

Manual

ez-Converter

ez-hs+ (HDMI/VGA To 3G/HD/SD-SDI Converter with Scaler)

**ez Converter** **Scaler**  
Up/Down Scaler



Model : ez-hs+

## ez-hs+ Manual

Revision Number: **1.0.1**

Distribution Date: **January, 2016**

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## ez-hs+ (HDMI/VGA To 3G/HD/SD-SDI Converter With Scaler)

HDMI and VGA to 3G/HD/SD-SDI signal conversion

### 1. Introduction

ez-hs+ is one of Lumantek's ezConverter series featuring HDMI,VGA to 3G/HD/SD-SDI signal conversion. Selectable system resolution allows designing a new broadcasting system with a specific resolution standard for HDMI and VGA Signals. User can use embedded audio for HDMI. For VGA, the external 3.5mm stereo audio port is used as a sound embedder. Aspect ratio is configurable at user's preference as well.

#### Features

- ① Selectable input between HDMI x1 and VGAX1 input
- ② External Audio embedder (3.5mm Stereo Input)
- ③ Selectable aspect ratio (Please see Dip Switch configuration on page 6)
- ④ HD –SDI x2 (same output) supporting long distance transmission
- ⑤ Selectable Resolutions (up/down scaler function)
- ⑥ PC Input signal compatible ( VESA Standard )

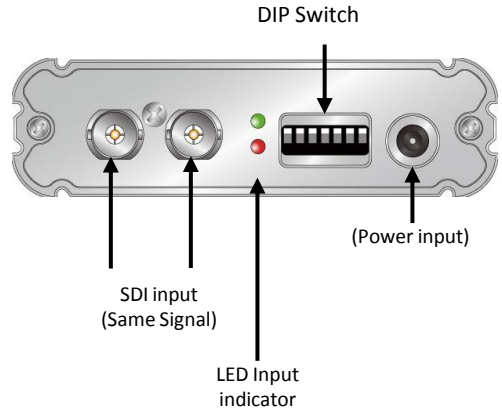
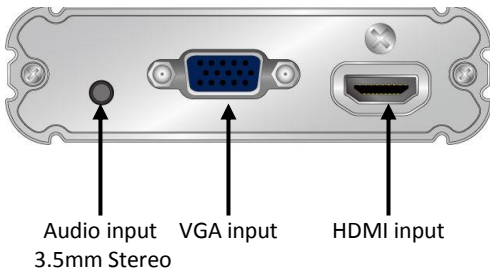
## 2. ez-hs+ Interface

### 2.1 System Information

< ez-hs+ Front >



< ez-hs+ Rear >



### 2.2 Package contents



ez-hs+



ez-as+ (Europe/South East Asia)  
Power Adaptor (DC 12V /1A)

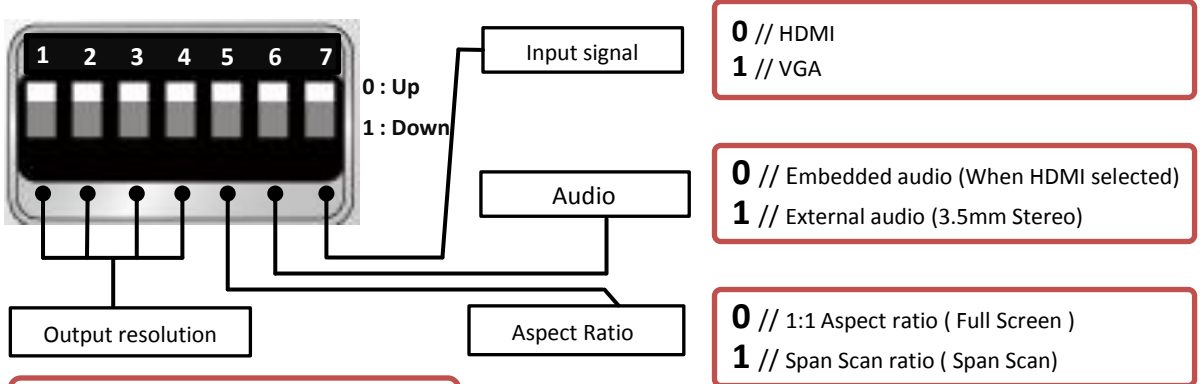


ez-as+ (US/Japan)  
Power Adaptor (DC 12V /1A)



