

# User Manual

## UH-483M-POE-IP

### 4K60Hz HDMI 2.0 over IP PoE Extender



**All Rights Reserved**

Version: UH-483M-POE-IP-V5\_2026V1.0



## Preface

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

This manual is only for operation instruction, please contact the local dealer or distributor for maintenance assistance. The functions described in this version were updated till June, 2026. In the constant effort to improve the product, we reserve the right to make functions or parameters changes without notice or obligation. Please refer to the dealers for the latest details.

**All product functions are valid till 2026-06.**

## Trademarks

Product model and logo  are trademarks of U.T.E. electronic GmbH & Co. KG. 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 manufacture would void the user's authority to operate the equipment.



## **SAFETY PRECAUTIONS**

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

- Do not expose this device to rain or place it near water. Any liquid that goes into the device may cause a failure, fire, or electric shock.
- Never insert anything metallic into the open parts of this device. This may cause a danger of electric shock.
- The device should be repaired only by a qualified technician.
- Do not place this device near or over a radiator or heat register, or where it is exposed to direct sunlight.
- If a third-party power supply is used, please ensure that the power supply specifications meet the product requirements.
- Support and compliant with IEEE802.3af international standard PoE switch. The maximum wattage of the transmitter or receiver is 10W.

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## **1. Product Introduction**

### **1.1 Introduction to 4K60 HDMI POE IP Extender UH-483M-POE-IP**

This 4K@60Hz HDMI over IP extender kit, including a transmitter and a receiver, realizing switching, extending and distributing 4K@60Hz audio and video signals via the IGMP switch. The HDMI signal can be extended up to 120 meters over CAT 6 or higher-level networking cables. Supports one-to-one, one-to-many, many-to-one and many-to-many connection. It also supports IR pass-back functions, and can be widely used in audiovisual conference, transportation control center, radio and television, education and training and other fields.

### **1.2 Features**

- Built on ipcolor STREAM™ technology to deliver high-definition and low-latency transmission.
- Supports up to 4K@60Hz (4096 x 2160@60Hz) resolutions, backward compatible.
- Compatible with Cat5e/6 or higher-level networking cables, transmission distance of Cat6 cable is 120 meters.
- Supports one-to-one, one-to-many, many-to-one and many-to-many connection through a gigabit network switch.
- Supports IR pass-back(20~60KHz).
- Supports 256 signal source inputs and 256 signal outputs.
- Signal sources can be switched via the APP for flexible many-to-many matrix configuration.
- Firmware upgrading via Micro USB port.
- Lightning protection, surge protection, ESD protection.
- Supports stable 24/7 operation.

### **1.3 Packing List**

- 1x UH-483M-POE-IPT: 4K60 HDMI over IP Transmitter
- 1x UH-483M-POE-IPR: 4K60 HDMI over IP Receiver
- 1x IR blaster extension cable
- 1x IR receiver extension
- 1x User Manual

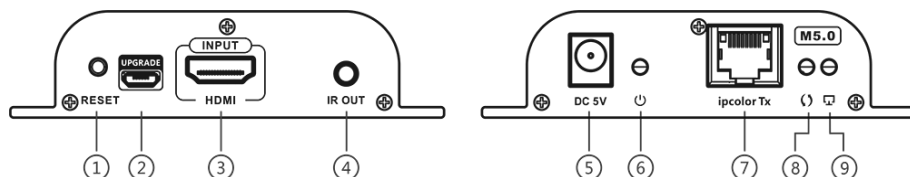


#### **Notes:**

- If you have ordered only one transmitter, neither a receiver nor an IR receiver extension cable will be included.
- If you ordered only one receiver, neither a transmitter nor an IR blaster extension cable will be included.
- Please contact your dealer immediately if you found any damage or defect in the components.

