

# HDMI CAT5e Extender

**ITEM NO.: HUE03T-4K**

## **4K HDMI/ DisplayPort/ USB-C Switching CAT5e Transmitter**

HUE03T-4K features the latest video interfaces, HDMI/ DisplayPort/USB-C, supporting up to 4K resolution, which provides BYOD (Bring Your Own Device) presentations and collaborative meetings a complete panel for smartphones, laptops & tablets.

With the compatible HDMI receiver, HE03R-4K & HE03LR-4K, the solution suits any size of meeting rooms from small to the large scales. Video presents on up to 250 HDMI displays simultaneously without integrating with HDMI distributors.

Additionally, HUE03T-4K could be integrated with external control keypads by I/O and RS232 signals which offers easy and intuitive control methods.

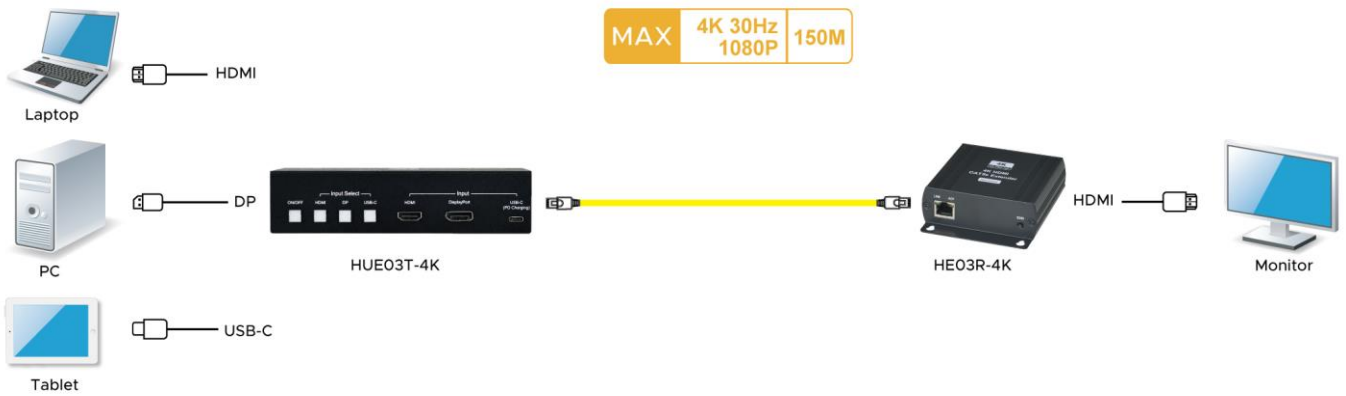


### **Features:**

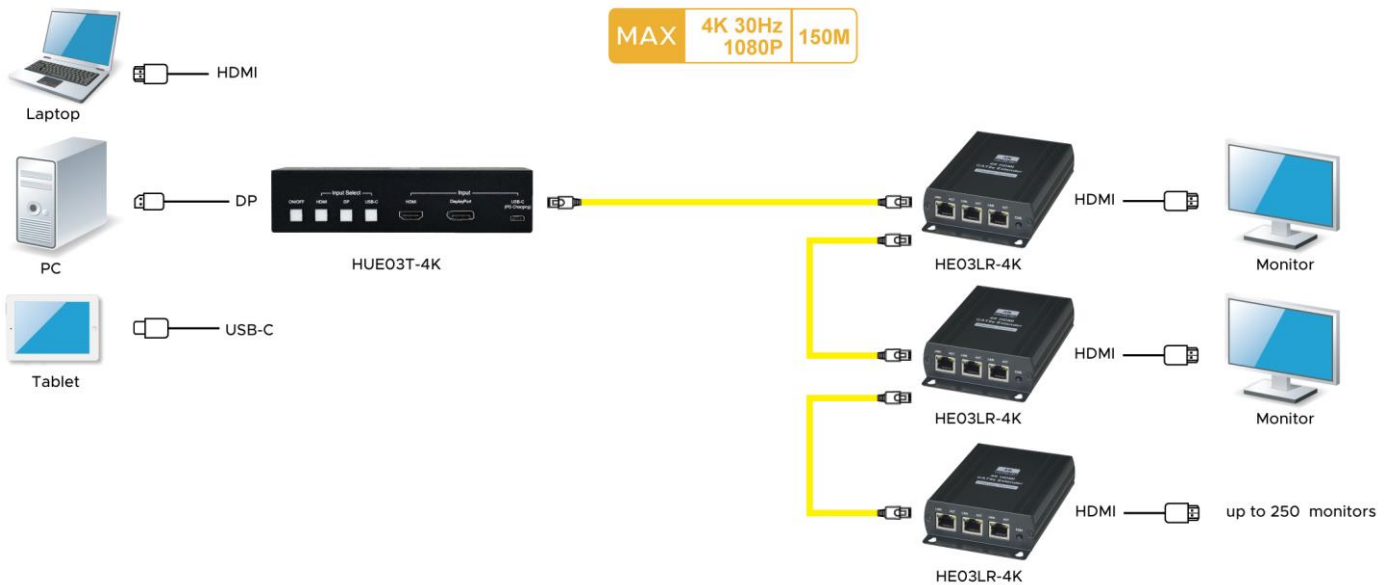
