

## ZIG-IPPRO RX/TX Quick Start Guide

Read this quick start guide carefully before using the product. Pictures shown in this document are for reference only. Different models and specifications are subject to real product. Refer to the IP-Logic Installation Manual for more details on installing and configuring the IP-Logic Receivers and Transmitters.

### Important Downloads

Download the latest documents from the product page of the [zigencorp.com](http://zigencorp.com) website. The product page contains the latest documents to ensure a successful deployment of IP-Logic. Important documents include:

- IP-Logic\_UserManual
- IP-Logic\_TechnicalManual
- IP-Logic\_InstallationManual
- ESSENTIALS\_ProductSpecification
- ZIG-IPPRO-RXTX\_ProductSpecification
- IP-Logic\_Control\_System\_Drivers

### Packing List

- 1x ZIG-IPPRO-RX or ZIG-IPPRO-TX
- 1x Universal 100-240 VAC, 12V/3A Power Supply
- 1x IR Emitter
- 1x IR Receiver
- 2x Front Mount Cage Bracket
- 2x Wall Mount Bracket
- 1x Quick Start Guide

### IP-Logic Devices

The ZIG-IPPRO-RX, ZIG-IPPRO-TX, and Essentials are part of Zigen's IP-Logic Ecosystem for AVoIP. The ZIG-IPPRO-TX (Encoder) converts video and audio sources to a streaming packet format suitable for network transmission. The ZIG-IPPRO-RX (Decoder) accepts



HDMI™

HDCP

4K HDR  
ULTRA HD



the video and audio streams and converts it back to the original source format. Essentials is the control server to manage all parametric controls of IP-Logic devices.

The ZIG-IPPRO RX/TX units can only be managed using the Essentials Control Server. Essentials features a GUI-based WebServer called ZigNet. ZigNet can be accessed using a computer's web browser and entering Essential's hostname "ipessentials.local" or its IP Address on the browser's url field. Refer to Essentials Quick Start Guide for more information.

### ZIG-IPPRO RX/TX Connections

The ZIG-IPPRO RX/TX units should be connected prior to applying power to the system. The use of professional grade cables is highly desired for successful deployment of IP-Logic. An example is the use of shielded CAT6a or better network cables for 10G BaseT. When viewing UHD 60p 4:4:4 or UHD 60p HDR 4:2:2, Zigen highly recommends the use of 4K Premium certified HDMI cables. Zigen offers these premium certified cables in varying lengths from 3 meters to 9 meters.

# Quick Start Guide ZIG-IPPRO RX/TX

## SDVoE and AES67 Connection

ZIG-IPPRO RX/TX units utilize 10GbE for network connectivity. Connect either a Fiber Optic or copper 10G Base-T (IEEE 802.3an-2006) to a 10GbE managed switch. The Optical SFP+ is the default port (SFP+ Fiber Module is sold separately). Unlike competing products, IP Logic devices broadcast SDVoE and AES67 packets over the same 10GbE infrastructure to minimize the amount of required network devices.

## 1GbE Connection

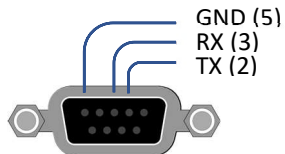
ZIG-IPPRO RX/TX units are equipped with a 1GBase-T Ethernet port to serve as a “Virtual Switch”. This virtual switch flows through the 10Gbps VLAN and is designed to extend a 1GBase-T Ethernet port between TX and RX. This interface allows additional hosts to be connected to the 10Gbps network.

## HDMI Connection

ZIG-IPPRO-TX has an HDMI input for connecting to video sources such as BlueRay or Cable Set Top Boxes. The ZIG-IPPRO-RX has an HDMI output for connecting to display devices such as TVs or Projectors. Both HDMI 2.0B ports support HDCP 1.4, 2.2, or 2.3.

