

# **ez-SHV+**

## SDI to HDMI Converter with Display and Scaler

Operation manual



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#### **Warranty Period**

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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

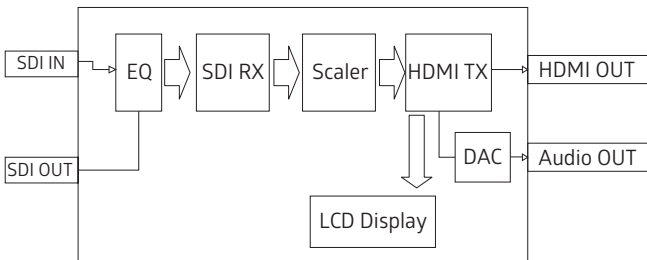
Input:	1 x SD/HD/3G-SDI (BNC 75Ω)
Output:	1 x SD/HD/3G HDMI (Type A)
	1 x SD/HD/3G-SDI loop (BNC 75Ω)
	1 x Analog audio stereo

### ② Supports SD/HD/3G

### ③ TFT-LCD Display (2.7 inch)

### ④ Push switch for mode change

## Diagram



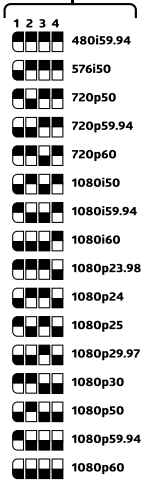


## 02. Interface

### Specifications



## 02. Interface

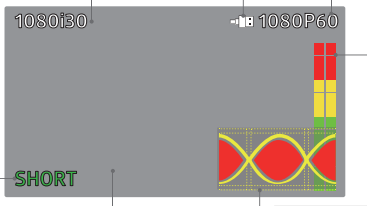
### DIP Switch Settings

<p><b>VIDEO OUT</b></p>  <p>1 2 3 4</p> <ul style="list-style-type: none"><li>480i59.94</li><li>576i50</li><li>720p50</li><li>720p59.94</li><li>720p60</li><li>1080i50</li><li>1080i59.94</li><li>1080i60</li><li>1080p23.98</li><li>1080p24</li><li>1080p25</li><li>1080p29.97</li><li>1080p30</li><li>1080p50</li><li>1080p59.94</li><li>1080p60</li></ul>	<p><b>VIDEO OUT : Video output resolution (Position 1, 2, 3, 4)</b></p> <ul style="list-style-type: none"><li>- 720x480i@59.94 (DIP SW : 1111)</li><li>- 720x576i@50 (DIP SW : 0111)</li><li>- 1280x720p@50 (DIP SW : 1011)</li><li>- 1280x720p@59.94 (DIP SW : 0011)</li><li>- 1280x720p@60 (DIP SW : 1101)</li><li>- 1920x1080i@50 (DIP SW : 0101)</li><li>- 1920x1080i@59.94 (DIP SW : 1001)</li><li>- 1920x1080i@60 (DIP SW : 0001)</li><li>- 1920x1080p@23.98 (DIP SW : 1110)</li><li>- 1920x1080p@24 (DIP SW : 0110)</li><li>- 1920x1080p@25 (DIP SW : 1010)</li><li>- 1920x1080p@29.97 (DIP SW : 0010)</li><li>- 1920x1080p@30 (DIP SW : 1100)</li><li>- 1920x1080p@50 (DIP SW : 0100)</li><li>- 1920x1080p@59.94 (DIP SW : 1000)</li><li>- 1920x1080p@60 (DIP SW : 0000)</li></ul>
<p><b>RATIO</b></p>  <p>5</p> <ul style="list-style-type: none"><li>Full</li><li>Letter PillarBox</li></ul>	<p><b>RATIO : Video output screen ratio (Position 5)</b></p> <ul style="list-style-type: none"><li>- FULL 16:9 (DIP SW : 1)</li><li>- Latter 4:3 or Pillar Box (DIP SW : 0)</li></ul>
<p><b>BRIGHTNESS</b></p>  <p>6</p> <ul style="list-style-type: none"><li>Dark</li><li>Bright</li></ul>	<p><b>BRIGHTNESS : LCD brightness (Position 6)</b></p> <ul style="list-style-type: none"><li>- Dark (DIP SW : 1)</li><li>- Bright (DIP SW : 0)</li></ul>

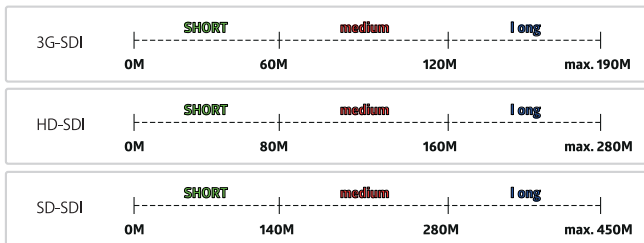
# 02. Interface

## 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**  
\* Resolution configured through DIP Switch
- Output Resolution**



- Input Cable Length**  
Shows approximated cable length in 3 stages (SHORT, MEDIUM, LONG).  
\* Please refer to the chart below for your reference.  
\* Reference cable is Belden 1694A cables.
- Input Video**  
SDI input video display  
\* In case 3G-SDI Level-B is inserted, grey 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.

