

Model No **ZIG-CX-100**

# Operating Instructions

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Thank you for purchasing this product.

Please be sure to read the instruction manual  
carefully.

# Introduction

The ZIGEN **ZIG-CX-100** is a transmitter / receiver extender kit for long distance transmission of HDMI video and embedded audio plus bi-directional control signals over a single Coaxial cable. The ZIG-CX-100 can be used as a point-to-point solution or integrated with Matrix switching equipment to extend inputs or outputs to remote locations. The transmitter and receiver sets support simultaneous transmission of bi-directional RS-232 and IR signals from a control system, providing remote control to source equipment or displays.

ZIG-CX-100 is Compliant with HDMI 1.4, 3D, HDCP, DVI – D standards.

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# HDMI Extender (By single coax cable)

## ■ Product Overview ( Model Number: ZIG-CX-100 )



## ■ Features

- Extend HDMI signal by using a single RG-6QUAD coaxial cable. 1080p/24Hz with 3D up to 330-ft/100 meters or 1080p/60Hz up to 330-ft / 100-meters.
- Extend HDMI signal by using a single RG-59 coaxial cable. 1080p/24Hz with 3D up to 165-ft/50 meters.
- Auto-adjustment of feedback.
- HDMI V1.4 supported.
- HDCP compliant.
- Full HD support: 1080p@24/50/60Hz.
- LED indicators show power and status signal.
- ESD protection inside.
- USB Port for firmware upgrade
- Bi-directional RS232 control signal transmission.
- Bi-directional Infrared control signal transmission.

..§ Notice

ZIGEN, Inc. reserves the right to make changes in the hardware, packaging and any accompanying documentation without prior written notice.

 **Warning**

**To reduce the risk of fire, electric shock or product damage:**



1. Do not expose this apparatus to moisture.



4. Clean this apparatus only with dry cloth.



2. Do not install or place this unit in confined spaces. Ensure the unit is well ventilated.



5. Unplug this apparatus during lightning storms or when unused for long periods of time.



3. Do not place sources of naked flames, such as lighted candles, on the unit.



6. Refer all servicing to qualified service personnel.

## ■ Package Contents

- ① Main unit ZIG-CX-100 Rx.
- ② Main unit ZIG-CX-100Tx.
- ③ Operating instructions.
- ④ 2x 5V 3A DC power supply.
- ⑤ 1xIR TX unit. (IR emitter cable)
- ⑥ 1xIR RX unit. (IR receiver cable)

**NOTE:** PART NUMBER (Abbreviation as P/N)

## ■ Connections and Operations

- 1) Connect the HDMI input source (📺 such as HD-DVD、PS3、STB etc. ) to ZIG-CX-100 Tx.
- 2) Connect a COAX cable from SDI OUT1/SDI OUT2 of ZIG-CX-100 Tx to SDI input of ZIG-CX-100 Rx.
- 3) Connect the HDMI sink (📺 such as HD-LCD、HD-DLP) to ZIG-CX-100 Rx.
- 4) Connect the IR TX UNIT into ZIG-CX-100 Rx (IR TX); Connect the IR RX UNIT into ZIG-CX-100 Tx (IR RX).

**Attention:** Please insert and extract cables gently.

※DIP switch setting instruction:  
**ZIG-CX-100 Tx**

Position1	Function
0	Transfer video with AUTO mode.
1	The input signal after processed output..

Position2	Function
0	1080P stereo (Using Embedded EDID) (note1)
1	Trigger EDID Copy.

Position3	Position4	Function
0	0	1080P 3D 2CH (Using Embedded EDID) (note2)
0	1	1080P 8CH (Using Embedded EDID) (note3)
1	0	1080P 3D 8CH (Using Embedded EDID) (note4)
1	1	EDID copy

**Note1:** This is EDID COPY trigger switch. When Position 3 - Position 4 is 1.1.

**Note2:** Use embedded 1080P 3D 2-CH EDID when the DIP switch is in this mode. The EDID will be 1080P 3D video and 2-CH audio.

**Note3:** Use embedded 1080P-7.1 EDID when the DIP switch is in this mode. The EDID will be 1080P video and 7.1 audio.

**Note4:** Use embedded 1080P 3D 7.1 EDID when the DIP switch is in this mode. The EDID will be 1080P 3D video and 7.1 audio.



## ZIG-CX-100 Rx

Position1	Function
0	Transfer audio for AUTO mode (note1).
1	The input audio bypassed to output.

Position2	Function
0	Output HDCP determined by the sink.
1	Do not encrypt output.

Position3	Function
0	24 bit output.
1	Normal mode, color depth determined by the sink.

