

ez-SHV+

SDI to HDMI
Converter with
Display and Scaler

Operation manual

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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 converting. Through its 2.7 inch TFT-LCD, it displays 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

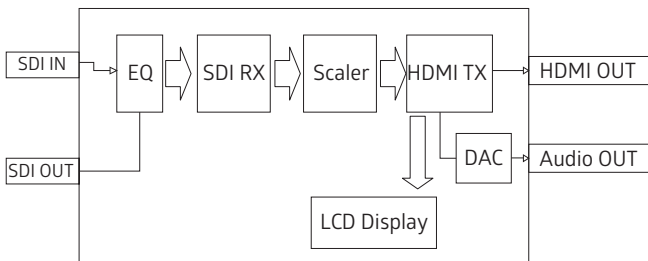
Input: 1 x SD/HD/3G-SDI (BNC 75Ω)
Output: 1 x SD/HD/3G HDMI (Type A)
1 x SD/HD/3G-SDI loop (BNC 75Ω)
1 x Analog audio stereo

② Supports SD/HD/3G

③ TFT-LCD Display (2.7 inch)

④ Push switch for mode change

Diagram



02. Interface

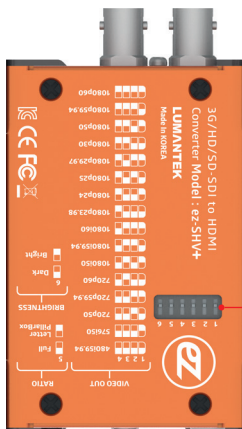
Specifications

SDI IN
SDI Video input port

SDI OUT
SDI Video loop output port

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

DIP Switch
Resolution and other
settings switch



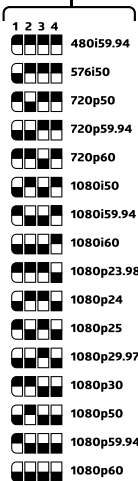


MODE Switch
LCD Menu setting switch

HDMI OUT
HDMI Video output port

AUDIO OUT
Analog audio output port

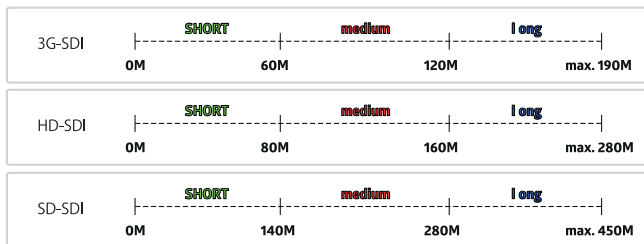
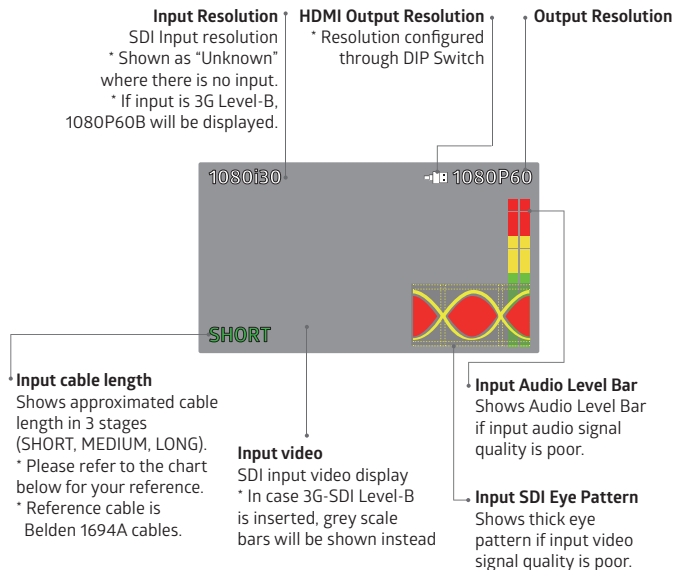
02. Interface

DIP Switch Settings

<p>VIDEO OUT</p>  <p>1 2 3 4</p> <p>480i59.94</p> <p>576i50</p> <p>720p50</p> <p>720p59.94</p> <p>720p60</p> <p>1080i50</p> <p>1080i59.94</p> <p>1080i60</p> <p>1080p23.98</p> <p>1080p24</p> <p>1080p25</p> <p>1080p29.97</p> <p>1080p30</p> <p>1080p50</p> <p>1080p59.94</p> <p>1080p60</p>	<p>VIDEO OUT : Video output resolution (Position 1, 2, 3, 4)</p> <ul style="list-style-type: none"> - 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)
<p>RATIO</p>  <p>5</p> <p>Full</p> <p>Letter PillarBox</p>	<p>RATIO : Video output screen ratio (Position 5)</p> <ul style="list-style-type: none"> - FULL 16:9 (DIP SW : 1) - Latter 4:3 or Pillar Box (DIP SW : 0)
<p>BRIGHTNESS</p>  <p>6</p> <p>Dark</p> <p>Bright</p>	<p>BRIGHTNESS : LCD brightness (Position 6)</p> <ul style="list-style-type: none"> - Dark (DIP SW : 1) - Bright (DIP SW : 0)

