

HDMI over CAT-5 Uncompressed Extender

All ZIGEN products have been field tested and
installer approved!

User Manual

ZIG-AVX-201

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INTRODUCTION

The HDMI over CAT-5 Uncompressed extender

The HDMI over CAT-5 Uncompressed Extender sends HDMI signals over just one CAT-5 cable -- up to 330 feet away. The HDMI over CAT-5 Uncompressed Extender supports HDMI 1.3 and HDMI 1.4 with 3D function and Full HD 1080p/60 resolution. DVI-D 1920x1200 Computer video can also be transmitted by using a DVI-to-HDMI converter cable.

By using standard and widely available CAT-5 cables, the HDMI over CAT-5 Uncompressed Extender enables the HDMI signal extensions to be easier than heavy and expensive copper cable and more robust than optical fiber.

How it connects

The HDMI over CAT-5 Uncompressed Extender system consists of a Transmitter and Receiver. The HDMI source (set-top box, DVD player, or gaming console) connects to the Transmitter box with HDMI cable. The Receiver box connects to the HDTV display in the same way -- up to 330 feet away. Single CAT-5 cable links the Transmitter and Receiver. Power is applied to the Transmitter and Receiver with the included 5V DC power supplies.

Note : The HDMI over CAT-5 Uncompressed Extender is HDCP 2.0 compliant.

For best results CAT-6 cable is recommended.

FEATURES

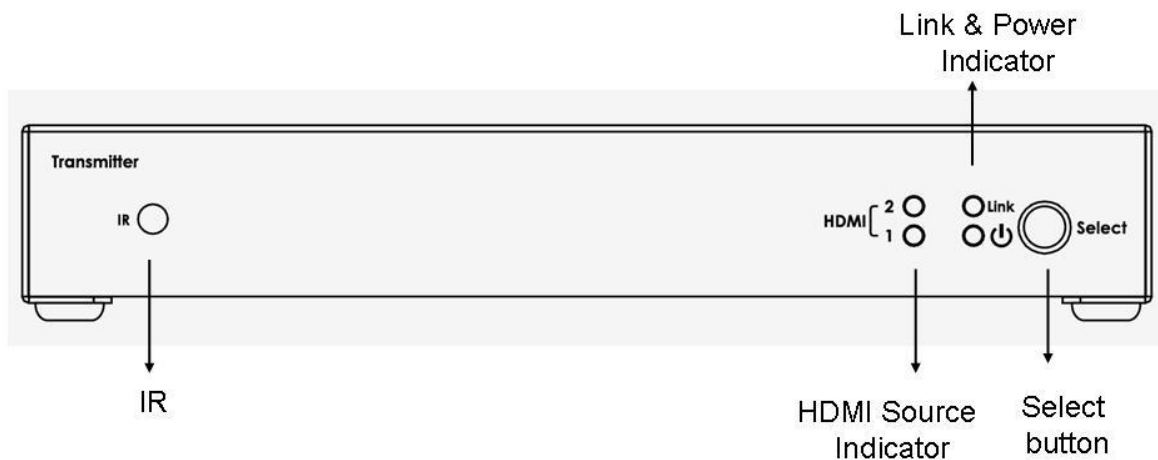
Features

- Built in HDMI selector 2x1
- 3D Function Support
- Variable line level audio output for local or remote AMP.
- Audio and video are transmitted digitally over the CAT-5 cable with no signal loss.
- Signal Link Range: 1080p/60 and 1920x1200.
- Compliant with HDMI 1.4 with 3D function, HDCP 2.0 and DVI-D 1.1 standards
- Supports digital video formats in 480i, 480p, 720p, 1080i, 1080p
- Supports PCM 2- Ch. Audio, 5.1, 7.1, DTS-HD, Dolby audio format.
- Supports bi-Direction IR Pass thru function and controls HDMI source devices (set-top box, DVD player and Blu-ray DVD Player) in Receiver
- Supports bi-directional IR remote controller.
- Supports bi-direction RS-232

