

CDPS-41SQ 4 x 1 HDMI Seamless Quad PIP Scaler







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 2012 by Cypress Technology.

All Rights Reserved.

Version 1.0 December 2012

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.

VERSION NO.	DATE DD/MM/YY	SUMMARY OF CHANGE
VRO	17/10/13	Preliminary Release
VR1	07/03/14	Add Support Chart
VR2	20/06/14	Update RS-232 & OSD, Add WebGUI
VR3	18/07/14	Add RS-232 Command

REVISION HISTORY



CONTENTS

1.	Introduction	1
2.	Applications	1
3.	Package Contents	1
4.	System Requirements	1
6.	Operation Controls and Functions	2
	6.1 Front Panel	2
	6.2 Rear Panel	3
	6.3 Remote Control	4
	6.4 RS-232 Protocols	5
	6.5 OSD MENU	6
	6.6 RS-232 & Telnet Commands	14
	6.7 Telnet Control	21
	6.8 WebGUI Control	22
7.	Specifications	27
8.	Connection and Installation	29



1. INTRODUCTION

The 4 x 1 HDMI Seamless Quad PIP Scaler is a high performance, high speed zooming/shrinking system that can be easily configure and control for quad or picture-in-picture video processing. Allowing 4 different input sources to be freely selected and arranged on one single display with supporting output resolution up to 1080p and audio up to 8CH 192kHz for both input and output. Screen setting hot keys with IR and RS-232 & Telnet allows instant control and switching on the output display.

2. APPLICATIONS

- Broadcasting room and control
- Surveillance room and control
- Public advertisement and control
- Digital Presentation

3. PACKAGE CONTENTS

- 1 x 4 by 1 HDMI Seamless Quad PIP Scaler
- 1 x Remote Control (CR-124)
- 1 x 12V/3A DC Power Adaptor
- Operational Manual

4. SYSTEM REQUIREMENTS

Input source equipments such as DVD/Blu-ray players and PC/NB devices and output HD TV/monitor.

5. FEATURES

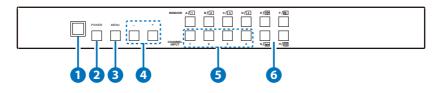
- Seamless switching between channels and windows
- Zoom and Shrink 4CH input image and or to overlay them
- Supports PIP, POP and multi-windows display
- Supports OSD, RS-232, Telnet, Remote and on-panel controls
- Fade-In-Out, Chromakey, Mirror and Rotation (90° left & right and 180° up & down) functions
- 8 Screen setting hot keys and extra 4 customized favorite screen setting
- Support individual channel size and position adjustment

1



6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel



1 IR Window

Accept IR signal from the device's remote control included in the package.

2 POWER

Press this button to power ON the device or set it to standby mode.

3 MENU

Press this button to bring up the OSD menu on screen.

4 -/+ Buttons

Press these buttons to scroll down/up the OSD selections.

5 CHANNEL INPUT 1~4

Press these buttons to rotate HDMI 1~4 input source on each channel to be display on screen. All channels can select the same input or each channel a different input.

6 WINDOW A~H

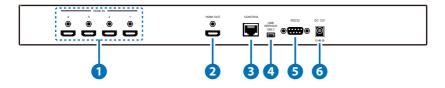
Press these hot keys to select the screen setting where A~D are display a full screen of each channel and E~H are a different combination of a full screen setting with all 4 channels.

Windows A~D's channel input selection is corresponding to channel input no. 1~4. That is, to change window A's input channel must press channel input 1's button. Channel input 2~4's button will not activate under window A's selection. Windows E~H's size are adjustable through the OSD menu setting and only window G is PIP(Picture in Picture) where E,F & H are POP (Picture out Of picture) settings.



Under window E~H when the size setting is overlapping one another, channel display sequence is CH4 > CH3 > CH2 > CH1. That is, CH4 will cover CH3 and CH3 will cover CH2 and so on. Under some dislay the borderline may have interference, adjusting display's motion setting may resolve the interference issue.

6.2 Rear Panel



1 HDMI IN

Connect with source equipments such as DVD/Blu-ray players and or PC/NB devices.

2 HDMI OUT

Connect with HD TV/monitor for output image display at 1080p.

3 CONTROL

Connect to an active network for Telnet control.

4 USB SERVICE ONLY

This slot is reserved for factory use only.

5 RS-232

Connect from PC/NB with D-Sub 15pin cable for RS-232 command sending.

6 DC 12V

Plug the 12V DC power supply into the unit and connect the adaptor to an AC outlet.



6.3 Remote Control

1 Power

Press this button to switch on the device or press it again to set it to standby mode.