ez-hs+  
Mounting Brackets

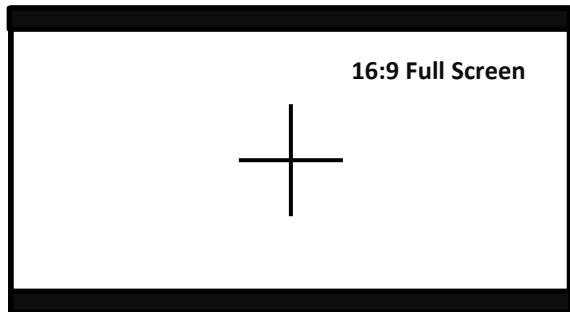
### 2.3 DIP Switch configuration



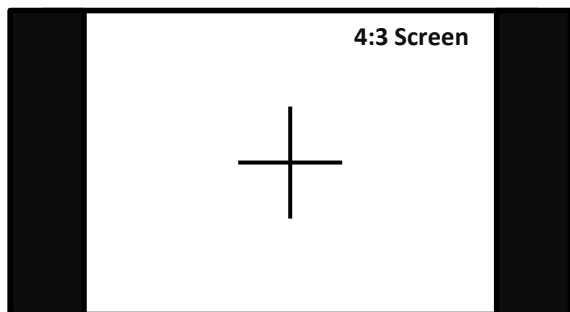
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- **1000** //720x576i50
- **0100** //1280x720p50
- **1100** //1280x720p59.94
- **0010** //1280x720p60
- **1010** //1920x1080i50
- **0110** //1920x1080i59.94
- **1110** //1920x1080i60
- **0001** //1920x1080p23.98
- **1001** //1920x1080p24
- **0101** //1920x1080p25
- **1101** //1920x1080p29.97
- **0011** //1920x1080p30
- **1011** //1920x1080p50
- **0111** //1920x1080p59.94
- **1111** //1920x1080p60

