

# ***CLUX-SDI2VS***

## SDI to PC/HD Scaler with Audio

### *Operation Manual*



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## • **Safety Precautions**

Please read all instructions before attempting to unpack or install or operate this equipment, and before connecting the power supply. Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through module openings or empty slots, as you may damage parts.
- Do not attach the power supply cabling to building surfaces.
- Do not allow anything to rest on the power cabling or allow it to be abused by persons walking on it.
- To protect the equipment from overheating, do not block the slots and openings in the module housing that provide ventilation.

## • **Revision History**

| <b><i>Version No</i></b> | <b><i>Date</i></b> | <b><i>Summary of Change</i></b> |
|--------------------------|--------------------|---------------------------------|
| <b>VR0</b>               | <b>20110413</b>    | <b>Preliminary Release</b>      |
| <b>VR1</b>               | <b>20110701</b>    | <b>Add Support Timing</b>       |
| <b>VR2</b>               | <b>20110928</b>    | <b>Spec. Transmission Typo</b>  |

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## **1. Introduction**

The SDI to VGA Scaler with Audio allows SD, HD and 3G-SDI signals to be display on HD/PC displays while ensuring high bit rates of 2.970 Gbps gives you fast signal transmission without signal loss. For professional this means that it is now easier to distribute and extend your SDI signal while giving you the ability to display your work on the existing PC displays. Further, the design of coaxial and L/R audio output allows user to output audio with both digital and analog format and the loop-through 3G-SDI design also benefit user to enjoy both SDI and PC/HD display synchronously.

## **2. Applications**

- Broadcast video signal sending to SDI display
- 3G SDI signal convert into PC/HD signal

## **3. Package Contents**

- SDI to PC/HD Scaler with Audio
- 5V/2.6A DC power adaptor
- Operation Manual

#### **4. Features**

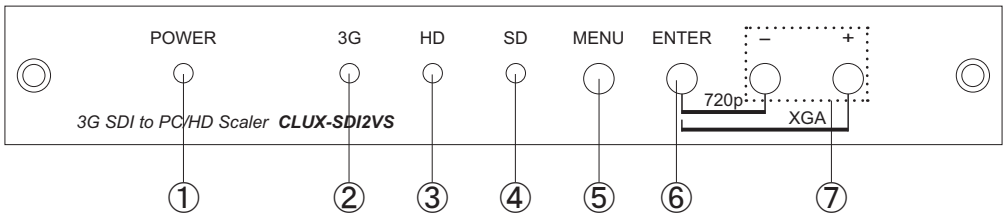
- Operation at 2.970Gbps, 2.970/1.001Gbps, 1.485Gbps, 1.485/1.001Gbps and 270Mbps
- Supports SMPTE 425M (Level A and Level B), SMPTE 424M, SMPTE 292M, SMPTE 259M-C
- Equalized and re-clocked loop output
- Alternative audio output to coaxial and analog 2CH
- Auto video mode detection (3G/HD/SD)
- Conversion from SMPTE 425M level B to Level A for 1080p 50/59.94/60 4:2:2 10-bit