## 2. Panel Description

### 2.1 Panel Description 4K60 over IP Transmitter (UH-483M-POE-IPT)



**Figure 2-1 Panel Description 4K60 HDMI POE IP Transmitter (UH-483M-POE-IPT)**

#### ① Reset:

- Press to restart the device
- Press and hold for 5 seconds to restore factory settings  
(Data transfer indicator and network connection indicator are both flashing rapidly at the same time)

#### ② Micro USB port (UPGRADE): Used for firmware upgrade

#### ③ HDMI input: Connect with HDMI source device with HDMI cable

#### ④ IR output: Connect with included IR blaster extension cable

#### ⑤ Power input (DC 5V): Connect with DC5V/1A power adapter

#### ⑥ Power indicator: Indicator lights up when power is applied

#### ⑦ AV-over-IP port (ipcolor TX): RJ45 PoE Port - connect with CAT5e/6 or higher-level network cable

#### ⑧ Data transmission:

- Light off: No data transmission
- Steady on: The data is transmitting

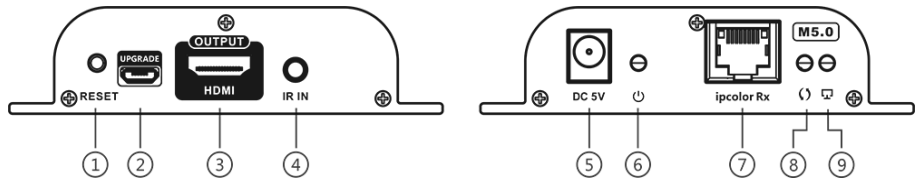
#### ⑨ Network link light:

- Light off: No Network connection
- Steady on: Network connection is normal



**Note:** Pictures shown in this manual are only for reference.

## 2.2 Panel Description 4K60 over IP Receiver (UH-483M-POE-IPR)



**Figure 2-2 Panel Description 4K60 HDMI POE IP Receiver (UH-483M-POE-IPR)**

**① Reset:**

- Press to restart the device
- Press and hold for 5 seconds to restore factory settings  
(Data transfer indicator and network connection indicator are both flashing rapidly at the same time)

**② Micro USB port (UPGRADE):** Used for firmware upgrade

**③ HDMI output:** Connect with HDMI display device with HDMI cable

**④ IR input:** Connect with included IR receiver extension cable

**⑤ Power input (DC 5V):** Connect with DC5V/1A power adapter

**⑥ Power indicator:** Indicator lights up when power is applied

**⑦ AV-over-IP port (ipcolor TX):** RJ45 PoE Port - connect with CAT5e/6 or higher-level network cable

**⑧ Data transmission:**

- Light off: No data transmission
- Steady on: The data is transmitting

**⑨ Network link light:**

- Light off: No Network connection
- Steady on: Network connection is normal

 **Note:** Pictures shown in this manual are only for reference.

### 3. System Connection/ Installation Procedures

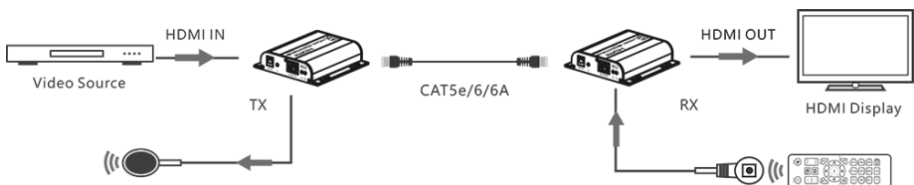
#### 3.1 Usage Precaution

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

#### 3.2 System/ Connection Diagrams

##### 3.2.1 Point-to-Point/ One-to-One Connection

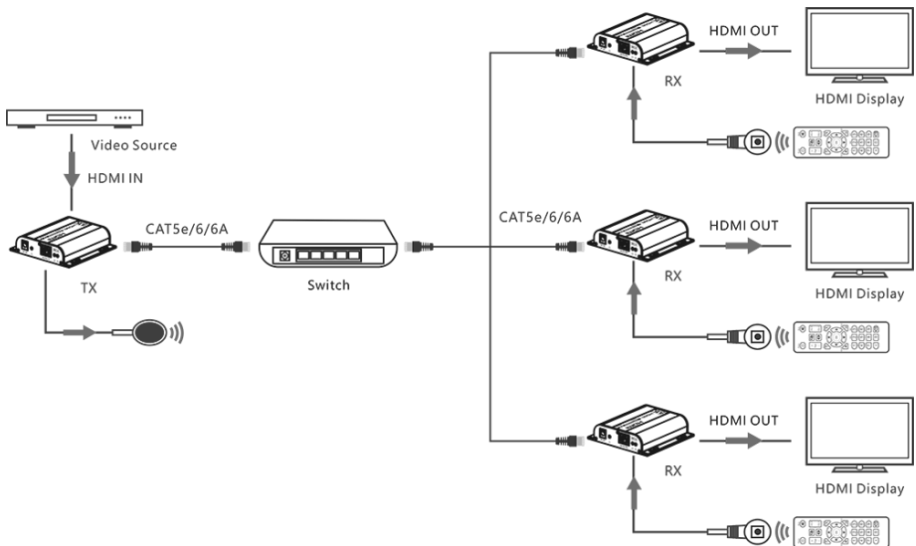
The following diagram illustrates a typical one-to-one connection:



