User Manual

Milestone PRO

MPTP-TUH43T

18G KVM Extender Transmitter

over HDBaseT 3.0

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Version: MPTP-TUH43T_2025V1.0

18G KVM Extender over HDBaseT 3.0

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 distributor for maintenance assistance. The functions described in this version were updated till December 8th, 2025. 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.

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.

● 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.

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1. Product Introduction

Thanks for choosing the transmitter (TX) of 18G KVM Extender MPTP-TUH43T. It is usually used with the receiver (RX) of the 18G KVM Extender. With RX connected to the TX, video signal can be transmitted up to 40m at 4K@60Hz and 70m at 4K@30Hz via CAT6A cable. It also supports audio pass-through, two-way IR, USB extend and RS232 pass-through. 24V PoC feature makes it possible for the TX and the RX to be powered from each other and only one power adapter is needed in system.

1.1 Features

● 18Gbps high bandwidth, HDMI V2.0.

● HDMI video resolution up to 4K@60Hz 4:4:4, HDR10, Dolby Vision.

● Supports to transmit up to 40m at 4K@60Hz and 70m at 4K@30Hz.

● Two-way IR and RS232 pass-through.

● Supports two-way 24V PoC.

● Supports audio pass-through.

● Provides HDMI loop out on transmitter.

1.2 Packing List

● 1x MPTP-TUH43T Transmitter

● 1x 3-pin Terminal Block

● 2x Mounting Ears with 2 Screws

● 4x Rubber Feet

● 1x Power Adapter (DC 24V/1.5A)

● 1x User Manual

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

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2. Specification

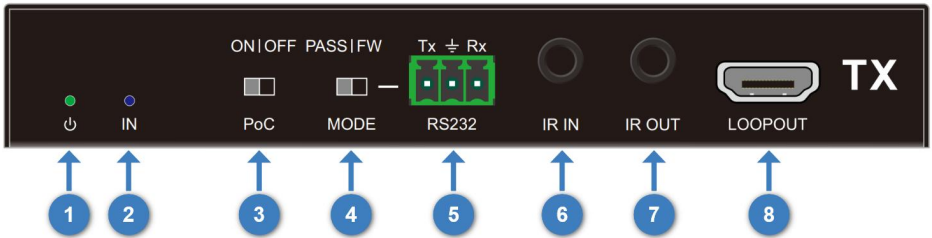| MPTP-TUH43T	
Video	
Input	1x VIDIEO IN
Input Connector	1x Type-A female HDMI
Input Resolution	Up to 4K@60Hz 4:4:4
Output	1x HDBT OUT, 1x LOOPOUT
Output Connector	1x RJ45, 1x Type-A female HDMI
Output Resolution	Up to 4K@60Hz 4:4:4
Audio	
Input	1x L/R IN
Input Connector	1x 3.5mm jack
Audio Format	3.5mm Audio: PCM 2CH
Frequency Response	20Hz ~ 20KHz, ±3dB
Max Output Level	2.0Vrms ± 0.5dB. 2V = 16dB headroom above -10dBV (316mV) nominal consumer line level signal
THD+N	< 0.05% (-80dB), 20Hz~20KHz bandwidth, 1kHz sine at 0dBFS level (or max level)
SNR	> 85dB, 20Hz-20kHz bandwidth
Crosstalk Isolation	> 70dB, 10kHz sine at 0dBFS level (or max level before clipping)
L-R Level Deviation	< 0.3dB, 1kHz sine at 0dBFS level (or max level before clipping)
Frequency Response Deviation	< ± 0.5dB, 20Hz – 20kHz
Output Load Capability	1KΩ and higher (Supports 10x paralleled 10KΩ loads)
Stereo Channel Separation	>70dB@1KHz
Control	
Control Part	2x DEVICE, 1x HOST, 1x PoC Switch, 1x MODE Switch, 1x RS232, 1x IR IN, 1x IR OUT
Control Connector	2x USB 3.2 Gen1 Type-A, 1x USB 3.2 Gen1 Type-B, 3x 3.5mm Jacks, 1x 3-pin Terminal Block, 2x 2-pin DIP Switch
General	
Bandwidth	18Gbps
HDMI Standard	2.0
HDCP Version	Input: HDCP 2.2, HDCP 1.4 compliant Loopout: Follows the display's HDCP version. RX Output: Follows the source's HDCP version.

