

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

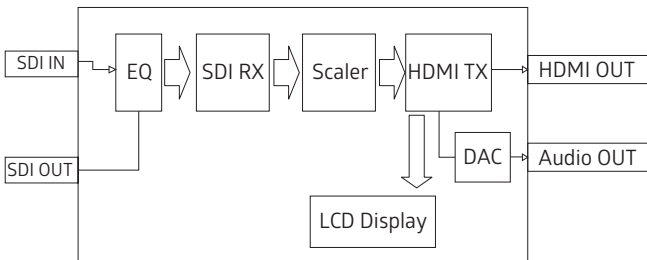
Input:	1 x SD/HD/3G-SDI (BNC 75Ω)
Output:	1 x SD/HD/3G HDMI (Type A)
	1 x SD/HD/3G-SDI loop (BNC 75Ω)
	1 x Analog audio stereo

② Supports SD/HD/3G

③ TFT-LCD Display (2.7 inch)

④ Push switch for mode change

Diagram



02. Interface

v



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)- Letter 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)

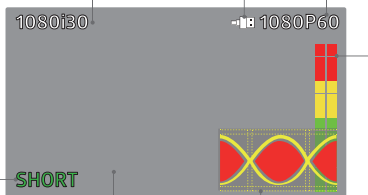
02. Interface

LCD Displays

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

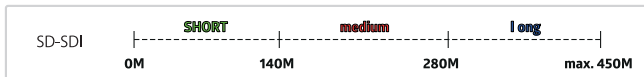
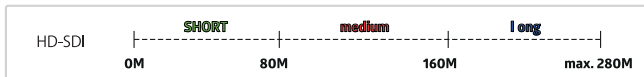


Input Cable Length
Shows approximated cable
length in 3 stages
(SHORT, MEDIUM, LONG).
* Reference cable is
Belden 1694A cables
* Shows UNKNOWN when
cable is disconnected.

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.

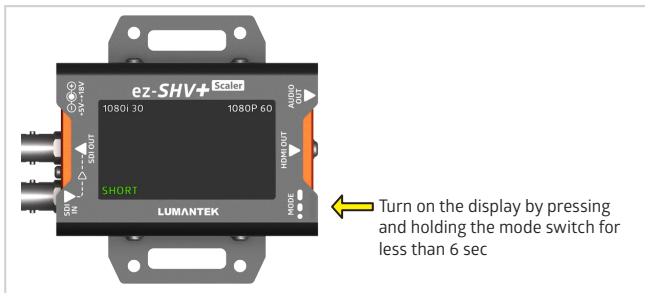
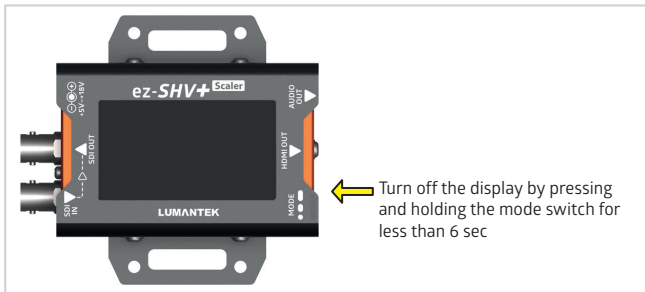
Input SDI Eye Pattern
Shows thick eye
pattern if input video
signal quality is poor.



02. Interface

LCD Displays

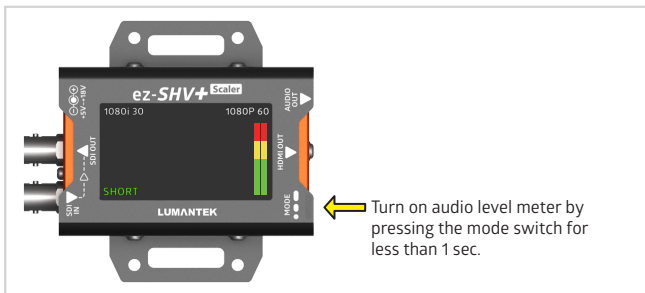
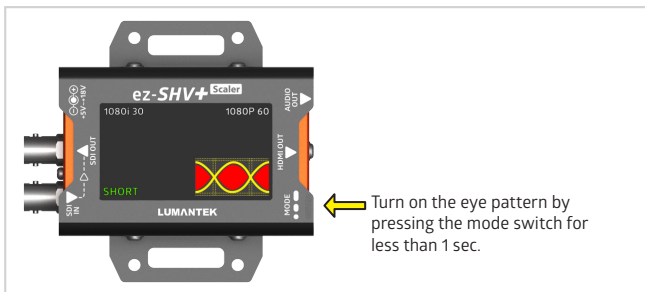
① LCD Display ON/ OFF



02. Interface

LCD Displays

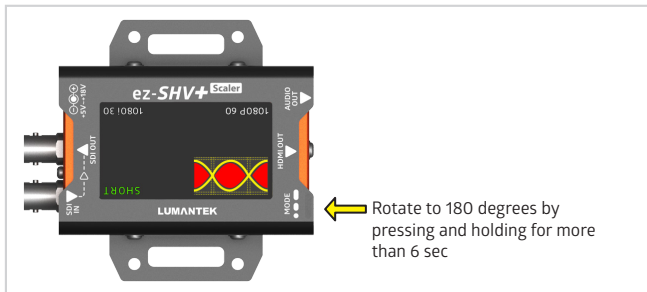
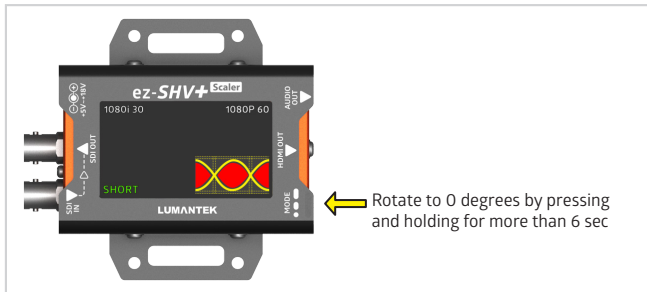
② SDI input eye pattern or audio level meter



02. Interface

LCD Displays

③ LCD monitor rotation (by 0 or 180 degrees)




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

The image shows a LUMATEK ez-SHV+ LCD display connected to a monitor. The monitor displays a mirrored image of a group of people dancing. The LCD display has a mode switch on the right side.

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

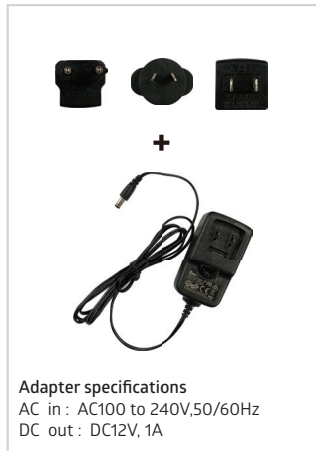
The image shows the same LUMATEK ez-SHV+ LCD display connected to a monitor. The monitor displays a normal image of a group of people dancing. The LCD display has a mode switch on the right side.

03. Product Configuration

ez-SHV+



AC to DC adapter



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 (0.66lbs)

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