

## User Manual

HDBaseT Transmitter  
4K (60Hz 4:2:0) with PoC switch

Model PT - HDBT-100P-TX

Designed in Germany

Version V1.0

## Preface

Read this user manual carefully before using this product. Pictures shown in this manual are for reference only. Different model layouts and specifications are subject to the physical product.

This manual is for operation instructions only, not for any maintenance usage.

In the constant effort to improve our product, we reserve the right to make changes in functions or parameters without prior notice or obligation.

## Trademarks

Product model and logo are trademarks. Any other trademarks mentioned in this manual are acknowledged as the properties of the trademark owner. No part of this publication may be copied or reproduced without the prior written consent.

## FCC Statement

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. It has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation.

Operation of this equipment in a residential area is likely to cause interference, in which case the user at their own expense will be required to take whatever measures may be necessary to correct the interference.

Any changes or modifications not expressly approved by the manufacturer would void the user's authority to operate the equipment.

**REACH | 1907/2006/EU**

**ROHS | 2011/65/EU**

PureLink hereby declares that this product **PureTools PT-HDBT-100P-TX** complies with Directives 1907/2006/EU und 2011/65/EU.

**EMC / LVD (Electro Magnetic Compatibility / Low Voltage Directive)**

PureLink GmbH hereby declares that this product **PureTools PT- HDBT-100P-TX** complies with Directives 2014/30/EU and 2014/35/EU. The full text of the EU Declaration of Conformity is available at the following Internet address:

[http://www.purelink.de/ce/4251364736807\\_CE.pdf](http://www.purelink.de/ce/4251364736807_CE.pdf)



## SAFETY PRECAUTIONS

To ensure 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 cleaner 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.
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## 1. Product Introduction

### 1.1 Introduction

The PT-HDBT-100P-TX is an HDBaseT transmitter that can extend an HDMI signal up to 70 meters via a single Cat 5e/6 cable. The PT-HDBT-100P-TX also boasts a unique PoC on/off switch for increased compatibility. This feature, combined with RS-232 signal pass-through, makes it ideal for direct connection to HDBaseT equipped projectors. When used with an HDBaseT receiver, it can easily remotely control the source device or display device via bi-directional IR signal pass-through. This product can be widely used in video conference systems, educational environments or for any other form of commercial HDMI signal extension.

### 1.2 Features

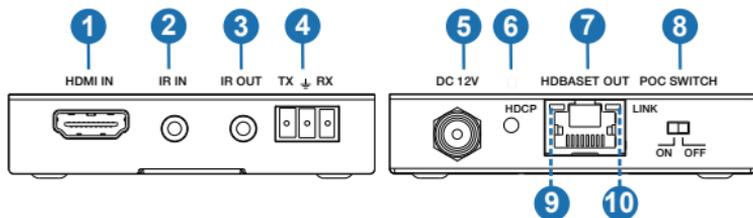
- HDMI 1.4 and HDCP 2.2 compliant
- Support video resolution up to 4K@30Hz (4:4:4), 10.2Gbps maximum video bandwidth
- Extends 1080p up to 70m and 4K up to 40m (3840 x 2160 @30Hz 4:4:4, 4096 x 2160 @24Hz 4:4:4, and 4K @60Hz 4:2:0).
- Bi-directional 12V PoC (Power over Cable)
- PoC on/off switch to enable or disable PoC function
- Bi-directional IR and RS-232 control signal pass-through
- Compact design for easy and flexible installation

### 1.3 Package List

- 1 × HDMI 70M HDBaseT Extender (Transmitter)
- 1 × Power adaptor (12V DC,1A)
- 2 × Mounting ears
- 1 × 3-pin Phoenix connectors
- 1 × User Manual

