

CV-505ZA2

HDMI 2.0a Audio Extractor & Embedder

User Manual



Safety and Notice

The **CV-505ZA2 HDMI 2.0a Audio Extractor & Embedder** has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments, **CV-505ZA2** should be used with care. Please read and follow the safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Follow all instructions and warnings marked on this unit.
- Do not attempt to service this unit yourself, except where explained in this manual.
- Provide proper ventilation and air circulation and do not use near water.
- Keep objects that might damage the device and assure that the placement of this unit is on a stable surface.
- Use only the power adapter and power cords and connection cables designed for this unit.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.



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rev: 161216
Made in Taiwan

INTRODUCTION

The **CV-505ZA2 HDMI 2.0a Audio Extractor & Embedder** offers the highest compatibility to HDMI 2.0a in the market. This unique device supports the separation of high quality stereo analog audio and digital S/PDIF(Toslink) audio from the incoming HDMI signal without losing any active audio channels from audio bit-stream and makes HDMI audio more friendly to your audio systems with only stereo sound support, such as TV and stereo speakers. Besides, CV-505ZA2 also can embed external stereo analog audio or digital S/PDIF(Toslink) audio to the outgoing HDMI signal.

CV-505ZA2 is also designed to co-work with any HDMI matrix in the market to make different audio capacity HDMI equipped devices can work with multi-channel HDMI embedded audio at the same time!

FEATURES

- HDMI2.0a compliant
- Supports 4K2K@60 4:4:4 8bits
- Supports HDR*, which is 4K2K@60 4:2:0 10bits**
- HDCP 2.2 compliant
- Supports CEC bypass
- Supports audio extraction via stereo & Toslink
- Supports audio embedded via stereo & Toslink
- Supports ARC audio extraction via Toslink
- HDMI Audio Format: PCM2/5.1/7.1, Dolby 5.1/7.1, DTS 5.1/7.1
- Optical Audio Format: PCM2, Dolby 5.1



* HDR = High Dynamic Range.

** The video bandwidth of 4K2K@60 4:2:0 10bits (HDR) is 384 MHz, and the 4K2K@60 4:4:4 8bits is 594MHz.

PACKAGE CONTENTS

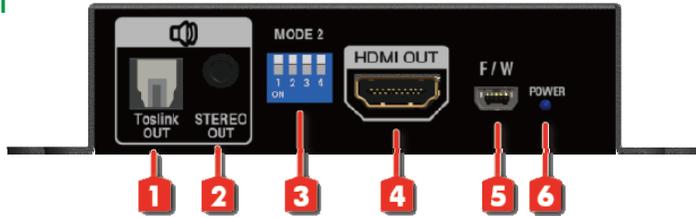
- 1x CV-505ZA2
- 1x 5V power adapter
- 1x User Manual

SPECIFICATIONS

Model Name	CV-505ZA2	
Technical		
Role of usage	HDMI 2.0a Audio Extractor & Embedder	
HDMI compliance	HDMI 2.0a	
HDCP compliance	Yes	
Video bandwidth	Single-link 594MHz [18Gbps]	
Video support	HDR 4K2K@60 (4:2:0 10bits) / 4K2K@60 (4:4:4 8bits)	
Audio support	HDMI Audio Format: PCM2/5.1/7.1, Dolby 5.1/7.1, DTS 5.1/7.1 Optical Audio Format: PCM2, Dolby 5.1	
ESD protection	Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]	
PCB stack-up	4-layer board [impedance control — differential 100Ω; single 50Ω]	
CEC Channel	Bypass	
Input	1x HDMI + 1x 3.5mm phone jack + 1x Toslink	
Output	1x HDMI + 1x 3.5mm phone jack + 1x Toslink	
HDMI connector	Type A [19-pin female]	
3.5mm connector	Stereo	
Optical audio connector	Toslink	
Mechanical		
Housing	Metal enclosure	
Dimensions [L x W x H]	Model	127 x 67 x 27mm [5" x 2.6" x 1"]
	Package	198 x 137 x 74mm [7.8" x 5.4" x 2.9"]
	Carton	420 x 400 x 300mm [1'4"x 1'3" x 11.8"]
Weight	Model	178g [6.3oz]
	Package	463g [16.3oz]
Fixedness	Wall-mounting case with screws	
Power supply	5V DC	
Power consumption	3 Watts [max]	
Operation temperature	0~40°C [32~104°F]	
Storage temperature	-20~60°C [-4~140°F]	
Relative humidity	20~90% RH [no condensation]	

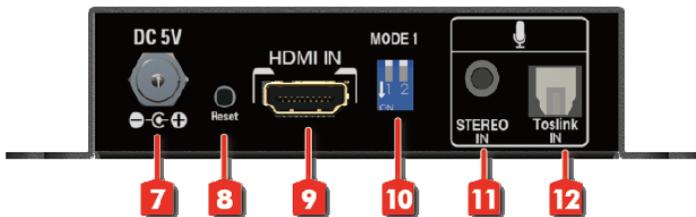
PANEL DESCRIPTIONS

Front Panel



1. S/PDIF output (TOSLINK)
2. Stereo output (3.5mm)
3. 4-Pin Dip Switch (Please refer to "Notes")
4. HDMI output
5. Mini-USB port: for F/W update / +5V power
6. Power LED indicator

Rear Panel



7. +5V power
8. Push button: for factory reset
9. HDMI input
10. 2-Pin Dip Switch (Please refer to "Notes")
11. Stereo input (3.5mm)
12. S/PDIF input (TOSLINK)

