



CP-255ID

Digital Video Scaler



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
RDV1	07/13/12	Preliminary Release

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1. INTRODUCTION

The Digital Video Scaler has CV, SV, PC & DVI inputs and can scale the signal into DVI with audio output. This high performance digital video scaler supports all the functions of DVI with resolution up to 1080p / WUXGA a wide range of AV signal to be insert to a high-Definition signal and displaying. Further, with OSD, remote, RS-232 and on-panel controls that makes whole for this Digital Video Scaler a friendly using device.

2. APPLICATIONS

- Analog to Digital video signal conversion
- Displaying low resolution video on High-Definition display

3. PACKAGE CONTENTS

- Digital Video Scaler
- Remote Control (CR-118)
- Power Adaptor
- Operation Manual

4. SYSTEM REQUIREMENTS

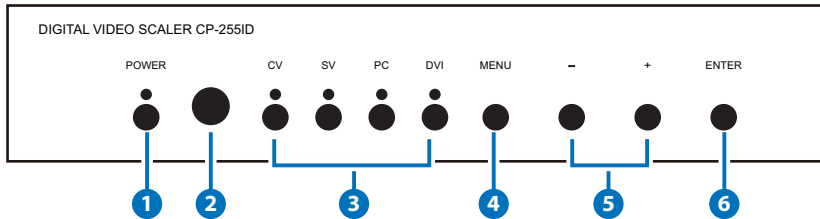
Input source equipments such as PC/NB or DVD Player with HDMI to DVI adaptor and output display with active speaker and connection cables.

5. FEATURES

- Supports multi inputs to DVI output
- Supports video and audio synchronize display
- Supports 3D de-interlace, noise reduction and Comb filter
- Supports frame rate conversion
- Supports RS-232, IR, Remote and on panel controls

6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel



1 POWER & LED:

Press this button to switch ON or set the device to standby mode. Once the device is connected with power supply the LED will illuminate and the device will switch to ON automatically.

2 IR:

This IR window receives only the IR signal from the remote control included in the package.

3 INPUT button and LEDs:

Press this button sequentially to switch in between the input sources rotationally. LED will illuminate accordingly to the selected input source.

4 MENU:

Press this button to enter into the OSD menu.

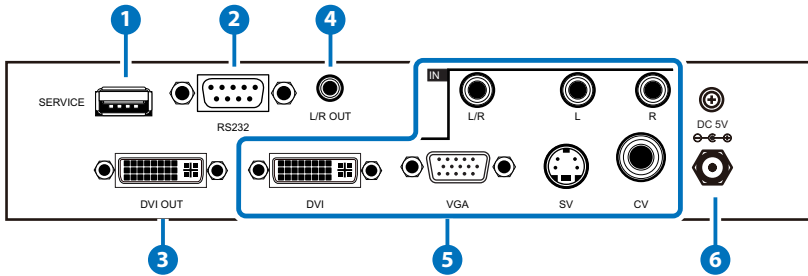
5 -/+:

Press these buttons to scrolled down and up in the OSD selection.

6 ENTER:

Press this button to confirm the selection. Press this button together with – to switch output timing to 720p@60 instantly. Press this button together with + to switch output timing to XGA (1024x768) instantly.

6.2 Rear Panel



1 SERVICE 1:

Reserved for factory use only.

2 RS-232:

Connect with PC/NB and use RS-232 command to control the device.

3 DVI OUTPUT:

Connect to DVI display for video or graphical display. Compatible with HDMI to DVI adaptor.

4 L/R OUT:

Connect to speaker or amplifier for audio output in stereo format.

5 IN:

DVI: Connect to DVI source equipment such as PC/NB for input signal sending. Compatible with HDMI to DVI adaptor.

L/R: Connect to source equipment's L/R output with 3.5Ø phone jack for audio signal sending.

VGA: Connect with PC/NB source equipment for video signal input with D-Sub 15pin cable.

CV + L/R: Connect to source equipment such as video/DVD player for both video and audio signal sending.

