



# HDMI HDBaseT Extender with IR/RS-232 Control and PoE -100m

## User Reference Guide

### **Introduction**

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The *HDMI HDBaseT Extender with IR/RS-232 Control and PoE - 100m* extends HDMI signals up to 100 meter through a single Cat5e/6 cable, and also carries additional signals including 100BaseT Ethernet, bi-directional IR, RS-232 and PoE.

### **Key Features and Benefits**

- Delivers high-quality HDMI video/audio in 1080p resolution up to 100m and 4Kx2K format with 7.1-channel sound up to 70m
- HDBaseT technology transmits HDMI signal, 100BaseT Ethernet, bi-directional IR, RS-232 and PoE (Power over Ethernet) over a single CAT5/6 cable

- PoE feature allows one power adapter to power both transmitter and receiver units
- Included mounting kit enables you to easily mount the units in place
- Cooling slots drastically improve heat dissipation for dependable performance and long life

## **Package Contents**

- *HDMI HDBaseT Extender with IR/RS-232 Control and PoE - 100m (TX & RX)*
- IR blaster extension cable (x2)
- IR receiver extension cable (x2)
- Phoenix contact (x2)
- Power adapter
- Mounting kit
- User reference guide

# Layout

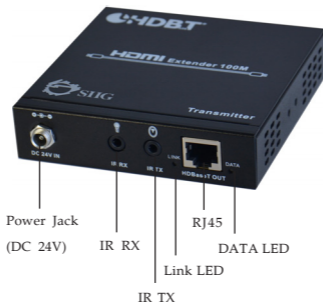
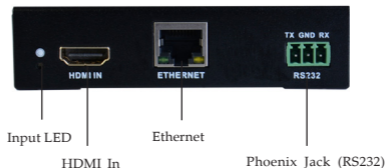


Figure 1: Transmitter - front side

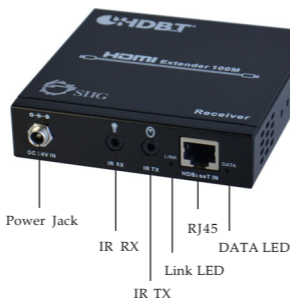
- **Power Jack (DC 24V):** Connects to the included power adapter
- **IR RX:** Infrared 3.5mm socket. Plug IR Receiver extension cable here
- **IR TX:** Infrared 3.5mm socket. Plug IR Blaster extension cable here
- **Link LED:** Indicates the status of TX and RX connection
  - ON: Good connection
  - Flashing: Weak connection
  - OFF: No connection

- **RJ45 (HDBaseT Out):** Linked to the RJ45 of the Receiver via a Cat5e/6 cable
- **DATA LED:** Indicates the status of HDMI source
  - ON: HDMI signal with HDCP
  - Flashing: HDMI signal without HDCP
  - OFF: No HDMI signal detected



**Figure 2: Transmitter - rear side**

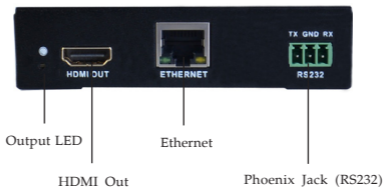
- **Input LED:** On when HDMI source detected
- **HDMI In:** Connects to your HDMI source with an HDMI cable (cable not included)
- **Ethernet:** Connect your Ethernet cable here to establish an extended network connection
- **Phoenix Jack (RS232):** Connects to the included Phoenix contact and RS-232 connector (not included), then connect to a serial port device or computer for data transferring



**Figure 3: Receiver -front side**

- **Power Jack (DC 24V):** Connects to the included power adapter
- **IR RX:** Infrared 3.5mm socket. Plug IR Receiver extension cable here
- **IR TX:** Infrared 3.5mm socket. Plug IR Blaster extension cable here
- **Link LED:** Indicates the connecting status of TX and RX
  - ON: Good connection
  - Flashing: Weak connection
  - OFF: No connection
- **RJ45 (HDBaseT IN):** Linked to the RJ45 of the Transmitter via a Cat5e/6 cable

- **DATA LED:** Indicates the status of HDMI source
  - ON: HDMI signal with HDCP
  - Flashing: HDMI signal without HDCP
  - OFF: No HDMI signal detected



**Figure 4: Receiver - rear side**

- **Output LED:** On when the HDMI signal is detected
- **HDMI Out:** Connects to your HDMI display with an HDMI cable (cable not included)
- **Ethernet:** Connect your Ethernet cable here to establish an extended network connection
- **Phoenix Jack (RS232):** Connects to the included Phoenix contact and RS-232 connector (not included), then connect to a serial port device or computer for data transferring

