CS-801H

Ultra High Resolution Scaler with 3D

Operation Manual

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Version VR1.0 January 2012

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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	06/01/12	Preliminary Release
RDV2	07/02/12	
RDV3	31/07/12	Add RS-232 Commands

CONTENTS

1. INTRODUCTION

This high performance video processor which allows 3D movies to be watched on a 2D display. With HDMI, DisplayPort and PC/Component inputs to its HDMI output and the associated audio signal processed synchronously. The operation of both 3D-to-2D and scaling features can be handled easily through on-panel buttons, IR remote control, or RS-232 protocol.

2. APPLICATIONS

- Convert 3D signal to 2D signal for 2D display
- 3D source bypass to 3D display without scaling
- Scale HDMI, DisplayPort and PC/Component inputs to HDMI output

3. PACKAGE CONTENTS

- Ultra High Resolution Scaler with 3D
- 5V/2.6A DC power adaptor
- Operation Manual

4. SYSTEM REQUIREMENTS

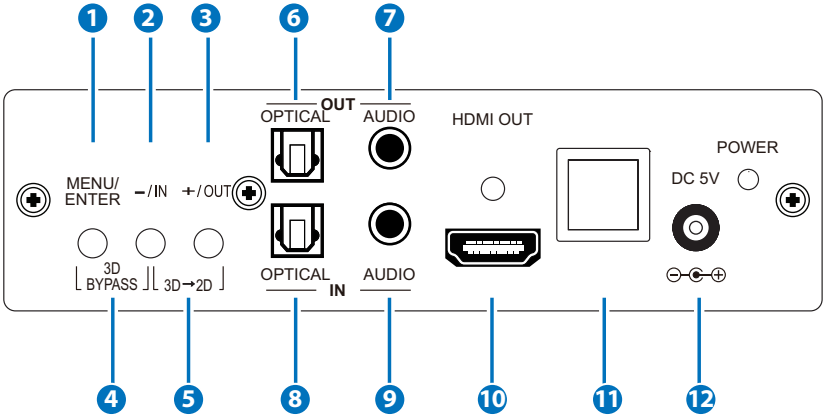
- Input HDMI/DisplayPort/PC sources and output with 2D or 3D HDMI display.

5. FEATURES

- Supports HDMI 3D processing on Frame Packing and Top-and-Bottom of 720p@50/60Hz and 1080p@24Hz, Side-by-Side Half signals of 720p@50/60Hz, 1080i@50/60Hz(input only) and 1080p@24/50/60Hz
- Supports HDMI / Component input timing up to 1080p@50/60Hz, DisplayPort up to 2560 x 1600@60HzRB and PC up to 1920 x 1200@60/75Hz
- Supports digital and analog audio bidirectional conversion, extraction and insertion for the audio signals from individual inputs or from the HDMI source
- Supports component input when connected VGA to 3RCA adaptor

6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel



1 MENU/ENTER

Press this button to ENTER the OSD menu. Press again to confirm the selection.

2 -/IN

a. "-": When in OSD page, sequentially press this button to move down the OSD selection.

b. "IN": Press this button to quick enter the input port selection.

3 +/OUT

a. "+": When in OSD page, sequentially press this button to move up the OSD selection.

b. "OUT": Press this button to quick enter the output resolution selection.

4 3D BYPASS

Press MENU/ENTER and -/IN buttons simultaneously to switch to 3D bypass without scaling.

5 3D→2D

Press -/IN and +/OUT buttons simultaneously to switch from 3D to 2D.

6 OPTICAL OUT

This slot is where you connect the amplifier with OPTICAL cable and from amplifier to speaker.

7 AUDIO L/R OUT

This slot is where you connect the speaker or amplifier with audio phone jack to the display.

8 OPTICAL IN

This slot is where you connect the input OPTICAL audio source.

9 AUDIO L/R IN

This slot is where you connect the L/R input audio source.