2 Info

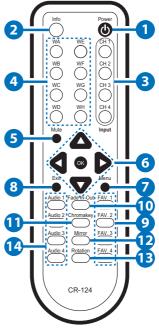
Press this button to show the device's firmware version.

3 Input CH 1~4

Press these buttons to rotate HDMI 1~4 input source on each channel to be display on screen

4 WA~WH

Press these hot keys to select the screen setting where WA~WD are display a full screen of each channel and WE~WH are a different combination of a full screen setting with all 4 channels.



5 Mute

Press this button to mute the audio from HDMI output port.

6 ▲ ▼ ► ◀ & OK Buttons

Press this buttons to scroll through the OSD selection and press OK to enter and confirm the setting.

🕖 Menu

Press this button to enter into the OSD menu.

8 Exit

Press this button to exit the OSD menu or the OSD settings.

9 FAV. 1~4

Press these buttons to bring up the customized screen settings.

10 Fade-In-Out*

Press this button to switch on or off the Fade-in-out function.



Chromakey*

Press this button to enter into Chroma function where CH 1 is the background and CH 2 is the top image.

12 Mirror*

Press this button to display the screen in mirror image.

Rotation*

Press this button to rotate the image 90° left and right or 180° upside down.

🚺 Audio 1~4

Press these buttons to select audio from HDMI input source 1~4.

* Functions only work under Window A to D. The system will force to switch to Window A when operate under Window E~H.

6.4 RS-232 Protocols

CDPS		
PIN	Assignment	
1	NC	
2	Tx	
3	Rx	
4	NC	
5	GND	
6	NC	
7	NC	
8	NC	
9	NC	

Remote Control		
PIN	Assignment	
1	NC	
2	Rx	
3	Tx	
4	NC	
5	GND	
6	NC	
7	NC	
8	NC	
9	NC	

Baud Rate: 115200bps Data Bit: 8 bits Parity: None Flow Control: None Stop Bit: 1



6.5 OSD MENU

1 st Layer	2 nd Layer	3 rd Layer
Output Resolution	480P, 579P, 720P50/60, 1080P24/25/30/50/60, 1024x768, 1280x800, 1280x1024, 1366x768, 1440x900, 1600x900, 1600x1200, 1680x1050, 1920x1200, NATIVE Menu Back	
	Info Display H Offset V Offset	On/ Off 0~20 (5) 0~20 (5)
OSD Settings	Timeout Gain	Off~50 0~10 (2)
Menu Exit		
Brightness Adjust	CH 1 CH 2 CH 3 CH 4 Value Reset	0~100 (50) 0~100 (50) 0~100 (50) 0~100 (50)
Contrast Adjust	Menu Exit CH 1 CH 2 CH 3 CH 4 Value Reset	0~100 (50) 0~100 (50) 0~100 (50) 0~100 (50)
	Output Resolution OSD Settings Menu Exit Brightness Adjust	Output 480P, 579P 1080P24/25/30/ 1280x800, 1280 1280x800, 1280 1440x900, 1600 1440x900, 1600 1680x1050, 192 Menu Back Info Display H Offset V Offset Timeout Gain Menu Back Info Display H Offset V Offset VOffset Info Display Brightness CH 1 CH 2 CH 2 Brightness CH 3 Adjust CH 1 Value Reset Menu Exit Ch 1 CH 2 Ch 3 CH 3 CH 4 CH 2 Ch 3 CH 3 CH 3 CH 3 Adjust CH 3 Adjust CH 3 CH 3 CH 3 Ch 3 CH 3



Main Menu	1 st Layer	2 nd Layer	3 rd Layer
		CH 1	0~100 (50)
		CH 2	0~100 (50)
		СН 3	0~100 (50)
	Hue Adjust	CH 4	0~100 (50)
		Value Reset	
		Menu Exit	
		CH 1	0~100 (50)
		CH 2	0~100 (50)
	Saturation	CH 3	0~100 (50)
	Scioranon	CH 4	0~100 (50)
		Value Reset	
		Menu Exit	
	Picture Reset		
	Menu Exit		
			CH1 Wxxx Hxxx
			Width Unit
			Width Ten
		Size	Width Hundred
			Height Unit
			Height Ten
			Height Hundred
			CH1 Hxxx Vxxx
	Channel 1 Select		Horizontal Unit
			Horizontal Ten
Window		Position	Horizontal
Setup			Hundred
			Vertical Unit
			Vertical Ten



