

# User Manual

## UHKVM-70XC

### USB-C KVM Extender over HDBaseT3.0



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Version: UHHKVM\_2023V1.1




## 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 your local dealer for maintenance assistance. The functions described in this version were updated till January, 2023. 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 function is valid till 2023-01.**

## 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.

- 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 specifications of product 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, and please treat them as normal electrical wastes.

## **Table of Contents**

1. Product Introduction.....	1
1.1 Introduction to 4K60 18G USB-C KVM Extender Set UHKVM-70XC .....	1
1.2 Features .....	1
1.3 Package List.....	2
2. Panel Description.....	3
2.1 USB-C KVM Transmitter (UHKVM-70XCT) .....	3
2.2 USB-C KVM Receiver (UHKVM-70XCR).....	4
3. System Connection.....	5
3.1 Usage Precaution .....	5
3.2 System Diagram UHKVM-70XC .....	5
4. Specification .....	7
5. Panel Drawing .....	9
5.1 USB-C KVM Transmitter (UHKVM-70XCT) .....	9
5.2 USB-C KVM Receiver (UHKVM-70XCR).....	10
6. After Sales/ Customer Service .....	11

## **1. Product Introduction**

### **1.1 Introduction to 4K60 18G USB-C KVM Extender Set UHKVM-70XC**

The UHKVM-70XC is an USB-C KVM Extender Set that allows one USB channel to be transmitted over distances of up to 40m at 4K@60Hz and 70m at 4K@30Hz via CAT6A cable.

The USB-C KVM Extender Set UHKVM-70XC includes one USB-C KVM HDBT3.0 Transmitter (UHKVM-70XCZ) and one USB-CKVM HDBT Receiver (UHKVM-70XCR).

The transmitter features one USB-C input and one HDBaseT3.0 output. For the USB-C input, it provides an AV ideal interface for connecting to the Macbook or other device with SlimPort output. And there's also a USB-C port for charging devices.

The receiver features one HDMI output, one HDBaseT3.0 input and 4 USB 2.0 ports for connecting with KVM device such as camera, keyboard and mouse.

### **1.2 Features**

- 4K60 18G KVM Extender over HDBaseT 3.0.
- USB-C input supports 4K@60Hz 4:4:4 and 100W USB Power Delivery (100W fast charging of connected devices) when an additional USB-C power supply is connected to the second USB-C port
- Supports to transmit up to 40m at 4K@60Hz and 70m at 4K@30Hz.
- Supports bi-direction 24V PoC power supply  
- only one power supply unit is needed in the system
- Transmitter (UHKVM-70XC) supports USB-C charging port to charge input device up to 100W, which is enough for the latest Macbook
- 5 USB 2.0 ports for connecting with KVM device.
- Micro-USB for firmware upgrade.

### 1.3 Package List

- 1x UHKVM-70XCT: 4K60 18G USB-C over HDBaseT 3.0 KVM Transmitter
- 1x UHKVM-70XCR: 4K60 18G USB-C over HDBaseT 3.0 KVM Receiver
- 4x Mounting Ears with 4 Mounting Screws
- 8x Rubber feets
- 1x Power Adapter (24V DC 1.25A)
- 1x User Manual



#### **Notes:**

- Please confirm if the product and the accessories are all included, if not, please contact with the dealers.
- Please contact your dealer immediately if any damage or defect in the components is found.

## 2. Panel Description

### 2.1 USB-C KVM Transmitter (UHKVM-70XCT)

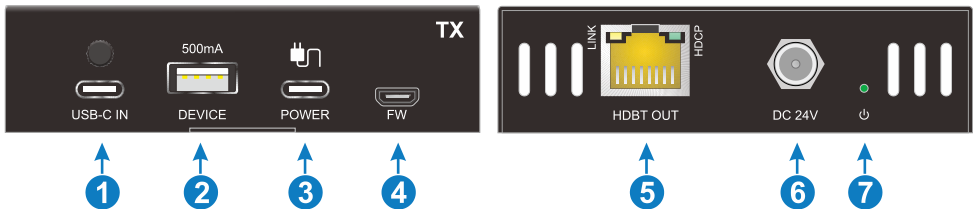



Figure 2- 1 UHKVM-70XCT Front and Rear Panel

- ① **USB-C IN:** Connects to the Macbook or other device with SlimPort output.
- ② **DEVICE:** USB 2.0 Ports for connecting device.
- ③ **POWER:** Connects to adapter to charge the USB-C IN.
- ④ **FW:** Micro-USB for firmware upgrade.
- ⑤ **HDBT OUT:** Connects to the HDBT IN port of the USB-C KVM Receiver UHKVM-70XCR by a CAT6A cable.
- ⑥ **DC 24V:** DC connector for the power adapter connection.
- ⑦ **POWER LED:** The LED illuminates green when the power is connected.

