

PC/HDTV to PC/HDTV converter (CP-251F)



Operation Manual

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Introduction

This unit combines the functions of a video-scaler, scan-converter, and format transformer into a compact and durable metal housing with easy-to-use touch buttons.

Precautions

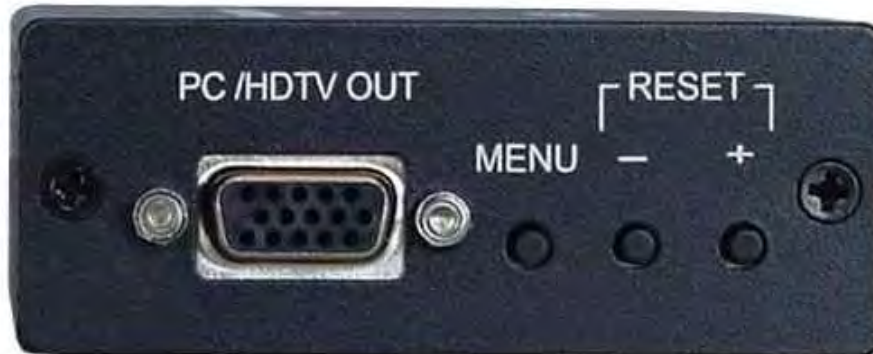
1. Do not expose this product to direct sunlight.
2. Keep the unit away from radiator, heat sources and magnetic field.
3. Do not place it in very dusty or humid locations.
4. Use this unit in a horizontal position only.
5. Do not put heavy objects on top of the converter.
6. Put the unit in an open space that has good ventilation.
7. If the unit is acting abnormally keep the unit away from TV or other electronic equipment.
8. Unplug the unit from the power supply when it is not to be used for a long period of time.

Features

- This Converter has been especially modified to also accept RGB Sync on Green
- The unit is not only is a video scaler it is also a scan converter and a format transformer.
- The resolution of any PC or HDTV inputs can be scaled up or scaled down to any other PC or HDTV resolution, along with its frame rate converted to a selectable frequency.
- 48 MB frame memory for frame rate conversion.
- Signal format conversion between RGBHV and YPbPr.
- Input: PC (VGA/SVGA/XGA/SXGA), HDTV (480i/576i/480p/567p/720p/1080i), FH: 60 to 85 Hz
- Output: PC (VGA/SVGA/XGA/SXGA), HDTV (480p/576p/720p)
- Input mode auto detection.
- Input Setup allows for fine-tuning the output picture to a best condition through the adjustment of ADC sampling clock, and phase.
- Easy to use push buttons and OSD menu control.

Operation Controls and Functions

Front Panel



1. **Reset/ – and +**- The – and + keys are used to adjust the selected parameter values. Pressing + and – simultaneously resets the settings to the factory default values.
2. **PC/HDTV Out**- This is the PC/HDTV Output port
3. **Menu (Enter)**- The menu button brings up the OSD menu controls:

- **Input setup**
- **Output setup**
- **Picture adjust**
- **HV adjust**
- **OSD Adjust**
- **System Information**
- **Auto Adjust**
- **Exit**

Use + or – to move the arrow cursor to your desired selection, then press Menu (Enter) to confirm your selection and enter into sub menu.

- **Input setup**- When it is selected, a sub-menu of clock and phase adjust will appear. Use + or – to choose the parameter you want to adjust and then press the menu (enter) button to highlight your selection. Once a parameter is highlighted, use + and – to increase or decrease the value of the setting. Press Menu again to leave the setting. Move the arrow to exit then press Menu/Enter to exit.
- **Output Setup**- When it is selected use the + and – buttons to choose your desired PC or HDTV output (choose desired output resolution).