## 5. Specifications

|                        |  |
|------------------------|--|
| SMPTE Standard         | 425M Level A & B, 424M, 292M, 259M-C   |
| SDI Transmission Rates | 2.970 Gbps, 2.970/1.001 Gbps, 1.485Gbps, 1.485/1.001 Gbps, and 270Mbps   |
| Input Port             | 1 x BNC (SD/HD/3G-SDI)   |
| Output Port            | 1 x BNC (SD/HD/3G-SDI),<br>1 x D-Sub 15pin, 1 x Coaxial, 2 x RCA Jack  |
| Video Output Supports  | PC: VGA ~ WUXGA@60RB, HD: 480p~1080p   |
| SDI In/Output          | 480i, 576i, 720p@50/59.94/60, 1080i@50/59.94/60,   |
| Support Timing         | 1080p@23.98/24/25/29.97/30/50/59.94/60,<br>1080PsF 23.98/24/25/29.97/30  |
| Power Supply           | 5V DC/ 2.6A (US/EU standards, CE/FCC/UL certified)   |
| ESD Protection         | Human body model: $\pm 8\text{kV}$ (air-gap discharge)<br>$\pm 4\text{kV}$ (contact discharge)                 |
| SDI Cable Distance     | 3G up to 100M (BELDEN 1694A Cable)<br>HD up to 200M (BELDEN 1694A Cable)<br>SD up to 300M (BELDEN 1694A Cable) |
| Dimensions (mm)        | 180(W) x 142(D) x 25(H)  |
| Weight(g)              | 435  |
| Chassis Material       | Aluminum   |
| Silkscreen Color       | Silver   |
| Operating Temperature  | 0°C ~ 40°C / 32°F ~ 104°F  |
| Storage Temperature    | -20°C ~ 60°C / -4°F ~ 140°F  |
| Relative Humidity      | 20 ~ 90% RH (Non-condensing)   |
| Power Consumption (W)  | 9.3  |

## 6. Operation Controls and Functions

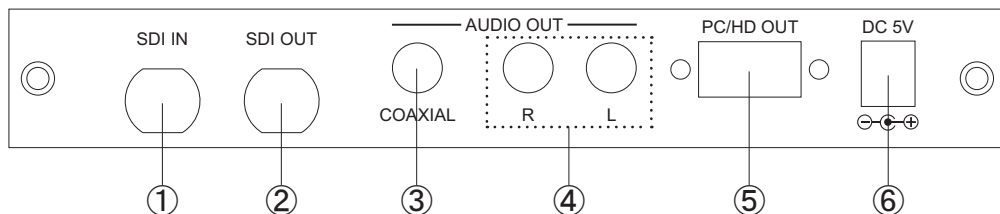
### 6.1 Front Panel



- ① POWER LED: This blue LED will illuminate when the device is connected with power supply.
- ② 3G LED: This green LED illuminate when the input SDI signal is with 3G format.
- ③ HD LED: This green LED illuminate when the input SDI signal is with HD format.
- ④ SD LED: This green LED illuminate when the input SDI signal is with SD format.
- ⑤ MENU: Press this button to enter/exit the OSD menu.
- ⑥ ENTER: Press this button to confirm your selection. Press both ENTER and - buttons together to switch output timing to 720p instantly and press with + buttons together to switch output timing to XGA.
- ⑦ -/+ : Press these buttons to move up or down the OSD selections.



## 6.2 Rear Panel



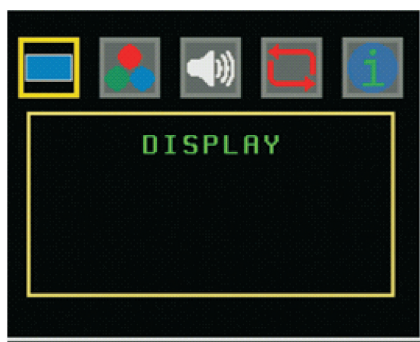
- ① **SDI IN**: This slot is where you connect the SDI source output for SDI signal sending to be display on screen.
- ② **SDI OUT**: This slot is where you connect the SDI display with SDI cable for input source display.
- ③ **AUDIO OUT COAXIAL**: This slot is where you connect the amplifier with coaxial cable and from amplifier to speaker
- ④ **AUDIO OUT R/L**: These slots are where you connect the speaker or amplifier with RCA jack for audio signal display.
- ⑤ **PC/HD OUT**: This slot is where you connect the PC display with D-Sub 15pin cable and or HD display with D-Sub to 3RCA cable.
- ⑥ **DC 5V**: Plug the 5V DC power supply into the unit and connect the adaptor to AC wall outlet. Blue LED will illuminate when the power is ON.