## RS-232 Connection

A bidirectional RS-232 connection is featured supporting baud rates from 2,400 – 115,200 baud. Flow control is not supported. The pin out of the RS-232 port is as follows:



## IR Connection

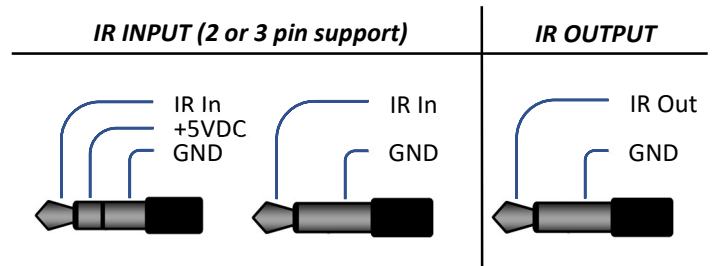
Zigen recommends the use of the included IR Receiver and IR Emitter. Using third party devices may not be compatible with the ZIG-IPPRO RX/TX. The IR Input Plug can be connected to an IR Receiver

## System Connection

IP Logic devices are SDVoE and AES67 compliant devices. Internet Protocol (IP) is the transmission medium for extending Audio, Video, and miscellaneous control signals such as serial RS-232, USB, and IR. ZIG-IPPRO RX/TX requires an Essentials control server and managed 10GbE network switches for routing. Zigen Corporation is a partner with Netgear to provide complete networking solutions. Contact Zigen for a list of alternate network switch manufacturers. Follow the diagram below for a typical IP Logic system connection.

(3-pin Jack). The IR Input can also be connected to an output of a 3<sup>rd</sup> party Control System (2-pin Jack).

The IR Output (2-pin Plug) can be connected to an IR Emitter or Control System. The pin out for the IR connectors are as follows:



## USB Connection

The USB port of the ZIG-IPPRO-TX serves as the Local Extender (LEX) port using a USB type-B connector. This port is typically connected to a USB host such as a computer. The USB port of the ZIG-IPPRO-RX serves as the Remote Extender (REX) port which contains a hub with dual USB type-A connectors. These connectors are usually connected to USB client devices such as keyboards, mice, or flash drives.

## Balanced/Unbalanced Analog Audio

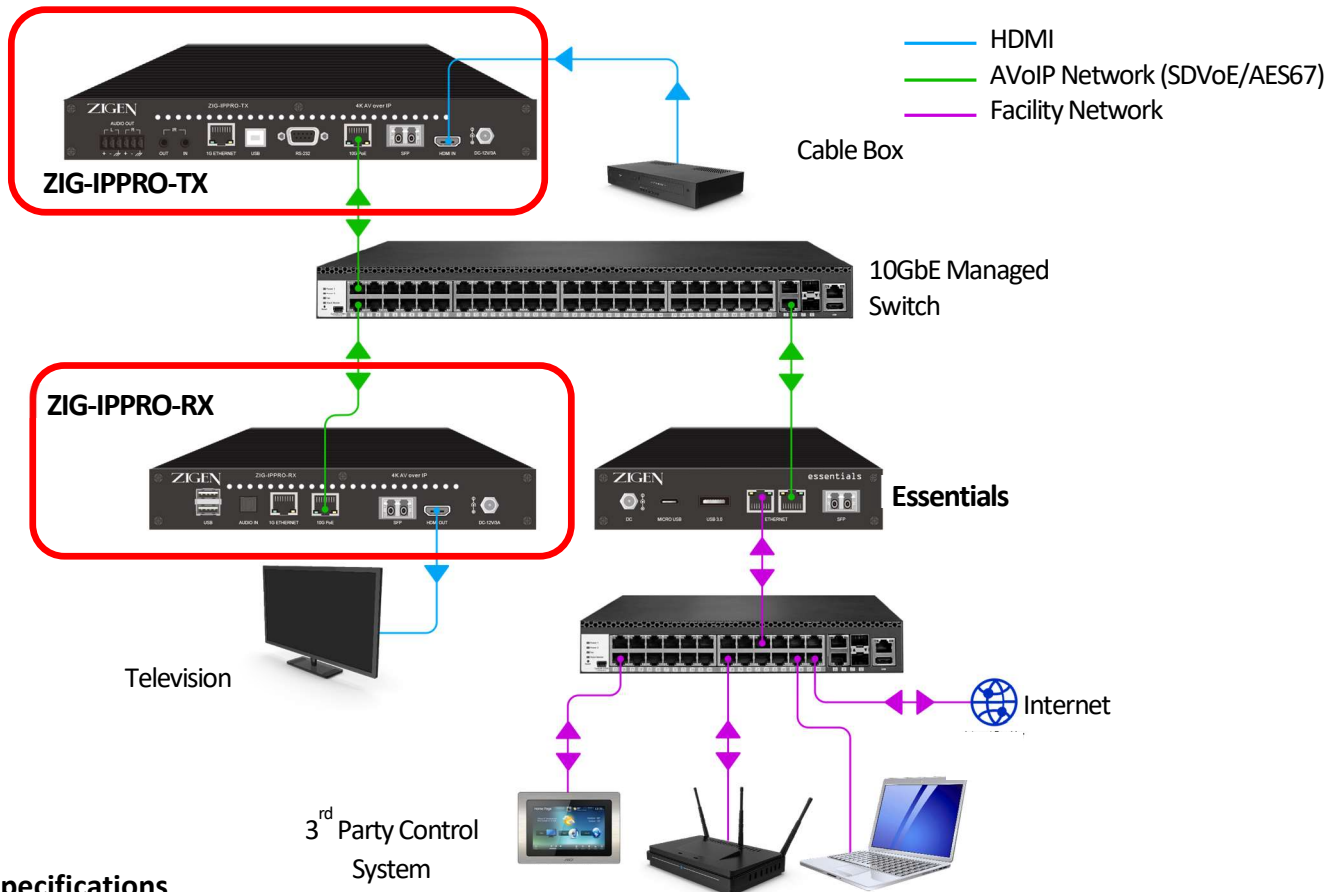
The ZIG-IPPRO-TX has Left/Right Balanced or Unbalanced Audio which can be connected to an Audio/Video Receiver (AVR) or Mixer. The audio source format must be 2-Channel LPCM and can be selected from: Local HDMI Input, AES67 Codec, ZIG-IPPRO-RX audio sources including: Audio Return Channel (ARC), Balanced/Unbalanced Analog Audio In, or TOSLINK In.

