ez-SHV+

SDI to HDMI Converter with Display and Scaler

Operation manual

Manual
Updated DECEMBER. 2020

LUMANTEK

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01. ez-SHV+

(SDI to HDMI Converter with Display and Scaler)

Lumantek's ez-SHV+ is an SDI to HDMI converter with Display and Scaler.
The ez-SHV+ does more than just coverting. Through its 2.7 inch TFT-LCD, it dislays the video input.
The display also shows an eye pattern for video quality monitoring, the resolution of incoming video and approximate cable length relative to the quality of the video.

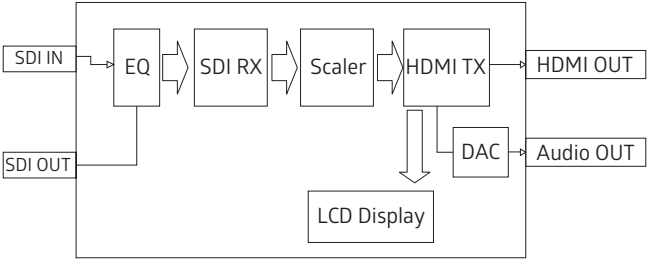
Features

① Inputs & outputs

Input:	1 x SD/HD/3G-SDI (BNC 75Ω)
Output:	1 x SD/HD/3G HDMI (Type A)
	1 x SD/HD/3G-SDI loop (BNC 75Ω)
	1 x Analog audio stereo

② Supports SD/HD/3G
③ TFT-LCD Display (2.7 inch)
④ Push switch for mode change

Diagram



02. Interface

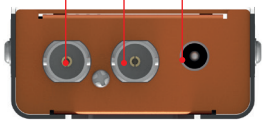
v

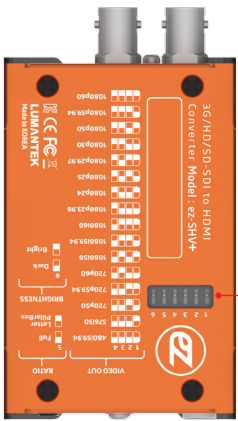
SDI OUT
SDI Video loop output port

DC Input
DC Power Input
+5V to +18V

SDI IN
SDI Video
input port

DIP Switch
Resolution and other
settings switch





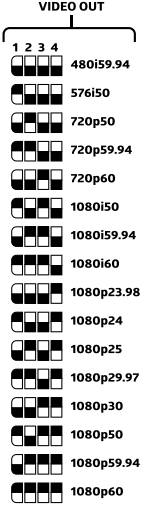
MODE Switch
LCD Menu setting switch

HDMI OUT
HDMI Video output port

AUDIO OUT
Analog audio output port

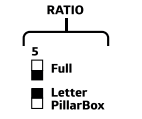
02. Interface

DIP Switch Settings



VIDEO OUT : Video output resolution (Position 1, 2, 3, 4)

- 720x480i@59.94 (DIP SW : 1111)
- 720x576i@50 (DIP SW : 0111)
- 1280x720p@50 (DIP SW : 1011)
- 1280x720p@59.94 (DIP SW : 0011)
- 1280x720p@60 (DIP SW : 1101)
- 1920x1080i@50 (DIP SW : 0101)
- 1920x1080i@59.94 (DIP SW : 1001)
- 1920x1080i@60 (DIP SW : 0001)
- 1920x1080p@23.98 (DIP SW : 1110)
- 1920x1080p@24 (DIP SW : 0110)
- 1920x1080p@25 (DIP SW : 1010)
- 1920x1080p@29.97 (DIP SW : 0010)
- 1920x1080p@30 (DIP SW : 1100)
- 1920x1080p@50 (DIP SW : 0100)
- 1920x1080p@59.94 (DIP SW : 1000)
- 1920x1080p@60 (DIP SW : 0000)



RATIO : Video output screen ratio (Position 5)

- FULL 16:9 (DIP SW : 1)
- Latter 4:3 or Pillar Box (DIP SW : 0)

BRIGHTNESS : LCD brightness (Position 6)

- Dark (DIP SW : 1)
- Bright(DIP SW : 0)

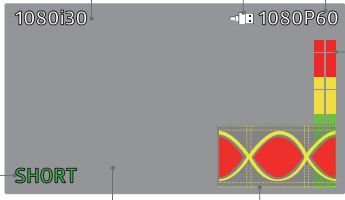
02. Interface

LCD Displays

Input Resolution
SDI Input resolution
* Shown as "Unknown" where there is no input.
* If input is 3G Level-B, 1080P60B will be displayed.

HDMI Output Resolution
Shows Icon when HDMI output port is connected.
The Icon disappears when HDMI output port is disconnected

Output Resolution
* Resolution configured through DIP Switch

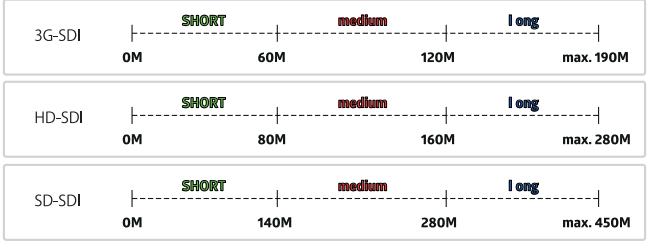


Input Cable Length
Shows approximated cable length in 3 stages (SHORT, MEDIUM, LONG).
* Reference cable is Belden 1694A cables
* Shows UNKOWN when cable is disconnected.

