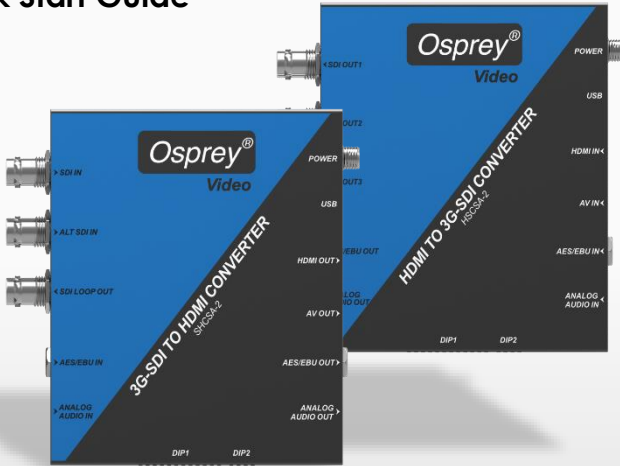


SCALING CONVERTERS

Quick Start Guide



SHCSA-2 (SDI to HDMI) and HSCSA-2 (HDMI to SDI)



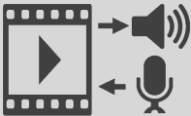
SCALING



FRAME RATE
CONVERSION



INTERLACING
DE-
INTERLACING



AUDIO
FEATURES

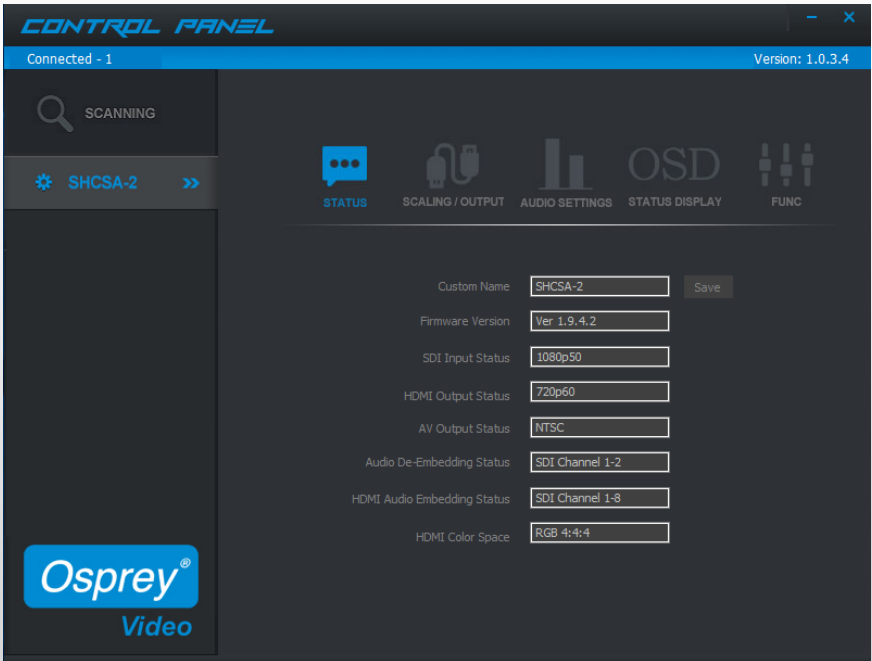


USB CONTROLS



USER INTERFACE

The device settings can be changed by either Dip-Switches (Settings Table printed on the back of the unit) or with a USB Control Software that can be downloaded [here](#)



The Control Panel Software exposes additional features which are not accessible by the DIP Switches. It also allows the user to create custom settings and profiles which can be saved and later accessed by DIP Switch.