10 HDMI OUT

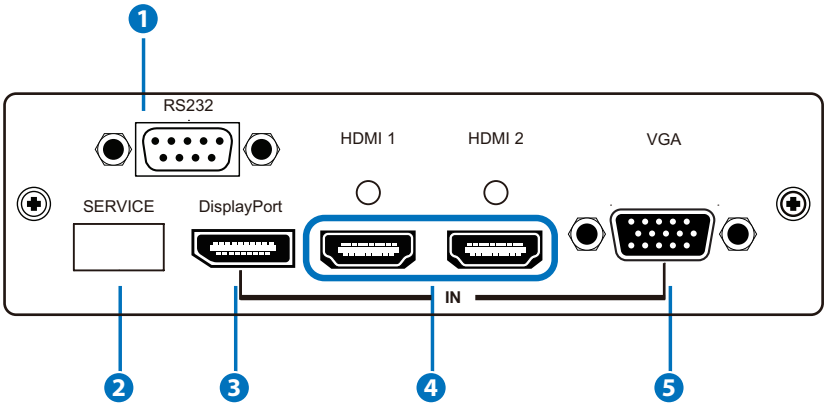
This slot is where you connect the HDMI display with HDMI cable.

11 IR sensor

12 DC 5V

Plug the 5V DC power supply into the unit and connect the adaptor to AC wall outlet. Once the system turns on the LED will turn RED.

6.2 Rear Panel



1 RS232

This slot is to connect with D-Sub 9pin cable from the PC/NB device for RS-232 control.

2 SERVICE

This slot is to connect with USB cable for manufacturers' firmware update only.

3 DisplayPort IN

This slot is where you connect the DisplayPort source output for DisplayPort signal sending.

4 HDMI 1/2 IN

These slots are where you connect the HDMI sources output for HDMI signal sending.

5 VGA IN

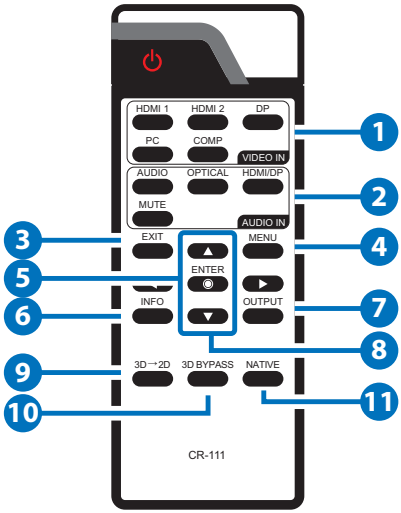
This slot is where you connect the VGA source output for VGA signal sending, when using component signal please have 3RCAto D-sub 15pin adaptor.

7.OSD MENU AND FUNCTION LIST

Input Video	PC
	COMP
	HDMI 1
	HDMI 2
	DP
	Exit
Input Audio	AUDIO
	Optical
	HDMI/DP
	Mute
	Exit
Output Resolution	720x480P
	1280x720P
	1920x1080P
	640x480
	800x600
	1024x768
	1280x1024
	1600x1200
	1920x1200
	By Native
	3D Bypass
	Exit
Output Format	3D→2D
	3D Bypass
	Exit

Main Menu	2nd Layer	3rd Layer
Miscellany	EDID Mode	Internal / External / Exit
	Info. OSD Mode	Off / On / Exit
	About CS-801H	FW Ver.
	Factory Reset	System Reset
	Exit	
Exit		

8. REMOTE CONTROL



1 VIDEO IN

Press to select HDMI 1/HDMI 2/DP/PC/Component input source.

2 AUDIO IN

Press to select AUDIO/ OPTICAL/HDMI/DP input audio or MUTE the system.

3 EXIT

Press the EXIT the OSD selection.

4 MENU

Press this button to ENTER the OSD menu.

5 ENTER

Press to confirm the selection.

6 INFO

To show input and output resolution information.

7 OUTPUT

Press to show the output resolution table.

8 ▲/▼

Press up/down buttons to select OSD selection.

9 3D→2D

Press to switch from 3D to 2D.

10 3D Bypass

Press to switch to 3D bypass.

11 Native

Press to switch to Native resolution.

8.1 RS-232 Protocols

RS-232 modem cable.