**Note:** Please contact your distributor immediately if any damage or defect in the components is found.

## 2. Panel Description



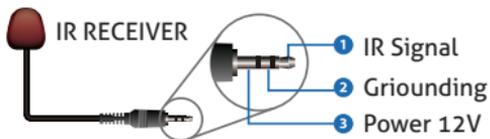
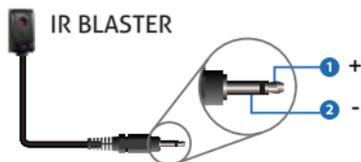
No.	Name	Description
1	HDMI In	HDMI signal input port. Connect HDMI source device.
2	IR In	Work with far-end IR Out port, connect with 12V IR Receiver to collect IR signal to control far-end display device from local.
3	IR Out	Work with far-end IR In port, connect with 12V IR Blaster to send IR signal to control input source device from remote.
4	RS-232 connector	Connect to control system or PC with 3-pin phoenix connector for RS-232 command transmission.
5	DC 12V	DC 12V power supply port. Support bi-directional PoC function.
6	Power LED	Red LED will be on when the Transmitter is powered on.
7	HDBaseT Out	Connect to the HDBaseT In port of the Receiver via a CAT5e/6 cable.
8	POC SWITCH	Enable/disable PoC on/off switch
9	Data Signal Indicator lamp (Green)	<ul style="list-style-type: none"> <li>• Illuminate: HDMI signal with HDCP.</li> <li>• Flash: HDMI signal without HDCP.</li> <li>• Dark: No HDMI signal.</li> </ul>
10	Connection Signal Indicator lamp (Yellow)	<ul style="list-style-type: none"> <li>• Illuminate: Transmitter and receiver are in good connection status.</li> <li>• Flash: Transmitter and receiver are in poor connection status.</li> <li>• Dark: Transmitter are not connected.</li> </ul>

### 3. Specification

Technical	
HDMI Compliance	HDMI 1.4
HDCP Compliance	HDCP 2.2
Bandwidth	10.2Gbps
Video Resolutions	Up to 4K×2K@30Hz 4:4:4
Transmission Mode	HDBaseT
Color Space	YCbCr 4:2:0
Color Depth	8-bit (4K60Hz)
Audio Formats	LPCM 2.0/2.1/5.1/6.1/7.1, Dolby Digital, Dolby TrueHD, Dolby Digital Plus(DD+)
HDR	HDR, HDR10, HDR10+, Dolby Vision
Transmission Distance	1080P≤70m; 4K×2K≤40m
ESD Protection	Human-body Model: ±8kV (Air-gap discharge), ±4kV (Contact discharge)
Connection	
Input	1×HDMI Type A [19-pin female]
Output	1×HDBT Out [RJ45]
Control	1×IR In [3.5mm Stereo Mini-jack] 1×IR Out [3.5mm Stereo Mini-jack] 1×RS-232 [Phoenix connector]
Mechanical	
Housing	Iron Enclosure
Color	Black
Dimensions	120mm (W)×74mm (D)×16mm (H)
Weight	224g
Power Supply	Input: AC100~240V 50/60Hz Output: DC12V/1A (US/EU standards, CE/FCC/UL certified)
Power Consumption	5.675W (Max)
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F
Relative Humidity	20~90% RH (non-condensing)

## 4. IR Pin Definition

Recommended IR Receiver and Blaster pin's definition as below:



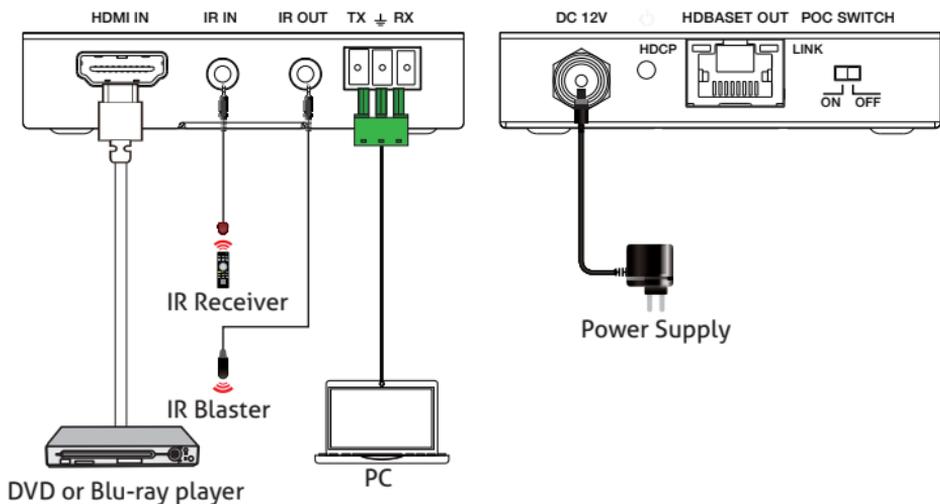
**Note:** The frequency of the blaster and receiver component and the pin out of the IR cables is 20-60KHz.