SV + L/R: Connect to source equipment such as video/DVD player for both video and audio signal sending.

6 DC 5V:

Plug the power adaptor included in the package and connect it to the AC wall outlet for power supply.

7. REMOTE CONTROL

1 POWER:

Press this button to switch ON or set the device to standby mode. Once the device is connected with power supply it is on automatically.

2 CV/SV/PC/DVI:

Press these hot keys to switch input source instantly.

3 EXIT:

Press this button to exit the menu or the current selection under OSD.

4 MENU:

Press this button to enter into the OSD menu.

5 RESET:

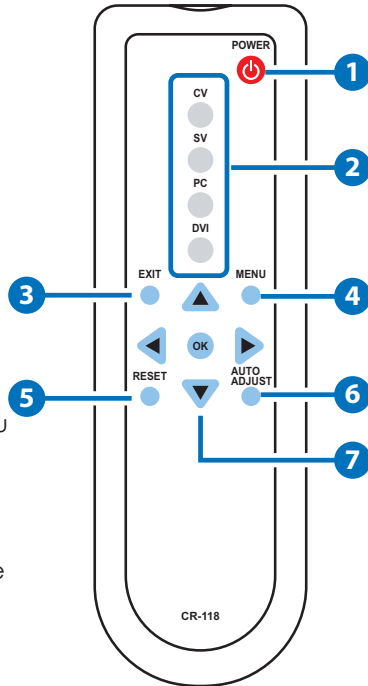
Press this button to set the device back into the factory default setting.

6 AUTO ADJUST:

Press the button to optimize the positioning of the picture (picture centering) on the screen.

7 OK & ▲▼◀▶:

Press OK to confirm the selection or press the arrow buttons to scrolled in the OSD selections.



7.1 RS-232 Protocols

CP-255ID			Remote Control	
PIN	Assignment		PIN	Assignment
1	NC		1	NC
2	Tx		2	Rx
3	Rx		3	Tx
4	NC	▶	4	NC
5	GND	◀	5	GND
6	NC		6	NC
7	NC		7	NC
8	NC		8	NC
9	NC		9	NC

Baud Rate: 19200bps

Data bit: 8 bits

Parity: None

Flow Control: None

Stop Bit: 1

7.2 RS-232 Command

Command	Description	Contents
iJL	Start RS-232	
S SOURCE 1~4	Select input source	DVI(1) / VIDEO(2) / SVIDEO(3)/ PC(4)
R SOURCE	Inquire input source	

S OUTPUT 1~25	Select output timing	Native(0)/ 640*480(1)/ 800*600(2)/ 1024*768(3)/ 1280*768(4)/ 1360*768(5)/ 1280*720(6)/ 1280*800(7)/ 1280*1024(8)/ 1440*900(9)/ 1400*1050(10)/ 1680*1050(11)/ 1600*1200(12)1920*1080(13)/ 1920*1200(16)/ 480p(17)/ 720p 60(18)/ 1080p 60(19)/ 1080i 60(20)/ 576p(22)/ 720p 50(23)/ 1080p 50(24)/ 1080i 50(25)
R OUTPUT	Inquire output timing	
S SIZE 0~6	Select output size	OVERSCAN(0) / FULL(1) /BEST FIT(2) / PAN SCAN(3)/LETTER BOX(4) /UNSER 2(5) / UNDER 1(6)
R SIZE	Inquire output size	
S CONTRAST 0~60	Contrast Setting	
R CONTRAST	Inquire contrast setting	
S BRIGHTNESS 0~60	Brightness setting	
R BRIGHTNESS	Inquire brightness setting	
S HUE 0~60	Hue setting	
R HUE	Inquire hue setting	
S SATURATION 0~60	Saturation setting	
R SATURATION	Inquire saturation setting	
S SHARPNESS 0~30	Sharpness setting	
R SHARPNESS	Inquire sharpness setting	
S NR 0~3	Noise reduction setting	
R NR	Inquire noise reduction setting	