*Notes: DIP Switch Position

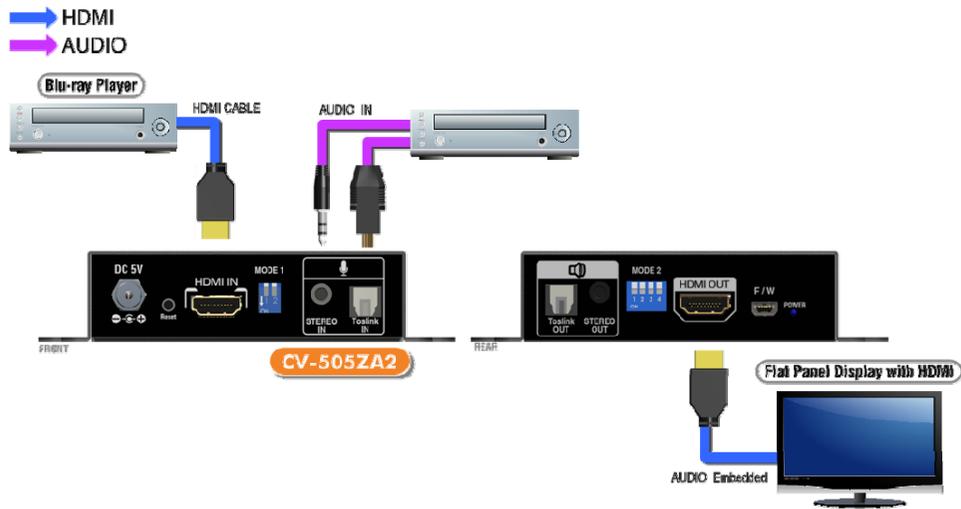
DIP Switch Position		Description
2-Pin		
PIN#1	ON [↓]	Enable Audio Embedder Function
	OFF [↑]	Disable Audio Embedder Function
PIN#2	ON [↓]	Audio Embedder's Connector Selection – from Toslink
	OFF [↑]	Audio Embedder's Connector Selection – from 3.5mm

DIP Switch Position		Description
4-Pin		
PIN#1	ON [↓]	Enable Audio Extractor Function (via Toslink & 3.5mm)
	OFF [↑]	Disable Audio Extractor Function
PIN#2	ON [↓]	Enable ARC Function
	OFF [↑]	Disable ARC Function
PIN#3	ON [↓]	Reserved
	OFF [↑]	Reserved
PIN#4	ON [↓]	Firmware Update Mode
	OFF [↑]	Normal Mode

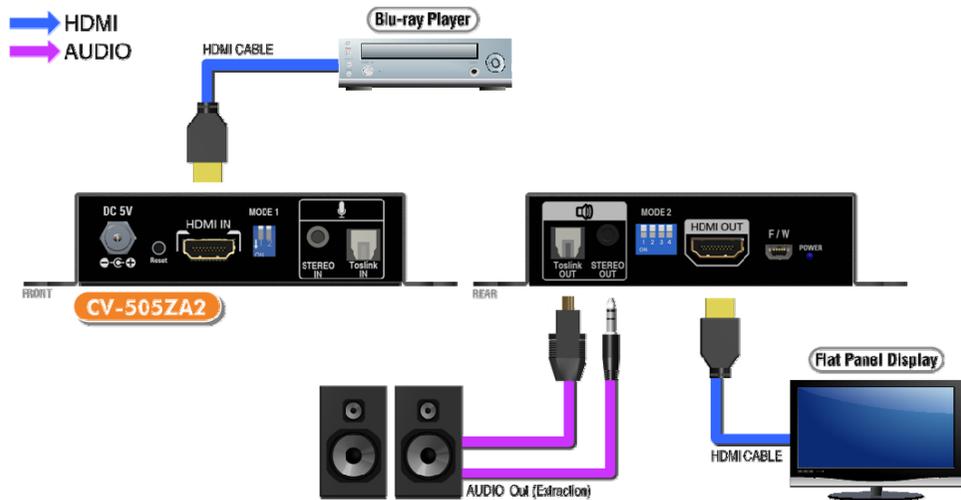
** ARC audio extraction is always via Toslink output

***Once enable ARC function, the audio extraction will be valid only via stereo(3.5mm).

Application 1 (Audio Embedder):



Application 2 (Audio Extractor):



The SELLER warrants the **CV-505ZA2 HDMI 2.0a Audio Extractor & Embedder** to be free from defects in the material and workmanship for 1 year from the date of purchase from the SELLER or an authorized dealer. Should this product fail to be in good working order within 1 year warranty period, The SELLER, at its option, repair or replace the unit, provided that the unit has not been subjected to accident, disaster, abuse or any unauthorized modifications including static discharge and power surge. This warranty is offered by the SELLER for its BUYER with direct transaction only. This warranty is void if the warranty seal on the metal housing is broken.

Unit that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for 90 days from the day of reshipment to the BUYER. If the unit is delivered by mail, customers agree to insure the unit or assume the risk of loss or damage in transit. Under no circumstances will a unit be accepted without a return authorization number.

The warranty is in lieu of all other warranties expressed or implied, including without limitations, any other implied warranty or fitness or merchantability for any particular purpose, all of which are expressly disclaimed.

Proof of sale may be required in order to claim warranty. Customers outside Taiwan are responsible for shipping charges to and from the SELLER. Cables are limited to a 30 day warranty and cable must be free from any markings, scratches, and neatly coiled.

The content of this manual has been carefully checked and is believed to be accurate. However, The SELLER assumes no responsibility for any inaccuracies that may be contained in this manual. The SELLER will NOT be liable for direct, indirect, incidental, special, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. **Also, the technical information contained herein regarding the CV-505ZA2 features and specifications is subject to change without further notice.**