**Note1:** If audio signal is PCM 48K, The input audio will be bypassed to output.

## ■ Specifications

Operating Temperature Range	-5 to +35°C (-41 to +95 °F)
Operating Humidity Range	5 to 90 % RH (no condensation)
Input Video Signal	0.5-1.0 volts p-p
Input DDC Signal	5 volts p-p (TTL)
Supported Video Formats	DTV/HDTV; 640X480P 60HZ; 800X600 60HZ;1024X768 60HZ; 1280X768 60HZ;1360X768 60HZ; 1280X960 60HZ;1280X1024 60HZ; 1400X1050 60HZ;1440X480I 60HZ; 720X480P 60HZ;1440X576I 50HZ; 720X576P 50HZ; 1440X576P 50HZ; 1280X720P 50HZ/60HZ; 1920X1080I 50/60HZ; 1920X1080P 24/25/30/50/60HZ; 1280X720P 3D 50/60HZ; 1920X1080I 3D 50/60HZ; 1920X1080P 3D 24HZ.
Output Video	HDMI1.4+HDCP
Output Audio	Support 5.1/7.1/stereo audio (Including PCM and non PCM, HD ADUIO, etc)
Maximum Transmission Distance	100 meters on RG-6QUAD
Maximum Transmission Distance	50 meters (SYV75-5 coax cable)
Power Supply	5V/3A DC
Power Consumption	7.5Watts (ZIG-CX-100 Tx) 8Watts (ZIG-CX-100 Rx)
Dimensions	157mmLx118mmWx25mmH
Mass (Main unit)	0.92Kg / 2.02lb (Pairs)

W **NOTE1**: Specifications are subject to change without notice. Mass and dimensions are approximate.

## ■ Panel Descriptions

### 1. ZIG-CX-100 Tx



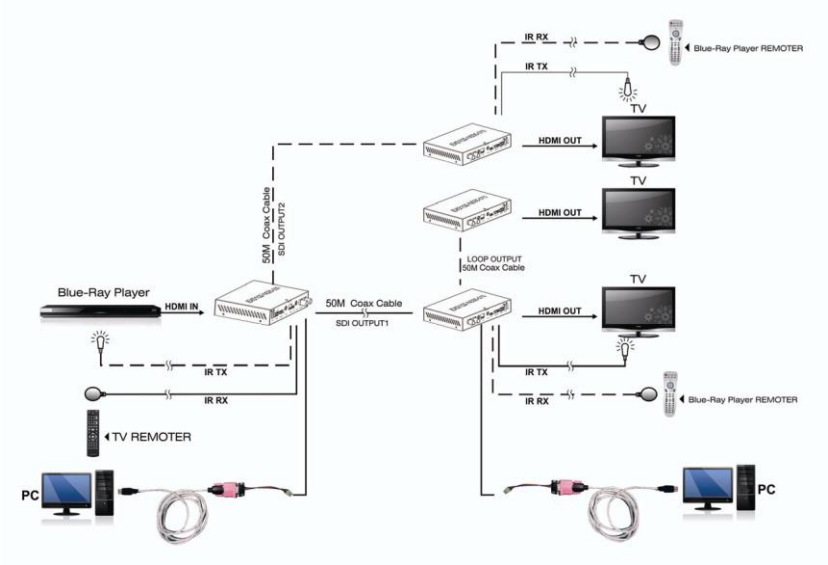
- ① Power input 5V/3A DC
- ② Power indicator
- ③ RS232 port
- ④ HDMI input
- ⑤ HDMI input status indicator
- ⑥ IR RX
- ⑦ EDID
- ⑧ USB Port for firmware upgrade
- ⑨ IR TX
- ⑩ SDI output1
- ⑪ SDI output2

## 2. ZIG-CX-100 Rx



- ① SDI input
- ② SDI loop output
- ③ IR TX
- ④ EDID
- ⑤ IR RX
- ⑥ USB Port for firmware upgrade
- ⑦ SDI input status indicator
- ⑧ HDMI Output
- ⑨ RS232 port
- ⑩ Power input 5V/3A DC
- ⑪ Power indicator

## ■ Typical Application



## ■ Maintenance

Clean this unit with a soft, dry cloth. Never use alcohol or paint thinner to clean this product.

## ■ Product Service

### ● Provided Service

- 1) **Damage Requiring service:** The unit should be serviced by qualified service personnel if:
  - Objects or liquids have gotten into the unit;
  - The unit has been exposed to rain;
- 2) The unit does not operate normally or exhibits a marked change in performance; **Servicing Personnel:** Do not attempt to service

the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.

- 3) **Replacement parts:** When parts need replacing ensure the service center uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.

## **Mail-In Service**

When shipping the unit, carefully pack and send it prepaid, adequately insured and preferably in the original carton. Include a letter detailing the complaint and provide a daytime phone and/or email address where you can be reached.

If repair is needed during the limited warranty period the purchaser will be required to furnish a sales receipt/proof of purchase indicating date of purchase, amount paid and place of purchase. Customer will be charged for the repair of any unit received without such proof of purchase.

## **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 product's 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-CX-100 HDMI over Single coax Extender has been tested for compliance with appropriate **FCC** and **CE** rules and regulations and is also **RoHS** compliant.

The Power Adapter has been tested for compliance with **UL**, **CE** and **CSA** rules and regulations and is also **RoHS** compliant.

**TECHNICAL ASSISTANCE**

Technical Support :  
Telephone (818) 654-5252

Technical Support Hours :  
8:00 AM to 5:00 PM Monday thru Friday, Pacific Standard Time.

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