# TPUH4120

## 4K HDMI Extender w/IR &RS232

## Statement

Read this user manual carefully before using the product. Pictures shown in this manual is for reference only. Different models and specifications are subject to real product.

This manual is only for operation instruction only. The functions described in this version are updated till August 16, 2017. In the constant effort to improve our product, we reserve the right to make functions or parameters changes without notice or obligation. Please refer to the dealers for the latest details.

## Safety Precaution

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

- 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 to avoid electrical shock or burn.
- Using supplies or parts not meeting the products' specifications may cause damage, deterioration or malfunction.
- Do not expose the unit to rain, moisture or install this product near water.
- Install the device in a place with fine ventilation.
- Do not twist or pull by force ends of the CAT5e/CAT6a 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.
- Refer all servicing to qualified service personnel.

## Customer Service

We provide limited warranty for the product within three years.
For more details, please contact your distributor.

## Introduction

This TPUH4120 is an HDBaseT Extender set consist of transmitter (TX) and receiver (RX). It distributes HDMI signal via CAT5e/CAT6a cable at 70m/PoC, and enables IR and RS232 pass-through to control local source device from remote or far-end display.
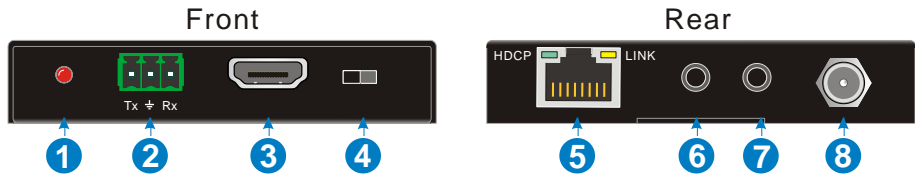
## Features

- Supports HDMI1.4 & HDCP2.2.
- Maximum transmission distance is up to 40m for 4Kx2K, and 70m for 1080p.
- Supports bi-directional 5V IR and RS232 pass-through for long-distance control.
- Supports bi-directional PoC for simplified wiring.
- Supports CEC.
- Features DIP switcher for choosing Control or Update mode.

## Package List

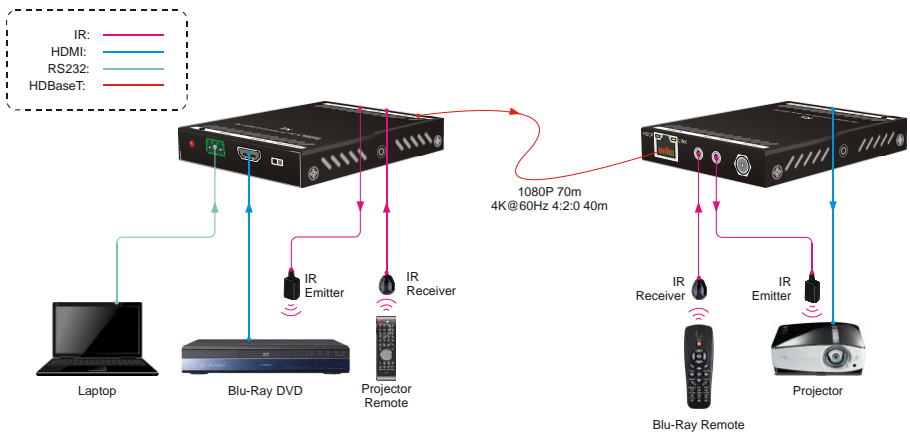| | |
|---|---|
| ● 1 x Transmitter (TX) | ● 1 x Receiver (RX) |
| ● 2 x TX Mounting Ears with 2 Screws | ● 2 x RX Mounting Ears with 2 Screws |
| ● 4 x TX Plastic Cushions | ● 4 x RX Plastic Cushions |
| ● 1 x Power Adaptor (12VDC, 1A) | ● 1 x User Manual |

## Panel Description

Front

Rear

| No. | Name | Description |
|---|---|---|
| ① | Power LED | Illuminates red when power is applied. |
| ② | RS232 | Euroblock/Phoenix connector for connecting an RS232 data device. |
| ③ | HDMI IN (TX) | HDMI port for connecting the video source device (e.g. Blu-ray DVD) |
| | HDMI OUT (RX) | HDMI port for connecting the video display. |
| ④ | CTRL/UPDATE | Switch for determining the behavior of the RS232 connection. When in the **CTRL** position, it serves as an RS232 serial extender. When in the **UPDATE** position, it allows you to update the Valens IC program by connecting to a PC and running the batch file. |
| ⑤ | HDBT OUT (TX) | RJ45 jack for connecting the Cat5e/6 cable to the Receiver. |
| | HDBT IN (RX) | RJ45 jack for connecting the Cat5e/6 cable to the Transmitter. |
| ⑥ | IR IN | 3.5mm jack for connecting an IR Receiver (not included). |
| ⑦ | IR OUT | 3.5mm jack for connecting an IR Emitter (not included). |
| ⑧ | DC 12V | DC barrel connector for connecting the included AC power adaptor. |

## Specification

| Spec \ Model | Transmitter (TX) | Receiver (RX) |
|---|---|---|
| Input | HDMI IN | HDBT IN |
| Output | HDBT OUT | HDMI OUT |
| Control | IR IN, IR OUT, RS232 | IR IN, IR OUT, RS232 |
| **General** | | |
| Maximum Video Resolution | 4K×2K@60Hz 4:2:0, including 1080p@60Hz | |
| Transmission Mode | HDBaseT | |
| Transmission Distance | 1080p signal to 70m, 4K signal to 40m | |
| Bandwidth | 10.2Gbps | |
| Video Standard | HDMI1.4 with HDCP2.2 | |
| Power Consumption | 10 watts | |
| Operating Temperature | 0 ~ +40℃ | |
| Storage Temperature | -10 ~ +55℃ | |
| Operating Humidity | 0% ~ 90% | |
| Power Supply | Input Power: 12VDC 1A or Power over Cable (PoC); AC Adaptor Input Power: 100~240VAC, 50/60Hz | |
| Dimension (W*H*D) | 106mm x 16mm x 84mm | |
| Net Weight (g) | 250g | |

## System Diagram



**Note:** This picture is for reference only, the specific scheme is subject to real devices.