

# TPUH460S

79086S User Manual

## TEK TPUH-460S

### HDMI 1.4 Extender with Ethernet & RS-232



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# TPUH460S

## 79086S User Manual

### **Safety Precautions**

To ensure the best performance 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 (electrical shock or burn hazard)
- 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 product's power cable
- 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 sufficient ventilation to avoid damage caused by overheating
- 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 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

# TPUH460S

79086S User Manual

## Table of Contents

<b>1. Product Introduction .....</b>	<b>4</b>
<b>2. Features.....</b>	<b>4</b>
<b>3. Package List .....</b>	<b>4</b>
<b>4. Panel Description .....</b>	<b>5</b>
4.1 Transmitter .....	5
4.2 Receiver .....	6
<b>5. Specifications .....</b>	<b>7</b>

# TPUH460S

## 79086S User Manual

### 1. Product Introduction

The HDMI 1.4 Extender consists of a transmitter and a receiver. It can extend 4K or 1080p video to distance up to 328 feet (100 meters) over a single CAT cable. It supports bi-directional RS-232 pass-through control and Ethernet extension. 36V PoC feature allows the transmitter can be powered by the receiver and only one power adapter is needed in system.

### 2. Features

- Supports HDMI 1.4 and the HDMI video resolution up to 4K@60Hz 4:2:0
- Supports HDCP bypass and HDCP 2.2 compliant
- Extends 4K or 1080p video signals to distances up to 328 feet (100 meters) over a single CAT cable
- Bi-directional RS-232 pass-through control and Ethernet extension
- Provides up to 30W power for 3rd party device (e.g. HD Camera) on transmitter
- Supports 36V PoC, which allows the transmitter to be powered by the receiver

### 3. Package List

- 1x Transmitter
- 2x TX Mounting Ears with 2x screws
- 4x TX plastic cushions
- 1x RS-232 Cable (3-pin to 8-pin Mini-DIN)
- 2x 3-pin terminal blocks
- 1x Power Adapter (DC 24V, 2.71A)
- 1x Power Cord (2-pin to 5.5x3.0mm jack)
- 1x Receiver
- 2x RX Mounting Ears with 2x screws
- 4x RX plastic cushions
- 1x RS-232 Cable (3-pin to DB-9)
- 1x 2-pin terminal block
- 1x Power Cord
- 1x User Manual

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

# TPUH460S

## 79086S User Manual

### 4. Panel Description

#### 4.1 Transmitter



1. **HDMI IN:** Connects to HDMI source device
2. **CAM 12V:** Provides 12V, 2.5A power for source device (e.g. camera)
3. **Ethernet:** Used for Ethernet extension together with the Ethernet port of the receiver. If one Ethernet port is connected to a router, the other is able to access the LAN network
4. **RS-232:** Connects to the source device (e.g. camera) to be controlled by a far-end control device, or connects a control device (e.g. PC) control a far-end display device (e.g. projector)
5. **Power LED:** Illuminates green when power is applied
6. **HDBaseT Out:** The RJ45 port is connected to the HDBaseT Input port of the receiver by a CAT Ethernet cable. The LINK LED illuminates when there is a valid HDBaseT link between the transmitter and receiver. The HDCP LED illuminates when the video contains HDCP content, or blinks when the video is transmitted without HDCP content.

# TPUH460S

## 79086S User Manual

### 4.2 Receiver



1. **HDMI Out:** Connects to HDMI display device (e.g. projector)
2. **Ethernet:** Used for Ethernet extension together with the Ethernet port of the transmitter. If one Ethernet port is connected to a router, the other is able to access the LAN network
3. **RS-232:** Connects the display device (e.g. projector) to be controlled by a far-end control device, or connects a control device (e.g. PC) to control a far-end source device (e.g. camera)
4. **Power LED:** Illuminates green when power is applied
5. **HDBaseT In:** The RJ45 port is connected to the HDBaseT output port of the transmitter by a CAT Ethernet cable. The LINK LED illuminates when there is a valid HDBaseT link between the transmitter and receiver. The HDCP LED illuminates when the video contains HDCP content, or blinks when the video is transmitted without HDCP content.
6. **DC 24V:** DC Connector for the power adapter connection

# TPUH460S

## 79086S User Manual

### 5. Specifications

Transmitter	
<b>Input</b>	HDMI IN (19-pin type-A female HDMI)
<b>Output</b>	HDBT OUT (RJ45)
<b>Control</b>	ETHERNET (RJ45), RS-232 (3-pin terminal block)
<b>Power Output</b>	CAM 12V (2-pin terminal block)
Receiver	
<b>Input</b>	HDBT IN (RJ45)
<b>Output</b>	HDMI OUT (19-pin type-A female HDMI)
<b>Control</b>	ETHERNET (RJ45) RS-232 (3-pin terminal block)
General	
<b>Video Resolution</b>	Up to 4K@60Hz 4:2:0
<b>Transmission Distance</b>	4K/1080p ≤ 328 feet (100m)
<b>HDMI Version</b>	1.4
<b>HDCP Version</b>	Up to 2.2, bypass
<b>EDID</b>	Bypass
<b>Power Supply</b>	<b>Input:</b> 100 to 240V AC, 50/60Hz <b>Output:</b> DC 24V, 2.71A
<b>Maximum Power Consumption</b>	62W
<b>Operation Temperature</b>	23 ~ 131°F (-5 ~ 55°C)
<b>Storage Temperature</b>	-13 ~ 158°F (-25 ~ 70°C)
<b>Relative Humidity</b>	10% ~ 90%, Non-condensing
<b>Dimensions (W*H*D)</b>	3.94" (100mm) x 0.94" (24mm) x 6.29" (160mm)
<b>Net Weight</b>	<b>Tx:</b> 0.82 lbs. (370g) <b>Rx:</b> 0.84 lbs. (380g)