- **Picture Adjustment-** When it is selected the following appear:
 - Contrast- use the + and – buttons to adjust the picture contrast level.
 - Bright- Use the + and – buttons to adjust the picture brightness level.
 - Colour- Use the + and – buttons to adjust the level of colour saturation.
 - Red- Use the + and – buttons to enhance or decrease the level of red colour.
 - Green- Use the + and – buttons to enhance or decrease the level of green colour.
 - Blue- Use the + and – buttons to enhance or decrease the level of blue colour.
 - Reset- Press this button to reset all adjustments back to factory reset values.
 - Exit- Press this button to exit this sub-menu.
- **HV Adjust-** When this sub-menu is selected, H-position and V-position appear on the screen. Use the + and – buttons to adjust the best horizontal and vertical position of the OSD menu.
- **System Information-** When it is selected, it shows the input/output resolution and their vertical refresh rate on the screen.
- **Auto Adjust-** When it is selected the unit will automatically adjust all the parameters to the factory-preset values.
- **Exit-** Select to exit from the current menu page.

NOTE- The default output resolution is XGA @ 60 Hz. The unit has last memory capability, thus can memorize all customers' settings before power off and recall those settings on the next power on.

At any time of using the unit press + and – simultaneously and it will reset the output resolution to XGA @ 60 Hz, and other settings to their factory default value.

Rear Panel



1. **DC 12 V-** This is the power supply input port.
2. **PC/HDTV In-** This is the PC/HDTV input port.

Connection and Installation

- When accepting a PC input use the 15-pin D-Sub cable to connect the output of a PC device to the input connector (Number 2 on rear panel).
- When accepting a HDTV input use the 15-pin D-Sub to YPbPr/3 RCA cable to connect the YPbPr/Output (or YCbCr) of a HDTV device to the PC/HDTV input connector (Number 2 on the rear panel).
- The unit can automatically detect the mode and resolution of the PC/HDTV input.
- When one of the PC resolutions is selected as output, use the 15-pin D-Sub VGA cable to connect the PC/HDTV output (Number 2 on the front panel) to the VGA input of a display monitor.
- When one of the HDTV resolutions is selected as output use the 15-pin D-Sub to YPbPr/3 RCA adapter cable to connect the PC/HDTV output (Number 2 on the front panel) to the YPbPr input of a HDTV device.

Once all connections are complete please connect the power supply provided to the power socket.

Specifications

Input Format	RGBHV, YPbPr, YCbCr, RGSB (Sync on Green)
Input Signal Levels	RGB @ 0.7Vp-p, 75 ohm. H & V Sync @ 3-5Vp-p, TTL Y @ 1Vp-p, 75 ohm. Pb, Cb, Pr, Cr @ 0.7 Vp-p, 75 ohm.
Output Format	RGBHV, YPbPr
Output Signal Levels	RGB @ 0.7Vp-p, 75 ohm. H & V Sync @ 3-5Vp-p, TTL Y @ 1Vp-p, 75 ohm. Pb, Pr, @ 0.7 Vp-p, 75 ohm.
Input/Output connector type	HD 15 Female
Control	Front Panel Buttons
Information Display	On Screen Display
Video Adjustments	Brightness, Contrast, Colour, R-G-B levels
Weight	280 grams
Dimensions	30 x 75 x 140 mm
Power Source	2 VDC @ 800mA Center positive

Output Signal Specifications

PC Resolution	Vert Rate	Format	Scan Type
VGA 640 x 480	60, 72, 75, 85 Hz	RGBHV	Progressive
VESA85 640 x 400 720 x 400	85 Hz	RGBHV	Progressive
VGA70 800 x 600	70 Hz	RGBHV	Progressive
SVGA 1024 x 768	60, 72, 75, 85 Hz	RGBHV	Progressive
XGA 1152 x 864	60, 70, 75, 85 Hz	RGBHV	Progressive
Mac 1280 x 768	70, 75 Hz	RGBHV	Progressive
WXGA 1280 x 960	60 Hz	RGBHV	Progressive
1280A 1280 x 1024	60 Hz	RGBHV	Progressive
SXGA	60, 75 Hz	RGBHV	Progressive
HDTV Resolutions	Vert Rate	Format	Scan Type
480p 720 x 480	60 Hz	YPbPr, RGBHV	Progressive
576p 720 x 576	60 Hz	YPbPr, RGBHV	Progressive
720p 1280 x 720	60 Hz	YPbPr, RGBHV	Progressive