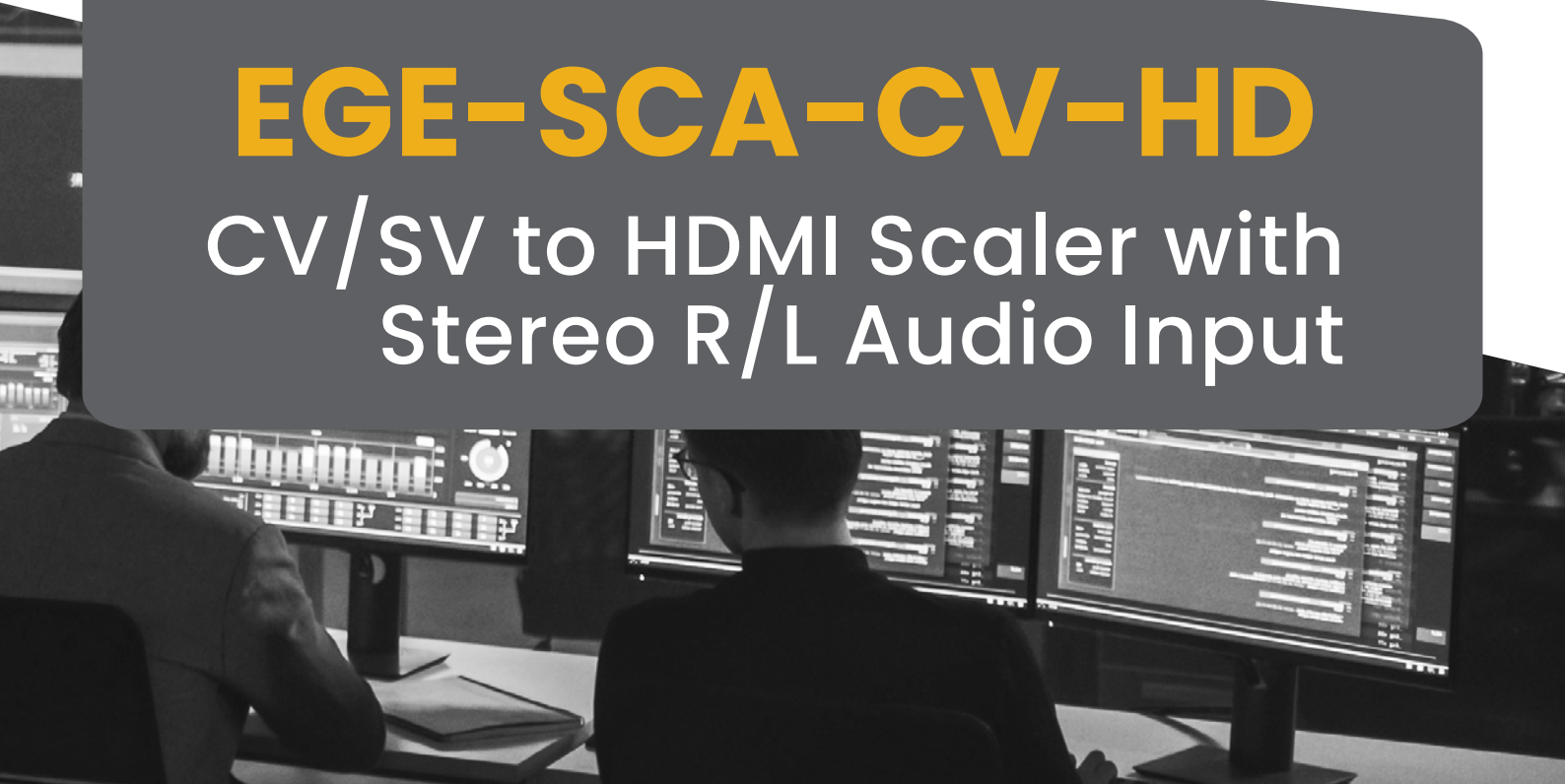# geratech®

POWER INPUT

CV

SV

MENU − +

EGE-SCA-CV-HD

CV/SV to HDMI Scaler with Stereo R/L Audio Input

Disclaimers

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Version 1.0 March 2011

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Safety Precautions

Please read all instructions before attempting to unpack or 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 module openings or empty slots, as you may damage parts.
➢   Do not attach the power supply cabling to building surfaces.
➢   Do not allow anything to rest on the power cabling or allow it to be abused by persons walking on it.
➢   To protect the equipment from overheating, do not block the slots and openings in the module housing that provide ventilation.