Pins definition of modem cable

CS-801H			Remote Controller	
PIN	Definition		PIN	Definition
1	NC		1	NC
2	TxD		2	RxD
3	RxD	→	3	TxD
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: 19200 bps

Data Bit: 8 bits

Parity: None

Stop Bit: 1 bit

Flow Control: None

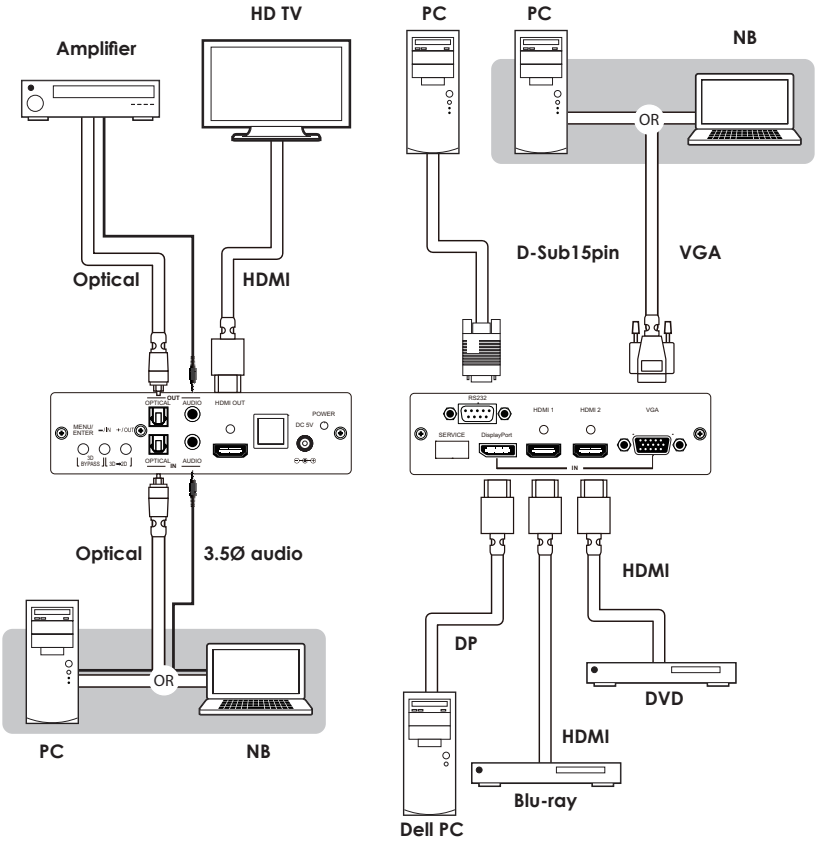
8.2 RS-232 Commands

User Command Code	Description
POWER ?	Power Status
POWER ON	Power On
POWER OFF	Power Off
3D ?	3D Status
3D TO 2D	3D In, 2D Out
3D BYPASS	3D In, 3D Bypass Out
VIDEO ?	Video Input Source
HDMI 1	Video Input in HDMI1
HDMI 2	Video Input in HDMI2
DP	Video Input in DisplayPort
PC	Video Input in PC
COMP	Video Input in Component
AUDIO ?	Audio Input Source
AUDIO	Audio Input in AUDIO
OPTICAL	Audio Input in OPTICAL
HDMI/DP	Audio Input in HDMI/DP
MUTE ON	Mute On
MUTE OFF	Mute Off
INFO ?	Info.OSD Status
INFO ON	Info.OSD On

INFO OFF	Info.OSD Off
OUTPUT ?	Output Status
480P	Output in 480P
720P	Output in 720P
1080P	Output in 1080P
VGA	Output in VGA(640x480)
SVGA	Output in SVGA(800x600)
XVGA	Output in XGA(1024x768)
SXVGA	Output in SXGA(1280x1024)
UXGA	Output in UXGA(1600x1200)
WUXGA	Output in WUXGA(1920x1200)
NATIVE	Output by Native
EDID ?	EDID Status
EDID INT	EDID By Internal
EDID EXT	EDID By External
FEEDBACK ?	Feedback Status
FEEDBACK ON	RS232 Feedback Enable
FEEDBACK OFF	RS232 Feedback Disable
STATE ?	Video Input Signal Status
VERSION ?	Firmware Version
DEFAULT	Reset to Factory Default

