



CSC-201

Component/CGA to PC 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.
 - Please completely disconnect the power when the unit is not in use to avoid wasting electricity.
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VERSION HISTORY

REV.	DATE	SUMMARY OF CHANGE
Ver 1.00	2023/10/27	Initial Release



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1. INTRODUCTION

This converter box can convert the component or CGA signals to different PC signals such as VGA, XGA and WXGA. It enables the user to connect the YCbCr or RGB signal input source such as video game consoles, legacy PCs and DVD players to LCD monitors or TV displays with resolutions up to 1080p60. It also provides further features, such as phase & horizontal/vertical position adjustment and field-invert setting. Users can adjust the video position and resolution via OSD menu on the display. This converter box was designed in a small size, which is easy for users to carry around.

2. APPLICATIONS

- CGA to PC resolution conversion
- Component (YCbCr) video to PC resolution conversion
- Convert video of game console, legacy PC and DVD player to standard monitor or display

3. PACKAGE CONTENTS

- 1× Component/CGA to PC converter
- 1× 5V/1.2A DC Power Adapter
- 1× 3-RCA Component to D-Sub 15-pin cable
- 1× Operation Manual

4. SYSTEM REQUIREMENTS

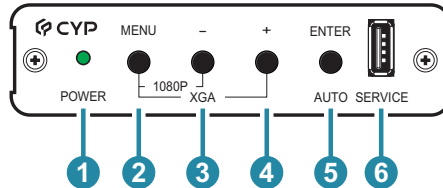
- VGA or component video source equipment such as legacy PC, game console or video player with appropriate connection cable.
- VGA receiving equipment such as monitor or display.

5. FEATURES

- Supports output resolution up to 1080p60
- 50/60Hz frame rate conversion ensure error-free display (576i only)
- Supports scaling of CGA(RGB) input which is auto-detected and can be RGBHV or RGSB (Sync-on-Green)
- Supports scaling of Component (YCbCr) input which is auto-detected and can be YPbPrHV or YPbPr (Sync-on-Y)
- Plug and Play design, with no driver software required
- Small-size design for easy transportation

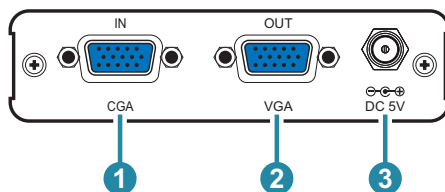
6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel



- 1 POWER LED:** This LED will illuminate to indicate the unit is on and receiving power.
- 2 MENU:** Press to enter the OSD menu, or to back out from menu.
Note: Pressing "MENU" and "+" together will reset the output resolution to XGA (1024×768@60Hz). Pressing "MENU" and "-" together will reset the output resolution to 1080p@60Hz.
- 3 MINUS(-):** Press to navigate or to adjust selections within the OSD menu, or to turn info display OSD on/off when the menu is closed.
Note: Pressing "MENU" and "+" together will reset the unit.
- 4 PLUS (+):** Press to navigate or to adjust selections within the OSD menu, or to freeze the output display when the menu is closed.
- 5 ENTER/AUTO:** Press to confirm a selection within the OSD, or to activate auto adjustment in RGBHV or YPbPrHV Digital Separate Sync mode.
- 6 SERVICE:** Reserved for manufacturer use only.

6.2 Rear Panel



- 1 CGA IN:** Connect to VGA or CGA source equipment such as a PC or laptop, by using a 3-RCA Component to D-Sub 15-pin cable.
- 2 VGA OUT:** Connect to a monitor/display for video output.
- 3 DC 5V:** Plug the 5V DC power adapter into the unit and connect it to an AC wall outlet for power

6.3 OSD Menu

All functions of this unit can be controlled by using the OSD (On Screen Display) which is activated by pressing the MENU button on the front of the unit. Use the + (PLUS), – (MINUS), and ENTER buttons to navigate the OSD menu. Press the MENU button to back out from any menu item and then press it again to close the menu.

