

User Manual

EUROSOUND®

HDBT70TxP



HDBaseT Transmitter

All Rights Reserved

Version: HDBT70TxP_2016V1.0

SAFETY PRECAUTIONS

To insure the best from the product, please read all instructions carefully before using the device. Save this manual for further reference.

- Unpack the equipment carefully and save the original box and packing material for possible future shipment
- Follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- Do not dismantle the housing or modify the module. It may result in electrical shock or burn.
- Using supplies or parts not meeting the products' specifications may cause damage, deterioration or malfunction.
- Refer all servicing to qualified service personnel.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Do not put any heavy items on the extension cable in case of extrusion.
- Do not remove the housing of the device as opening or removing housing may expose you to dangerous voltage or other hazards.
- Install the device in a place with fine ventilation to avoid damage caused by overheat.
- Keep the module away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the module immediately.
- Do not twist or pull by force ends of the optical cable. It can cause malfunction.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.
- Unplug the power cord when left unused for a long period of time.
- Information on disposal for scrapped devices: do not burn or mix with general household waste, please treat them as normal electrical wastes.

NOTICE: Please read this user manual carefully before using this product. Pictures shown in this manual are for reference only. Different model and specifications are subject to real product.

This manual is for operation instruction only, not for any maintenance usage. Compared to the former HDBT70TxP user manual version, this version removes the built-in IR receiver and adds collocation products. The functions described in this version are updated till Jan 2017. Any changes of functions and parameters since then will be informed separately. Please refer to the dealers for the latest details.

This manual is copyright Eurosound. All rights reserved. No part of this publication may be copied or reproduced without the prior written consent of Eurosound.

All product function is valid till 2017-1-5.

Table of Contents

1. Introduction..... 1

 1.1 Introduction to HDBT70TxP 1

 1.2 Features 1

 1.3 Package Contents 1

2. Panel Description 2

3. System Connection 3

 3.1 Usage Precautions 3

 3.2 System Diagram 3

 3.3 Connection Procedure 3

 3.4 Application 4

 3.5 Twisted Pair Cable Connection 4

4. Specification 5

 4.1 Supported Resolution 6

5. Panel Drawing 7

6. Troubleshooting & Maintenance 8

7. After-sales Service 9

1. Introduction

1.1 Introduction to HDBT70TxP

HDBT70TxP is a mini-size HDBaseT Transmitter which adopts HDBaseT technology to transmit high-resolution 1080p/ 4k signal to HDBaseT receiver via a CAT5e/CAT6a cable at a distance of up to 70/40m. Moreover, it support CEC, bi-directional RS232&IR control, and bi-directional PoH function.

1.2 Features

- Support Full HD: Delivers high resolution image (1080p@60Hz@48 b/pixels/3D/4Kx2K).
- Maximum transmission distance is 70m for 1080p and 40m for 4Kx2K over single CAT5e/CAT6a cable
- High Bandwidth: 10.2Gps.
- HDTV Compatible, use HDMI 1.4 and HDCP2.2 compliant.
- Support CEC/IR/RS232 passthrough.
- Support bi-directional PoH function.
- Bi-directional RS232/IR control.
- Use HDBaseT technology.
- LED indicators show work status.

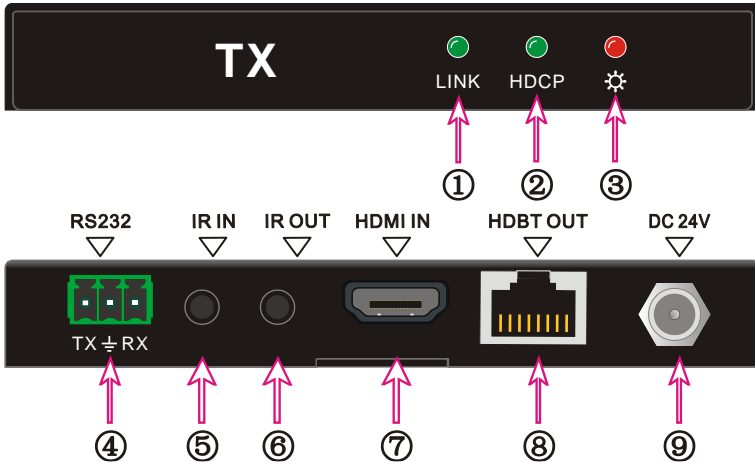
Note: Please use a CAT5e cable with low impedance (Shielded twisted pair will be better and should be well grounded) for good transmission effect.

