



## **User Manual**

VGA & Audio to HDMI Scaler Converter

**Model PT-SC-VGAHD**

Designed in Germany

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## 1. Safety and Notice

The PT-SC-VGAHD VGA & Audio to HDMI Scaler Converter has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments, the PT-SC-VGAHD should be used with care. Please read and follow the safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Follow all instructions and warnings marked on this unit.
- Do not attempt to service this unit yourself, except where explained in this manual.
- Provide proper ventilation and air circulation and do not use near water.
- Keep objects that might damage the device and assure that the placement of this unit is on a stable surface.
- Use only the power adapter and power cords and connection cables designed for this unit.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.



## 2. Introduction

The PT-SC-VGAHD VGA & Audio to HDMI Scaler Converter offers an easy and instant approach for converting analog PC video (VGA) with either digital audio (S/PDIF) or analog stereo audio to digital HDMI. With this module, VGA based devices such as PC with S/PDIF or analog stereo audio can readily connect to your HDMI TV. With such a convenience, presentations, demonstrations, or digital signage become easier and more cost effective.

## 3. Features

- IR remote control
- Remote control via Mini-USB
- OSD control interface
- Maximum pixel rate : 165MHz
- S/PDIF & Stereo input supported
- Deinterlacer supported
- Supports noise reduction and video enhancement features
- Over / under scanning adjustable
- Video H/V mirror supported
- Active video area adjustment supported
- USB firmware upgradable for expanding compatibility
- Wall-mount housing design for easy installation

## 4. Package Contents

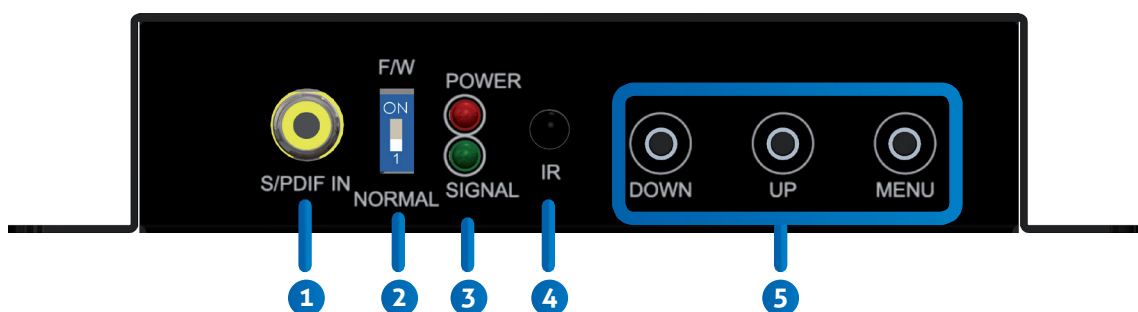
- 1x PT-SC-VGAHD
- 1x Power supply unit (+5VDC, 2A)
- 1x IR Remote control
- 1x Installation software CD
- 1x User Manual

## 5. Specifications

Model Name		PT-SC-VGAHD
Role of usage		VGA to HDMI Converter
Frequency bandwidth		165MHz
Audio support		Stereo PCM (48KHz only)
ESD protection		[1] Human body model — $\pm 19\text{kV}$ [air-gap discharge] & $\pm 12\text{kV}$ [contact discharge] [2] Core chipset — $\pm 2\text{kV}$
PCB stack-up		4-layer board [impedance control — differential $100\Omega$ ; single $50\Omega$ ]
Firmware update		Feasible via USB Port
CEC Channel		N/A
Input TMDS signal		1.2 Volts [peak-to-peak]
Input DDC signal		5 Volts [peak-to-peak, TTL]
Input		1x VGA + 1xS/PDIF+ 1xStereo
Output		1x HDMI
VGA connector		HD-15 [15-pin D-sub female]
HDMI connector		HDMI [19-pin female]
USB connector		Mini B
Mechanical		
Housing		Metal enclosure
Dimensions [L x D x H]	Model	92 x 83 x 28mm [3.6" x 3.3" x 1.1"]
	Package	175 x 128 x 134mm [6.9" x 5" x 5.3"]
	Carton	662 x 366 x 290mm [2'2" x 1'2" x 1']
Weight	Model	260g [9.1oz]
	Package	510g [17.9oz]
Fixedness		Wall-mounting case with screws
Power supply		5V 2A DC
Power consumption		5 Watt [max]
Operation temperature		0~40°C [32~104°F]
Storage temperature		-20~60°C [-4~140°F]
Relative humidity		20~90% RH [no condensation]