Input Video
SDI input video display
* In case 3G-SDI Level-B is inserted, gray scale bars will be shown instead

Input Audio Level Bar
Shows Audio Level Bar if input audio signal quality is poor.

Input SDI Eye Pattern
Shows thick eye pattern if input video signal quality is poor.



02. Interface

LCD Displays

① LCD Display ON/ OFF

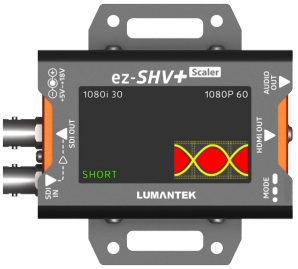
Turn off the display by pressing and holding the mode switch for less than 6 sec

Turn on the display by pressing and holding the mode switch for less than 6 sec

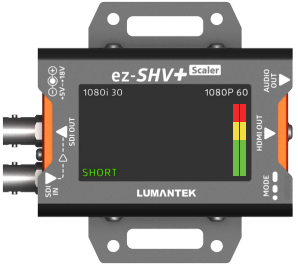
02. Interface

LCD Displays

② SDI input eye pattern or audio level meter



Turn on the eye pattern by pressing the mode switch for less than 1 sec.

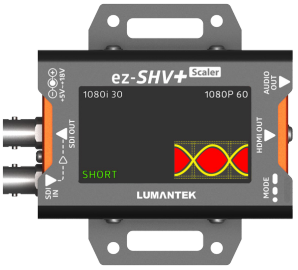


Turn on audio level meter by pressing the mode switch for less than 1 sec.

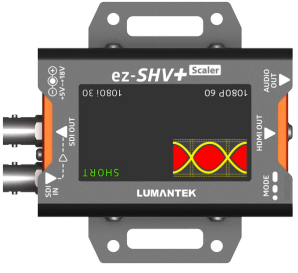
02. Interface

LCD Displays

③ LCD monitor rotation (by 0 or 180 degrees)



Rotate to 0 degrees by pressing and holding for more than 6 sec



Rotate to 180 degrees by pressing and holding for more than 6 sec

02. Interface

LCD Displays

④ ON/OFF HDMI mirrored output for teleprompter

HDMI Output

Please TURN OFF the LCD Display first. TURN ON the mirrored output application by pressing the mode switch for more than 6 seconds while the LCD OFF.

*Please refer to page 9 for the LCD Display ON/OFF
*Supports only HD resolutions

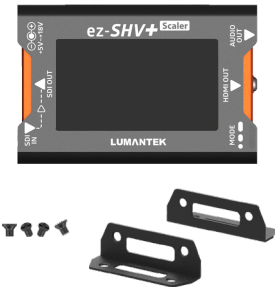
HDMI Output

Please TURN OFF the LCD Display first TURN OFF the mirrored output application by pressing the mode switch for more than 6 seconds while the LCD OFF.

*Please refer to page 9 for the LCD Display ON/OFF
*Supports only HD resolutions

03. Product Configuration

ez-SHV+



AC to DC adapter

Adapter specifications
AC in : AC100 to 240V,50/60Hz
DC out : DC12V, 1A

04. Technical Specifications

Data Input

SDI Video Input : SD/HD/3G-SDI (BNC 75Ω) x1
Video Formats :
- 720x480i@59.94/60
- 720x576i@50
- 1280x720p@50/59.94/60
- 1920x1080i@50/59.94/60
- 1920x1080p@23.94/24/25/29.97/30
- 1920x1080p@50/59.94/60
(3G-SDI Level-B not supported)

Data Output

SDI LOOP Output : SD/HD/3G-SDI (BNC 75Ω) x1
Audio Output : Stereo Jack x1
HDMI Video Output : SD/HD/3G (HDMI Type A) x1
Video Formats :
- 720x480i@59.94 (DIP SW : 1111)
- 720x576i@50 (DIP SW : 0111)
- 1280x720p@50 (DIP SW : 1011)
- 1280x720p@59.94 (DIP SW : 0011)
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- 1920x1080p@25 (DIP SW : 1010)
- 1920x1080p@29.97 (DIP SW : 0010)
- 1920x1080p@30 (DIP SW : 1100)
- 1920x1080p@50 (DIP SW : 0100)
- 1920x1080p@59.94 (DIP SW : 1000)
- 1920x1080p@60 (DIP SW : 0000)

Connections

Power : DC Power Input (DC Jack) x1
DIP Switch : (6 Pole) x1 Video In/Out Resolution, Video Output Ratio, LCD Brightness
MODE : (Push Switch) x1 LCD ON/OFF, Menu Selection

Display

2.7 inch TFT LCD : Input Video Display, Input SDI Eye Pattern,In/Output Video Resolution Display, Input Cable Length, Audio Level Meter

Electrical

Power Input : DC +5V to +18V
Power Consumption : 3W(max.)
Operation Temperature : 0~45℃

Physical

Dimension : 86.3x57.2x26.6 mm (include connector)
Weight : 0.3 kg (0.66lbs)

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