02. Interface

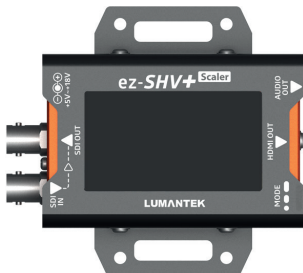
LCD Displays



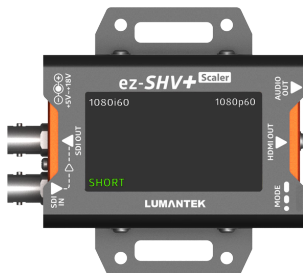
02. Interface

LCD Displays

① LCD Display ON/ OFF



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

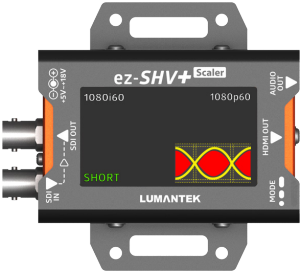


Turn on the display by pressing and holding the mode switch for less than 6 sec

02. Interface


LCD Displays

② SDI input eye pattern or audio level meter



The image shows the front panel of the ez-SHV+ Scaler. The LCD screen displays '1080i60' in the top left, '1080p60' in the top right, and 'SHORT' in green at the bottom left. The center of the screen shows a red and yellow SDI eye pattern. The LUMATEK logo is at the bottom. On the left, there are SDI IN and SDI OUT ports with a +5V-18V power switch. On the right, there are AUDIO OUT and HDMI OUT ports, and a MODE button.

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



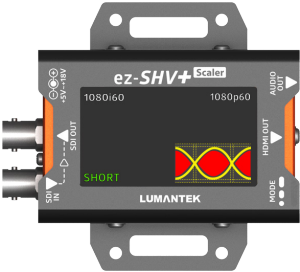
The image shows the front panel of the ez-SHV+ Scaler. The LCD screen displays '1080i60' in the top left, '1080p60' in the top right, and 'SHORT' in green at the bottom left. The center of the screen shows a vertical audio level meter with a green bar at the bottom, a yellow bar in the middle, and a red bar at the top. The LUMATEK logo is at the bottom. On the left, there are SDI IN and SDI OUT ports with a +5V-18V power switch. On the right, there are AUDIO OUT and HDMI OUT ports, and a MODE button.

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

02. Interface

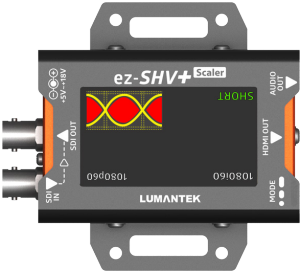
LCD Displays

③ LCD monitor rotation (by 0 or 180 degrees)



The LCD screen of the LUMATEK ez-SHV+ Scaler is shown at 0 degrees rotation. The display shows a black background with a yellow sine wave and a red sine wave. The text "1080i60" is in the top left, "1080p60" is in the top right, "SHORT" is in the bottom left, and "LUMATEK" is at the bottom center. The device has a handle at the top and bottom, and ports on the left (SD IN, SD OUT, +5V, +18V) and right (AUDIO OUT, HDMI OUT, MODE).

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



The LCD screen of the LUMATEK ez-SHV+ Scaler is shown at 180 degrees rotation. The display shows a black background with a yellow sine wave and a red sine wave. The text "1080p60" is in the top left, "1080i60" is in the top right, "SHORT" is in the bottom left, and "LUMATEK" is at the bottom center. The device has a handle at the top and bottom, and ports on the left (SD IN, SD OUT, +5V, +18V) and right (AUDIO OUT, HDMI OUT, MODE).

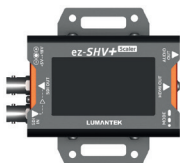
Rotate to 180 degrees by pressing and holding for more than 6 sec

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 00 for the LCD
Display ON/OFF

*Supports only HD resolutions

HDMI Output



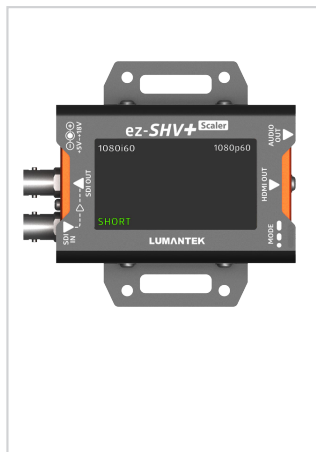
Please TURN OFF the LCD Display first
TURN OFF the mirrored output
application by pressing the mode
switch for more than 6 seconds while
the LCD OFF.

*Please refer to page 00 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)
- 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)

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°C

Physical

Dimension: 86.3x57.2x26.6 (mm)(include connector)

Weight: 0.3 kg(typ.)(0.66lbs)

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