1.3 Package Contents

- 1 x Transmitter (HDBT70TxP)
- 2 x Mounting ears
- 4 x Screws
- 4 x Plastic cushions
- 1 x Power adapter (DC 24V 1.25A)
- 2 x RS232 cables
- 1 x User manual

Note: Please confirm if the product and the accessories are all included, if not, please contact with the dealers.

2. Panel Description



No.	Name	Description
①	LINK	HDBT Link status indicator: <input type="checkbox"/> OFF: No Link <input type="checkbox"/> GREEN: Link Successful <input type="checkbox"/> Blinking GREEN: Link abnormal
②	HDCP	HDCP compliant indicator <input type="checkbox"/> OFF: No HDMI traffic (no picture) <input type="checkbox"/> GREEN: Traffic with HDCP. <input type="checkbox"/> Blinking GREEN: Traffic without HDCP
③	Power	OFF: No power; RED: DC power present.
④	RS232	RS232 connector.
⑤	IR IN	Connect with 5V IR receiver (with carrier) to collect infrared signal, work with far-end IR OUT port
⑥	IR OUT	Connect with 5V IR emitter to send infrared signal, work with far-end IR IN port
⑦	HDMI IN	Connect with HDMI source
⑧	HDBT OUT	Connect to the HDBT IN socket on the HDBaseT Receiver via CAT5e/ CAT6a cable, support bi-directional PoH function.
⑨	DC 24V	Connect with power supply (Not necessary if receiver connects with power adaptor).

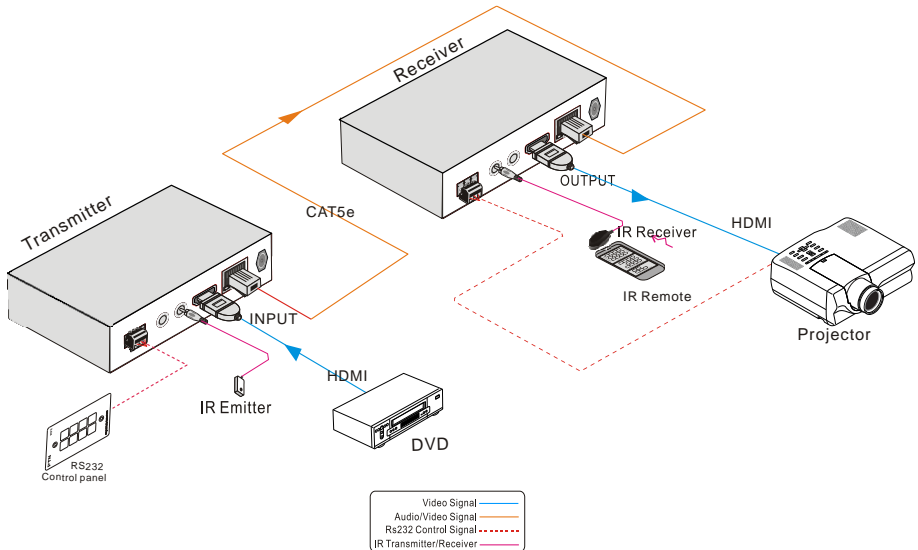
Pictures shown in this manual are only for reference.

3. System Connection

3.1 Usage Precautions

- 1) System should be installed in a clean environment and has a prop temperature and humidity.
- 2) All of the power switches, plugs, sockets and power cords should be insulated and safety.
- 3) All devices should be connected before power on.
- 4) Use shielded straight-thru CAT5e/CAT6a cable with TIA/EIA T568B terminations for good transmission effect.

