



CP-291N

PC/HD to PC/HD Scaler



Operation Manual



DISCLAIMERS

The information in this manual has been carefully checked and is believed to be accurate. Cypress Technology assumes no responsibility for any infringements of patents or other rights of third parties which may result from its use.

Cypress Technology assumes no responsibility for any inaccuracies that may be contained in this document. Cypress also makes no commitment to update or to keep current the information contained in this document.

Cypress Technology reserves the right to make improvements to this document and/or product at any time and without notice.

COPYRIGHT NOTICE

No part of this document may be reproduced, transmitted, transcribed, stored in a retrieval system, or any of its part translated into any language or computer file, in any form or by any means—electronic, mechanical, magnetic, optical, chemical, manual, or otherwise—without express written permission and consent from Cypress Technology.

© Copyright 2014 by Cypress Technology.

All Rights Reserved.

Version 1.0 September 2014

TRADEMARK ACKNOWLEDGMENTS

All products or service names mentioned in this document may be trademarks of the companies with which they are associated.



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
VR0	03/06/15	Preliminary Release

CONTENTS

1. Introduction.....	1
2. Applications.....	1
3. Package Contents	1
4. System Requirements.....	1
5. Features.....	1
6. Operation Controls and Functions.....	2
6.1 Front Panel.....	2
6.2 Rear Panel.....	3
6.3 OSD Menu.....	4
7. Connection Diagram	6
8. Specifications	7
8.1 Supporting Timing Chart.....	8
9. Acronyms.....	9



1. INTRODUCTION

This Scaler Box is designed to upscale PC/HD input sources to PC/HD output of wide-range PC/HD resolution up to WUXGA/1080p. This unit has a comprehensive OSD menu that allows user to select a variety of output resolutions and adjust for best picture quality. It is ideal for using between incompatible PC source and display by changing picture resolution to match the native resolution of the HD display.

2. APPLICATIONS

- Displaying PC contents on to HD display
- Household PC signal enlargement on to HDTVs
- Lecture room/Showroom/Meeting room/Classroom signal display

3. PACKAGE CONTENTS

- 1 x PC/HD to PC/HD Scaler
- 1 x 5 V/2.6 A DC Power Adaptor
- 1 x D-Sub to D-Sub cable
- 1 x D-Sub to RCA adaptor cable
- Operation Manual

4. SYSTEM REQUIREMENTS

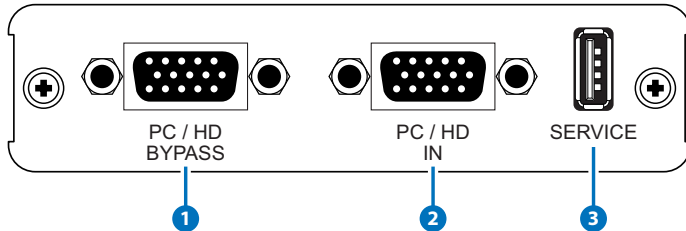
Input source equipment such as PC/Laptop and output display with PC or HD display.

5. FEATURES

- Supports full range of PC resolution from VGA ~ WUXGA (RB) and HD resolution from 480i~1080p
- Provides output picture adjustment on contrast, brightness, hue, saturation, sharpness, RGB (color tone) level and aspect ratio size
- Automatically detect the factory setting of the connected display and output the corresponding resolution and refresh rate, when the NATIVE output is selected

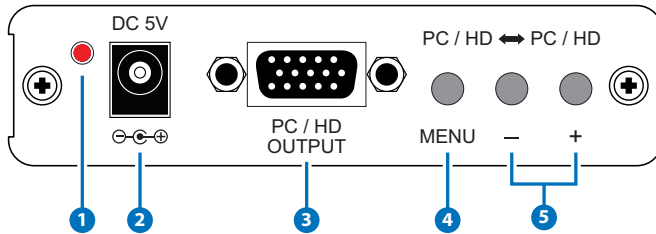
6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel



- 1 PC/HD BYPASS:** Connect to monitor or HD display to bypass the PC/HD input signal. For HD/SD signal a D-Sub to 3 RCA adaptor is required.
- 2 PC/HD IN:** Connect from the source equipment such as PC/Laptop for signal input. For HD/SD signal a D-Sub to 3 RCA adaptor is required.
- 3 SERVICE:** This port is reserved for firmware update only.

6.2 Rear Panel



- 1 Power LED:** This LED will illuminate once the device is connected with power supply.
- 2 DC 5V:** Plug the 5V DC power supply into the unit and connect the adaptor to an AC outlet.
- 3 PC/HD OUTPUT:** This slot is to connect with HDMI TV/Monitor for output image display. For HD/SD signal a D-Sub to 3 RCA adaptor is required.
- 4 MENU:** Press this button to enter into the OSD menu and press it again to enter into the selection.
- 5 +/- button:** Press these buttons to
 - a. move up/down the OSD selection,
 - b. to adjust the value,Under normal operation (outside of OSD selection)
 - c. Press "-" to do AUTO POSITION under PC mode only,
 - d. Press "-" together with "MENU" to switch output resolution to 720P@60 instantly,
 - e. Press "+" together with "MENU" to switch output resolution to XGA@60 (1024x768) instantly
 - f. Press both "+" together with "-" to set the device back to factory reset setting.