## Power over Ethernet (POE)

The 10GBase-T copper connections for ZIP-IPPRO RX/TX are POE compliant (30W IEEE802.3at Type 2 PoE+). Using POE eliminates the need of using an external Power Supply.

# Quick Start Guide ZIG-IPPRO RX/TX

## Example Wiring Diagram



## Specifications

Video Connection	HDMI 2.0b
Content Protection	HDCP 1.4   2.2   2.3
Maximum Video Resolution	4K60P UHD 4:4:4, 4K60P UHD 4:2:2 HDR
Video/Audio Transport	SDVoE (1.4:1 artifact-free compression when exceeding 10GbE bandwidth)
Additional Audio Transport (TX)	AES67   Dante   RAVENNA (Broadcast over the same SDVoE 10GbE network)
High Dynamic Range (HDR)	Dolby Vision   HDR10+   HDR10   HLG
Audio Surround (HDMI Path)	All HDMI 2.0b standards including Dolby Atmos   DTS:X
Latency	<120ms (Genlock Mode)
Video Scaling	✓
Single Frame Switch	✓
Frame-Rate Conversion	✓
Videowall with Bezel Correction	✓
Multiview	✓
CEC	✓
ARC	✓
Variable Analog Audio Delay	✓
Power	12VDC 3A, POE Compliant (30W IEEE802.3at Type 2 PoE+)
Dimensions (RX/TX)	225mm x 35mm x 155.5mm   275mm x 35mm x 145.5mm
Temperature	0° to 40° C (10% - 90% Non-Condensing Humidity)
Regulatory Safety and Emissions	CE   FCC   RoHS

# Warranty Information

## **Powered Product Warranty**

Zigen warrants its powered products against any defects in materials and workmanship for a period of three years from the date of invoice. Touchscreen displays carry a one year parts and labor warranty. If a malfunction occurs during the warranty period, Zigen will repair or replace a product to its original operating condition. A return authorization number must be obtained from Zigen before products are returned for service.

## **Non-Powered and Cable Products - Lifetime Limited Performance Warranty**

Zigen warrants that its non-powered products and cable products will be free from defects in material and workmanship for as long as you or your customer owns the product. All Zigen non-powered products and cables are designed and engineered to meet and exceed performance specifications. If, at any time, the product fails due to manufacturer defect, Zigen will repair or replace the product to ensure that it meets original performance specifications. Reduced performance due to normal wear and tear, or damages caused by misuse or negligence will not be covered. Zigen will test and evaluate all non-powered and cable products claimed defective. Products must be shipped to Zigen, prepaid along with proof of purchase only after obtaining a Return Merchandise Authorization (RMA) number from Zigen. This statement of policy is in lieu of any other policy expressed or implied and no representative or person is authorized to assume any other liability or adopt any other policy for Zigen without our written consent.

## **Return Policy**

If you would like to return a Zigen product, it can be done within 30 days of purchase for a full refund, less shipping and handling. Zigen will not be responsible for shipping and handling of product returns. Returns will only be accepted of products with proof of purchase, products in the original packaging with zero to minimal use and a Return Merchandise Authorization RMA number provided by Zigen.