### Span Scan

16:9 selected for SD (4:3) out



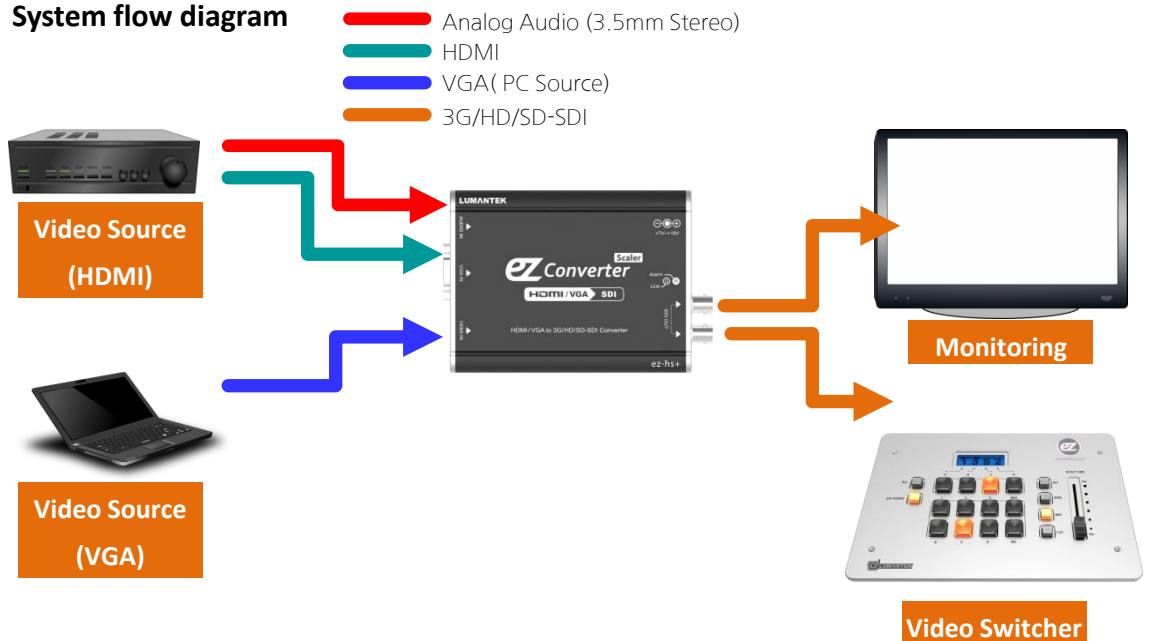
4:3 selected for HD(16:9) out



### 2.4 System Specification (ez-hs+ (HDMI/VGA to 3G/HS/SD-SDI Converter with Scaler))

Video Input Format	
VGA	HDMI
640x480	720x480i @59.94, 720x576i @50
800x600	1280x720p @50/59.94/60
1024x768	1920x1080i @50/59.94/60
1280x1024	1920x1080p @23.98/24/25
1600x1200	1920x1080p @29.97/30
1920x1080	1920x1080p @50/59.94/60
Video Output Format	
720x480i @59.94, 720x576i @50	
1280x720p @50/59.94/60	
1920x1080i @50/59.94/60	
1920x1080p @23.98/24/25/29.97/30	
1920x1080p @50/59.94/60	
Video Aspect Ratio	
Full / Letter Box	
Audio Input Connector : 3.5mm stereo Jack x1	
Video Input Connector : HDMI(Type A) x1, VGA x1	
Video Output Connector : BNC x2 (3G/HD/SD-SDI)	
DC Input Power : 5V~18V	
Power Consumption : < 3W	
Dimensions : 131 x 98.8 x 28.4 mm	

### 3. System flow diagram



Manual

# ez Converter

## ez-as+ (CVBS to 3G/HD/SD-SDI Converter with Scaler)

# ez Converter **Scaler**

Up/Down Scaler





## ez-as+ Manual

Revision Number: 1.0.1

Distribution Date: January, 2016

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## ez-as+ (CVBS To 3G/HD/SD-SDI Converter With Scaler)

CVBS to 3G/HD/SD-SDI signal conversion

### 1. Introduction

ez-as+ is one of Lumantek's ezConverter series featuring CVBS/Analog to 3G/HD/SD-SDI signal conversion. Selectable system resolution allows designing a new broadcasting system with a specific resolution standard for HDMI and VGA Signals. User can use CVBS with the external 6.5mm (1/4") stereo audio port for a sound embedder. Aspect ratio is configurable at user's preference as well.

#### Features

- ① Converting from CVBS to 3G/HD/SD-SDI
- ② External Audio embedder (6.35mm Phone Jack balanced audio Input)
- ③ Selectable aspect ratio (Please see Dip Switch configuration on page 6)
- ④ HD-SDI x2 (same output) supporting long distance transmission
- ⑤ Selectable Resolutions (up/down scaler function)

## 2. ez-as+ Interface

### 2.1 System Information

< ez-as+ Front >



< ez-as+ Rear >



Audio input 3.5mm Stereo      CVBS input



Power      DIP Switch      LED Input indicator      SDI output

### 2.2 Package contents



ez-as+ main unit



ez-as+ (Europe/South East Asia)  
Power Adaptor (DC 12V /1A)

