



CPRO-11SI

HDMI 4Kx2K Audio Inserter



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 2011 by Cypress Technology. All Rights Reserved.

Version 1.0 September 2011

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
RDV1	14/06/13	Preliminary release
VS1	20/09/13	Updated text/diagrams

CONTENTS

1. Introduction	1
2. Applications	1
3. Package Contents	1
4. System Requirements	1
5. Features	2
6. Operation Controls and Functions	3
6.1 Top Panel	3
6.2 Right Panel.....	3
6.3 Left Panel	4
6.4 Rear Panel	4
7. Connection Diagram	5
8. Specifications	6
9. Acronyms	7



1. INTRODUCTION

The HDMI™ 4K×2K Audio Inserter allows an external audio signal to be inserted into your HDMI or DVI (with an HDMI to DVI adaptor) signal path. The unit allows you to insert analog stereo or multi-channel surround sound (via the digital optical input) giving you the flexibility to add your choice of audio to the video while extending your HDMI signal. It also has the added benefit of 4K×2K and 3D support, allowing full resolution video and eliminating the need to downscale the image.

2. APPLICATIONS

- Embed external audio into an HDMI signal
- Integrate DVI video and an audio signal into a single HDMI output (requires HDMI to DVI adaptor)
- Replace the original HDMI audio with an external audio source

3. PACKAGE CONTENTS

- HDMI 4K×2K Audio Inserter
- 5V/1.2A DC Power Adaptor
- Operation Manual

4. SYSTEM REQUIREMENTS

Source device such as a PC/Laptop or Blu-ray/DVD player and TV/display or AV receiver with suitable HDMI connection cables.

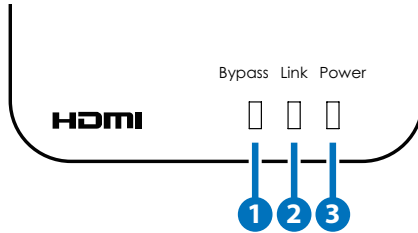
5. FEATURES

- Compliant with HDMI, HDCP 1.2 and DVI 1.0
- Supports HDMI audio sampling rates up to 192kHz
- Supports Optical (S/PDIF) digital audio sampling rates up to 192kHz
- Supports analog (L/R) audio sampling rate up to 48kHz
- Supports selection of original HDMI audio or embedding of external Digital or Analog audio into HDMI signal pathway
- HDMI supports high-bit-rate (HBR) audio
- Supports maximum input and output HDMI cable lengths of up to 15 meters each at 1080p/8-bit resolution or 10 meters each at 1080p/12-bit or 4K×2K resolution
- Supports DVI conversion with HDMI to DVI adaptor
- Supports CEC bypass function
- Supports 4K×2K@24/30Hz resolution and 3D signals

Note: For playback of 4K×2K/3D HDMI source signals, a 4K×2K/3D capable display and High Speed HDMI cables are required.

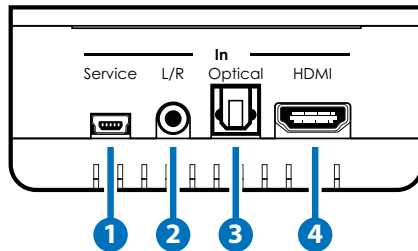
6. OPERATION CONTROLS AND FUNCTIONS

6.1 Top Panel



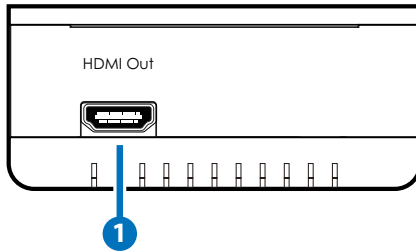
- 1 Bypass LED:** This LED will illuminate when the audio input is switched to HDMI, bypassing the external audio inputs.
- 2 Link LED:** This LED will illuminate when an active HDMI signal is being received.
- 3 Power LED:** This LED will illuminate when the unit is connected to an active power supply and switched ON.

6.2 Right Panel



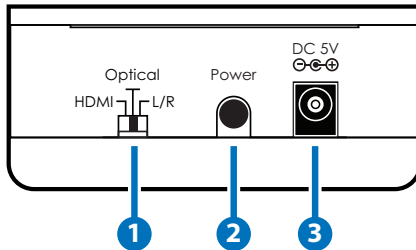
- 1 Service:** Manufacturer use only.
- 2 L/R In:** Connect to an analog audio source such as a PC/Laptop or DVD/Blu-ray player with a stereo analog (L/R) audio signal output.
- 3 Optical In:** Connect to a digital audio source such as AV receiver or DVD player with a digital optical signal output.
- 4 HDMI In:** Connect to a source such as Blu-ray player, games console or PC/laptop with an HDMI output.