Main Menu	1 st Layer	2 nd Layer	3 rd Layer
			Vertical
			Hundred
		Image Output	On /Off
		Priority	CH1→4,CH2→3,
		THOMY	CH3→2,CH4→1
		Window Reset	
		Menu Exit	
			CH2 Wxxx Hxxx
			Width Unit
			Width Ten
		Size	Width Hundred
			Height Unit
			Height Ten
			Height Hundred
			CH2 Hxxx Vxxx
	Channel 2		Horizontal Unit
	Select		HONZONIGI UNII
			Horizontal Ten
		Position	Horizontal
		1 OSHOT	Hundred
			Vertical Unit
			Vertical Ten
			Vertical
			Hundred
		Image Output	On /Off
		Priority	CH1→4,CH2→3,
			CH3→2,CH4→1
Window		Window Reset	
Setup		Menu Exit	



Main Menu	1 st Layer	2 nd Layer	3 rd Layer
			CH3 Wxxx Hxxx
			Width Unit
			Width Ten
		Size	Width Hundred
			Height Unit
			Height Ten
			Height Hundred
			CH3 Hxxx Vxxx
			Horizontal Unit
	Channel 3 Select		Horizontal Ten
		Position	Horizontal Hundred
			Vertical Unit
			Vertical Ten
			Vertical
			Hundred
		Image Output	On /Off
		Priority	CH1→4,CH2→3, CH3→2,CH4→1
		Window Reset	
		Menu Exit	
			CH4 Wxxx Hxxx
			Width Unit
			Width Ten
		Size	Width Hundred
			Height Unit
			Height Ten



Main Menu	1 st Layer	2 nd Layer	3 rd Layer
Window			Height Hundred
Setup			CH4 Hxxx Vxxx
			Horizontal Unit
			Horizontal Ten
	Channel 4 Select	Position	Horizontal Hundred
			Vertical Unit
			Vertical Ten
			Vertical Hundred
		Image Output	On/Off
		Priority	CH1→4,CH2→3, CH3→2,CH4→1
		Window Reset	
		Menu Exit	
		VIDEO 1	VIDEO 1/2/3/4
		VIDEO 2	VIDEO 1/ 2 /3/4
	Label Select	VIDEO 3	VIDEO 1/2/3/4
		VIDEO 4	VIDEO 1/2/3/4
		Menu Exit	
		FAV 1 Store	on/ off /ok
Window		FAV 2 Store	ON/ OFF /OK
Setup	Favours Store	FAV 3 Store	on/ off /ok
]	FAV 4 Store	ON/ OFF /OK
		Menu Exit	
	Menu Exit		
		Mirror	On/ Off



Main Menu	1 st Layer	2 nd Layer	3 rd Layer
		Fade In-Out	Off/1.0/1.1/1.2 Convert /1.3/1.4 /1.5/1.6/1.7/1.8/ 1.9/2.0/2.1/2.2/ 2.3/2.4/2.5/2.6/ 2.7/2.8/2.9/3.0
	Channel 1 Convert	Rotation	R90/L90/Up-Side Down180/ Off
		Window Reset	
Window		Menu Exit	
Convert		Mirror	On/ Off
		Fade In-Out	Off/1.0/1.1/1.2 Convert /1.3/1.4 /1.5/1.6/1.7/1.8/ 1.9/2.0/2.1/2.2/ 2.3/2.4/2.5/2.6/ 2.7/2.8/2.9/3.0
	Channel 2 Convert	Rotation	R90/L90/Up-Side Down180/Off
		Window Reset	
		Menu Exit	
		Mirror	On/ Off



Main Menu	1 st Layer	2 nd Layer	3 rd Layer
	Channel 3 Convert	Fade In-Out Rotation Window Reset	Off/1.0/1.1/1.2 Convert /1.3/1.4 /1.5/1.6/1.7/1.8/ 1.9/2.0/2.1/2.2/ 2.3/2.4/2.5/2.6/ 2.7/2.8/2.9/3.0 R90/L90/Up-Side Down180/Off
		Menu Exit	
		Mirror	On/ Off
	Channel 4 Convert	Fade In-Out Rotation Window Reset Menu Exit	Off/1.0/1.1/1.2 Convert /1.3/1.4 /1.5/1.6/1.7/1.8/ 1.9/2.0/2.1/2.2/ 2.3/2.4/2.5/2.6/ 2.7/2.8/2.9/3.0 R90/L90/Up-Side Down180/Off
	Minimum For R		000~255(0)
	Maximum For R		000~255(15)
	Minimum For G		000~255(0)
Chromakey	Maximum For G		000~255(15)
Setup*	Minimum For B		000~255(0)
	Maximum For B		000~255(15)
	Switch		ON/ OFF
	Exit		



Main Menu	1 st Layer	2 nd Layer	3 rd Layer
	IP Mode	Static/ DHCP	
	Static Set	IP/Mask/Gate	
	Byte1 High	XXX 192 255 192	000~255
	Byte2	XXX 168 255 168	000~255
	Byte3	XXX 5 255 5	000~255
	Byte4 Low	XXX 159 0 254	000~255
Ethernet	Re-Link	No /Yes	
Setup	Exit		
	Static/DHCP IP	LINKED/NOT LINKED	
	IP	IP/Mask/Gate	
	Mask	XXX.XXX.XXX.XXX	
	Gate	XXX.XXX.XXX.XXX	
	Mac	XXX.XXX.XXX.XXX	
	Sink HDMI /DVI		
	Model xxxxxxx		
Information	Native xxxxxxx		
	F/V version		
Menu Exit			

Note: BoldItalic fonts and () figures are factory defualt setting figures.