Revision History

Version No	Date	Summary of Change
VR0	20110413	Preliminary Release

CONTENTS

1. Introduction

The EGE-SCA-CV-HD Video to HDMI Scaler Box is designed to scale CVBS and S-Video with R/L audio into HDMI. Supporting PC timings up to WUXGA 1920 x 1200 at 60Hz and HD timings up to 1080p at 60Hz. Supporting the NTSC and PAL TV standards and allowing you to select the specific video timing through the OSD, this device has many features that enhance the quality of your videos.

2. Applications

- Showroom environment
- Education demo
- Installation usage

3. Package Contents

- Video and L/R to HDMI Scaler Box
- 5V DC power supply adaptor
- Operation Manual
- Remote Control

4. System Requirements

- Input source equipments such as video player or DVD player with Composite or S-Video and L/R output and connection cables.
- Output displays with HDMI input and connection cable.

5. Features

- Motion adaptive 3-D de-interlacing and 3D Y/C separation with CVBS input
- Automatic 2: 2, 3 : 2 film mode detection & correction
- Automatic NTSC/PAL video format detection and frame rate conversion (from 50Hz to 60Hz)
- Automatic 3D noise reduction
- Supports one dimensional CTI (Chroma Transient Improvement) and LTI (Luminance Transient Improvement) for edge improvement
- OSD menu for picture quality adjustment
- Supports HD timings from 480p@60 Hz to 1080i/p@60 Hz and PC timings from VGA@640x480 to WUXGA@1920x1200
- Two ways to control the EGE-SCA-CV-HD, either using an IR remote control or the control panel on the device

6. Specifications

TMDS Clock Frequency	225Mhz
Color depth	8bits
Color space	YUV (HD), RGB (PC)
Input Signal Levels	Video@1Vp-p, 75Ω, Y@1Vp-p, 75Ω, C@0.7 Vp-p,
	75Ω
Input Ports	1 x Composite, 1 x S-Video, 1 x R/L
Output Port	1x HDMI
Audio Input Level	2Vrms (Full Scale)
Output Resolution	HD: 480p@60Hz, 576p@50 Hz, 720p@50/60 Hz, 1080i@50 /60 Hz, 1080p@50/60 Hz PC: VGA@640x480, SVGA@800x600, XGA@1024x768, WXGA@1360x768, WSXGA@1440x900, SXGA1280x1024, SXGA+@1400x1050, UXGA@1600x1200, WUXGA@1920x1200
Power Supply	5V/1A Linear power adaptor (US/EU standards, CE/FCC/UL certified) or 5V/1.2A Switching power adaptor (with universal plug CE/FCC/UL certified)
Weight (g)	400
Dimensions (mm)	125 (W) x 123 (D) x 30 (H)
Silkscreen Color	Process Blue
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 (W)	4.1

6.1 Supporting Input & Output Timing

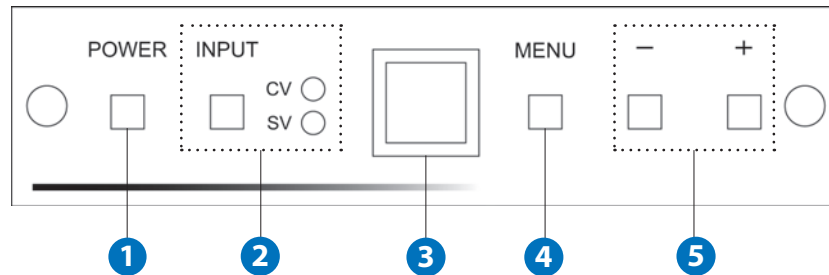| Input Video System	Output Timing	
	PC	HDMI support's Frame Rate conversion
NTSC(60Hz)	VGA/SVGA/XGA/1280x800/WXGA/ WSXGA/SXGA/1400x1050/1680x1050/ UXGA/WUXGA/1920x1080	480p,576p,720p50/60,1080i50/60, 1080p50/60
PAL(50Hz)		

