HDMI to PC/Component Converter with Audio Box - ID# 900

Operation Manual

CONVERTERS.TV

Introduction

This converter box is designed to convert Digital High Definition(HD) signal to Analog PC or SD/HD timings. It enables you to convert Digital HDMI sources to any analog PC timing for PC monitor, Projector or TV. Its high bandwidth capability supports a wide range of PC and HDTV resolutions.

Features

- HDMI v1.2 and DVI v1.0 compliant.
- Supports HDMI input and Analog PC or SD/HD output
- Supports output selection between YPbPr and RGBHV
- Supports input/output resolution as below:
  - PC: 640x480 = VGA@60, 72, 75, 85
  - 800x600 = SVGA@56, 60, 72, 75, 85
  - 1024x768 = XGA@60, 70, 75, 85
  - 1152x864 = MAC@70, 75, 85
  - 1280x768 = WXGA@60RB, 60
  - 1280x800 = WXGA@60RB, 60, 75
  - 1280x960 = @60, 85
  - 1280x1024 = SXGA@60, 75, 85
  - 1366x768 = WXGA@60RB, 60
  - 1440x1050 = @60RB, 60
  - 1440x900 = WXGA@60RB, 60, 75
  - 1600x1200 = UXGA@60
  - 1680x1050 = WSXGA+@60RB, 60
  - 1920x1200 = WUXGA@60RB
- HD: 480i@60, 480p@60, 576i@50, 576p@50, 720p@50, 720p@60,
- 1080i@50, 1080i@60, 1080p@24, 1080p@50, 1080p@60
- HDMI input support 8-bits without Deep Color support
- HDMI input compatible with DVI format when using HDMI to DVI adapter
- HDMI audio input support LPCM 2CH and sampling rate support from 32KHz to 192KHz.
- Component output support tri-level sync and output support 720p, 1080i and 1080p
- Audio output support stereo R/L
- Built in EDID

Note: This product does not process HDCP input. When receiving content that has HDCP encryption there will be no video & audio output.

Applications

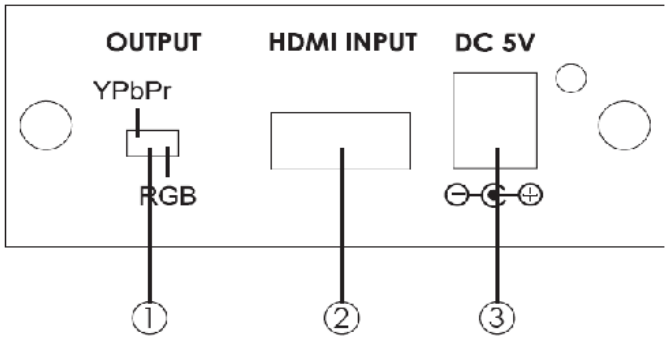
- Showroom environment
- Education demo
- Installation usage

System Requirements

Input source equipment such as DVD/PS3 with HDMI port and output to PC monitor, Projector or TV.

Operation Controls and Functions

Front Panel

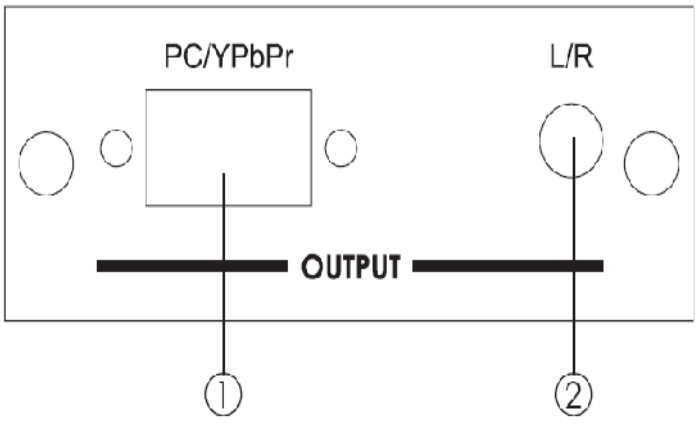


①. **YPbPr/RGB switch:**
Set the switch to RGB when your HDMI source equipment is PC graphic card or other digital RGB source signal. Use HD-15 to HD-15 VGA cable to connect between the unit's RGB out and RGB input of your PC monitor, or projector. Set the switch to YPbPr when your HDMI source is video source. Use a VGA to 3RCA adapter cable to connect to unit's YPbPr out to YPbPr input connector of your HDTV.

②. **HDMI input:** Connect the HDMI input port to the HDMI output port of your source equipment such as DVD player or set-top-box.

③. **Power:** Plug the 5VDC power supply into the unit and connect the adapter to AC wall outlet.

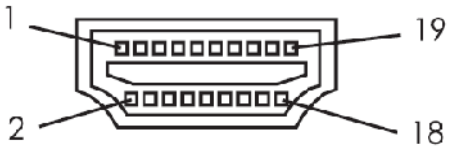
Rear Panel



①. **HD-15 D-Sub output:** Connect the output port to the PC/YPbPr input of analog PC monitor, Projector or TV.