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



## 2.2 USB-C KVM Receiver (UHKVM-70XCR)



Figure 2- 2 UHKVM-70XCR Front and Rear Panel

- ① **HDMI OUT:** Connects to the HDMI display.
- ② **DEVICE (1~4):** 4 USB Ports for connecting KVM device:
  - (2) Type-A USB 2.0 5V250mA Power Supply
  - (1) Type-A USB 2.0 5V1A Power Supply
  - (1) Type-C USB 2.0 5V1A Power Supply
- ③ **HDBT IN:** Connects to the HDBT OUT port of the USB-C KVM Transmitter UHKVM-70XCT by a CAT6A cable.
- ④ **DC 24V:** DC connector for the power adapter connection.
- ⑤ **POWER LED:** The LED illuminates green when the power is connected.

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

### 3. System Connection

#### 3.1 Usage Precaution

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

#### 3.2 System Diagram UHKVM-70XC

The following diagrams illustrate typical input and output connection/ application that can be utilized with 4K60 18G USB-C KVM Extender UHKVM-70XC:

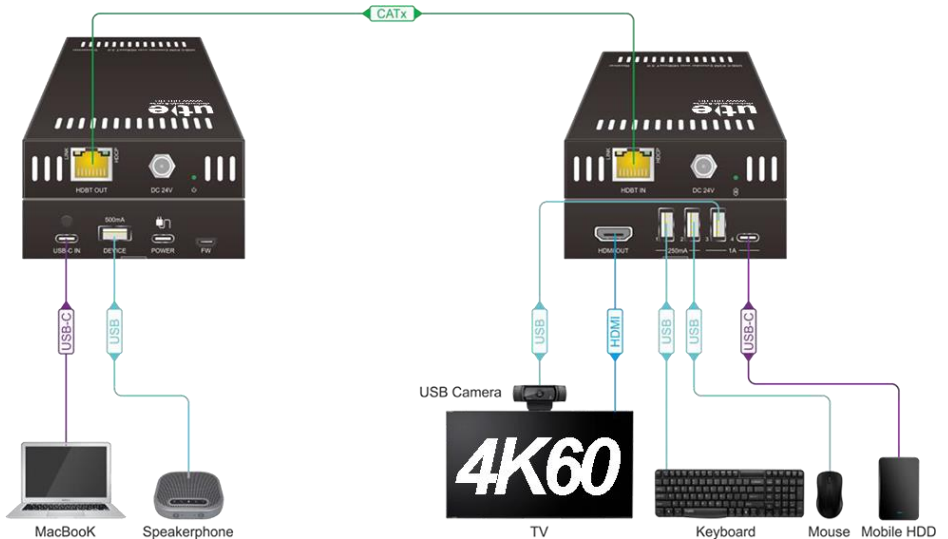


Figure 3- 1 Connection and System Diagram



Figure 3- 2 Application Diagram

## 4. Specification

	UHKVM-70XCT	UHKVM-70XCR																
<b>Video</b>																		
Input Signal	(1) USB-C IN	(1) HDBaseT IN																
Input Connector	(1) Type-C USB	(1) RJ45																
Input Resolution	Up to 4Kx2K@60Hz 4:4:4	Up to 4Kx2K@60Hz 4:4:4																
Output Signal	(1) HDBaseT OUT	(1) HDMI OUT																
Output Connector	(1) RJ45	(1) Type-A female HDMI																
Output Resolution	Up to 4Kx2K@60Hz 4:4:4	Up to 4Kx2K@60Hz 4:4:4																
HDBT Standard	HDBaseT 3.0																	
HDMI Standard	Up to HDMI 2.0																	