## \* Phoenix Jack wire connection:

1. Insert the included Phoenix contact to **Phoenix Jack**.

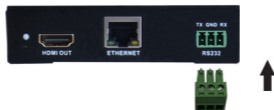


Figure 5

2. Connect the wires (not included) to the included Phoenix contact and the RS232 connector as below diagram.

- Via pin to pin (Parallel) connector or cable:

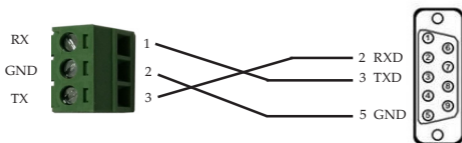


Figure 6

- Via null connector or cable:

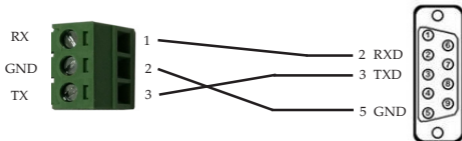


Figure 7

## IR Extension Cables

### \* IR Blaster cable (optional):

Connect the IR blaster cable to your HDMI Extender's (Transmitter and Receiver) **IR TX** connector to send out IR command signals, if needed.



Figure 8

### \* IR Receiver cable (optional):

Connect the IR receiver cable to your HDMI Extender's (Transmitter and Receiver) **IR RX** connector to receive IR command signals, if needed.



Figure 9



## Hardware Installation

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Thanks to PoE technology, only one power adapter is needed to power both the Transmitter and Receiver.

1. Power off all devices, including the HDMI device (source) and display.
2. Connect your HDMI source (such as a Blu-ray player) to the transmitter's **HDMI IN** connector by HDMI cable (not included).
3. Connect your HDMI display (such as a LCD TV) to the receiver's **HDMI OUT** connector by HDMI cable (not included).
4. *Optional:* Connect the included Phoenix contact to **Phoenix Jack** of TX / RX and RS-232 connector (not included), then connect the serial port devices to the Transmitter and Receiver.
5. *Optional:* Connect **Ethernet** connector on the Transmitter / Receiver to a router or switch for Ethernet network, and connect the Receiver / Transmitter to your computer by using an Ethernet cable (not included).

6. Optional: Connect the IR extension cables to **IR TX** and **IR RX** connector on the Transmitter and Receiver.
7. Connect your CAT5e/6 LAN cable between **RJ45** connector of the Transmitter and Receiver.
8. Plug the included power adapter into the **Power Jack** of either the Transmitter or Receiver, then plug it into reliable power source.
9. Power on the HDMI device (source) and display, then the *HDMI extender* is ready for use.

# Feature Diagram

\* *PoE (Power over Ethernet)*

- Connect one power adapter to TX or RX, and the power will pass through

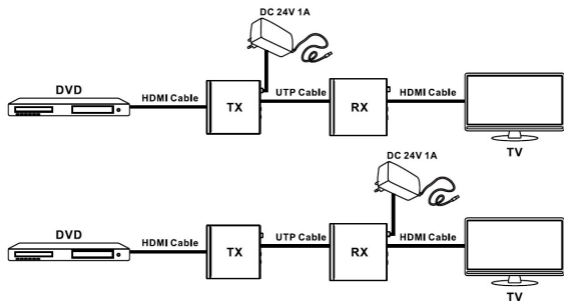


Figure 10

\* *Bidirectional Infrared control*

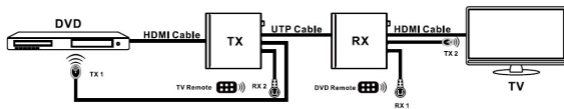


Figure 11

\* *Bidirectional RS232 control*

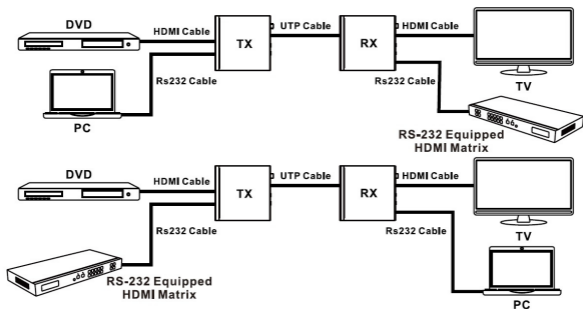


Figure 12

\* *Bidirectional Ethernet signal*

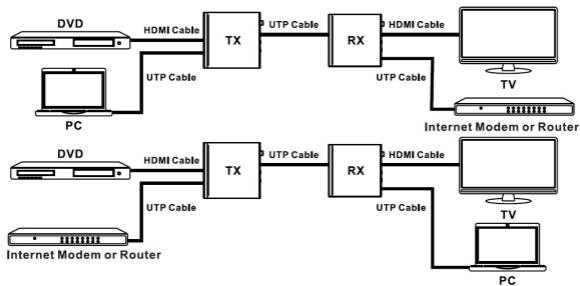


Figure 13

# Application

*HDMI HDBaseT Extender with IR/RS-232 Control and PoE - 100m* extends HDMI signals up to 100m, and also supports 100BaseT Ethernet, bi-directional IR, RS232 and PoE.