* Chromakey Setup works only under CH1& CH2 where CH1 is the background and CH2 is the top layer.

This special function is designed for picture overlap video such as news reporter, weather forecast or educational video taping. CH2 the top layer's background color is usually a single color which can be easy for remove. RGB's setting is for CH2 video where the minimum setting figures cannot be greater than the maximum figures and the maximum figures cannot be lower than the minimum setting figures.

When input 1 or 2 has no source connection a warning message will appear on OSD.



6.6 RS-232 & Telnet Commands

Command	Description
RESO 0~18	SET OUTPUT RESOLUTION (0) 480p, (1) 576p, (2) 720p 50Hz, (3) 720p 60Hz, (4) 1080p 24Hz, (5) 1080p 25Hz, (6) 1080p 30Hz, (7) 1080p 50Hz, (8) 1080p 60Hz, (9) 1024x768 60Hz, (10) 1280x800 60Hz, (11) 1280x1024 60Hz, (12) 1366x768 60Hz, (13) 1440x900 60Hz, (14) 1600x900 60Hz, (15)1600x1200 60Hz, (16) 1680x1050 60Hz, (17)1920x1200 60Hz, (18) Native
OSDDIS 0/1	ENABLE/DISABLE ONSCREEN DISPLAY (0) OFF, (1) ON
OSDH 0~20	OSD H OFFSET 0~20
OSDV 0~20	OSD V OFFSET 0~20
OSDTIME 0~50	OSD TIMEOUT 0~50
OSDGAIN 0~10	OSD GAIN VALUE 0~10
BRI 0~4 0~100	SET BRIGHTNESS VALUE FOR CHANNEL (0) All, (1~4) CHANNEL, (0~100) VALUE
CON 0~4 0~100	SET CONTRAST VALUE FOR CHANNEL PORT (0) All, (1~4) CHANNEL, (0~100) VALUE
SAT 0~4 0~100	SET SATURTATION VALUE FOR CHANNEL PORT (0) All, (1~4) CHANNEL, (0~100) VALUE



Command	Description
HUE 0~4 0~100	SET HUE VALUE FOR CHANNEL PORT
	(0) All,
	(1~4) CHANNEL, (0~100) VALUE
HSIZE 1~4 0~X	SET IMAGE HORIZONTAL SIZE
11312E 1 4 0 X	(1~4) CHANNEL,
	(0~X) X=HORZONTAL PIXEL FOR CURRENT RESOLUTION
∨SIZE 1~4 0~X	SET IMAGE VERTICAL SIZE
	(1~4) CHANNEL, (0~X) X=VERTICAL PIXEL FOR CURRENT RESOLUTION
HPOS 1~4 0~X	SET HORIZONTAL POSITION OF SPECIFIED CHANNEL
111 03 1 4 0 %	(1~4) CHANNEL,
	(0~X) X=HORZONTAL PIXEL FOR CURRENT RESOLUTION
VPOS 1~4 0~X	SET VERTICAL POSITION OF SPECIFIED CHANNEL
	$(1 \sim 4)$ CHANNEL,
IMAGE 1~4 0~1	(0~X) X=VERTICAL PIXEL FOR CURRENT RESOLUTION
IMAGE 1~4 0~1	CHANNEL(S) OUTPUT ON/OFF (1~4) CHANNEL,
	() - 4) CHARNEL, (0/1) OFF/ON
PRI 1~4 1~4	SET CHANNEL PRIORITY
	(1~4) CHANNEL,
	(1~4) PRIORITY
LABEL 1~4 XXX	ASSIGN A VIDEO NAME
	(1~4) VIDEO,
	(XXX) ABCEDFGH
STORE 1~4	SAVE THE CURRENT WINDOW STATE TO FAV.
	(1~4) FAV.
RECALL 1~12	RECALL A WINDOW STATE (1) WINDOW A, (2) WINDOW B, (3) WINDOW C, (4) WINDOW D, (5) WINDOW E, (6) WINDOW F, (7) WINDOW G, (8) WINDOW H, (9) WINDOW FAV. 1, (10) WINDOW FAV. 2, (11) WINDOW FAV. 3, (12) WINDOW FAV. 4