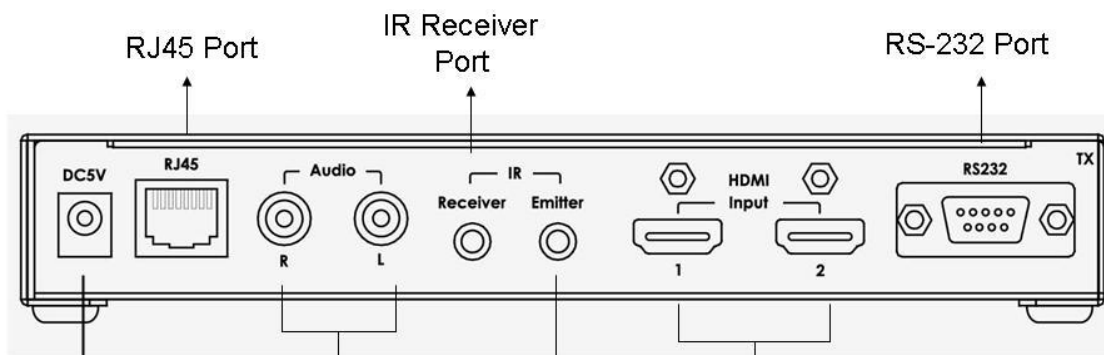
Package Includes

- (1) ZIG-AVX-201 HDMI over CAT-5 Uncompressed Transmitter x 1
- (2) ZIG-AVX-201 HDMI over CAT-5 Uncompressed Receiver x 1
- (3) IR Remote control x 1
- (4) IR Emitter cable x 2
- (5) IR Receiver cable x 2
- (6) 5V DC Power Supplies for Transmitter and Receiver x 2
- (7) User Manual x 1

Transmitter Front Panel Layout



Transmitter Back Panel Layout



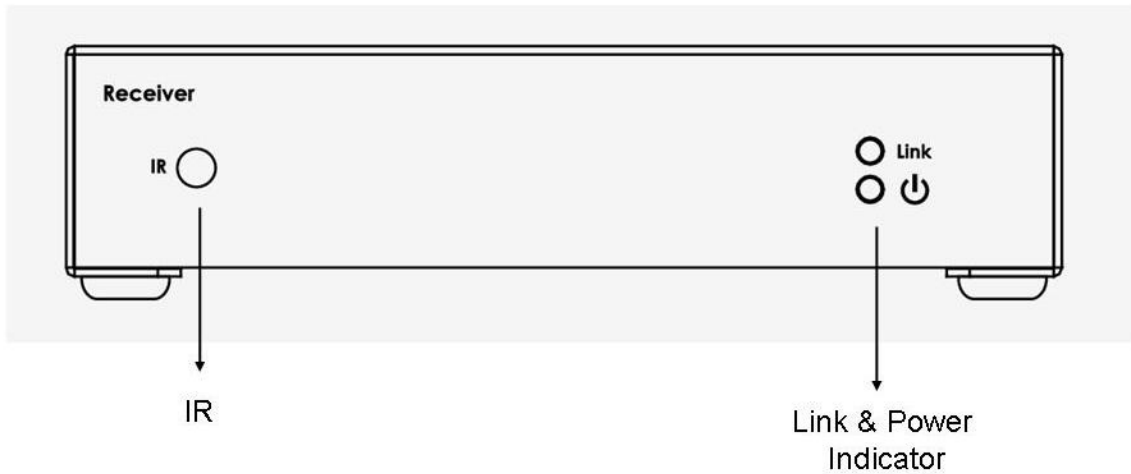
TRANSMITTER UNIT PANEL **DESCRIPTIONS**

1. IR: This unit is designed to control HDMI sources & volume with included IR remote controller.
2. HDMI Source Indicator: This LED indicator will show which HDMI source input is selected.
3. Power LED: This LED indicator will activate once the included 5V DC power adapter has been properly connected between the Transmitter unit and an open wall power socket.
4. Link LED: This LED indicator will activate once Cat-5 cable has been properly connected between the Transmitter unit and Receiver unit.
5. Selection button: Please press this button in order to switch between HDMI source 1 & 2.
6. Power input Port: Connect the included 5V 2.5A DC power supply to