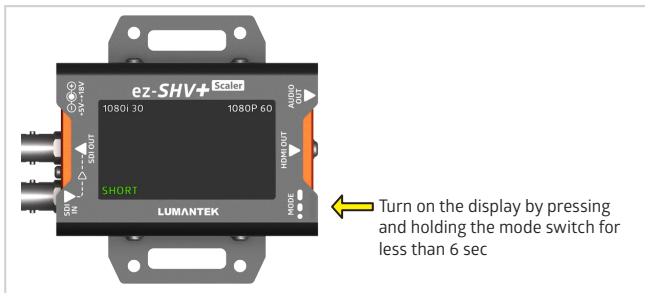
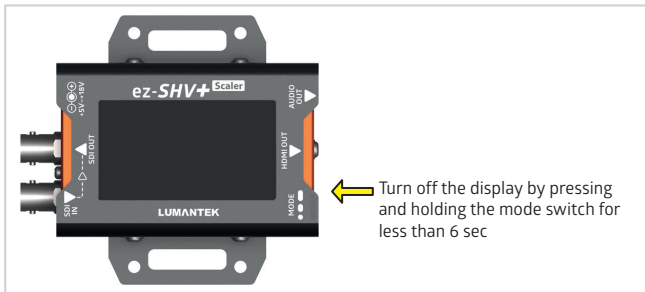




## 02. Interface

### LCD Displays

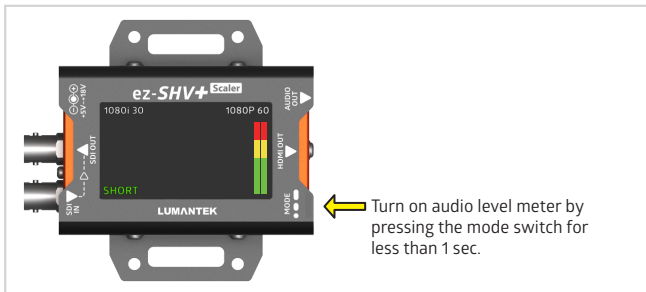
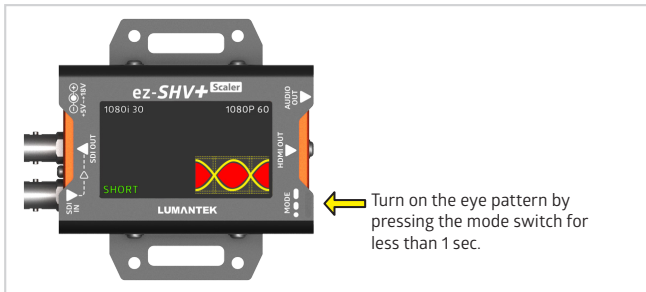
#### ① LCD Display ON/ OFF



## 02. Interface

### LCD Displays

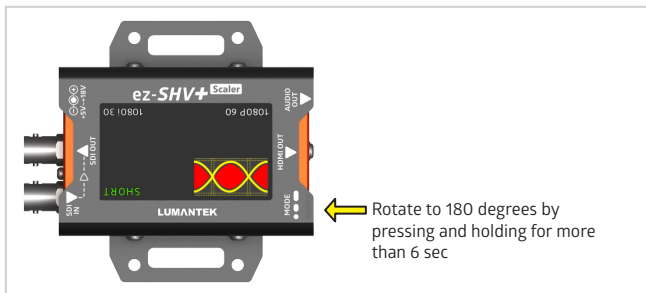
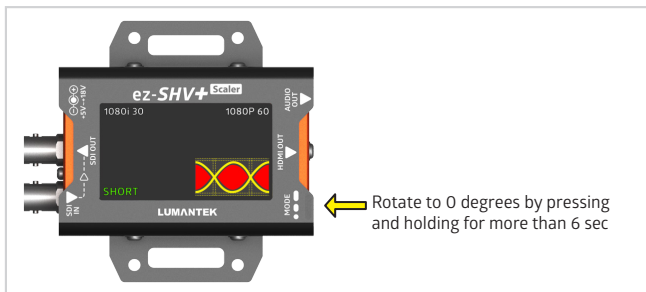
#### ② SDI input eye pattern or audio level meter



## 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. The LCD display has a mode switch on the right side.

**HDMI Output**



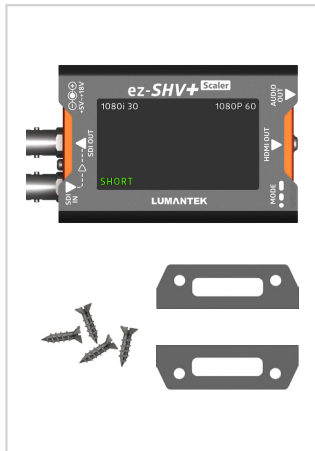
Please TURN OFF the LCD Display first. TURN OFF the mirrored output application by pressing the mode switch for more than 6 seconds while the LCD OFF.

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

The image shows a LUMATEK ez-SHV+ LCD display connected to a monitor. The monitor displays a normal image of a group of people. 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(typ.)(0.66lbs)



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