Command	Description
MIRROR 0/1	ENABLE/DISABLE MIRROR EFFECT (0/1) OFF/ON
FADE 0~21	ENABLE/DISABLE FADE EFFECTS (0) OFF, (1) 1.0 s, (2) 1.1 s, (3) 1.2 s, (4) 1.3 s, (5) 1.4 s, (5) 1.5 s, (6) 1.6 s, (7) 1.7 s, (8) 1.8 s, (9) 1.9 s, (10) 2.0 s, (11) 2.1 s, (12) 2.2 s, (13) 2.3 s, (14) 2.4 s, (15) 2.5 s, (16) 2.6 s, (17) 2.7 s, (18) 2.8 s, (19) 2.9 s, (20) 3.0 s
ROTATE 0~3	SET VIDEO ROTATION VIDEO TO PRESET POSITIONS (0) ROTATE OFF, (1) R90, (2) L90, (3) 180
CHRC R/G/B MIN/MAX 0~255	SET THE RGB COLOR RANGE FOR THE CHROMA KEY (R/G/B) COLOR CHANNEL (MIN/MAX) COLOR VALUE (0~15) SET PRESENT VALUE 0~255 RBG MAX (0)15, (1)31, (2)47, (3)63, (4)79, (5)95, (6)111, (7)127, (8)143, (9)159, (10)175, (11)191, (12)207, (13)223, (14)239, (15)255 RGB MIN (0)00, (1)16, (2)32, (3)48, (4)64, (5)80, (6)96, (7)112, (8)128, (9)144, (10)160, (11)176, (12)192, (13)208, (14)224, (15)240
CHRSW 0/1	SET THE CHROMA KEY ON/OFF (0) OFF, (1) ON
IPMODE 0/1	SET IP MODE TO DHCP OR STATIC (0) DHCP, (1) STATIC
IPADD XXX.XXX. XXX.XXX	SET IP ADDRESS (XXX) 0~255
MAADD XXX. XXX.XXX.XXX	SET SUBNET ADDRESS (XXX) 0~255
GAADD XXX. XXX.XXX.XXX	SET GATEWAY ADDRESS (XXX) 0~255



Command	Description
ETHTIME 0~6	ETHERNET TIMEOUT (0) OFF, (1) 10 MINUTE, (2) 20 MINUTE, (3) 30 MINUTE,
	(4) 40 MINUTE, (5) 50 MINUTE, (6) 60 MINUTE
RELINK	RELINK THE UNIT IN 2 SECONDS
DEFAULT	RESET THE UNIT TO FACTORY DEFAULTS
VICH 1~4 0~4	VIDEO CHANNEL COMMAND
	(1~4) VIDEO, (0) ALL CHANNEL OUTPUTS,
	(1~4) CHANNEL OUTPUTS
MUTE 0/1	MUTE AUDIO (0) OFF, (1) ON
POW 0/1	POWER THE UNIT ON/OFF (0) OFF, (1) ON
AUDIO 1~4	CHANGE OUTPUT AUDIO TO SPECIFIED SOURCE (1~4) AUDIO SOURCE
IMRE B/C/S/H	RESET THE IMAGE TO FACTORY DEFAULTS (B) BRIGHTNESS, (C) CONTRAST, (S) SATURATION, (H) HUE
PIRE	RESET THE UNIT PICTURE SETTINGS TO FACTORY DEFAULTS
CHRE 0~4	RESET THE WINDOWS SETTINGS TO FACTORY DEFAULTS (0) ALL CHANNEL OUTPUTS, (1~4) CHANNEL OUTPUTS
WICORE	RESET THE WINDOW CONVERT TO FACTORY DEFAULTS
RIPM	SHOW CURRENT IP MODE
IPCONFIG	SHOW IP CONFIGURATION
HELP	PRINTS ALL AVAILABLE RS-232/TELNET COMMANDS TO THE SCREEN
?	PRINTS ALL AVAILABLE RS-232/TELNET COMMANDS TO THE SCREEN

Command	Description
WND001	Change to Window A
WND002	Change to Window B
WND003	Change to Window C
WND004	Change to Window D
WND005	Change to Window E
WND006	Change to Window F
WND007	Change to Window G
WND008	Change to Window H
CH1001	Change CH1 to Source 1
CH1002	Change CH1 to Source 2
CH1003	Change CH1 to Source 3
CH1004	Change CH1 to Source 4
CH2001	Change CH2 to Source 1
CH2002	Change CH2 to Source 2
CH2003	Change CH2 to Source 3
CH2004	Change CH2 to Source 4
CH3001	Change CH3 to Source 1
CH3002	Change CH3 to Source 2
CH3003	Change CH3 to Source 3
CH3004	Change CH3 to Source 4