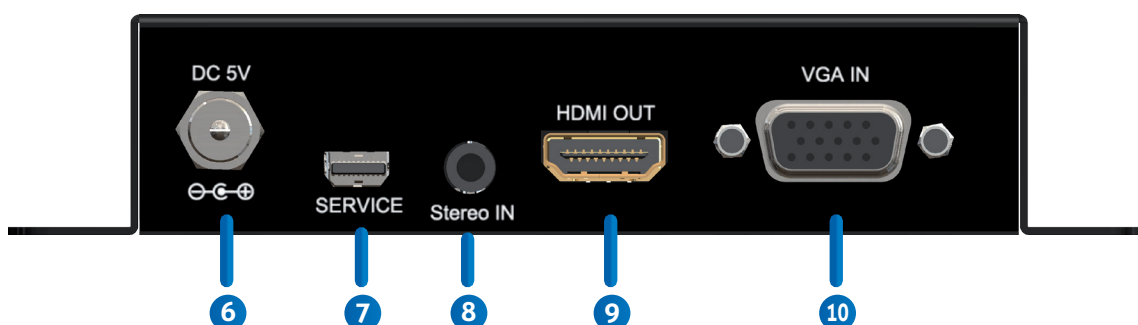
## 6. Panel Description

### Front Panel



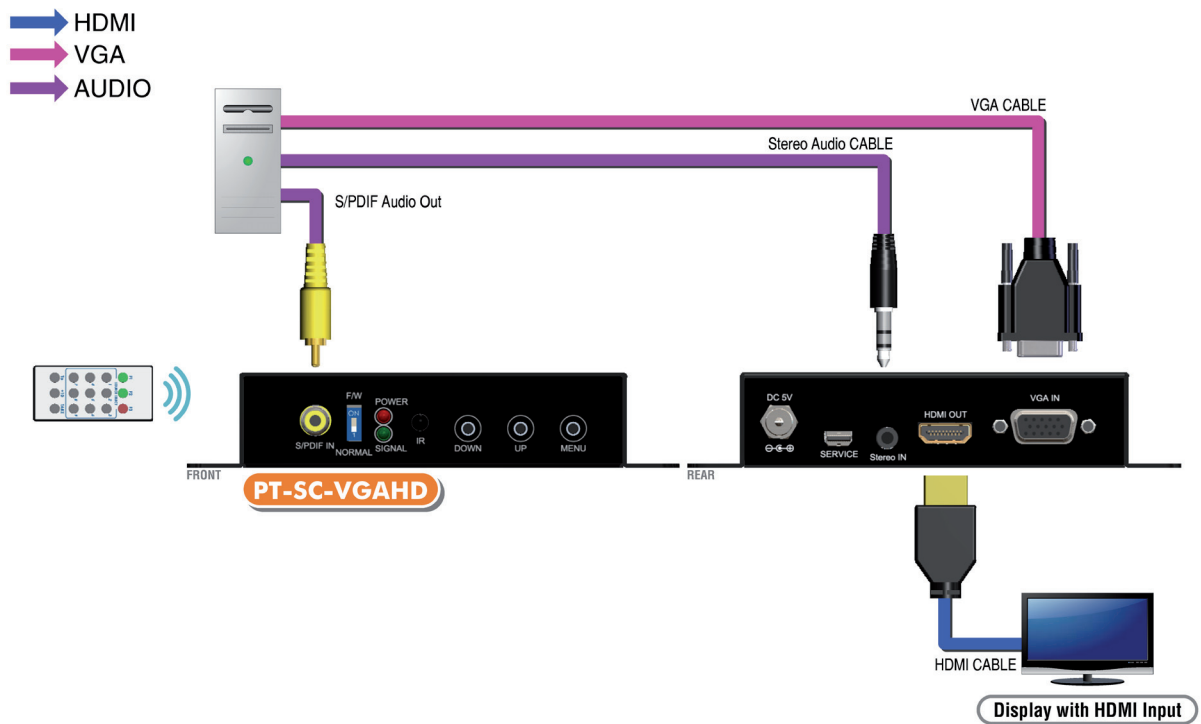
1. **S/PDIF AUDIO IN:** connect to digital S/PDIF audio source
2. **DIP SWITCH:** For firmware update  
ON [ ▲ ]: firmware update mode  
OFF [ ▼ ]: normal mode
3. **LED INDICATOR:**  
[green]: signal indicator LED  
[red]: power indicator LED.
4. **IR SENSOR:** IR sensor for receiving the IR commands from IR remote
5. **PUSH BUTTON**  
[LEFT]: Down Button  
[MID]: Up Button  
[RIGHT]: Menu/Enter Button