S AUDIODELAY 0~3	Audio delay setting	OFF(0) / 40ms (1) / 110ms(2) / 150ms(3)
R AUDIODELAY	Inquire audio delay setting	
S AUDIOMUTE 0/1	Audio mute setting	ON(0) / MUTE(1)
RAUDIOMUTE	Inquire audio mute setting	
S KEY LOCK 0/1	Key lock setting	ENABLE(0) / DISABLE(1)
R KEY LOCK	Inquire key lock setting	
FW	Firmware checking	
S RESET 1	Pre-reset	
S POWER 0/1	Power On/Off	OFF(0) / ON(1)
R POWER	Power Status	
EXIT	Exit	

Note: 1. iJL command must first be insert before start using RS-232 command to control the device. This command is CASE-SENSITIVE.

2. Other RS-232 commands will be not executed unless followed with a carriage return and are case-insensitive.

Baud Rate	9600 bps
Parity	No
Data Bit	8 Bits
Stop	1 Bit
Flow Control	No

7.3 OSD MENU

1 st Layer	2 nd layer	3 rd Layer
DISPLAY	OUTPUT	Native
		640X480 60
		800x600 60
		1024x768 60
		1360x768 60
		1280x720 60
		1280x800 60
		1280x1024 60
		1440x900 60
		1400x1050 60
		1680x1050 60
		1600x1200 60
		1920x1080 60
		1920x1200 60
		720X480P 60
		1280X720P 60
		1920X1080I 60
		1920X1080P 60
		720X576P 50
		1280X720P 50
1920X1080I 50		
1920X1080P 50		

SIZE (VIDEO mode only)	OVER SCAN	
	FULL	
	BEST FIT	
	PAN SCAN	
	LETTER BOX	
	UNDER 2	
	UNDER 1	
MODE INFO	INFO	
	ON	
	OFF	
PC(PC mode only)	AUTO SETUP	No
		YES
	H_POSITION	0~60 (30)
	V_POSITION	0~60 (30)
	PHASE	
	CLOCK	
	WXGA/XGA	XGA
	WXGA	
RESET		NO
		YES

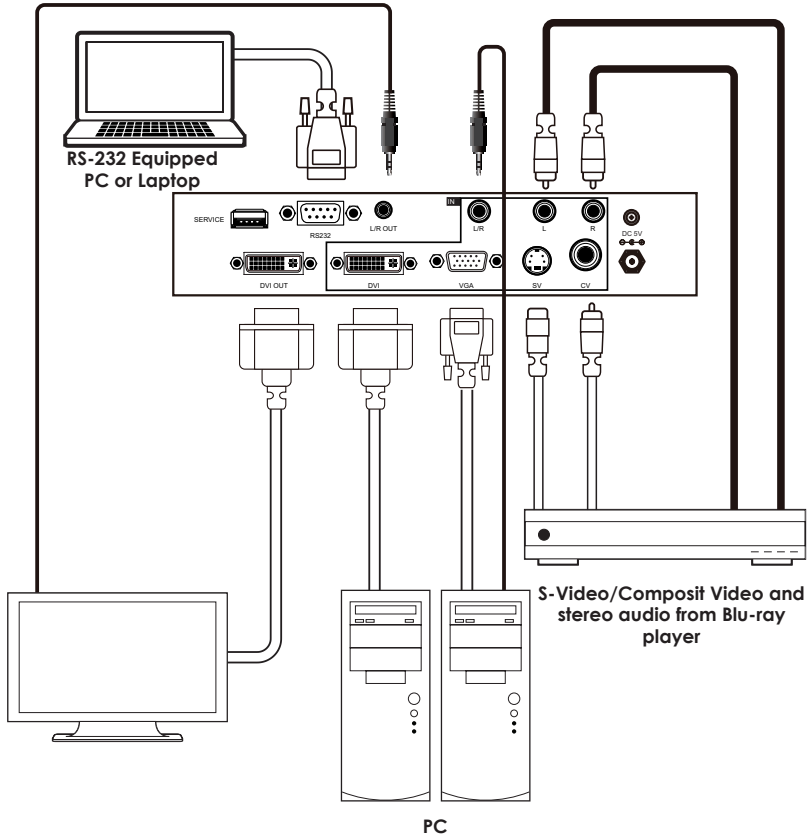
COLOR	COLOR	R	0~1023 (512)
		G	0~1023 (512)
		B	0~1023 (512)
		R OFFSET	0~1023 (512)
		G OFFSET	0~1023 (512)
		B OFFSET	0~1023 (512)
	CONTRAST	0~60 (30)	
	BRIGHTNESS	0~60 (30)	
	HUE (VIDEO mode only)	0~60 (30)	
	SATURATION (VIDEO mode only)	0~60 (30)	
	SHARPNESS (VIDEO mode only)	0~30 (0)	
	NR. (VIDEO mode only)	OFF	
		LOW	
	MIDDLE		
	HIGH		
AUDIO	VOLUME	0~100	
	DELAY (L/R output only)	OFF	
		40mS	
		110mS	
		150mS	
SOUND	ON		
	MUTE		