Command	Description
CH4001	Change CH4 to Source 1
CH4002	Change CH4 to Source 2
CH4003	Change CH4 to Source 3
CH4004	Change CH4 to Source 4
101000	CH1 Image OFF
101001	CH1 Image ON
102000	CH2 Image OFF
102001	CH2 Image ON
103000	CH3 Image OFF
103001	CH3 Image ON
104000	CH4 Image OFF
104001	CH4 Image ON
MUT000	Mute Off
MUT001	Mute On
AUD001	Change Output Audio to Source 1
AUD002	Change Output Audio to Source 2
AUD003	Change Output Audio to Source 3
AUD004	Change Output Audio to Source 4
FAD000	Fade In-Out Off
FAD001	Fade In-Out On
CHR000	Chromakey Function Off
CHR001	Chromakey Function On
MIR000	Mirror Function Off
MIR001	Mirror Function On
ROT000	Rotation Function Off
ROT001	Rotation Function R
ROT002	Rotation Function L
ROT003	Rotation Function Up-Side Down



Command	Description
SFA001	Store window format to FAV 1*
SFA002	Store window format to FAV 2*
SFA003	Store window format to FAV 3*
SFA004	Store window format to FAV 4*
RFA001	Recall window from FAV 1
RFA002	Recall window from FAV 2
RFA003	Recall window from FAV 3
RFA004	Recall window from FAV 4
POW000	OFF
POW001	ON

Commands with Italic fonts are only functioning under Window E~H and FAV.1~4 $\,$

Commands with Bold fonts are only functioning under Window A~D



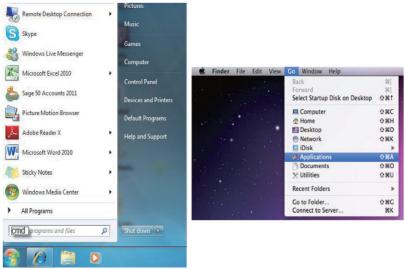
6.7 Telnet Control

Before attempting to use the telnet control, please ensure that both the Scaler (via the 'CONTROL' port) and the PC/Laptop are connected to the active networks.

To access the telnet control in Windows 7, click on the 'Start' menu and type "cmd" in the Search field then press enter

Under Windows XP go to the 'Start' menu and click on "Run", type "cmd" with then press enter.

Under Mac OS X, go to Go \rightarrow Applications \rightarrow Utilities \rightarrow Terminal See below for reference.



Once in the command line interface (CLI) type "telnet", then the IP address of the unit and hit enter.

Note: The IP address of the Scaler can be found under Ethernet Setup on the device's OSD menu.



This will bring us into the device which we wish to control. Type "?" to lists all the available commands.



Telnet 1	00100515		× -
GR Teinet 1	92.168.5.15	9	
			^
RESO OSDDIS			-
OSDH			
OSDV			
OSDTIME			=
OSDGAIN			
BRI CON			_
SAT			
HUE			
HSIZE			
USIZE			
HPOS			
UPOS			
PRI			
LABEL			
STORE			
RECALL			
MIRROR			
FADE ROTATE			
CHRC			
CHRSW			
IPMODE			
IPADD			
MAADD GAADD			
ETHTIME			
RELINK			
DEFAULT			
VICH			
MUTE			
AUDIO			
IMRE			
PIRE			
CHRE			
WICORE			
RIPM			
HELP			
?			-
•	m		€

Type "IPCONFIG" To show all IP configurations. To reset the IP, type "IPMODE" to set static IP/DHCP (For a full list of commands, see Section 6.6).

Note: All the commands will be not executed unless followed by a carriage return. Commands are case-insensitive. If the IP is changed then the IP Address required for Telnet access will also need to be change accordingly. A power relink is also required for every IP change.

6.8 WebGUI Control

On a PC/Laptop that is connected to an active network as the Scaler, open a web browser and type device's IP address on the web address entry bar. The browser will display the device's Image Adjust, Output Resolution, and ... etc.