6.3 Left Panel



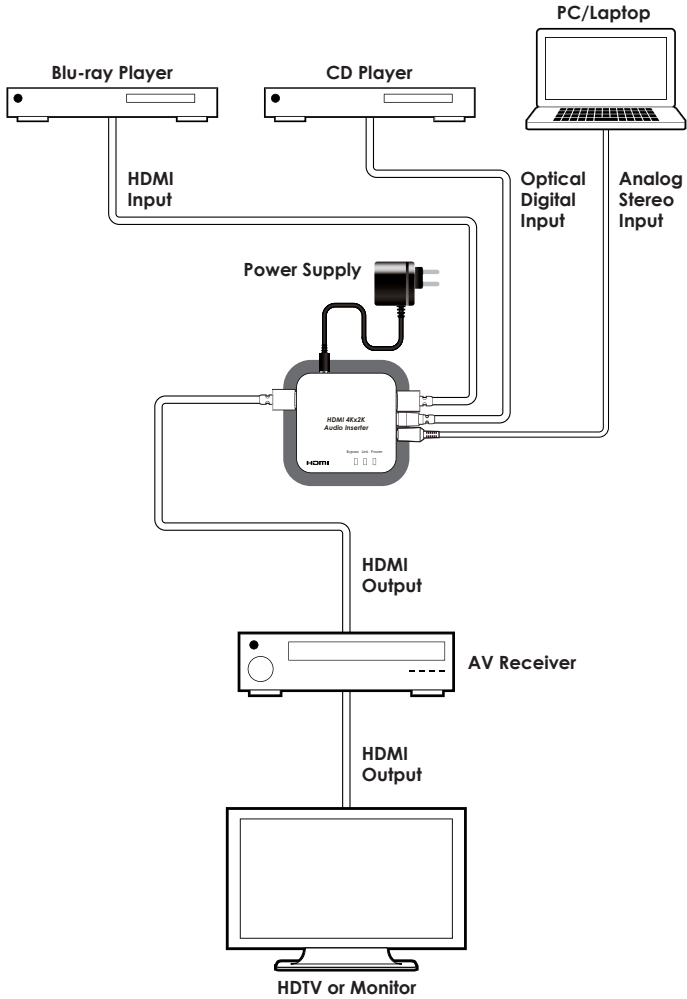
- HDMI Out:** Connect to a TV/display with an HDMI cable for output of the combined audio/video HDMI signal.
Note: For playback of 4K×2K/3D HDMI source signals, a 4K×2K/3D capable display and High Speed HDMI cables are required.

6.4 Rear Panel



- Input Switch:** This switch allows the user to select the required audio input to be inserted into the HDMI signal.
HDMI: Selects the original audio of the HDMI source device.
Optical: Selects the external audio of the digital optical audio source.
L//R: Selects the external audio of the analog stereo (L/R) audio source.
- Power Button:** Press this button to switch the unit on or to set it into standby mode.
- DC 5V:** Connect the 5V DC power supply to the unit and plug the adaptor to an AC wall outlet.

7. CONNECTION DIAGRAM



8. SPECIFICATIONS

Video Bandwidth	300Mbps/10.2Gbps
Input Ports	1×HDMI, 1×Optical, 1×3.5mm Mini-jack, 1×Mini-USB (Manufacturer use only)
Output Port	1×HDMI
Audio Sampling Rates	HDMI: Up to 192kHz S/PDIF (Optical): Up to 192kHz L/R: Up to 48kHz
HDMI Audio Formats	LPCM 2/5.1/7.1CH, Dolby Digital 2~5.1CH, DTS 2~5.1CH, Dolby Digital Plus, Dolby TrueHD & DTS-HD Master Audio
Optical Audio Formats	LPCM 2CH, Dolby Digital 2~5.1CH & DTS 2~5.1CH
L/R Audio Format	Analog Stereo 2CH
HDMI Cable I/O Distance	15m (1080p@8-bit), 10m (1080p@12-bit), 10m (4K×2K)
Power Supply	5V/1.2A DC (US/EU standards, CE/FCC/ UL certified)
ESD Protection	Human body model: ±8kV (air-gap discharge) ±6kV (contact discharge)
Dimensions	85mm (W)×87.5mm (D)×34mm(H)
Weight	102g
Chassis Material	Plastic
Color	White
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	2.37 W

9. ACRONYMS

ACRONYM	COMPLETE TERM
4K×2K	Ultra HD (3840×2160 / 4096×2160)
DTS	Digital Theater System
EDID	Extended Display Identification Data
HDCP	High-bandwidth Digital Content Protection
HDMI	High-Definition Multimedia Interface
HDTV	High-Definition Television



CYPRESS TECHNOLOGY CO., LTD

Home page: <http://www.cypress.com.tw>