SETUP	FACTORY RESET	NO
		YES
	KEY LOCK	OFF
		ON
	POWER SAVE	OFF
		ON
INFORMATION	INPUT	
	OUTPUT	
	REVISION	

Note: Bold Italian fonts are the Factory default setting.

() are default settings

8. CONNECTION DIAGRAM





9. SPECIFICATIONS

Video Bandwidth	165MHz
Input Port	1 x Composite, 1 x S-Video, 1 x VGA, 1 x DVI, 1 x L/R, 1 x LR, 1 x USB (service only), 1 x RS-232 (Control Only)
Output Port	1 x DVI, 1 x L/R
Supports Input Resolution	Up to UXGA & 1080p
Supports Output Resolution	Up to WUXGA & 1080p
Power Supply	V / A DC (US/EU standards, CE/FCC/UL certified)
Dimensions (mm)	215mm(W) x 165mm(D) x 47mm(H)
Weight(g)	970g
Chassis Material	Metal
Silkscreen 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	5.7w

Input Resolution	PC	DVI/HDMI	AV/SV
NTSC			√
PAL			√
VGA640*480 (@60/72/75Hz)	√	√	
SVGA800*600 (@56/60/72/75Hz)	√	√	
XGA1024*768 (@60/70/75Hz)	√	√	
XGA+1152*864 @75Hz	√	√	

1280*720 @60Hz	√	√	
1280*768 @60Hz	√	√	
1280*800 @60Hz	√	√	
1280*960 @60Hz	√	√	
1280*1024 (@60/75Hz)	√	√	
1360*768 @60Hz	√	√	
SXGA+1400*1050 @60Hz	√	√	
WXGA+1440*900 @60Hz	√	√	
UXGA1600*1200 @60Hz	√	√	
WSXGA1680*1050 RB @60Hz	√	√	
1920*1080 @60Hz	√	√	
1920*1200 RB @60Hz	√	√	
480I/576I		√	
480P/576P		√	
720P (@50/60Hz)		√	
1080I (@50/60Hz)		√	
1080P (@24/30/50/60Hz)		√	

DVI/HDMI output Resolution	
	Native
	640*480@60Hz
	800*600@60Hz
	1024*768@60Hz
	1280*768@60Hz
	1360*768@60Hz

1280*720@60Hz
1280*800@60Hz
1280*1024@60Hz
1440*900@60Hz
1400*1050@60Hz
1680*1050@60Hz
1600*1200@60Hz
1920*1080@60Hz
1920*1200@60Hz
480P
576P
720P(@50/60Hz)
1080I(@50/60Hz)
1080P(@50/60Hz)

10. ACRONYMS

ACRONYM	COMPLETE TERM
COMP	Component
CV	Composite Video
DVI	Digital Visual Interface
RGB	Red Green Blue
SDI	Serial Digital Interface
VGA	Video Graphics Array
UXGA	Ultra Extended Graphics Array
WUXGA	Widescreen Ultra Extended Graphics Array



CYPRESS TECHNOLOGY CO., LTD

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