HDCP Version	Up to HDCP 2.2																	
	Input: HDCP 2.2, HDCP 1.4 compliant																	
	Output:																	
	<table border="1"> <thead> <tr> <th>RXOUT TX IN</th> <th>HDCP 2.2</th> <th>HDCP 1.4</th> <th>NO HDCP</th> </tr> </thead> <tbody> <tr> <td>HDCP 2.2</td> <td>HDCP 2.2</td> <td>NO HDCP</td> <td>NO HDCP</td> </tr> <tr> <td>HDCP 1.4</td> <td>HDCP 2.2</td> <td>HDCP 1.4</td> <td>NO HDCP</td> </tr> <tr> <td>NO HDCP</td> <td>NO HDCP</td> <td>NO HDCP</td> <td>NO HDCP</td> </tr> </tbody> </table>	RXOUT TX IN	HDCP 2.2	HDCP 1.4	NO HDCP	HDCP 2.2	HDCP 2.2	NO HDCP	NO HDCP	HDCP 1.4	HDCP 2.2	HDCP 1.4	NO HDCP	NO HDCP	NO HDCP	NO HDCP	NO HDCP	
	RXOUT TX IN	HDCP 2.2	HDCP 1.4	NO HDCP														
HDCP 2.2	HDCP 2.2	NO HDCP	NO HDCP															
HDCP 1.4	HDCP 2.2	HDCP 1.4	NO HDCP															
NO HDCP	NO HDCP	NO HDCP	NO HDCP															
<b>Control</b>																		
Control Part	(5) DEVICE																	
Control Connector	(1) Type-A USB 2.0 5V500mA Power Supply (2) Type-A USB 2.0 5V250mA Power Supply (1) Type-A USB 2.0 5V1A Power Supply (1) Type-C USB 2.0 5V1A Power Supply																	

General		
PoC	Supported bi-directional 24V PoC	
HDMI Cable Length	4K@60Hz 4:4:4 ≤ 5m, 4K@60Hz 4:2:0 ≤ 10m, 1080P ≤ 15m	
Transmission Mode	HDBaseT 3.0	
Transmission Distance	4K@60 4:4:4 ≤ 40m; 4K@30 4:4:4 ≤ 70m	
Operation Temperature	-5°C ~ +55°	
Storage Temperature	-25°C ~ +70°	
Relative Humidity	10% ~ 90%, Non-condensing	
External Power Supply	Input: AC 100~240V, 50/60Hz; Output: 24V DC 1,25A.	
Power Consumption	30W (max)	
USB-C Power Charging	Up to 100W - depends on used power supply	--
Dimension (W*H*D)	90 x 24 x 140 mm	90 x 24 x 120 mm
Net Weight	285g	250g