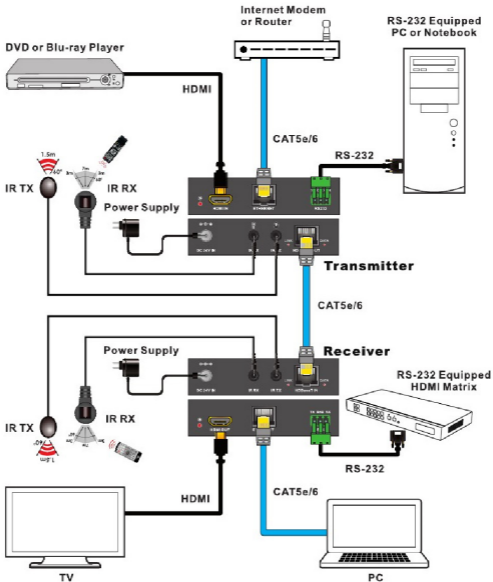


Figure 14: Application

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# Technical Support and Warranty

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**QUESTIONS?** SIIG's **Online Support** has answers! Simply visit our web site at [www.siig.com](http://www.siig.com) and click **Support**. Our online support database is updated daily with new drivers and solutions. Answers to your questions could be just a few clicks away. You can also submit questions online and a technical support analyst will promptly respond.

SIIG offers a 1-year manufacturer warranty with this product. This warranty covers the original purchaser and guarantees the product to be free of any defects in materials or workmanship for one (1) year from the date of purchase of the product. This warranty is not transferable and is available only to the original purchaser of the product.

SIIG will, at our discretion, repair or replace (with an identical product or product having similar features and functionality) the product if defective in materials or workmanship. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Please see our web site for more warranty details.

If you encounter any problems with this product, please follow the procedures below.

A) If it is within the store's return policy period, please return the product to the store where you purchased from.

B) If your purchase has passed the store's return policy period, please follow the steps below to have the product repaired or replaced.

**Step 1:** Submit your RMA request.

Go to [www.siig.com](http://www.siig.com), click **Support**, then **REQUEST A PRODUCT REPLACEMENT** to submit a request to [SIIG RMA](#) or fax a request to 510-657-5962. Your RMA request will be processed, if the product is determined to be defective, an RMA number will be issued.

**Step 2:** After obtaining an RMA number, ship the product.

- Properly pack the product for shipping. All accessories that came with the original package must be included
- Include a copy of your original sales receipt inside the package with date of purchase and place of purchase circled and clearly visible
- Clearly write your RMA number on the top of the returned package. SIIG will refuse to accept any shipping package, and will not be responsible for a product returned without an RMA number posted on the outside of the shipping carton
- You are responsible for the cost of shipping to SIIG. Ship the product to the following address:

**SIIG, Inc.**

**6078 Stewart Avenue**

**Fremont, CA 94538-3152, USA**

**RMA #:** \_\_\_\_\_

- SIIG will ship the repaired or replaced product via Ground in the U.S. and International Economy outside of the U.S. at no cost to the customer

## About SIIG, Inc.

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Founded in 1985, SIIG, Inc. is a leading manufacturer of IT connectivity solutions (including Serial ATA and Ultra ATA Controllers, FireWire, USB, and legacy I/O adapters) that bridge the connection between Desktop / Notebook systems and external peripherals. SIIG continues to grow by adding A/V and Digital Signage connectivity solutions to our extensive portfolio.

SIIG products offer comprehensive user manuals, many user-friendly features, and are backed by an extensive manufacturer warranty. High quality control standards are evident by the overall ease of installation and compatibility of our products, as well as one of the lowest defective return rates in the industry. SIIG products can be found in computer retail stores, mail order catalogs, through major distributors, system integrators, VARs and through e-commerce sites.

### **PRODUCT NAME**

HDMI HDBaseT Extender with IR/RS-232 Control and POE - 100m

FCC RULES: TESTED TO COMPLY WITH FCC PART 15, CLASS B  
OPERATING ENVIRONMENT: FOR HOME OR OFFICE USE

### **FCC COMPLIANCE STATEMENT:**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### **THE PARTY RESPONSIBLE FOR PRODUCT COMPLIANCE**

SIIG, Inc.

6078 Stewart Avenue

Fremont, CA 94538-3152, USA

Phone: 510-657-8688

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