**Figure 3-1 Connection and System Diagram (one-to-one connection)**

### 3.2.2 One-to-Many Connection (through gigabit switch):

The following diagram illustrates a typical one-to-many connection:



**Figure 3-2 Connection and System Diagram (one-to-many connection)**

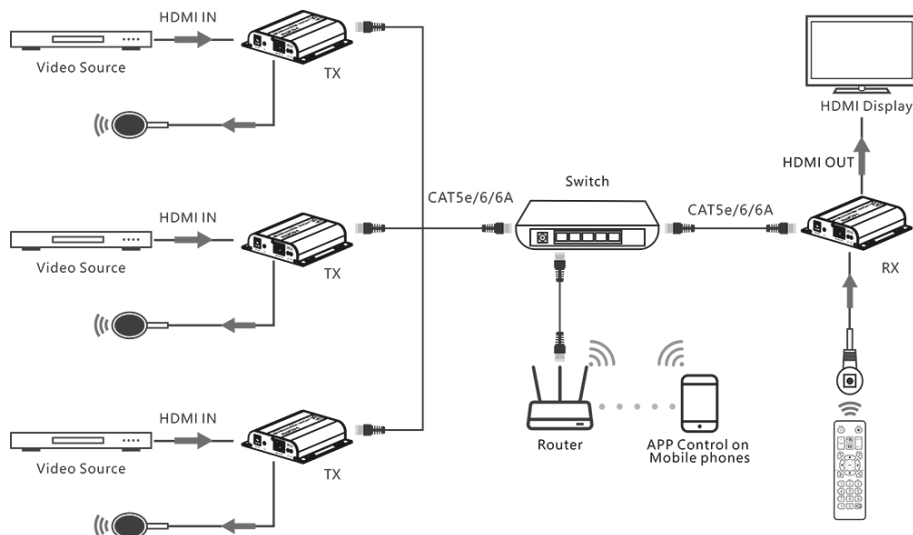


#### Notes:

- If it is POE version, please use gigabit (1000 Mbps) PoE network switch.
- It is suggested to use gigabit (1000 Mbps) IGMP switches in LAN transmission.  
DO NOT mix 100Mbps and gigabit switches when using switches cascading.  
The capacity of connecting transmitter and receivers units when using switch cascading depends on the switch bandwidth.

### 3.2.3 One-to-many connection (Control via APP):

The following diagram illustrates a typical one to many connection with APP control:

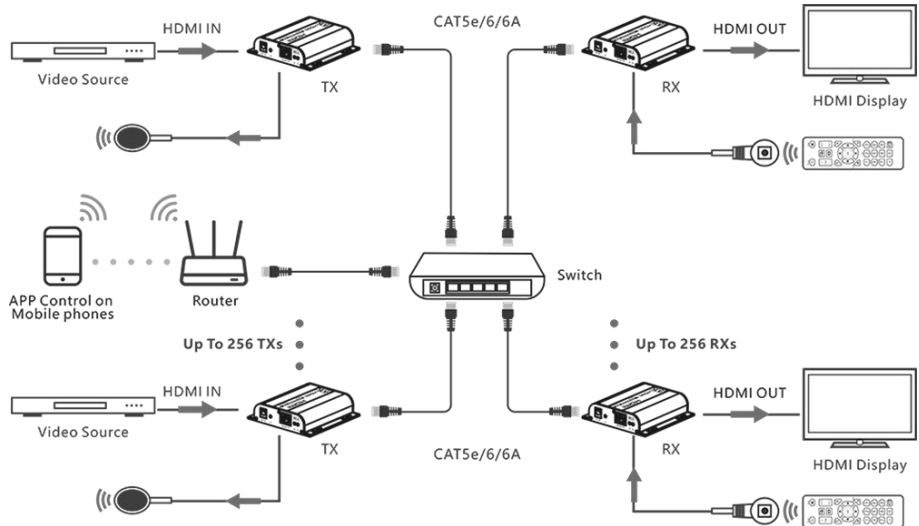


**Figure 3-3 Connection and System Diagram (one-to-many connection)**

#### Notes:

- If it is POE version, please use gigabit (1000 Mbps) PoE network switch.
- It is suggested to use gigabit (1000 Mbps) IGMP switches in LAN transmission.  
DO NOT mix 100Mbps and gigabit switches when using switches cascading.  
The capacity of connecting transmitter and receivers units when using switch cascading depends on the switch bandwidth.