3.2 System Diagram



3.3 Connection Procedure

- Step1.** Connect HDMI source (such as Blue-ray DVD) to HDMI IN port of transmitter with HDMI cable.
- Step2.** Connect HDBT OUT port of transmitter and HDBT IN port of receiver, with single CAT5e/CAT6a cable.
- Step3.** Connect HDMI displayer (such as HDTV) to HDMI OUT port of receiver with HDMI cable.
- Step4.** Both transmitter and receiver have IR IN and OUT. When one end is used as an IR receiver, the signal sent from the end can only be transmitted via the other

end.

For example: When “IR IN” of transmitter connects with an IR receiver, the IR emitter must connect to IR OUT of Receiver.

Step5. Connect the RS232 port of the devices to be controlled and the receiver or the transmitter.

Step6. Connect with DC24V power adaptor(s) One is enough if Transmitter or Receiver is connected with adapter as its PoH function).

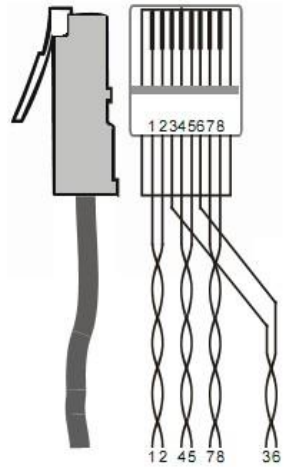
3.4 Application

HDBaseT Extender has a good application in various occasions, such as computer realm, monitoring, big screen displaying, meeting room, education and bank & securities institution etc.

3.5 Twisted Pair Cable Connection

The twisted pair used in this extender **MUST** be a straight-through cable.

TIA/EIA T568A		TIA/EIA T568B	
Pin	Cable color	Pin	Cable color
1	green white	1	orange white
2	green	2	orange
3	orange white	3	green white
4	blue	4	blue
5	blue white	5	blue white
6	orange	6	green
7	brown white	7	brown white
8	brown	8	brown
1st Ground	4--5	1st Ground	4--5
2nd Ground	3--6	2nd Ground	1--2
3rd Group	1--2	3rd Group	3--6
4th Group	7--8	4th Group	7--8



Notice: Cable connectors **MUST** be metal one, the shielded layer of cable **MUST** be connected to the connector’s metal shell, to make a better transmission.

4. Specification

Input& Output	
Input	1 HDMI (HDMI female) 1 RS232 (3-pin pluggable terminal block)
Output	1 HDBT (RJ-45) 1 IR (3.5mm mini jack) 1 RS232 (3-pin pluggable terminal block)
General	
Resolution Range	640x480@60Hz~4K×2K@30Hz
Transmission Mode	HD Base T
Transmission Distance	1080p ≤ 70m 4Kx2K ≤ 40m
Bandwidth	10.2Gbps
HDMI Standard	Support HDMI1.4 and HDCP2.2
Impedance	75Ω
Temperature	0~ 50℃
Humidity	10% ~ 90%
Power Supply	Input: 100VAC~240VAC, 50/60Hz Output: DC 24V, 1.25A
Power Consumption	14W
Dimension (W*H*D)	115mmx16.2mm x109mm
Net Weight	193g

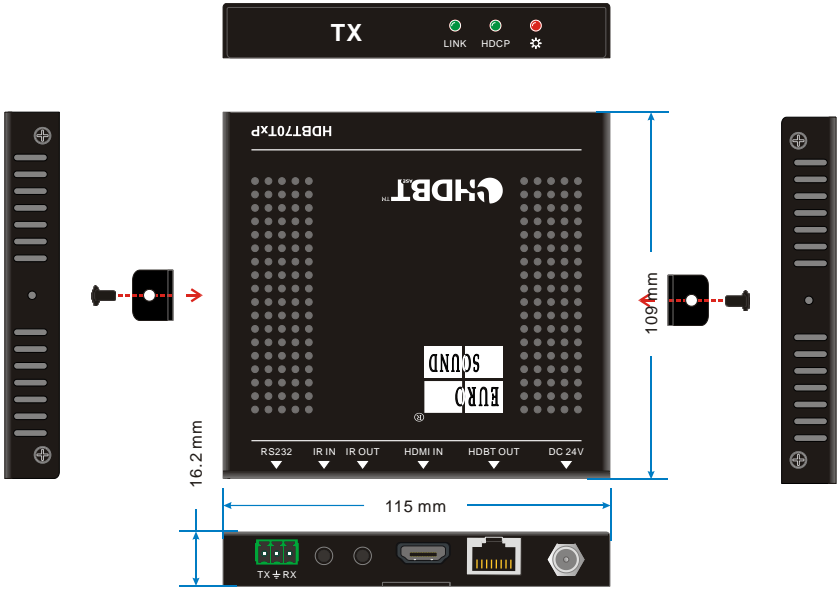
NOTE: All nominal levels are at ±10%.