## 7. OSD Menu and Function List

| 1st Layer | 2nd Layer                                       | 3rd Layer        |
|-----------|---|------------------|
| Display   | Output PC Timing<br>with D-Sub 15pin<br>cable   | 640 x 480 @60    |
|           |   | 800 x 600 @60    |
|           |   | 1280 X 720@60    |
|           |   | 1024 x 768 @60   |
|           |   | 1280 x 768 @60   |
|           |   | 1360 x 768 @60   |
|           |   | 1280 x 800 @60   |
|           |   | 1280 x 1024 @60  |
|           |   | 1440 x 900 @60   |
|           |   | 1400 x 1050 @60  |
|           |   | 1680 x 1050 @60  |
|           |   | 1600 x 1200 @60  |
|           |   | 1920 x 1200 @60  |
|           |   | 1920 x 1080 @60  |
|           | Output HD Timing<br>with D-Sub to<br>3RCA cable | 720 x 480p @60   |
|           |   | 1280 x 720p @60  |
|           |   | 1920 x 1080p @60 |
|           |   | 720 x 576p @50   |
|           |   | 1280 x 720p @50  |
|           |   | 1920 x 1080p @50 |
|           |   | 1920 x 1080i @60 |
|           |   | 1920 x 1080i @50 |
|           |   | 720 x 576i @50   |
|           |   | 720 x 480i @ 60  |
|           | Size  | Full             |
|           |   | Over Scan        |
|           |   | Under 1          |
|           |   | Under 2          |
|           |   | Letter Box       |
|           |   | Pan Scan         |
|           | Exit  |                  |

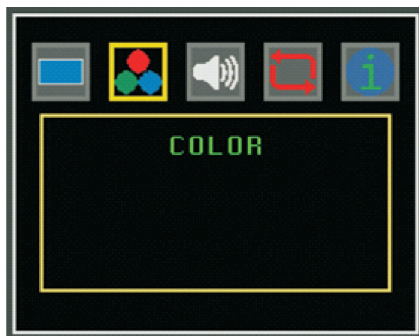
|               |            |            |
|---------------|------------|------------|
| Color         | Contrast   | 0~255(105) |
|               | Brightness | 0~192(96)  |
|               | R          | 0~255(128) |
|               | G          | 0~255(128) |
|               | Brightness | 0~255(128) |
|               | R Offset   | 0~64(32)   |
|               | G Offset   | 0~64(32)   |
|               | B Offset   | 0~64(32)   |
|               | Exit       |            |
| SDI Audio     | Group 1    |            |
|               | Group 2    |            |
|               | Group 3    |            |
|               | Group 4    |            |
|               | Auto       |            |
|               | Off        |            |
| Factory Reset | Yes        |            |
| Information   |            |            |

## 7.1 Display



- Output Timings: There are total 24 timings available for user's selection.
- Size: Adjust the display's screen size from Full, Over Scan, Under Scan, Letter box or Pan scan to fit the different timing's display and make the viewing become more pleasure.

## 7.2 Color



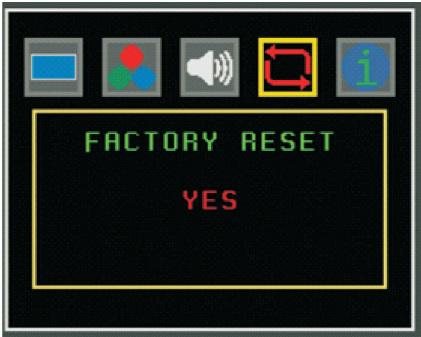
- Adjust screen color RGB's Contrast and or Brightness.

## 7.3 SDI Audio



- Select SDI audio output from 4 different group and each group contents 2CH. If no audio output is require the audio can also be mute by selecting off.