### 3.2.4 Many-to-many connection (Control via APP):



**Figure 3-4 Connection and System Diagram (one-to-many connection)**

#### Notes:

- If it is POE version, please use gigabit (1000 Mbps) PoE network switch.
- It is suggested to use gigabit (1000 Mbps) IGMP switches in LAN transmission.  
DO NOT mix 100Mbps and gigabit switches when using switches cascading.  
The capacity of connecting transmitter and receivers units when using switch cascading depends on the switch bandwidth.

### 3.3 Connection Instructions

Step 1 Connect the source device to the HDMI IN port of the transmitter with an HDMI cable and connect the HDMI OUT port of the receiver to the display device with another HDMI cable.

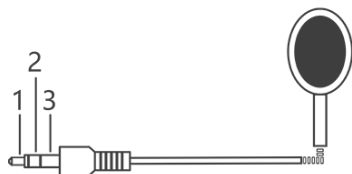
Step 2 If it's a one-to-one connection, use a network cable to connect the RJ45 port of the transmitter and receiver.

If it is a one-to-many connection, many-to-one, many-to-many utilize the IGMP gigabit switch as a bridge to connect the transmitter and receivers with Ethernet cables.

Step 3 IR pass-back: insert the IR blaster extension cable into IR OUT port of transmitter and the IR receiver extension cable into IR IN port of receiver.

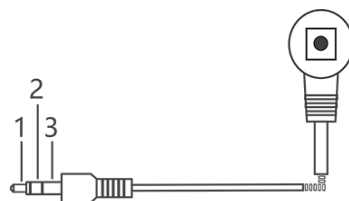
Step 4 Plug the power supply into the devices to get started.

## 4. IR User Guide



IR blaster

1. Power
2. IR Signal
3. Null



IR receiver

1. Power
2. IR Signal
3. Grounding

- 1) IR blaster extension cable should plug in the IR OUT port of the transmitter, IR receiver extension cable should plug in the IR IN port of the receiver.
- 2) The emitter of the IR blaster extension cable should be as close as possible to the IR receiving window of the source device.
- 3) Point the remote control at the receiving head of the IR receiver extension cable to operate.

## 5. Download iMMS APP

Visit <https://www.ipcolor.org/download.html> to download the iMMS APP.

For instructions, refer to the iMMS app under Settings – Help Center, and use the app to control the product.

## 6. FAQ

Q: Why the data transmission light is off?

- A: 1) Please check whether all equipment is powered on and the networking cable is connected properly.  
2) Press the "reset" button on TX and RX panels to restart and reconnect.

Q: Why is the output image unstable?

- A: 1) Check whether the length of the Ethernet cable is within the specified range, the length of HDMI cable is recommended to be  $\leq 5$  meters.  
2) Press the "reset" button on TX and RX panels to restart and reconnect.

Q: After downloading the app, the device is not detected?

- A: 1) Check whether the device is powered on and connected correctly.  
2) Verify that the device and app are on the same network.