**Note:** Make sure the HDMI cable is compliant with HDMI2.0 to ensure reliable transmission.

## 5. Panel Drawing

### 5.1 USB-C KVM Transmitter (UHKVM-70XCT)

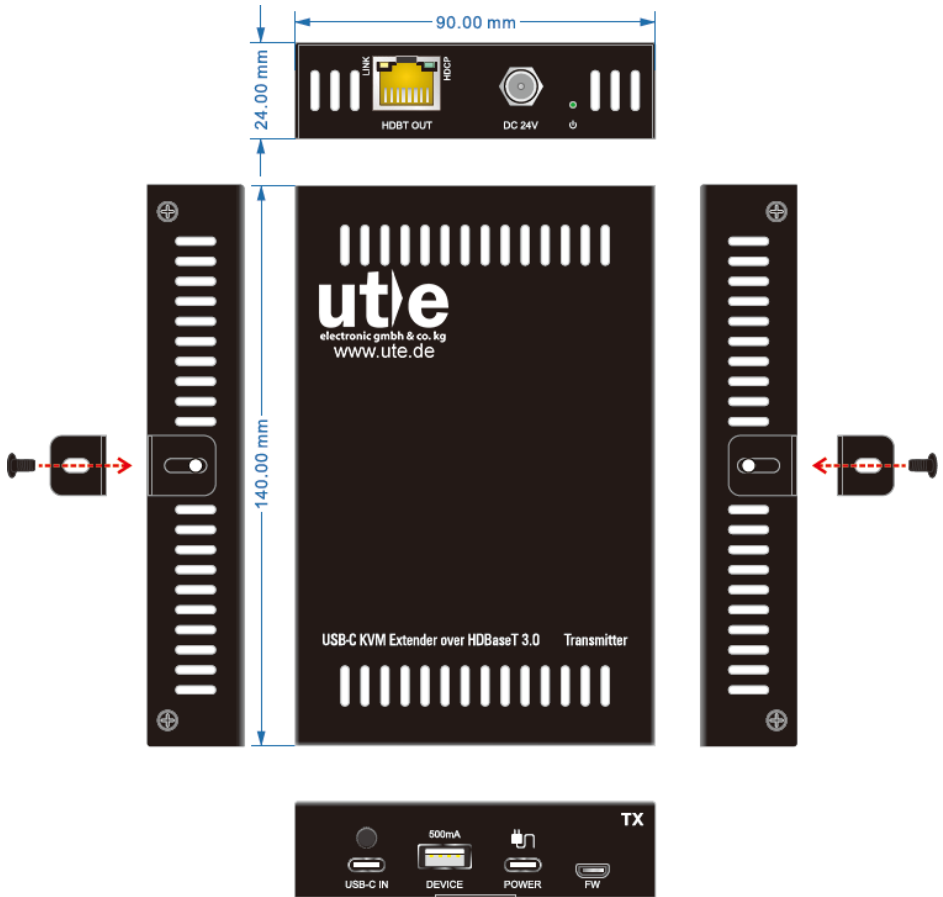



Figure 5-1 UHKVM-70XCT (Transmitter)

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

### 5.2 USB-C KVM Receiver (UHKVM-70XCR)

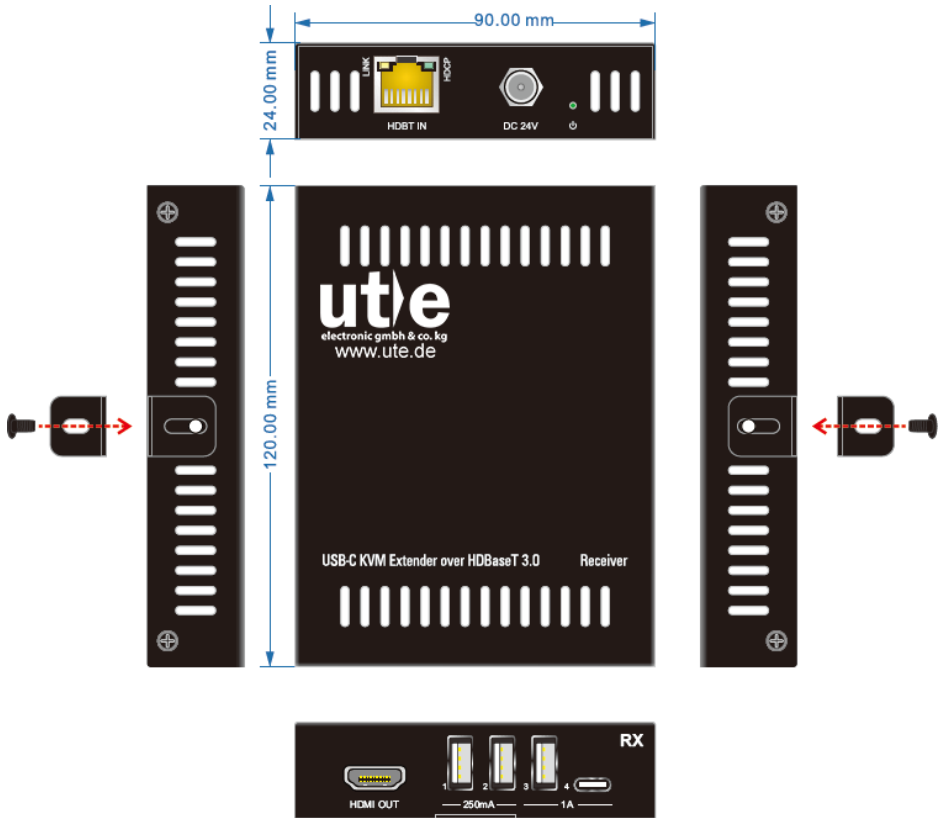


Figure 5-2 UHKVM-70XCT (Receiver)

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

## 6. After Sales/ Customer Service

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. These 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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