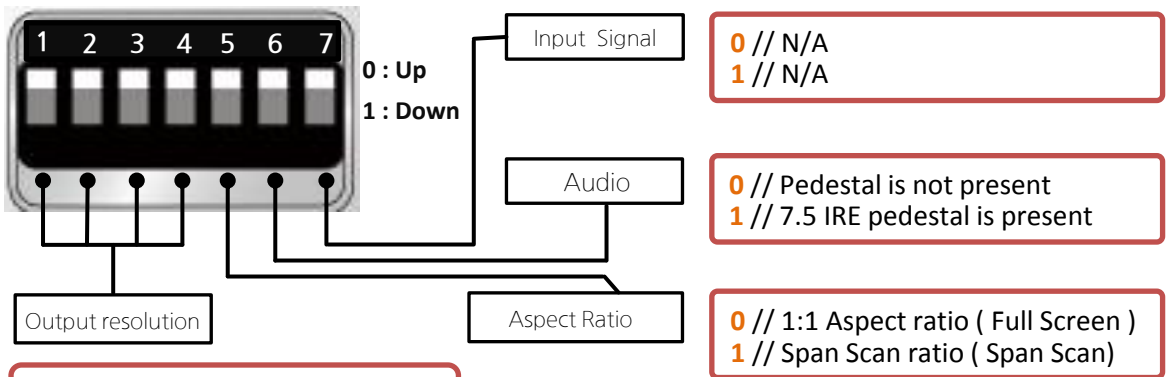


ez-as+ (US/Japan)  
Power Adaptor (DC 12V /1A)



ez-as+  
Mounting Brackets

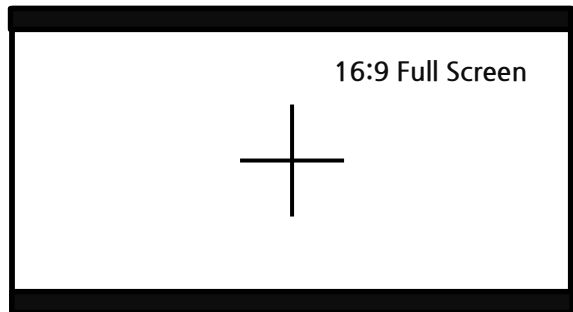
### 2.3 DIP Switch configuration



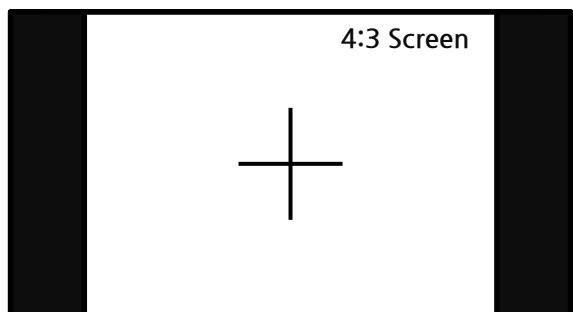
- **0000** //720x480i59.94
- **1000** //720x576i50
- **0100** //1280x720p50
- **1100** //1280x720p59.94
- **0010** //1280x720p60
- **1010** //1920x1080i50
- **0110** //1920x1080i59.94
- **1110** //1920x1080i60
- **0001** //1920x1080p23.98
- **1001** //1920x1080p24
- **0101** //1920x1080p25
- **1101** //1920x1080p29.97
- **0011** //1920x1080p30
- **1011** //1920x1080p50
- **0111** //1920x1080p59.94
- **1111** //1920x1080p60

### Span Scan

16:9 selected for SD (4:3) out






4:3 selected for HD(16:9) out



## 2.4 System Specification

ez-as+ (CVBS to 3G/HS/SD-SDI Converter with Scaler)	
<b>Video Input Format</b>	
CVBS	
NTSC	720x480i @59.94, 720x576i @50
PAL	720x576i @50
<b>Video Output Format</b>	
720x480i @59.94, 720x576i @50	
1280x720p @50/59.94/60	
1920x1080i @50/59.94/60	
1920x1080p @23.98/24/25/29.97/30	
1920x1080p @50/59.94/60	
<b>Video Aspect Ratio</b>	
Full / Letter Box	
<b>Audio Input Connector : 6.35mm (1/4") Balanced audio Left and Right x1 each</b>	
<b>Video Input Connector : CVBS x1,</b>	
<b>Video Output Connector : BNC x2 (3G/HD/SD-SDI)</b>	
<b>DC Input Power : 5V~18V</b>	
<b>Power Consumption : &lt; 3W</b>	
<b>Dimensions : 131 x 98.8 x 28.4 mm</b>	

## 3. System flow diagram

-  Balanced audio 6.35mm(1/4")
-  HDMI
-  3G/HD/SD-SDI