## 7. Technical Specification

|                       | Transmitter                                                                                                                                                                                    | Receiver                 |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Video                 |                                                                                                                                                                                                |                          |
| Input                 | (1) HDMI                                                                                                                                                                                       | (1) AV-over-IP           |
| Input Connector       | (1) Type-A female HDMI                                                                                                                                                                         | (1) RJ45                 |
| Input Resolution      | Up to 4K/ UHD@60Hz 4:4:4                                                                                                                                                                       | Up to 4K/ UHD@60Hz 4:4:4 |
| Output                | (1) AV-over-IP                                                                                                                                                                                 | (1) HDMI                 |
| Output Connector      | (1) RJ45                                                                                                                                                                                       | (1) Type-A female HDMI   |
| Output Resolution     | Up to 4K/ UHD@60Hz 4:4:4                                                                                                                                                                       | Up to 4K/ UHD@60Hz 4:4:4 |
| Compatibility         | HDMI 2.0                                                                                                                                                                                       |                          |
|                       | HDCP 2.2 / HDCP 1.4 compliant                                                                                                                                                                  |                          |
| Resolution supported  | 4096x2160@24/30/50/60Hz, 3840x2160@24/30/50/60Hz, 1080P@24/25/30/50/60Hz, 720P@50/60Hz, 576P@60Hz, 480P@60Hz, 1920x1200, 1680x1050, 1600x900, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600 |                          |
| Audio                 |                                                                                                                                                                                                |                          |
| Input Connector       | (1) HDMI                                                                                                                                                                                       | (1) RJ45                 |
| Output Connector      | (1) RJ45                                                                                                                                                                                       | (1) Type-A female HDMI   |
| HDMI Output           | LPCM 2.0                                                                                                                                                                                       |                          |
| Transmission          |                                                                                                                                                                                                |                          |
| Connection types      | One-to-one connection<br>One-to-many connection<br>Many-to-one connection<br>Many-to-many connection<br>Switch cascading                                                                       |                          |
| Transmission distance | CAT5 80m / CAT5E 100m / CAT6 120m                                                                                                                                                              |                          |
| Transmission latency  | 1080P: 80~130ms<br>4K@60Hz: 150~220ms                                                                                                                                                          |                          |
| Command Signal        |                                                                                                                                                                                                |                          |
| IR interface          | 1x 3.5mm IR OUT                                                                                                                                                                                | 1x 3.5mm IR IN           |
| IR receiving range    | ≤ 5m                                                                                                                                                                                           |                          |
| IR frequency          | 20kHz~60kHz                                                                                                                                                                                    |                          |

|                              |                                                                                                                                          |                         |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <b>Power</b>                 |                                                                                                                                          |                         |
| Power Supply                 | DC 5V/ 1A                                                                                                                                | DC 5V/ 1A               |
| Power Consumption            | ≤ 3.5W                                                                                                                                   | < 2.5W                  |
| <b>Operating Environment</b> |                                                                                                                                          |                         |
| Working Temperature          | -20~ +60°C                                                                                                                               |                         |
| Storage Temperature          | -30 ~ +70°C                                                                                                                              |                         |
| Humidity                     | 0% ~ 90% RH (no condensation)                                                                                                            |                         |
| <b>Physical Properties</b>   |                                                                                                                                          |                         |
| Material                     | Aluminium                                                                                                                                |                         |
| Color                        | Black                                                                                                                                    |                         |
| Dimension (WxLxH)            | approx. 94 x 97 x 24 mm                                                                                                                  | approx. 94 x 97 x 24 mm |
| Net Weight                   | approx. 155g                                                                                                                             | approx. 155g            |
| <b>Protection</b>            |                                                                                                                                          |                         |
|                              | ESD protection<br>1a Contact discharge level 2 (±4KV)<br>1b Air discharge level 3 (±8KV)<br>Implementation of the standard: IEC61000-4-2 |                         |
|                              | Lightning protection, Surge protection                                                                                                   |                         |

## **8. After-sales Service**

If there appear some problems when running the 4K60 HDMI 2.0 over IP Extender, please check and deal with the problems referring to this user manual.

Any transport costs are borne by the users during the warranty.

The return of a product to our Customer Service implies the full agreement of the terms and conditions hereinafter. There terms and conditions may be changed without prior notice.

- 1) Product Limited Warranty:** We warrants that its products will be free from defects in materials and workmanship for two years, which starts from the first day you buy this product (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) Scope**

These terms and conditions of Customer Service apply to the customer service provided for the products or any other items sold by authorized dealer only.

### **3) What the warranty does not cover (Warranty Exclusion)**

- 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 distributor.
  - Any other causes which does not relate to a product defect.
- Shipping fees, installation or labor charges for installation or setup of the product.

- 4) Documentation:** Customer Service will accept defective product(s) in the scope of warranty coverage at the sole condition that the defeat has been clearly defined, and upon reception of the documents or copy of invoice, indicating the date of purchase, the type of product, the serial number, and the name of dealer.

**5) 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.

**Remarks:** For any questions or problems, please try to get help from your local dealer or our customer support ([info@ute.de](mailto:info@ute.de)).



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