- HDMI, DisplayPort and USB-C inputs with automatic or manual switching.
- Resolution up to 4K@30Hz 4:4:4, 1080p@120Hz
- Extends 4K 30Hz/1080p 120Hz up to 150M by CAT5e cable
- LPCM 7.1 @ 192KHz , Dolby True HD, Dolby Atmos, DTS-HD Master Audio, DTS:X audio format supported
- Comply to HDMI2.0, HDCP 1.4, HDR10
- USB-C supports DP-ALT Mode, provides up to 15W/39W power to device
- EDID management by one button click
- Provide I/O trigger for external control keypad
- Control method: Front Panel Button, Console, External control keypad
- Works with HE03R-4K 、 HE03LR-4K HDMI receiver
- Transmits video/audio signals to 250 displays simultaneously
- Plug-n-Play -no drive, no software needed

# Installation:

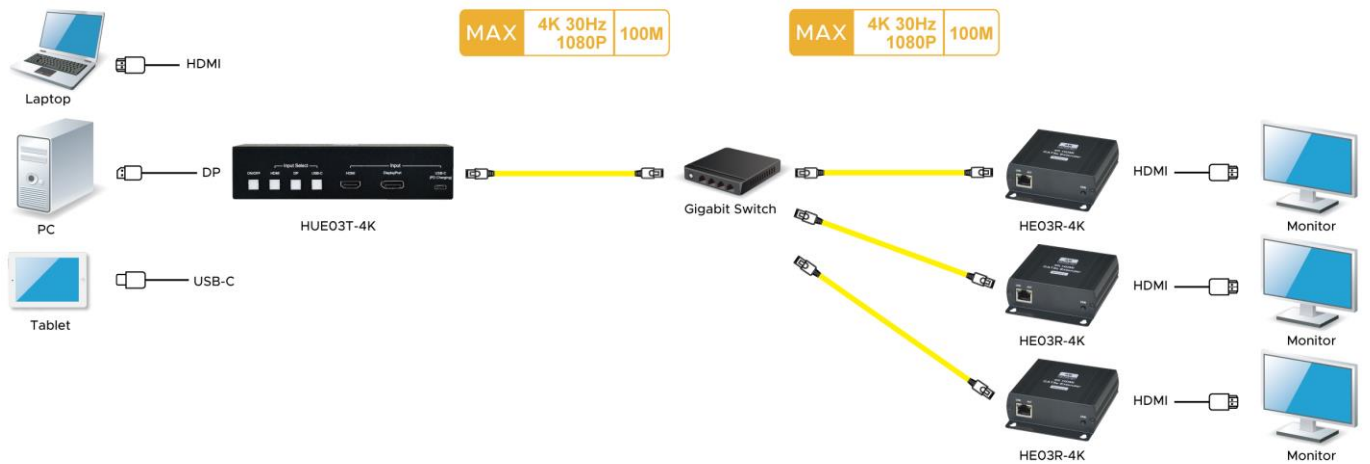
(1) Extends one of HDMI/DP/USB-C signals to one display