Features only accessible by the Control Panel are:

- Image Flip on SHCSA-2 only. HSCSA-2 has Dip Switches for Image Flip
- OSD (On Screen Display) location (SHCSA-2 and HSCSA-2). The software allows you to place the text overlay for Video Information anywhere within the active screen area. The DIP Switches only let you turn OSD ON or OFF

SDI to HDMI and CVBS Converter (SHCSA-2)

Video Input Features:

1. The device accepts SDI Video input Signals up to 3G data rate
2. "ALT SDI IN" is a fail over input in case of signal loss at "SDI IN"
3. "SDI LOOPOUT" is for the primary input "SDI IN" only

Audio Input Features:

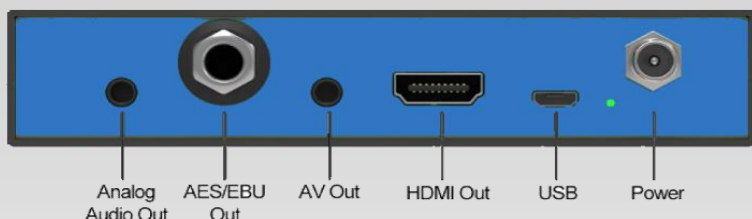
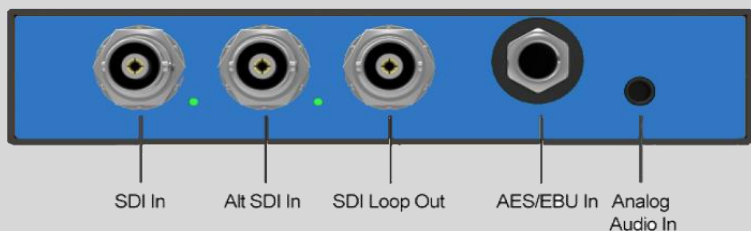
1. Up to 8 Stereo Pairs of embedded SDI Audio
2. AES/EBU Audio by 6.35mm barrel connector
3. Unbalanced Analog Audio by 3.5mm barrel connector

Video Output Features:

1. HDMI and parallel CVBS Output. HDMI up to 1080P60, CVBS either 480i NTSC or 576i PAL
2. SDI Loopout of input "SDI IN"
3. HDMI Color Space selection of either RGB444, YUV444, YUV422 or DVI RGB444 (no embedded Audio on DVI setting)

Audio Output Features:

1. Up to 4 Stereo Pairs of embedded HDMI Audio
2. AES/EBU Audio by 6.35mm barrel connector
3. Unbalanced Analog Audio by 3.5mm barrel connector



SDI to HDMI and CVBS Converter (SHCSA-2)

HDMI Audio Embedding:

1. From SDI - Up to 4 Stereo Pairs of embedded HDMI Audio. User can select between first 4 Stereo Pairs or second 4 pairs of SDI Audio
2. From AES/EBU – One Stereo Pair of Audio will be embedded into HDMI
3. From Unbalanced Analog - One Stereo Pair of Audio will be embedded into HDMI

SDI Audio De-Embedding:

1. Any of the 8 SDI Stereo Pairs can be selected for De-Embedding.
2. AES/EBU and Analog Audio Out always carry the same stereo pair.

DIP 1 (1=ON, 0=OFF)									DIP 2 (1=ON, 0=OFF)			
HDMI Output	SW1	SW2	SW3	SW4	Audio De-Embedding			SW5	SW6	SW7	AV Out	SW1
Follow Input	1	1	1	1	SDI CH1-2	1	1	1			NTSC	1
1080p60	1	1	1	0	SDI CH3-4	1	1	0			PAL	0
1080p50	1	1	0	1	SDI CH5-6	1	0	1			Status Display SW2	
1080p30	1	1	0	0	SDI CH7-8	1	0	0			ON	1
1080p25	1	0	1	1	SDI CH9-10	0	1	1			OFF	0
1080p24	1	0	1	0	SDI CH11-12	0	1	0			Controls SW3 SW4	
1080i60	1	0	0	1	SDI CH13-14	0	0	1			DIP	1 1
1080i50	1	0	0	0	SDI CH15-16	0	0	0			PC	1 0
720p60	0	1	1	1	HDMI Audio Embedding SW8 SW9						Custom 1	0 1
720p50	0	1	1	0	SDI CH1-8	1	1				Custom 2	0 0
720p30	0	1	0	1	SDI CH9-16	1	0					
720p25	0	1	0	0	AES/EBU	0	1					
720p24	0	0	1	1	Analog	0	0					
576i50	0	0	1	0	HDMI Color Space		SW10 SW11					
480i60	0	0	0	1	RGB 444	1	1					
576i50 Cut	0	0	0	0	YUV 422	1	0					
					YUV 444	0	1					
					DVI RGB 444	0	0					

HDMI or CVBS to SDI Converter (HSCSA-2)

Video Input Features:

