

# CV-400H HDMI to Video Scan Converter



Operation Manual



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#### SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, 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 any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU
  if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

### **REVISION HISTORY**

VERSION NO.	DATE DD/MM/YY	SUMMARY OF CHANGE
V1	15/07/10	Preliminary Release
VS2	01/12/10	Add HDCP Description
VR3	23/08/11	Cancel HDCP Complaint
VS4	19/04/13	Updated Format & Diagrams



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## 1. INTRODUCTION

This HDMI to Composite Converter will convert an HDMI digital signal to an analog NTSC or PAL signal with analog (L/R) stereo audio. This device provides the ability to convert a high definition signal to a standard definition resolution (480i or 576i) for use with DVRs or VCRs.

The device is HDMI and DVI compliant and has features such as 3D noise reduction, frame rate conversion, adaptive contrast enhancement as well as a simplified on-screen display (OSD) allowing easy display of current settings.

## 2. APPLICATIONS

- HDMI signal conversion to Composite NTSC or PAL signal
- Digital audio signal conversion into analog audio signal
- HD CCTV conversion for composite distribution

#### 3. PACKAGE CONTENTS

- HDMI to Composite Converter Box
- 5 V/1 A DC Power Adaptor
- · Operation Manual

## 4. SYSTEM REQUIREMENTS

Source equipment such as an HD Video Camera with an HDMI cable and output display (TV/Monitor) with composite & L/R cables.



#### 5. FEATURES

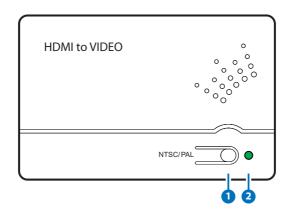
- HDMI and DVI compliant
- Converts video signal from HDMI source to NTSC or PAL signal
- Converts digital audio from HDMI source to analog stereo audio
- Accepts a wide range of HDTV input resolutions, from 480p to 720p@60 Hz and PC from VGA@60 Hz to WXGA@60 Hz
- Underscan/Overscan option
- 3D noise reduction in both temporal and spatial domain
- Arbitrary frame rate conversion
- Adaptive contrast enhancement

Note: This product does not convert HDMI signals with HDCP encryption. When receiving content that has HDCP encryption there will be no video output.



## 6. OPERATION CONTROLS AND FUNCTIONS

## 6.1 Top Panel



## 1 NTSC/PAL BUTTON

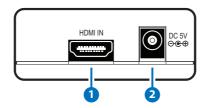
Press once to display the current video standard and resolution settings on the on-screen display (OSD). Press again while the OSD is on screen to change the setting to NTSC or PAL. When the OSD is not displayed, press and hold for 3 seconds to select the underscan/overscan function.

## 2 POWER LED

The green LED will illuminate when connected to a power supply.



## **6.2 Front Panel**



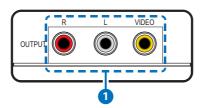
## 1 HDMI IN

Connect to a source device such as HD camera player with an HDMI output with an HDMI cable.

## 2 DC 5V

Connect the 5 V DC power supply to the unit and plug the adaptor into AC wall outlet.

#### 6.3 Rear Panel

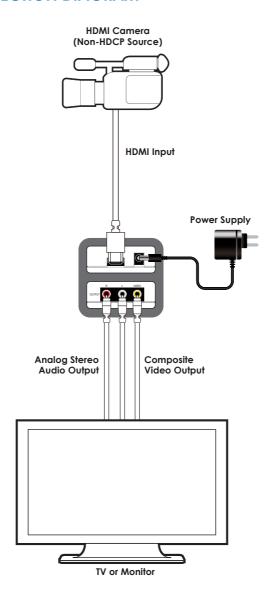


## 1 R/L/VIDEO OUTPUT

Connect to a TV/monitor and/or AV receiver with R/L & composite cable.



# 7. CONNECTION DIAGRAM





#### 8. SPECIFICATIONS

Input Port 1×HDMI,

Output Ports 1×CVBS, 1×L/R (RCA Jack)

**HDMI Input Resolution** 480p, 576p & 720p, VGA@60/72/75/85,

SVGA@56/60/72/75/85, XGA@60/70/75,

WXGA (1224×768/1280×768/1280×800)@60RB

/60

**HDMI Input Audio** LPCM 2CH, 48 kHz

Output Video NTSC/PAL

Output Audio Analog stereo

**Power Supply** 5 V/1 A (US/EU standards, CE/FCC/UL

certified)

**ESD Protection** Human body model:

±8kV (air-gap discharge) ±6kV (contact discharge)

**Dimensions** 114 mm (W)×65 mm (D)×26 mm (H)

Weight 120 g

Chassis Material Plastic

Color White

Operating Temperature  $\,$  0 °C~40 °C / 32 °F~104 °F  $\,$ 

**Storage Temperature**  $-20 \,^{\circ}\text{C} \sim 60 \,^{\circ}\text{C} \; / \; -4 \,^{\circ}\text{F} \sim 140 \,^{\circ}\text{F}$ 

**Relative Humidity** 20 ~ 90 % RH (non-condensing)

Power Consumption 3 W



# 9. ACRONYMS

ACRONYM	COMPLETE TERM
HDCP	High-bandwidth Digital Content Protection
HDMI	High Definition Multimedia Interface
NTSC	National Television System Committee
PAL	Phase Alternating Line
SVGA	Super Video Graphics Array
VGA	Video Graphics Array
WXGA	Wide Extended Graphics Array
XGA	Extended Graphics Array