4.1 Supported Resolution

Aspect Ratio	Resolution	Refresh Rate
4Kx 2K	4096x2160	30Hz
	3840x2160	24/25/30Hz
16:9	1920x1080	60Hz
	1600x900	60Hz
	1366x768	60Hz
	1280x720	60Hz
	1024x576	60Hz
16:10	1920x1200	60Hz
	1680x1050	60Hz
	1360x768	60Hz
	1280x800	60Hz
4:3	1600x1200	60/65/70/75/85Hz
	1280x1024	60/75/85/96Hz
	1024x768	60/70/75/85Hz
	800x600	56/60/72/75/85Hz
	640x480	60/72/75Hz

Note: This product support 4k HDMI signal, please adopt quality HDMI cables compliant with HDMI2.0 for reliable transmission.

5. Panel Drawing



6. Troubleshooting & Maintenance

- **No image on display:**
 - Ensure that the display device has been set to the correct input.
 - Ensure that the HDMI cables used for both the source/transmitter and the receiver/display are properly connected and are working. Test the HDMI cables directly from a source to display and ensure their operation.
 - Ensure that the CAT5e/CAT6a cable has not been damaged and that it has been terminated correctly with T568B on both ends. A temporary length of CAT5e/Cat6 can be used for testing to ensure that the devices are all compatible and working properly.
 - Ensure proper grounding of the power supply.
 - Known issues with HDMI 1.2 source devices:
Older compatibility (HDMI 1.2) may result in HDBaseT transmission issues.
Please contact Technical Support of your director for a solution to these issues.
- **Color lose or poor picture quality:**
 - Ensure that the HDMI cables used for both the source and transmitter and the receiver and display are properly connected and are of good quality. Test the HDMI cables directly from a source to display and ensure their picture quality.
 - Ensure proper grounding of the power supply.
 - If the static becomes stronger or picture quality becomes worse when connecting the video connectors, this may be due to improper grounding.
 - Check the grounding and make sure all the components are properly grounded to a common ground. Improper grounding may cause damage to the receiver.

If your problem persists after following the above troubleshooting steps, seek further help from authorized dealer or our technical support.

7. After-sales Service

If there appear some problems when running the device, please check and deal with the problems reference to this user manual. Any transport costs are borne by the users during the warranty.

1. Product Limited Warranty: Eurosound warrants that its products will be free from defects in materials and workmanship for **one year**, which starts from the first day the product leaves warehouse (The purchase invoice shall prevail).

Proof of purchase in the form of a bill of sale or receipted invoice which is evidence that the unit is within the Warranty period must be presented to obtain warranty service.

2. What the warranty does not cover:

- Warranty expiration.
- Factory applied serial number has been altered or removed from the product.
- Damage, deterioration or malfunction caused by:
 - Normal wear and tear
 - Use of supplies or parts not meeting our specifications
 - No certificate or invoice as the proof of warranty.
 - The product model showed on the warranty card does not match with the model of the product for repairing or had been altered.
 - Damage caused by force majeure.
 - Servicing not authorized by Eurosound
 - Any other causes which does not relate to a product defect
- Delivery, installation or labor charges for installation or setup of the product

3. Technical Support: Email to our after-sales department or make a call, please inform us the following information about your cases.

- Product version and name.
- Detailed failure situations.
- The formation of the cases.

EUROSOUND®