* WSXGA=1440x900@60, WXGA=1360x768@60, SXGA=1280x1024@60, UXGA=1600x1200@60, WUXGA=1920x1200@60RB

7. Operation Controls and Functions

The following sections describe the hardware components of the unit.

7.1 Front Panel

1 Power button and LED indicator:

Press the button once to power on the unit, press again to power off.

When the unit is powered on, one of the input LED will illuminate depending on your last selection of input source before power off.

The factory default setting for the input is CV (Composite Video).

The green LED illuminates when composite video is selected.

The Yellow LED illuminates when S-Video is selected.

2 Input select button:

Press the button to select your desired input source between Composite Video and S-Video.

3 IR Sensor: Infrared ray remote control sensor.

4 Menu/Enter: This button serves two purposes.

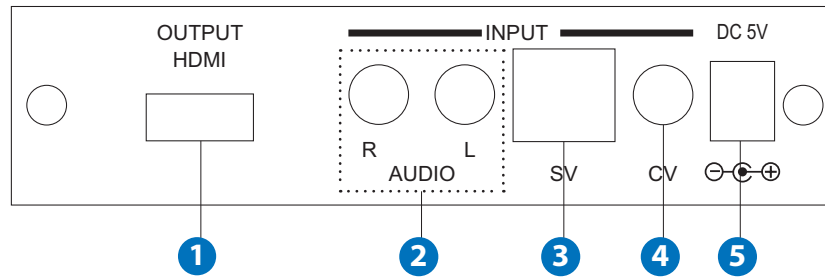a. Press the button to select your desired input source between Composite Video and S-Video.

b. To act as a "Enter" key to enter sub menu of your selection item or to adjust value of the selected item.

5 +/- button:

Press the button to move up or down the tick "V" to your desired parameter. Or after a parameter is elected by pressing MENU/ENTER button, press the button to alter the value of your selected parameter.

7.2 Rear Panel

1 HDMI output: Connect the HDMI output port to the HDMI input of the LCD or HDTV.

2 R/L audio input: Connect R/L stereo audio format to the audio source, when selected Composite Video or S-Video the HDMI output will include the stereo audio with the video at the same time.

3 S-Video Input: Use a S-Video cable to connect the S-Video output of the source video equipment to this S-Video input on the back of the video scaler. S-Video provides improved performance over Composite Video and is recommended over Composite.

4 CV (Composite Video) Input : Use a Composite Video cable to connect the Composite Video output of the source equipment to this Composite
    Video (CV) input of the scaler.

5 DC power jack: Plug the DC 5V power supply into the splitter and connect the adaptor to AC wall outlet.

8. Output Format
The format for analog PC output is RGB and for analog HD output is YPbPr.

PC (RGBHV)			HDTV (YPbPr)		
VGA	640 x 480	60Hz	1080p	1920 x 1080p	Follow input source and can convert 50Hz to 60Hz
SVGA	800 x 600	60Hz	1080i	1920 x 1080i	Follow input source and can convert 50Hz to 60Hz
XGA	1024 x 768	60Hz	720p	1280 x 720	Follow input source and can convert 50Hz to 60Hz
	1280 x 800	60Hz	576p	720 x 576	50Hz
WXGA	1360 x 768	60Hz	480p	720 x 480	60Hz
WSXGA	1680 x 1050	60Hz			
SXGA	1280 x 1024	60Hz			
	1400 x 1050	60Hz			
	1680 x 1050@60RB	60Hz			
UXGA	1600 x 1200	60Hz			
WUXGA	1920 x 1200	60Hz			
	1920 x 1080@60RB	60Hz			

9. OSD Operation

After power on the unit, press the menu button to bring up the main menu page as below:

        Main Menu
    ✓   Picture Adj
        Output Setup
        Exit

Use +/- button to move "✓" to your desired parameter, the press MENU/ENTER to enter into sub-menu of your selected parameter.