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Two-way PoC	Supported two-way 24V
HDMI V2.0 Cable Length	4K@60Hz 4:4:4 ≤ 5m, 4K@60Hz 4:2:0 ≤ 10m, 1080P ≤ 15m
Transmission Standard	HDBaseT
Transmission Distance	4K@60 4:4:4 ≤ 40m; 4K@30 4:4:4 ≤ 70m
Operation Temperature	-10°C to +55°C (+14° to +131°F)
Storage Temperature	-25°C to +70°C (-13°F to +158°F)
Relative Humidity	10% to 90%, non-condensing
Power Supply	DC 24V 1.5A
Power Consumption	28W (Max)
Dimension (W x H x D)	140mm x 21.7mm x 110mm
Net Weight	365g

Note: Please use high-qualified HDMI cable fully compliant with HDMI V2.0 for reliable transmission and connection.
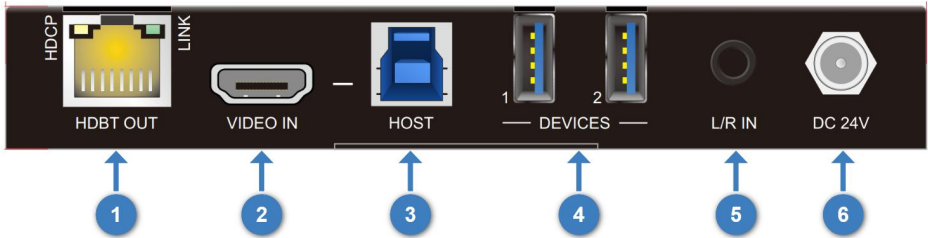
3. Panel Description

3.1 Front Panel

① **POWER LED:** Illuminates green when power is applied.

② **IN LED:** Illuminates when there is a HDMI source device is connected.

③ **PoC:** DIP switch for PoC ON/OFF

④ **MODE:** DIP switch for RS232 mode selection.

- **PASS:** RS232 pass-through.

- **FW:** Firmware upgrade.

⑤ **RS232:** 3-pin Phoenix socket, used for upgrading or pass-through.

⑥ **IR IN:** Connects to the IR receiver for IR pass-through.