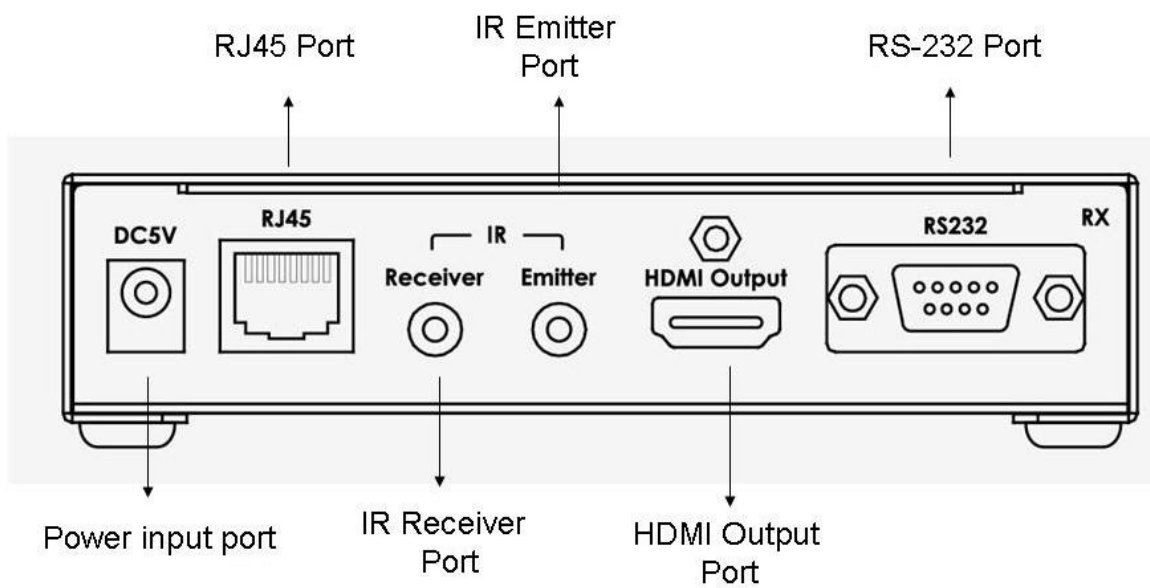
this input port.

7. RJ45 Port: Please connect a CAT-5 cable between this port and the RJ45 port of Receiver unit.
8. Left / Right Stereo Port: Please connect Left / Right Stereo cable between these ports and stereo Amplifier.
9. IR Receiver Port: Please connect provided IR Receiver cable to this port
10. IR Emitter Port: Please connect provided IR emitter cable to this port and stick IR emitter module on the IR receiver zone of HDMI source (DVD, Set-top box, Blu-ray DVD).
11. HDMI Input port: Please connect one HDMI cable between this port and HDMI output port of the source device (DVD, Set-top box, Blu-ray DVD).
12. RS-232 Port: Please connect RS-232 cable between this port and PC.

Receiver Front Panel Layout



Receiver Back Panel Layout



RECEIVER UNIT PANEL DESCRIPTIONS

1. IR: This is designed for control HDMI sources & volume with included IR remote controller.
2. Power LED: This LED indicator will activate once the included 5V DC power adapter has been properly connected between the Transmitter unit and an open wall power socket.
3. Link LED: This LED indicator will activate once Cat-6 cable has been

properly connected between the Transmitter unit and Receiver unit.