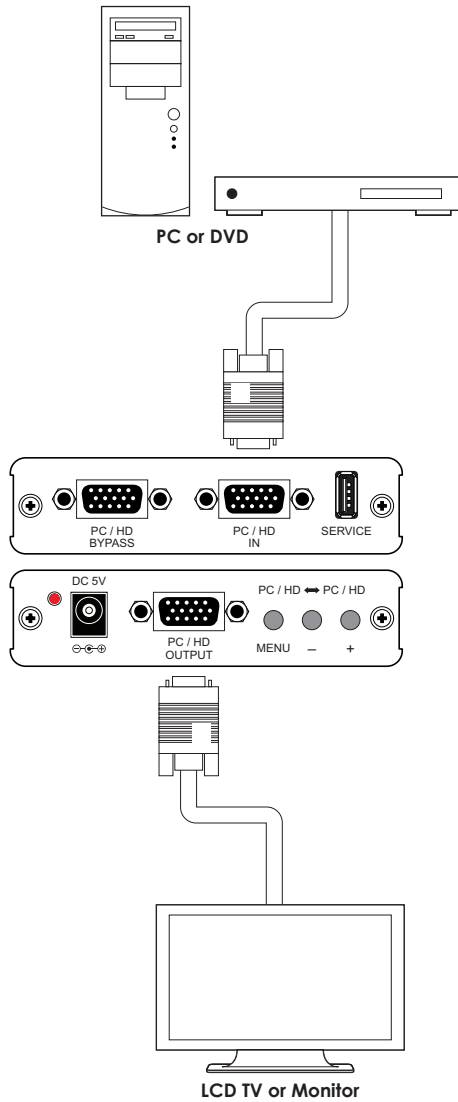
6.3 OSD Menu

Main Menu	1 st Layer	2 nd Layer
PICTURE SETTING	CONTRAST	0~100 (50)
	BRIGHTNESS	0~100 (50)
	EXIT	
FINETUEN HD/SD Mode	HUE	0~100 (50)
	SATURATION	0~100 (50)
	SHARPNESS	0~100 (50)
	NR	OFF/LOW/MIDDLE/HIGH (OFF)
	EXIT	
FINETUEN PC Mode	PHASE	0~100 (100)
	CLOCK	0~100 (50)
	H-POSITION	0~100 (50)
	V-POSITION	0~100 (50)
	EXIT	
COLOR SETTING	RED	0~100 (50)
	GREEN	0~100 (50)
	BLUE	0~100 (50)
	EXIT	



Main Menu	1 st Layer	2 nd Layer
OUTPUT SETTING	SIZE	FULL/OVERSCAN/UNDERSCAN/ LETTER BOX/ PANSKAN/ASPECT (FULL)
	RESOLUTION	640x480@60 / 800x600@60 / 1024x768@60 / 1280x1024@60 /1400X1050@60 / 1600x1200@60 / 1280X800@60 / 1440x900@60 / 1680x1050@60 /1920x1200@60RB / 1600X900 / 480P / 576P / 720P@50/ 720P@60 / 1080I@50 / 1080I@60 / 1080P@50 / 1080P@60
	EXIT	
OSD SETTING	H-POSITION	0~100 (10)
	V-POSITION	0~100 (90)
	TIMER	0~100 (50)
	BACKGROUND	0~100 (50)
	DISPLAY	INFO/ON/OFF (INFO)
	EXIT	
FACTORY RESET		
INFORMATION		
EXIT		

7. CONNECTION DIAGRAM





8. SPECIFICATIONS

Input Port	1 x D-Sub 15pin
Output Ports	1x D-Sub 15pin, 1 x D-Sub 15pin (Bypass)
Power Supply	5V/2.6A DC (US/EU standards, CE/FCC/UL certified)
ESD Protection	Human body model: ±8kV (air-gap discharge) ±6kV (contact discharge)
Dimensions (mm)	102 (W) x 147 (D) x 25(H)/Jack Excluded 102 (W) x 158.5 (D) x 25(H)/Jack Included
Weight (g)	342
Chassis Material	Aluminum
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	5.3w

8.1 Supporting Timing Chart

	INPUT		OUTPUT	
	PC	SD/HD	PC	SD/HD
640x480@60/72/75/85	V		V@60	
800x600@56/60/72/75/85	V		V@60	
1024x768@60/70/75/85	V		V@60	
1280x1024@60/75/85	V		V@60	
1440x1050@60	V		V	
1600x1200@60	V		V@60	
1280x800@60	V		V@60	
1440x900@60	V		V	
1600x900@60	V		V	
1680x1050@50/60	V		V@60	
1920x1200@60RB	V		V	
480I/576I		V		
480P/576P		V		V
720P@50/60		V		V
1080I@50/60		V		V
1080P@50/60		V		V



9. ACRONYMS

ACRONYM	COMPLETE TERM
HDMI	High-Definition Multimedia Interface
WUXGA (RB)	Widescreen Ultra Extended Graphics Array (Reduce blanking)



CYPRESS TECHNOLOGY CO., LTD
Home page: <http://www.cypress.com.tw>

MPM-CP291N