CDPS-41SQ	×		-		-			×
← → C 🗋 192.3	168.5.159							5-☆ =
Image Adjust Output Resolution Windows Setup OSD Settings	Information-In IN1 : NO SIGNAL IN2 : NO SIGNAL IN3 : NO SIGNAL IN4 : NO SIGNAL	OU	nformation-Out T : 480P60 dow Mode : Window A	Status Power: ON CH 1 From Input 1 CH 2 From Input 2 CH 3 From Input 3 CH 4 From Input 4	OFF	Source Window Mode: Window A • CH • From laput 1 • Audio From CH 1 • Mute: ON OFF	Save/Factory Save : Cancel Factory Defa	v ut
Window Convert	_	Contrast			Saturation			
Chromakey Setup Ethernet		CH1		50	CH1		50	
Ethernet		CH2		50	CH2		50	
		CH3		50	CH3		50	
		CH4		50	CH4		50	
			Reset Contrast			Reset Saturation		
		Brightness			Hue			
		CH1		50	CH1		50	
		CH2		50	CH2		50	
		CH3		50	CH3		50	
		CH4		50	CH4		50	
			Reset Brightness			Reset Hue		
				Res	et All			

Click on the 'mage Adjust' tab to control power, Window Mode and the window setting.

CDPS-41SQ	×	-			- 0 X
← → C 🗋 192.:	168.5.159				56 ☆ Ξ
	72				
Image Adjust Output Resolution Windows Setup OSD Settings Window Convert Chromakey Setup	Information-In INI : NO SIGNAL IN2 : NO SIGNAL IN3 : NO SIGNAL IN4 : NO SIGNAL	Information-Out OUT: 480P60 Window Mode: Window A	Status Power: ON OFF CH I From Input 1 CH J From Input 2 CH 4 From Input 3 CH 4 From Input 4	Source Window Mode : Window A • CH 1 • From Input 1 • Audio From CH 1 • Mate : ON OFF	Save/Factory Save : Cancel Factory Default
Ethernet			Resolution esolution 480P60		
4					,

Clicking on the 'Output Resolution' tab to set the output display resolution.



CDPS-41SQ	×	-			
• → C 🗋 192.1	68.5.159				5
	72				
Image Adjust Output Resolution Windows Setup OSD Settings Window Convert	Information-In IN1 : NO SIGNAL IN2 : NO SIGNAL IN3 : NO SIGNAL IN4 : NO SIGNAL	Information-Out OUT: 450P60 Window Mode: Window E	Status Power: ON OFF CH 1 From Input 1 CH 2 From Input 2 CH 3 From Input 3 CH 4 From Input 4	Source Window Mode : Window E • CH 1 • From Input 1 • Audio From CH 1 • Mute : ON OFF	Save/Factory Save : Cancel Factory Default
Chromakey Setup Ethernet	Sclect Channel CH 1 • Label VIDEO_1_ Width 360 Height 240	CHI		CH2	
	X Position 0 Y Position 0 Priority 4 Output ON OFF			CH4	

Clicking on the 'Windows Setup' tab to set the output display fomate. Note: This function is only available under window E~H.

CDPS-41SQ ×					×
← → C 🗅 192.168.5.159				間で	3 =
CYP					_
Image Adjust Output Recolution Windows Senap OKD Settings Window Cenvert Chromaley Setting	Information-Out OUT: 480P60 Window Mede: Window A	Status Power: ON OFF CH I From Input 1 CH 2 From Input 2 CH 3 From Input 3 CH 4 From Input 4	Source Window Mode: Window A • CH 1 • From Input 1 • Audio From CH 1 • Mote: ON OFF	Save/Factory Save : Cancel • Factory Default	
Ethernet	OSD S Info Disy H Offset V Offset Timeout	olay: ON OFF	5		
	Gain :	2 •			

Clicking on the 'OSD Settings' tab to set the OSD function and position.



Image Adjust Lafernation-Ja Lafernation-Ja Status Output Recolution N1: 00 MONAL DOT: 410700 Window Samp N2: 00 MONAL DOT: 410700 Window Samp N2: 00 MONAL DOT: 410700 Window Samp DOT: 410700 Main: ON Off Strings Window Mede: Window Adde: Window Adde: Window Adde: Window Samp Differention OFF Main: ON Off From loging 1 Cit From loging 2 Cit From loging 2 Main: OK Differention OFF Main: ON Window Convert Main: Main: ON Window Convert Main: OFF Field In-On: Window Ketst OFF T Rotation:	CDPS-41SQ ×				
Image Adjust Information-Di Information-Of Status Ouque Reachaire D1::::::::::::::::::::::::::::::::::::	← → C 🗋 192.168.5.159				50 ☆ 〓
Ourge Resolution Window Setup OX53 Settings D17: 40569 Window Mede: Window A D17: 40569 Window Mede: Window A Vincetw Mede: Window A Vincetw Mede: Window A Vincetw Mede: Window A CE Vincetw Mede: Window A CE Vincetw Mede: Window A E CE Vincetw Mede: Window A E E Vincetw Mede: Window A E E CE Vincetw Mede: Window A E <td>CYP</td> <td></td> <td></td> <td></td> <td></td>	CYP				
Ethernet Window Convert Mirce: ON OFF Fede In-Out: OFF V Rotation: OFF V	Output Resolution Windows Setup OSD Settings	OUT: 480P60	Power: ON OFF CH 1 From Input 1 CH 2 From Input 2 CH 3 From Input 3	Window Mode : Window A CH T From Input Audio From CH T	Save : Cancel •
	Chromakey Setup	Mirror : Fade In-	ON OFF Out: OFF • : OFF •		

Clicking on the 'Window Convert' tab to set the output display angle.