4. Power input Port: Connect the included 5V 2.5A DC power supply to this input port.
5. RJ45 Port: Please connect a CAT-6 cable between this port and the RJ45 port of Receiver unit.
6. IR Receiver Port: Please connect provided IR Receiver cable to this port
7. IR Emitter Port: Please connect provided IR emitter cable to this port and stick IR emitter module on the IR receiver zone of HDMI source (DVD, Set-top box, Blu-ray DVD).
8. HDMI Output port: Please connect one HDMI cable between this output port and HDMI input port of the HDTV display.
9. RS-232 Port: Please connect RS-232 cable between this port and PC.

CONNECTING AND OPERATING

Connection

1. Connect HDMI cable between the HDMI output port of source device and the HDMI input port of Transmitter unit

2. Connect HDMI cable between the HDMI input port of display and the HDMI output port of Receiver unit.
3. Connect Cat-5 cables between the RJ45 port of Transmitter and Receiver unit.
4. Connect the included 5V DC power supplies to both Transmitter and Receiver units.
5. Power on the output device first, and the source device secondly.

How to switch HDMI source 1 & 2

There are three ways to switch HDMI source 1 & 2.

Method 1 – Selection Button

Please press “Select button” on the Front panel of Transmitter to switch between source 1 & 2.

Method 2 – Remote control

1. Please connect provided IR Receiver cable to IR receiver port of Transmitter or Receiver.
2. Please point at IR Receiver cable or IR area of Transmitter & Receiver units with IR Remote control. Then, select source 1 or 2 button of IR Remote control to switch source.

Method 3 – RS-232

1. Please connect RS-232 Cable between RS-232 Port of Transmitter or Receiver and PC.
2. Please see below command code of switching sources.
Please note this command code is based on “hexadecimal system”

Command Code	Description
2001202020200d	HDMI Input 1
2002202020200d	HDMI Input 2

How to adjust Audio volume

There are two ways to adjust volume.

Method 1 – Remote control

1. Please connect provided IR Receiver cable to IR receiver port of Transmitter or Receiver.
2. Please point at IR Receiver cable or IR area of Transmitter & Receiver units with IR Remote control. Then, select “-“or “+” button of IR Remote control to adjust volume.

Method 2 – RS-232

1. Please connect RS-232 cable between RS-232 Port of Transmitter or Receiver and PC.

2. Please see below command codes to adjust volume.

Please note this command code is based on “hexadecimal system”

Volume Level	Command Code	Volume Level	Command Code
0	2003200020200d	32	2003202020200d
1	2003200120200d	33	2003202120200d
2	2003200220200d	34	2003202220200d
3	2003200320200d	35	2003202320200d
4	2003200420200d	36	2003202420200d
5	2003200520200d	37	2003202520200d
6	2003200620200d	38	2003202620200d
7	2003200720200d	39	2003202720200d
8	2003200820200d	40	2003202820200d
9	2003200920200d	41	2003202920200d
10	2003200A20200d	42	2003202A20200d
11	2003200B20200d	43	2003202B20200d
12	2003200C20200d	44	2003202C20200d
13	2003200D20200d	45	2003202D20200d
14	2003200E20200d	46	2003202E20200d
15	2003200F20200d	47	2003202F20200d
16	2003201020200d	48	2003203020200d
17	2003201120200d	49	2003203120200d
18	2003201220200d	50	2003203220200d
19	2003201320200d	51	2003203320200d
20	2003201420200d	52	2003203420200d
21	2003201520200d	53	2003203520200d
22	2003201620200d	54	2003203620200d

23	2003201720200d	55	2003203720200d
24	2003201820200d	56	2003203820200d
25	2003201920200d	57	2003203920200d
26	2003201A20200d	58	2003203A20200d
27	2003201B20200d	59	2003203B20200d
28	2003201C20200d	60	2003203C20200d
29	2003201D20200d	61	2003203D20200d
30	2003201E20200d	62	2003203E20200d
31	2003201F20200d		