### Rear Panel



6. **+5V DC:** Interlocking power jack for 5V DC power supply unit
7. **Mini USB:** F/W update & control port
8. **STEREO AUDIO IN:** connect to analog stereo audio source
9. **HDMI OUT:** Connect to a HDMI display with a HDMI male-male cable here.
10. **VGA IN:** connect to a VGA source

## 7. Connection Diagram



## 8. Installation

### Broadcasts DVI signal to 8 DVI displays!

1. Connect VGA source to the video input with a VGA cable.
2. Connect S/PDIF or stereo audio source to RCA jack or 3.5mm earphone jack respectively.
3. Connect HDMI display to the HDMI output connector with a HDMI cable
4. Power up the PT-SC-VGAHD.

## 9. OSD Menu

<b>1. Output Setup</b>	Out Res.	
	Output Mode	RGB, YCbCr444, YCbCr422
	Default Pattern	Disable, White, Cross, Hatch, Color, Gray, Windows, H-Ramp, W-HRamp, W-VRamp, Diagonal
	Audio Source	Stereo, SPDIF
<b>2. Image</b>	Contrast	0~255 of Contrast Level
	Brightness	0~255 of Brightness Level
	Saturation	0~255 of Saturation Level
	Hue	0~255 of Hue Level
	B/W Extension	Off, On
	Color Tone	Off, Skin, Green
	Edge Enhance	Typ, Mid, Max, Off
	Sharpness	0~127 of Sharpness Level
<b>3. Adjustment</b>	Under/Over Scan	-50%~50% of Scan Level
	Aspect Ratio	16:9, 4:3
	H-Mirror	Off, On
	V-Mirror	Off, On
	H-Shift	-100~100 of H-Shift Level
	V-Shift	-50~50 of V-Shift Level
	Input Res. Info	
	Firmware Version	
	Factory Reset	

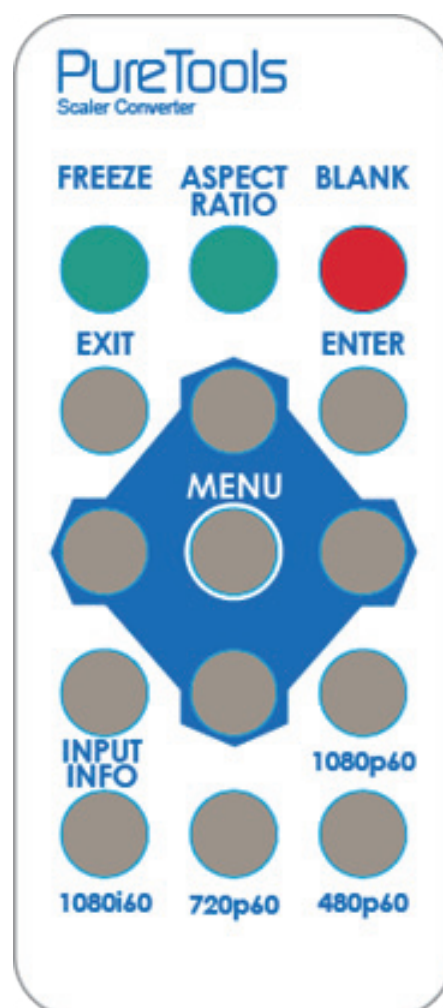
## 10. Operation Approach

### Method A: Push-in Button



### Method B: IR Remote Control

Button	Function
FREEZE	Freeze video
ASPECT RATIO	Aspect ratio change
BLANK	Blank video
EXIT	Exit OSD
ENTER	Enter key
UP	Up key
LEFT	Left key
RIGHT	Right key
DOWN	Down key
MENU	Menu on
INPUT INFO	Source resolution information
1080p60	Select 1080p60 output resolution
1080i60	Select 1080i60 output resolution
720p60	Select 720p60 output resolution
480p60	Select 480p60 output resolution





Method C: IR Remote Control through Mini-USB port



1	COM Port Selection	6	System Button
2	COM Port Detection Button	7	Input / Output Resolution Info
3	Output Setup Button	8	Refresh Input / Output Resolution Info Button
4	Image Button	9	Output Quick Selection Button
5	Adjustment Button		