Note: This function is only available under window A~D.

CDPS-415Q ×		-		
← → C 🗋 192.168.5.159				5 ☆ Ξ
CYP				
Image Adjust Output Resolution Window Seng OSD Senting Window Concern Uncombey Seng Ethernet	Information-Ox OT: 40280 Wadew Mode: Window A Minimum Miximum Miximum	a For R : 15 • For G : 00 •	Source Window A V CH V Fron Input [V Audo From CH I V Mate: ON OFF	SaveTacloy Save: Cancel • Factor/Datual
	Minimum Maximum Switch :			

Clicking on the 'Chromakey Setup' tab to set the output display color. Note: This function is only available under window A~D.



CDPS-41SQ ×		_	_	
← → C 🗋 192.168.5.159				5 ☆ Ξ
CYP				
Image Adjust Output Resolution Windows Setup OSID Settings Window Correct	Information-Out OUT: 480P60 Window Mode: Window A	Status ON OFF Power: ON OFF CH 1 Freen Input 1 1 1 CH 2 Freen Input 2 1 1 CH 3 Freen Input 3 1 1 CH 4 Freen Input 4 1 1	Source Window Mode: Window A CH 1 From Input 1 Audio From CH 1 Mute: ON OFF	Save/Factory Save: Cancel Factory Default
Chromakey Setup Ethernet	_			
	Etherne DHC	p		
	IP Addre Netmask Gateway	: 255.255.255.0	ve Changes	
		: 192.168.5.254 meout : OFF •		
C				· ·

Clicking on the 'Ethernet' tab to reset the IP configuration. The system will ask for a reboot of the device every time when any of the settings is changed. The IP address needed to access the Web GUI control will also need to be changed accordingly on the web address entry bar.

Note: All command will be not executed unless followed with a carriage return and commands are case-insensitive.

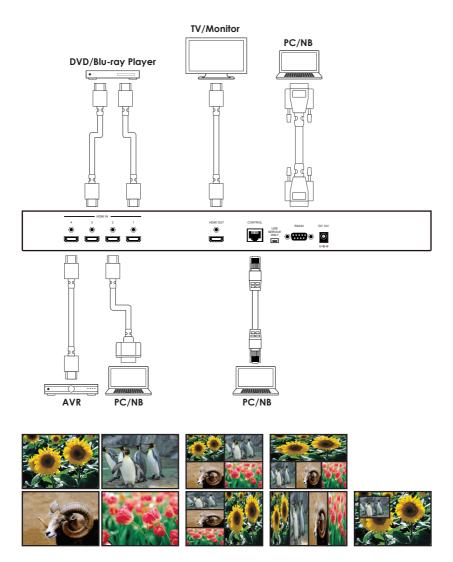


Video Bandwidth	225MHz/6.75Gbps
Input Ports	4x HDMI
Output Port	1 x HDMI
Supports Input	PC:VGA~WUXGA, HD: 480i~1080p
Resolution	
Supports Output	1080p@60
Resolution	
HDMI Input Cable	Up to 15M/1080p@12 bits
Distance	
HDMI Output Cable	Up to 15M/1080p@8 bits
Distance	
Supports Sampling Rate	32~192kHz
ESD Protection	Human body model:
	±8kV (air-gap discharge)
	±4kV (contact-gap discharge)
Power Supply	12V/3A DC (US/EU standards, CE/FCC/UL certified)
Dimensions	436mm(W) x 247mm(D) x 44mm(H)
Weight	2200g
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	18W



HDMI Supported Resolutions	Input	Output
640x480@60,72,75,85	V	
800x600@56,60,72,75,85	V	
1024x768@60,70,75,85	V	V@60
1360x768@60	V	
1280x768@60,75	V	
1280x800@60		V
1280x1024@60,75	V	V@60
1366x768@60	V	V
1440x900@60		V
1600x900@60		V
1600x1200@60	V	V
1680x1050@60		V
1920x1200@60	V	V
480i60	V	
576i50	V	
480p60	V	V
576p50	V	V
720p50	V	V
720p60	V	V
1080i50	V	
1080i60	V	
1080p24	V	V
1080p25		V
1080p30		V
1080p50	V	V
1080p60	V	V

8. CONNECTION AND INSTALLATION





20130103 MPM-CDPS41SQ