SPECIFICATIONS

PERFORMANCE	
HDTV Resolutions	480p,720p,1080i,1080p
Standard TV Resolution	480p,720p,1080i,1080p
Maximum HDMI Cable Distance	2.0M
Video Bandwidth	10.2Gbps
Input Video Signal	480p,720p,1080i,1080p
Input DDC Signal	5 Volts(TTL)
I/O CONNECTORS	
Transmitter	
Inputs	2 HDMI-A 19PIN Socket
	1 3.5mm Jack-IR Receiver
	1 IR Receiver Module
Outputs	1 RJ45 Jack
	2 RCA Stereo Jacks
	1 3.5mm Jack-IR Emitter
	1 RS-232 Connector
Receiver	
Inputs	1 RJ45 Jack
	1 IR Receiver Module
	1 3.5mm Jack-IR Receiver

Outputs	1 HDMI-A 19PIN Socket
	1 RS-232 Connector
	1 3.5mm Jack-IR Emitter
MECHANICAL	
Transmitter	
Dimensions (H-W-D)	19 X 11.5 X 3 cm
Weight	0.8kg
Receiver	
Dimensions (H-W-D)	13 x 9.5 x 3 cm
Weight	0.6kg
WARRANTY	
Limited Warranty	1 Year Parts and Labor
ENVIRONMENTAL	
Operating Temperature	+0 to +40° C (+32° to 104° F)
Operating Humidity	10% to 85% (Non-condensing)
Storage Temperature	-20° to +60° (+20° to +140° F)
Storage Humidity	10% to 85% (Non-condensing)
REMOTE CONTROL	
Infrared	IR Remote (Front)
POWER REQUIREMENTS	
External Power Supply	5VDC @2.5A
Power Consumption	10 Watts (Max.)
SAFETY	
Certificate	FCC, RoHS
Power Adapter	UL, CSA, CEC, RoHS
ACCESSORIES	
AC Power Adapter X 1	US Type
Receiver IR Remote Control X 1	Internal IR Type
Sender Instruction Manual X 1	

WARRANTY

LIMITED WARRANTY – With the exceptions noted in the next paragraph, ZIGEN warrants the original purchaser that the equipment it manufactures or sells will be free from defects in materials and workmanship for a period of one year from the date of purchase. The **proof of sale is required** in order to claim warranty. Should this product, in ZIGEN's opinion, prove defective within this warranty period, ZIGEN, at its option, will repair or replace this product without charge. Customers outside the US are responsible for shipping charges to and from ZIGEN. Any defective parts replaced become the property of ZIGEN. This warranty does not apply to those products which have been damaged due to accident, unauthorized alterations, improper repair, modifications, inadequate maintenance and care, or use in any manner for which the product was not originally intended for.

Items integrated into ZIGEN products that are made by other manufacturers, notably computer hard drives and liquid crystal display panels, are limited to the term of the warranty offered by the respective manufacturers. Such specific warranties are available upon request to ZIGEN.

ZIGEN makes no other representation of warranty as to fitness for the purpose or merchantability or otherwise in respect of any of the products sold. The liability of ZIGEN with respect to any defective products will be limited to the repair or replacement of such products. In no event shall ZIGEN be responsible or liable for any damage arising from the use of such defective products whether such damages be direct, indirect, consequential or otherwise, and whether such damages are incurred by the reseller, end-user or any third party.

The information in this manual has been carefully checked and is believed to be accurate. However, ZIGEN assumes no responsibility for

any inaccuracies that may be contained in this manual, even if advised of the possibility of such damages. The technical information contained herein regarding the features and specifications is subject to change without notice.

COMPLIANCE

The ZIG-AVX-201 HDMI over CAT-5 Uncompressed extender has been tested for compliance with appropriate FCC rules and regulations and is also RoHS compliant.

The Power Adapters have been tested for compliance with UL, CSA rules and regulations and are also RoHS compliant.