### 7.4 Factory Reset



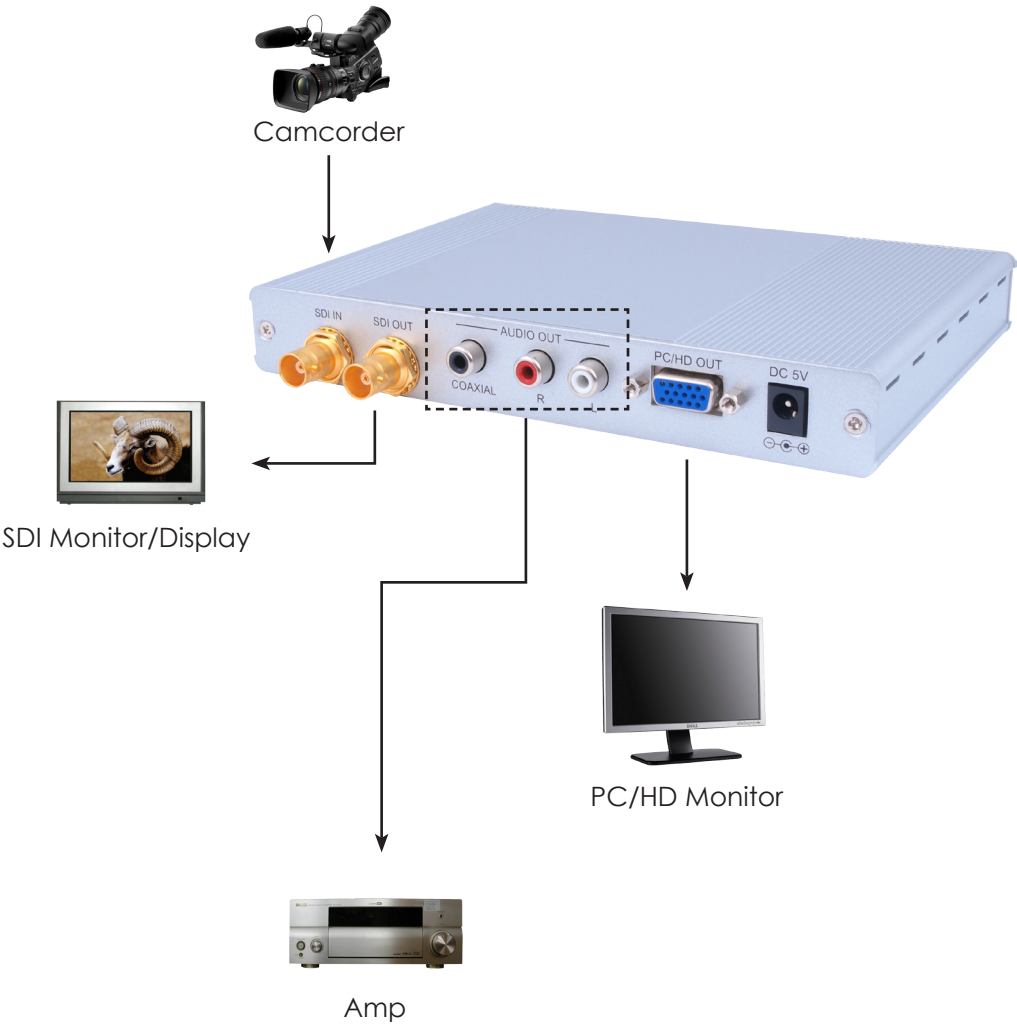
- Select YES to return to the factory setting. Factory setting on display is at 1024 x 768@60Hz with full size screen, Color setting's factory default rate are as the value in the bracket of the OSD chart and SDI audio is on auto.

### 7.5 Information



- Displaying both input source and output display timing with software version.

8. Connection and Installation





# Acronyms

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## **Acronym**

## **Complete Term**

3G

Bandwidth 2.97G bps  $\approx$  3G

SDI

Serial Digital Interface



**CYPRESS TECHNOLOGY CO., LTD.**

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