1. The device accepts HDMI Video input Signals up to 1080P60
2. CVBS/Composite input either 576i PAL or 480i NTSC
3. Only one input can be routed to the SDI output at a time

Audio Input Features:

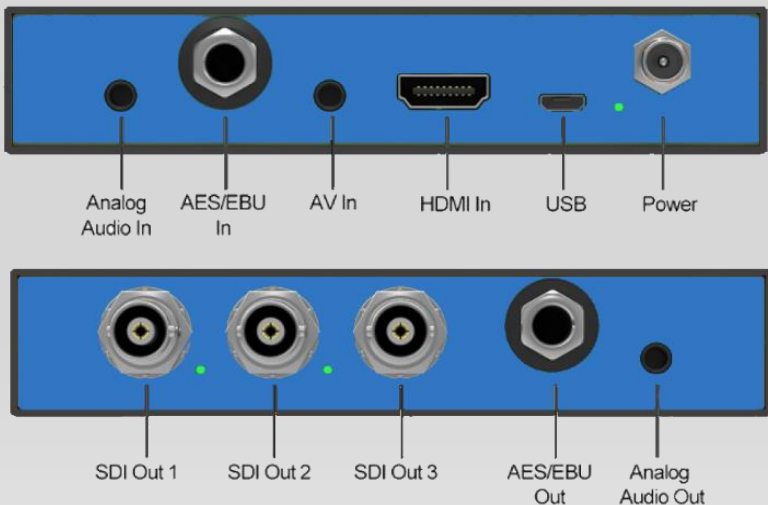
1. Up to 4 Stereo Pairs of embedded HDMI Audio
2. AES/EBU Audio by 6.35mm barrel connector
3. Unbalanced Analog Audio by 3.5mm barrel connector

Video Output Features:

1. 3x Parallel SDI Outputs up to 3G
2. Video Output selectable from either HDMI or CVBS Input

Audio Output Features:

1. Up to 4 Stereo Pairs of embedded SDI Audio
2. AES/EBU Audio by 6.35mm barrel connector
3. Unbalanced Analog Audio by 3.5mm barrel connector



HDMI or CVBS to SDI Converter (HSCSA-2)

SDI Audio Embedding:

1. From HDMI – All HDMI Stereo Pairs embedded into SDI Audio
2. From AES/EBU – One Stereo Pair of Audio will be embedded into SDI
3. From Unbalanced Analog - One Stereo Pair of Audio will be embedded into SDI

HDMI Audio De-Embedding:

1. The first HDMI Stereo Pair is De-Embedded
2. AES/EBU and Analog Audio Out always carry the same stereo pair.

DIP 1 (1=ON, 0=OFF)					DIP 2 (1=ON, 0=OFF)					
SDI Output	SW1	SW2	SW3	SW4	SDI Audio Embedding	SW5	SW6	Video Input	SW1	
Follow Input	1	1	1	1	Follow Input	1	1	HDMI	1	
1080p60	1	1	1	0	AES/EBU	1	0	AV	0	
1080p50	1	1	0	1	Analog	0	1	Status Display	SW2	
1080p30	1	1	0	0	Image Flip	SW7	SW8	ON	1	
1080p25	1	0	1	1	Normal	1	1	OFF	0	
1080p24	1	0	1	0	Horizontal Only	1	0	Controls	SW3	SW4
1080i60	1	0	0	1	Vertical Only	0	1	DIP	1	1
1080i50	1	0	0	0	Horizontal & Vertical	0	0	PC	1	0
720p60	0	1	1	1				Custom 1	0	1
720p50	0	1	1	0				Custom 2	0	0
720p30	0	1	0	1						
720p25	0	1	0	0						
720p24	0	0	1	1						
625i50	0	0	1	0						
525i60	0	0	0	1						
625i50 Cut	0	0	0	0						

HSCSA-2

- HDMI to SDI Converter
 - Mounting Brackets
 - International 12V Power Supply
 - Micro USB Cable (for Software Controls)
 - AV Breakout Cable
-

SHCSA-2

- SDI to HDMI Converter
 - Mounting Brackets
 - International 12V Power Supply
 - Micro USB Cable (for Software Controls)
 - AV Breakout Cable
-

**WHEN
RELIABILITY
MATTERS**



Video