9.1 Picture Adjust

When Picture Adjust is selected a sub menu as below comes up.

		Default	Range
	Bright	16	1-31
✓	Contrast	16	1-31
	Color	16	1-31
	Tint	16	1-31
	Sharp	50	1-19
	Default	OK	
	Exit		

Use +/- to move the tick "✓" to your desired adjust item, press the Menu/Enter to confirm your selection.

+/- to increase or decrease the value of the parameter.
When adjustment is complete, press "MENU" to leave the parameter. Move the tick "✓" to cancel the selection, press MENU/ENTER to Exit.

9.2 Output Setup

When output Set up is selected a submenu as below appears:
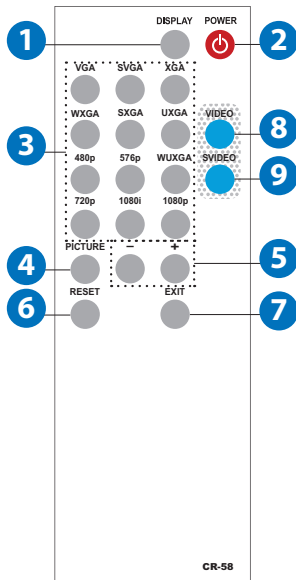
    Output Setup
✓   Timing XGA
    Exit

Press the "MENU/ENTER" button to enter into output timing select mode. Press +/- to toggle through a variety of output resolutions as below. Once your desired resolution is selected, press the MENU/ENTER to enter the resolution.

VGA	640 x 480	60 Hz
SVGA	800 x 600	60 Hz
XGA	1024 x 768	60 Hz
	1280 x 800	60 Hz
WXGA	1360 x 768	60 Hz
WSXGA	1440 x 900	60 Hz
SXGA	1280 x 1024	60 Hz
	1400 x 1050	60 Hz
	1680 x 1050	60 HzRB
UXGA	1600 x 1200	60 Hz
	1920 x 1080	60 HzRB
WUXGA	1920 x 1200	60 HzRB
480p	720 x 480	60 Hz
576p	720 x 576	50 Hz
720p	1280 x 720	60 Hz
1080i	1920 x 1080i	follow input source and can convert 50Hz to 60Hz
1080p	1920 x 1080p	follow input source and can convert 50Hz to 60Hz
Native		follow input source and can convert 50Hz to 60Hz

Note: 1.All output resolutions except 576p have 60Hz vertical rate, the 576p resolution has 50Hz vertical rate.

10. Remote Control

1 Display: Press the button to display input source and output resolution on the screen.

2 Power: Power ON/OFF button.

3 VGA ~1080p: Press to select your desired output resolution.

4 Picture: Press the button to enter picture adjust submenu. Use +/- button to move cursor up/   down to select your desired parameter, press "Picture" again to confirm the selection.

5 +/-: Press to move up/down the cursor to select your desired parameter, or press to increase/decrease the setting values.

6 Reset: Press to reset all the setting back to factory default value.

7 Exit: To exit OSD.

8 Video: Press the button to select Composite Video input.

9 S-Video: Press the button to select S-Video input.

11. Connection and Installation

VCR, DVD, STB, DVHS

Video, SVideo

HDMI Cable

HDMI output

HDMI Input

HD display Monitor, Projectors

12. Acronyms

Acronym	Complete Term
CV	Composite Video
NTSC	National Television System committee
OSD	On-Screen-Display
PAL	Phase Alternating Line
RGB	Red Green Blue
SV	S-Video

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