MAIN MENU
OUTPUT
IN COLOR SPACE
H POSITION
V POSITION
PHASE
CLOCK
RESET PICTURE
RESET ALL
MENU TIMEOUT
VERSION

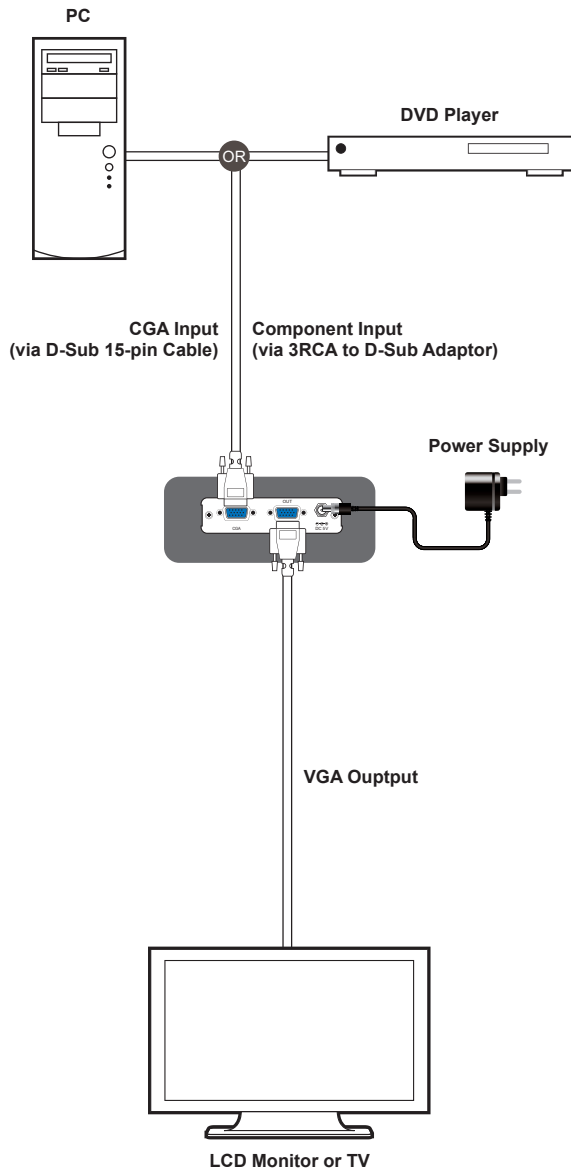
The individual functions of the OSD will be introduced in the following section. Items marked in **BOLD** are the factory default settings.

MAIN MENU	
2 ND LEVEL	3 RD LEVEL
OUTPUT	640x480 60
	800x600 60
	1024x768 60
	1360x768 60
	1920x1080 60
IN COLOR SPACE	RGB
	YUV
H POSITION	0~250

MAIN MENU	
2 ND LEVEL	3 RD LEVEL
V POSITION	0~250
PHASE	0~255
CLOCK	0~250
RESET PICTURE	
RESET ALL	
MENU TIMEOUT	OFF
	5S~60S (5S)
VERSION	[Current Firmware Version]

- 1) **OUTPUT:** Select the preferred video output resolution.
- 2) **IN COLOR SPACE:** Selecting between RGB(CGA/VGA) or YUV(Component) input signals.
- 3) **H/V Position:** Set the horizontal and vertical position for the input.
- 4) **PHASE:** Set the phase setting for the input.
- 5) **CLOCK:** Set the clock setting for the input.
- 6) **RESET PICTURE:** Reset all picture settings back to their factory defaults.
- 7) **RESET ALL:** Reset all of the unit's settings back to their factory defaults. After the reset is complete, the unit will reboot automatically.
- 8) **MENU TIMEOUT:** Set how long to wait before automatically closing the OSD menu if there is no user activity. The timeout can be set to up to 60 seconds, or disabled completely.
- 9) **VERSION:** Shows information about the unit's current firmware version.

7. CONNECTION DIAGRAM



8. SPECIFICATIONS

8.1 Technical Specifications

VGA Bandwidth	165MHz
Input Ports	1×VGA (HD-15)
Output Ports	1×VGA (HD-15)
Service Port	1×USB 2.0 (Type-A)
Power Supply	5V/1.2A DC (US/EU standards, CE/FCC/UL certified)
ESD Protection (HBM)	±8kV (Air Discharge) ±4kV (Contact Discharge)
Dimensions (W×H×D)	100mm×25mm×112.5mm [Case Only] 100mm×25mm×119.5mm [All Inclusive]
Weight	253g
Chassis Material	Metal (Aluminum)
Chassis Color	Black
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	3.15W