## 5. System Diagram

### Usage Precaution

- Make sure all components and accessories included before installation.
- System should be installed in a clean environment with proper temperature and humidity.
- All of the power switches, plugs, sockets, and power cords should be insulated and safe.
- All devices should be connected before power on

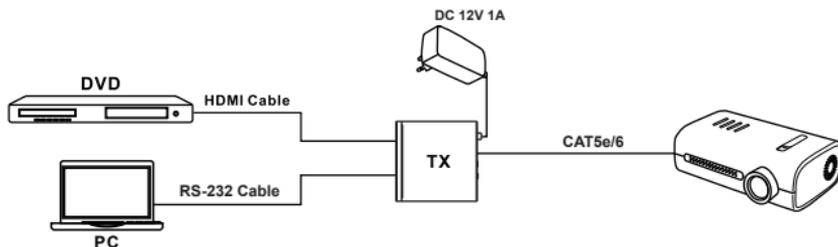
The following diagrams illustrate typical input and output connections that can be utilized with this transmitter:



The terms HDMI and HDMI High-Definition Multimedia interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.

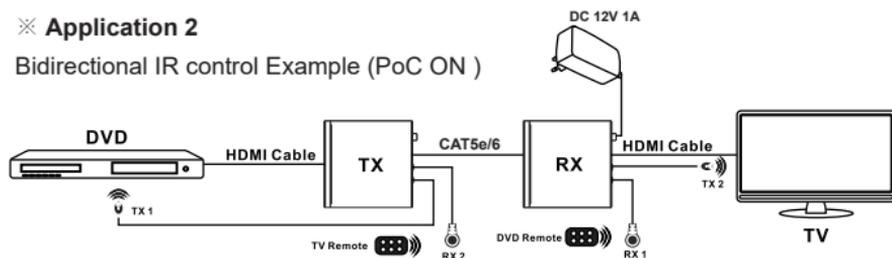
※ Application 1

Projector with RS-232 control Example (PoC OFF)



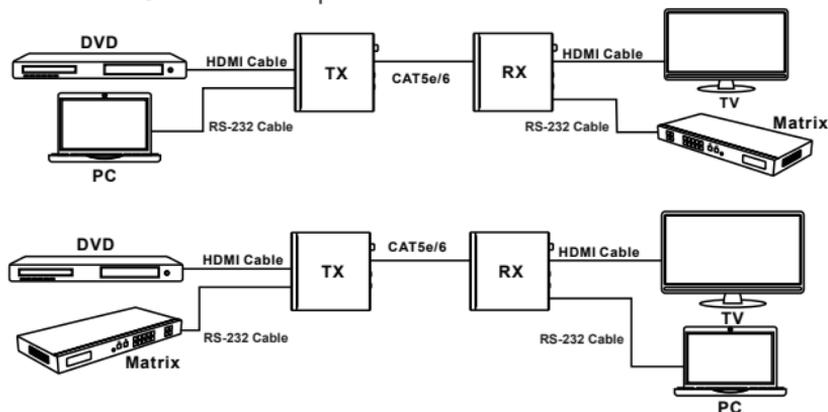
※ Application 2

Bidirectional IR control Example (PoC ON)



※ Application 3

Bidirectional RS-232 control Example



## 6. After-Sales Service

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

- 1) **Product Limited Warranty:** This product will be free from defects in materials and workmanship for three years(The purchase invoice shall prevail).
  
- 2) **What the warranty does not cover (servicing available for a fee):**
  - 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
    - 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:** For any questions or problems, contact your distributor or reseller and tell them the respective product name and version, the detailed failure situation as well as the formation of the cases.

## Asking for Assistance

**Technical Support:**

Phone: +49 5971 800299

Fax: +49 5971 800299

**Technical Support Hours:**

8:30 AM to 5:00 PM Monday thru Thursday

8:30 AM to 4:00 PM Friday

**Write to:**

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