⑦ **IR OUT:** Connects to the IR emitter for IR pass-through.
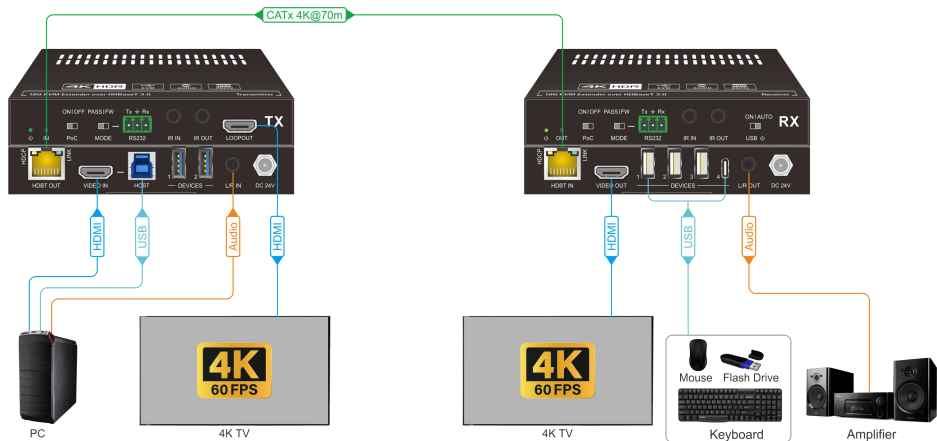
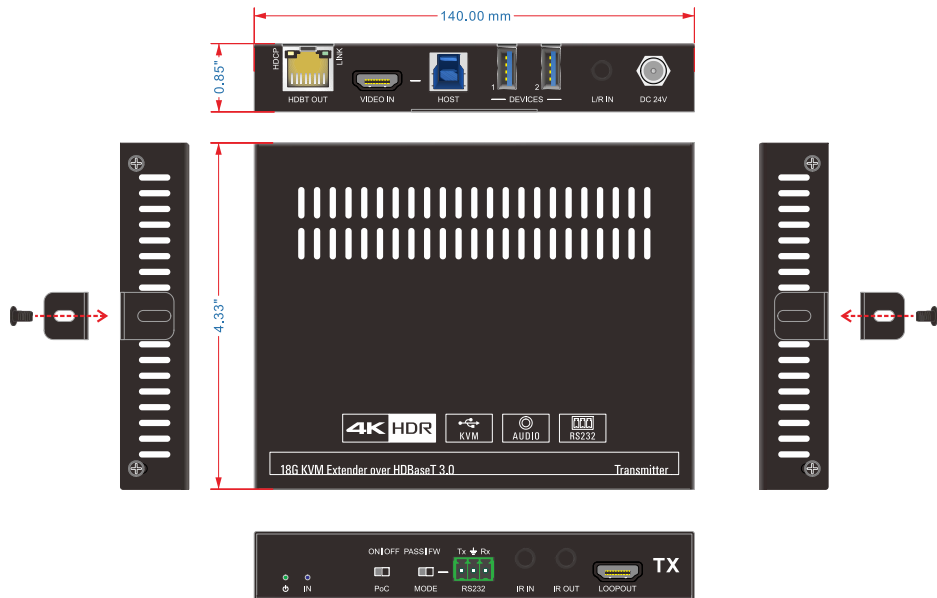⑧ **LOOPOUT:** Connects to HDMI display device.

3.2 Rear Panel

① **HDBT OUT:** RJ45 port to connect the HDBT output port of receiver by CAT6A Ethernet cable. The LINK LED (green LED) illuminates when there is a valid HDBaseT link between the transmitter and the receiver. The HDCP LED (yellow LED) illuminates when the video contains HDCP content, and the HDCP LED flashes when there is no HDCP.

② **VIDEO IN:** Connects to HDMI source device.

③ **HOST:** USB3.2 Gen1 Type-B port for PC connection. The PC can be controlled by the USB devices which are connected to the HOST port of transmitter.

④ **DEVICE:** Two USB3.2 Gen1 Type-A ports, fixed 200mA per port for USB KVM devices connection to control the PC which is connected to the HOST port of transmitter.

⑤ **L/R IN:** 3.5mm jack for audio input.

⑥ **DC 24V:** DC connector for the power adapter connection.

4. System Connection

5. Panel Drawing

6. Troubleshooting & Maintenance

Problems	Potential Causes	Solutions
Output image with snowflake	Bad quality of the connecting cable.	Try another high-quality cable.
	Fail or loose connection.	Make sure the connection is good
No output image when switching	No signal at the input / output end.	Check with oscilloscope or multimeter if there is any signal at the input/ output end.
	Fail or loose connection.	Make sure the connection is good.
	The switcher is broken.	Send it to authorized dealer for repairing.
POWER indicator doesn't work or no respond to any operation	Fail connection of power cord.	Make sure the power cord connection is good.
Static becomes stronger when connecting the video connectors	Bad grounding.	Check the grounding and make sure it is connected well.
Cannot control the device by control device (e.g. a PC) through RS232 port	Broken RS232 port.	Send it to authorized dealer for checking.

Note: If your problem still remains after following the above troubleshooting steps, please contact your local dealer or distributor for further assistance.

7. Customer Service

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) **Warranty**
   The limited warranty period of the product is fixed three years.

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 distributor only.

3) **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 do 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 distributor.

Remarks: Please contact your local distributor for further assistance or solutions.