8.2 Video Specifications

Supported Resolutions (Hz)	Input	Output
	VGA	VGA
640×200p@60	✓	×
640×350p@85	✓	×
720×400p@70/85	×	×
640×480p@60/72/75/85	✓	60
720×480i@60	✓	×
720×480p@60	✓	×
720×576i@50	✓	×
720×576p@50	✓	×
800×600p@56/60/72/75/85	✓	60
848×480p@60	×	×
1024×768p@60/70/75/85	✓	60
1152×864p@75	✓	×
1280×720p@50/60	✓	×
1280×768p@60/75/85	60/75	×
1280×800p@60/75/85	60/60RB	×
1280×960p@60/85	✓	×
1280×1024p@60/75/85	✓	×
1360×768p@60	✓	✓
1366×768p@60	×	×
1400×1050p@60	×	×
1440×900p@60/75	×	×
1600×900p@60RB	×	×
1600×1200p@60	✓	×
1680×1050p@60	×	×

Supported Resolutions (Hz)	Input	Output
	VGA	VGA
1920×1080i@50/60	✓	×
1920×1080p@24/25/30	✓	×
1920×1080p@50/60	✓	60
1920×1200p@60RB	×	×
2560×1440p@60RB	×	×
2560×1600p@60RB	×	×
2048×1080p@24/25/30	×	×
2048×1080p@50/60	×	×
3840×2160p@24/25/30	×	×
3840×2160p@50/60 (4:2:0)	×	×
3840×2160p@24, HDR10	×	×
3840×2160p@50/60 (4:2:0),HDR10	×	×
3840×2160p@50/60	×	×
4096×2160p@24/25/30	×	×
4096×2160p@50/60 (4:2:0)	×	×
4096×2160p@24, HDR10	×	×
4096×2160p@50/60 (4:2:0),HDR10	×	×
4096×2160p@50/60	×	×

8.3 Cable Specifications

Cable Length	HD	FHD	4K UHD	4K UHD ⁺	8K UHD
VGA Cable					
VGA Input	2m			×	
VGA Output	2m			×	

Bandwidth Category Examples:

- **HD Video**
 - 720p@60Hz
 - HDMI transmission rates lower than 3Gbps
 - HD-SDI (SMPTE 292M, 1.485Gbps)
- **FHD Video**
 - 1080p@60Hz
 - HDMI transmission rates between 3Gbps and 5.3Gbps
 - 3G-SDI (SMPTE 424M, 2.970Gbps)
- **4K UHD Video**
 - 4K@24/25/30Hz (8-bit color) & 4K@50/60Hz (4:2:0, 8-bit color)
 - HDMI transmission rates between 5.3Gbps and 10.2Gbps
 - 6G-SDI (SMPTE ST 2081, 6Gbps)
- **4K UHD+ Video**
 - 1080p@120Hz (10/12-bit HDR)
 - 4K@50/60Hz (4:4:4, 8-bit) & 4K@50/60Hz (4:2:0, 10/12-bit HDR)
 - HDMI transmission rates between 10.2Gbps and 18Gbps
 - 12G-SDI (SMPTE ST 2082, 12Gbps)
- **8K UHD Video**
 - 4K@120Hz (10/12-bit HDR)
 - 8K@24/25/30Hz (10/12-bit HDR) & 8K@50/60Hz (4:2:0, 8-bit color)
 - HDMI transmission rates between 18Gbps and 48Gbps
 - 24G-SDI (SMPTE ST 2083, 24Gbps)

9. ACRONYMS

ACRONYM	COMPLETE TERM
AV	Audio/Video
AVR	Audio/Video Receiver or Recorder
Gbps	Gigabits per second
HD	High-Definition
HDTV	High-Definition Television
HPD	Hot Plug Detection
kHz	Kilohertz
LCD	Liquid-Crystal Display
LED	Light-Emitting Diode
LPCM	Linear Pulse-Code Modulation
MHz	Megahertz
OSD	On-Screen Display
PAL	Phase Alternating Line
SDI	Serial Digital Interface
SDTV	Standard-Definition Television
TMDs	Transition-Minimized Differential Signaling
UHDTV	Ultra-High-Definition Television
USB	Universal Serial Bus
VGA	Video Graphics Array
WUXGA (RB)	Widescreen Ultra Extended Graphics Array (Reduced Blanking)
XGA	Extended Graphics Array
Ω	Ohm



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