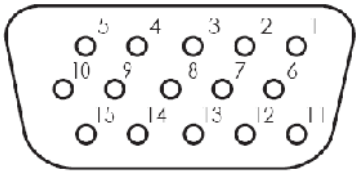
②. **R/L Stereo audio output** via 3.5mm phone jack.

HDMI Connector Pin Assignment



Pin#	Function Assignment	Pin#	Function Assignment
1	TMDS Data2+	2	TMDS Data2 Shield
3	TMDS Data2-	4	TMDS Data1+
5	TMDS Data1 Shield	6	TMDS Data1-
7	TMDS Data0+	8	TMDS Data0 Shield
9	TMDS Data0-	10	TMDS Clock+
11	TMDS Clock Shield	12	TMDS Clock-
13	CEC	14	Reserved (N.C. on device)
15	SCL	16	SDA
17	DDC/CEC Ground	18	+5V Power
19	Hot Plug Detect		

Output Format



B. Analog VGA output pin assignment
when output switch set to RGB.

Part No.	Pin No.	Description (PC out)
DB15HD	1	Red
	2	Green
	3	Blue
	4	GND
	5	GND (DDC-RETURN)
	6	GND - Red
	7	GND - Green
	8	GND - Blue
	9	N.C
	10	GND - SYNC
	11	GND
	12	DDC-DATA
	13	H-SYNC
	14	V-SYNC
	15	DDC-CLOCK

C. Analog VGA output pin assignment
when output switch set to YPbPr.

Part No.	Pin No.	Description (HD out)
DB15HD	1	Pr
	2	Y
	3	Pb
	4	GND
	5	GND (DDC-RETURN)
	6	GND - Pr
	7	GND - Y
	8	GND - Pb
	9	N.C
	10	GND - SYNC
	11	GND
	12	DDC-DATA
	13	H-SYNC
	14	V-SYNC
	15	DDC-CLOCK

Input/Output resolution

Output switch / Input/ Output Resolution	PC Oulpul	Componenl Oulpul
480i60		V
480p60	V	V
576i50		V
576p50	V	V
/20p50	V	V
720p60	V	V
1080i50		V
1080i60		V
1080p24		V
1080p50	V	V
1080p60	V	V

640x480@60,72,75,85	V
800x600@56,60,72,75,85	V
1024x768@60,70,75,85	V
1152x864@70,75,85	V
1280x768@60RB,60	V
1280x800@60RB,60,75	V
1280x960@60,85	V
1280x1024@60,75,85	V
1366x768@60RB,60	V
1400x1050@60RB,60	V
1440x900@60RB,60,75	V
1600x1200@60	V
1680x1050@60RB,60	V
1920x1200@60RB	V

Note:
When the TV didn't support 1080p@24 input, the user needs to disable the 1080p@24 from source equipment, such as Blu-ray player or PS3 etc.).
This product does not process HDCP input. When receiving content that has HDCP encryption there will be no video & audio output.

Connection 1(RGB out)

DVD or, Set-Top-Box

HDMI out

or

DVI out

DVI to HDMI adaptor

HDMI cable

VGA cable

3.5mm to 2 RCA audio cable

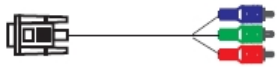
LCD Monitor/TV Projector

Connection 2 (YPbPr out)

DVD or, Set-Top-Box

HDMI cable

YPbPr cable



D-Sub to 3 RCA cable

Audio

LCD TV

Specifications

Operation Frequency	Up to 162MHz
Input port	1 x HDMI
Output ports	1 x HD-15 D-SUB (YPbPr or RGBHV) 1 x Analog R/L 3.5mm phone jack
Output Signal	**RGB**: 0.7 Vp-p 75ohm **H/V:** 3 to 5 Vp-p Or **Y:** 1 Vp-p 75ohm **Pb/Pr:** 0.7Vp-p 75ohm
Input/Output Resolution	**PC:** 640x480 = VGA@60, 72, 75, 85 800x600 = SVGA@56, 60, 72, 75, 85 1024x768 = XGA@60, 70, 75, 85 1152x864 = MAC@70, 75, 85 1280x768 = WXGA@60RB, 60 1280x800 = WXGA@60RB, 60, 75 1280x960 = @60, 85 1280x1024 = SXGA@60, 75, 85 1366x768 = WXGA@60RB, 60 1440x1050 = @60RB, 60 1440x900 = WXGA@60RB, 60, 75 1600x1200 = UXGA@60 1680x1050 = WSXGA+@60RB, 60 1920x1200 = WUXGA@60RB **HD**: 480i@60, 480p@60, 576i@50, 576p@50, 720p@50, 720p@60, 1080i@50, 1080i@60, 1080p@24, 1080p@50, 1080p@60
HDMI Audio Input	LPCM 2CH
HDMI input Color Space	RGB, YUV
ESD Protection	± 15kV (air-gap discharge) ± 8kV (contact discharge)
Power Supply	5V/1A DC (US/EU standards, CE/FCC/UL certified)
Dimensions (mm)	76(W) x 30(D) x 92(H)
Weight(g)	172
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 (no condensation)
Power Consumption (W)	N/W (Max)