(2) Extends one of HDMI/DP/USB-C signals to multiple displays



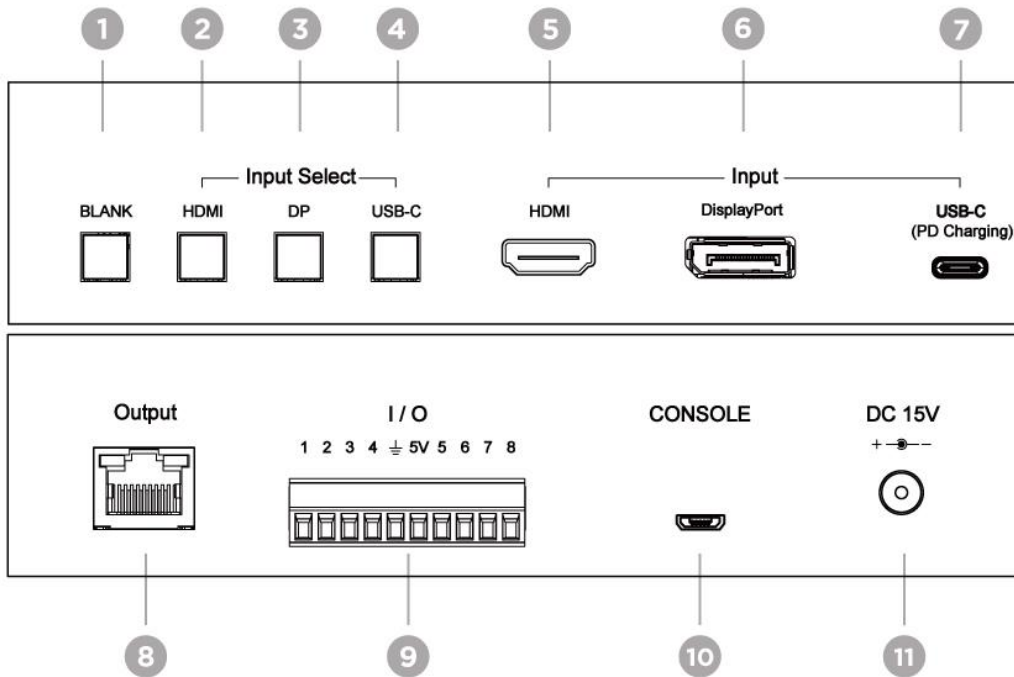
(3) Extends one of HDMI/DP/USB-C signals to multiple displays through Gigabit Ethernet Switch



\* EEE(Energy-Efficient Ethernet) function must be turned off, when connect to Gigabit Ethernet Switch.

## Panel Review:

(1) HUE03T-4K



No.	Interface	Function
1	BLANK Button	Press to send or cut off video and audio signals to receiver. (LED light intermittently when cutting off the signals.) Press to set on/off of Auto-detection mode. (Refer to Auto-detection Mode)
2	HDMI Button	Press to select the video and audio from HDMI input.
3	DP Button	Press to select the video and audio from DisplayPort input.
4	USB-C Button	Press to select the video and audio from USB-C input.
5	HDMI Input	Connects to HDMI source with HDMI cable.
6	DisplayPort Input	Connects to DisplayPort source with HDMI cable.
7	USB-C Input	Connects to USB-C source with certified USB-C cable. ( Refer to Description1,2)
8	Output	Connect to HDMI receiver for displaying input source by Ethernet cable. (Refer to Description 3)
9	I/O port	Connect 10-pin captive screw terminal connector to external control keypad.(Refer to Dry Contact Instruction)
10	Console	Connect micro-USB cable for control or firmware update.(Refer to RS232 command chart)
10	Power Input	Connects to DC15V 3.5A adapter with cable lock. (Refer to Description 4)