1. COM Port Selection

Please select the application COM PORT



2. COM Port Detection Button

Click this button to

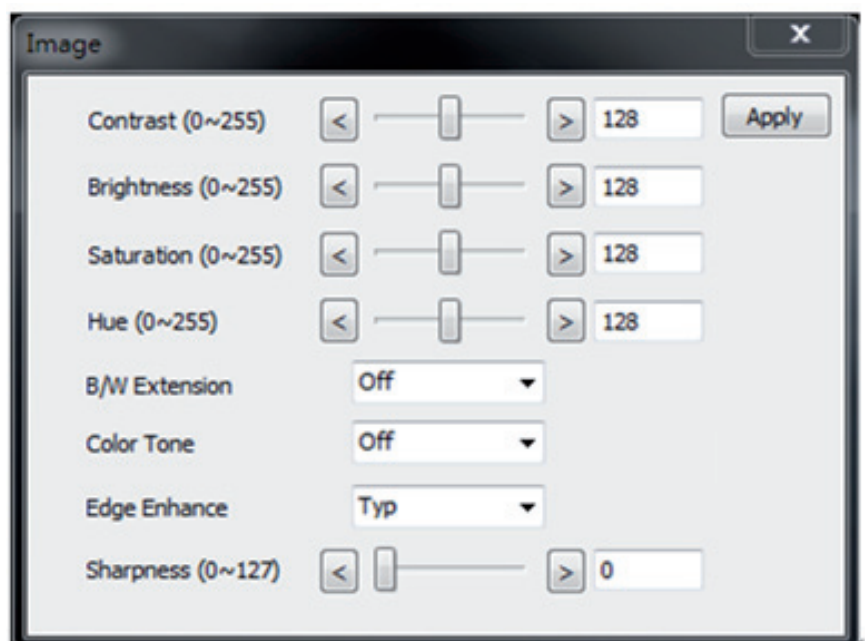


detect the COM PORT

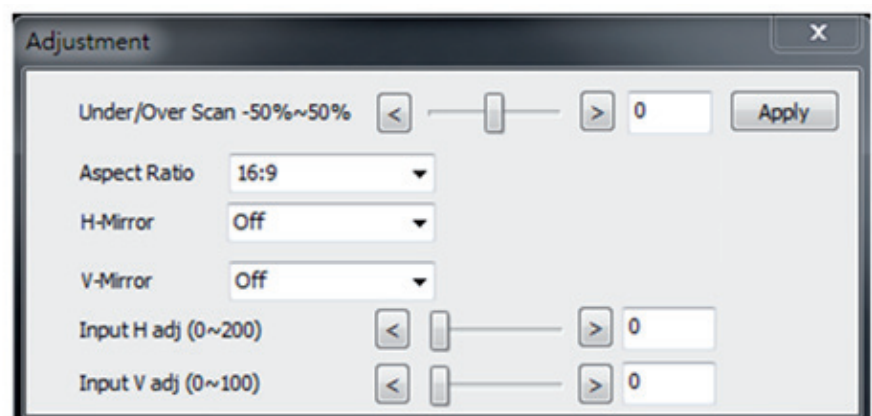
### 3. Output Setup Button



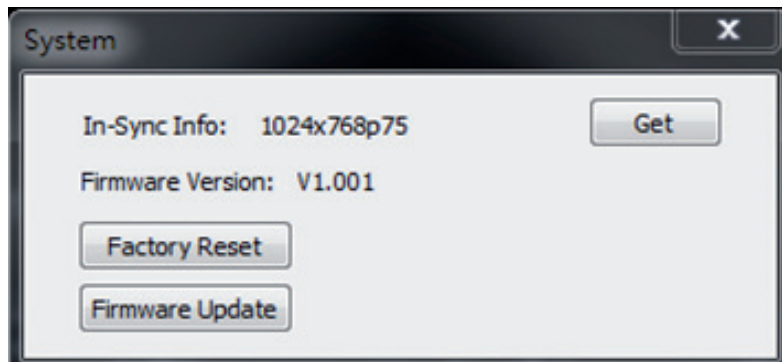
### 4. Image Button



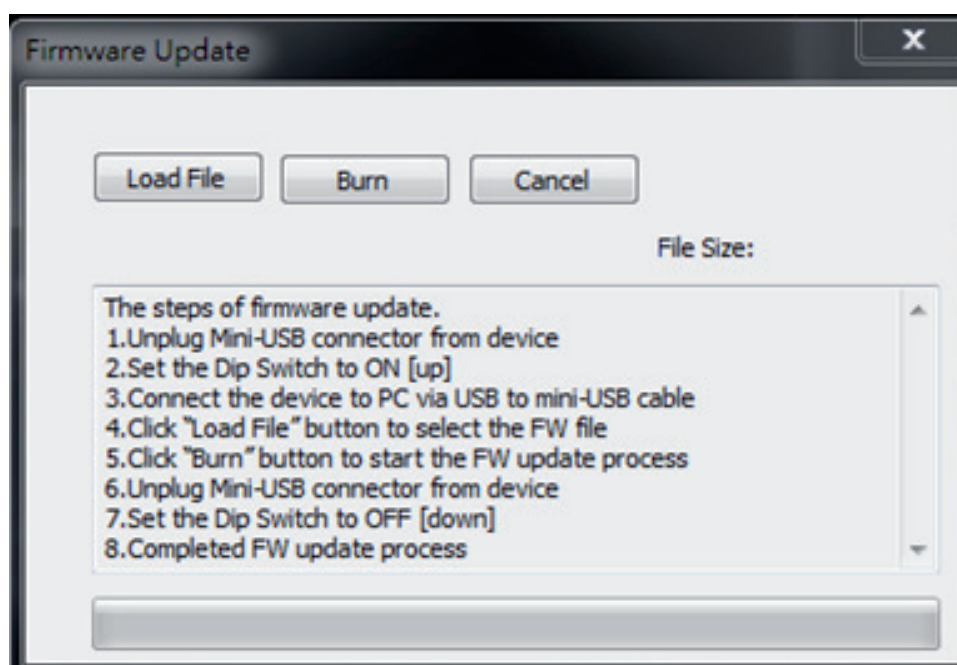
### 5. Adjustment Button



## 6. System Button



- 1) In-Sync Info:  
To view the current input resolution
- 2) Factory Reset Button
- 3) Firmware Update Button



The steps of firmware update:

- |   |   |
|---|---|
| 1) Unplug Mini-USB connector from device              | 5) Click "Load File" button to select the FW file     |
| 2) Set the Dip Switch to ON [ ▲ ]                     | 6) Click "Burn" button to start the FW update process |
| 3) Connect the device to PC via USB to mini-USB cable | 7) Unplug Mini-USB connector from device              |
| 4) Click the FW Update button on software             | 8) Set the Dip Switch to OFF [ ▼ ]                    |
|   | 9) Completed FW update process                        |

## 7. I/O Port and Resolution Info

To display the information about the I/O Port and the applied Resolution

## 8. Refresh Button

To refresh the status of the converter

## 9. Output Quick Selection Button

Common functions for quick setting

## 11. Limited Warranty

The SELLER warrants the PT-SC-VGAHD VGA & Audio to HDMI Scaler Converter to be free from defects in the material and workmanship for 1 year from the date of purchase from the SELLER or an authorized dealer. Should this product fail to be in good working order within 1 year warranty period, The SELLER, at its option, repair or replace the unit, provided that the unit has not been subjected to accident, disaster, abuse or any unauthorized modifications including static discharge and power surges.

Unit that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for 90 days from the day of reshipment to the BUYER. If the unit is delivered by mail, customers agree to insure the unit or assume the risk of loss or damage in transit. Under no circumstances will a unit be accepted without a return authorization number.

The warranty is in lieu of all other warranties expressed or implied, including without limitations, any other implied warranty or fitness or merchantability for any particular purpose, all of which are expressly disclaimed. Proof of sale may be required in order to claim warranty. Customers outside Taiwan are responsible for shipping charges to and from the SELLER. Cables are limited to a 30 day warranty and cable must be free from any markings, scratches, and neatly coiled.

The content of this manual has been carefully checked and is believed to be accurate. However, The SELLER assumes no responsibility for any inaccuracies that may be contained in this manual. The SELLER will NOT be liable for direct, indirect, incidental, special, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. Also, the technical information contained herein regarding the PT-SC-VGAHD features and specifications is subject to change without further notice.

## Asking for Assistance

### Technical Support:

Phone: +49 5971 800299 - 0

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### Technical Support Hours:

8:30 AM to 5:00 PM Monday thru Thursday

8:30 AM to 4:00 PM Friday

### Write To:

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