Note: *Any commands will not be executed unless followed by a carriage return. Commands are not case-sensitive.*

9. CONNECTION AND INSTALLATION



10. SPECIFICATIONS

Video Bandwidth	255MHz/6.75Gbps
DP Input Frequency Bandwidth	2.7Gbps & 1.62Gbps/Lane
Input Port	2 x HDMI (Female type), 1 x DisplayPort, 1 x VGA
Audio Input Port	1 x L/R, 1xOptical
Output Port	1 x HDMI, 1 x L/R, 1 x Optical
Power Supply	5V DC/ 2.6A (US/EU standards, CE/FCC/ UL certified)
ESD Protection	Human body model: ±8kV (air-gap discharge) ±4kV (contact discharge)
Dimensions (mm)	142(W) x 180(D) x 43(H)
Weight(g)	700
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	9W

10.1 PC, HDMI, DP Input Timing

2D Input Resolution	PC	HDMI	DP	COMP Input Resolution
640*350@85	ˇ		ˇ	
640*400@85	ˇ		ˇ	
720*400@85	ˇ		ˇ	
VGA640*480@60/72/75/85	ˇ	ˇ	ˇ	
SVGA800*600@56/60/72/75/85/120	ˇ	ˇ	ˇ	
848*480@60Hz	ˇ		ˇ	
XGA1024*768@43i/60/75/85/120	ˇ		ˇ	
XGA+1152*864@75	ˇ		ˇ	
1280*720@60	ˇ	ˇ		
1280*768@60R/60/75/85/120R	ˇ	ˇ	ˇ	
1280*800@60R/60/75/85/120R	ˇ		ˇ	
1280*960@60/85/120R	ˇ@60/85		ˇ	
1280*1024@60/75/85	ˇ	ˇ	ˇ+120R	
1360*768@60/120R	ˇ	ˇ	ˇ	
1366*768@60	ˇ		ˇ	
SXGA+1400*1050@60R/60/75	ˇ			
WXGA+1440*900@60R/60/75/85	ˇ		ˇ	
1440*1050@85/120R	ˇ		ˇ	

1600*900@60R	ˇ		ˇ	
UXGA1600*1200@60/ 65/70/75/85/120R	ˇ@60 only	ˇ	ˇ	
WSXGA1680*1050@60R/ 75/85	ˇ@60CVT/60	ˇ		
1792*1366@60/75			ˇ	
1856*1392@60			ˇ	
1920*1080@60	ˇ		ˇ	
1920*1200 (@60R/60/75Hz)	ˇ@60	ˇ	ˇ	
1920*1440@60			ˇ	
720*480I/P		ˇ	ˇ	ˇ
720*576I/P		ˇ		ˇ
720I/P@50/60		ˇ		ˇ
1080I/P@50/60		ˇ	ˇ	
1080P@24		ˇ		
2048*1125@60R	ˇ		ˇ	
2560*1600@RB			ˇ	
3D Input Resolution		HDMI		
1080p@24Hz Frame packing		ˇ		
1080p@24Hz Top-and-Bottom		ˇ		
1080p@24Hz Side-by-Side		ˇ		
1080i@50/60Hz Side-by-Side		ˇ		
720p@50/60Hz Side-by-Side		ˇ		

720p@50 / 60Hz Frame packing		ˇ		
720p@50 /60Hz Top-and-Bottom		ˇ		

10.2 Output Resolution

HDMI 3D to 2D and 2D to 2D output Resolution@60Hz
640*480
800*600
1024*768
1280*1024
1600*1200
1920*1200RB
480P
720P
1080P
HDMI 3D to 3D Bypass Output Resolution
Frame Packing: 720p@50/60Hz, 1080i@60Hz, 1080p@24/30Hz
Top-and-Bottom: 720p@50/60Hz, 1080i@60Hz, 1080p@24/30Hz
Side-by-Side: 720p@50/60Hz, 1080i@60Hz, 1080p@24Hz

Note: *Some output display may not support 3D@50Hz and therefore, some 3D 50Hz signal may not be display.*

11. ACRONYMS

ACRONYM	COMPLETE TERM
HDMI	High-Definition Multimedia Interface

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20120803 MPM-CS801H