## Description:

1. USB-C input port support 15W/39W power output and DP-Alt mode (video/audio transmission) only. USB data transmission is not supported.
2. USB-C cable must support DP-Alt mode or with E-mark, or the general USB-C cable would only support charging function.
3. Power input lower than DC15V 3.5A, HUE03T-4K may not charge the device or work functionally.

## Auto-detection Mode:

HUE03T-4K automatically detects the connection of HDMI/ DisplayPort/ USB-C input and automatically switches the input to the connected source.

When a source is disconnected for 6 seconds, HUE03T-4K will automatically switch input to the most recently-connected source (The auto detecting sequence: HDMI>DP>USB-C)

### Enable/Disable(ON/OFF) Auto-detection Mode

There are two ways to turn on/off auto-detection mode

**1. Front panel button:** Press BLANK button for 6 seconds. (The same method for both turning on/off)

**2. RS232 command:** Refer to the RS232 command chart.

### Identify the on/off status of Auto-detection

There are two ways to check the on/off status of Auto-detection mode.

**1. Re-plug the power cord and check the LED status of BLANK button**

- ON: LED flash for 2 seconds then light
- OFF: LED blackout for 1second then light.

**2. RS232 command:** Refer to RS232 command chart

## Contact Closure:

I/O

1 2 3 4 ⏚ 5V 5 6 7 8

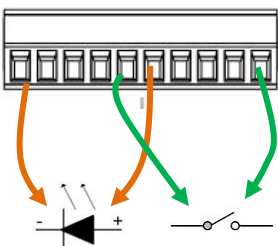


No.	Interface	Function
1	LED 01	Indicates Blank Button status.
2	LED 02	Indicates HDMI Button status.
3	LED 03	Indicates DisplayPort Button status.
4	LED 04	Indicates HDMI Button status.
⏚	GND	Ground
5V	DC5V	Provides 5V power
5	Blank Port	Connects cable to external keypad for selecting Blank function
6	HDMI Port	Connects cable to external keypad for selecting HDMI Input
7	DisplayPort Port	Connects cable to external keypad for selecting DisplayPort Input
8	USB-C Port	Connects cable to external keypad for selecting USB-C Input

## Contact Clouse Connection:

I/O

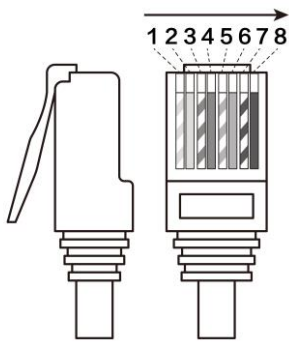
1 2 3 4 ⏚ 5V 5 6 7 8



※ Please check the positive and negative of LED before connect the cable. Otherwise, it might damage the device or lead no reaction.

## RJ45 Pinout

(PIN TIA/EIA-568B)



(PIN TIA/EIA-568B)	
PIN	Wire Color
1	Orange-white
2	Orange
3	Green-white
4	Blue
5	Blue-white
6	Green
7	Brown-white
8	Brown

## Transmission Distance:

Distance	4K/1080p
HDMI IN/OUT	5M
DisplayPort IN	3M
USB-C IN	2M
CAT5e	150M

## Cable Recommendation:

1. The transmission distance test report below is by means of using the COMMSCOPE 57535-2 (CAT5e 24AWG) cables
2. It's recommended to use high quality cable, such as Premium Certified HDMI cable, DisplayPort 1.3 Cable, USB-C cable with E-mark or USB3.2 standard cable).

## RS232 Settings:

Terminal setting: [ **152000bps (8-N-1)** ]

## RS232 Command Table:

Entering the Command: Command+  $\Delta$  (space)+Parameter+ Enter

Command	Description	Parameter
POWER $\Delta$ 1/0	Power ON/OFF	1: ON ; 0:OFF
POWER $\Delta$ ?	Get Power status	
PORT $\Delta$ 1/2/3	Switch between HDMI/DP/USB-C Input Port	1:HDMI 2:DP 3:USB Type-C
PORT $\Delta$ ?	Get Port status	
RUN_RESET	Reset Device	
VERSION	Display firmware version	
AUTO_MODE $\Delta$ 1/0	Auto Mode ON/OFF	1: ON ; 0:OFF
AUTO_MODE $\Delta$ ?	Get Auto Mode status	
DEFAULT	Restore to Factory Default	
HELP	Show all commands	
?		

- ※ When the command place correctly, system would response "OK" and execute.
- ※ When the command place incorrectly, system would response "NG"

## Resolution:

UHD/HD/SD	Resolution	Refresh Rate (Hz)		
	4096 × 2160p DCI	24	25	30
	3840 × 2160p UHD	24	25	30
	1080p	23.97	24	25
		29.97	30	50
		59.94	60	120
	1080i	50	60	
	720p	50	59.94	60
	576p	50		
	480p	59.94	60	
*480i	60			

\* Not all of devices' 480i resolution are supported under HUE03-4K transmission due to the compatibility issue.

VESA	Resolution	Refresh Rate (Hz)		
	2560 × 1600	60		
	2560 × 1440	60		
	2048 × 1280	60		
	2048 × 1152	60		
	1920 × 1440	60	75	
	1920 × 1200	50	60	
	1920 × 1080	60		
	1856 × 1392	60	75	
	1792 × 1344	60	75	
	1680 × 1050	60		
	1600 × 1200	50	60	65
		70	75	
	1600 × 1024	60		
	1600 × 900	60		
	1440 × 960	72		
	1440 × 900	60	75	85
	1440 × 788	60		
	1400 × 1050	60		
	1400 × 788	60		
	1366 × 768	60		
	1360 × 768	60		
	1280 × 1024	60	75	85
	1280 × 960	60	85	
	1280 × 800	60	75	120
	1280 × 768	60	75	120
	1152 × 870	75		
	1152 × 864	75		
	1024 × 768	60	70	75
	1024 × 576	60		
	852 × 480	60		
	848 × 480	60		
	832 × 624	75		
800 × 600	56	60	72	
	75	85	120	
720 × 400	70	85		
640 × 480	60	75	85	

## Optional Model:

**WUSBC-2M** Thunderbolt 3 USB-C Cable 2M (USB-C to USB-C)

## Package Contents:

- 1 x HUE03T-4K
- 1 x DC15V 3.5A power supply
- 2 x Mounting brackets
- 4 x Mounting screws
- 4 x Rubber Cushion

## Specification:

	<b>HUE03T-4K</b>
HDMI Input	HDMI Type-A × 1
DisplayPort Input	DisplayPort × 1
USB Input	USB Type-C × 1 DP Alt Mode & Power Delivery (PD) supported
RJ45 Output	RJ45 Connector × 1
Distance	4K@30Hz/1080p@60Hz up to 150M over CAT5e
Dry Contact I/O	10-pin captive screw terminal connector
Console	Micro USB-B connector
Resolution	Up to 4096×2160/30Hz RGB4:4:4/4:2:2
Color Depth	8bit/10bit/12bit
Audio	LPCM 7.1 @ 192KHz , Dolby True HD, Dolby Atmos, DTS-HD Master Audio, DTS:X
USB Type-C PD	DC15V 2.6A (39W) DC5V 3A(15W)
Power Consumption	Max 6.9W (460mA) · Low Power 3W (200mA)
Temperature	Operation: 0 to 70°C, Storage: -30 to 105°C, Humidity: up to 90%
Dimensions	165 × 95 × 40 mm
Weight	440g

RoHS   