



HuddleCamHD™

MiniTrack 4K Pro



User Manual
Model No. HC-MT-4KPRO
V1.0
(English)

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Table of Contents

Preface	3
Precautions	3
Warranty	4
Supplied Accessories	4
FCC Statement	4
Connection Guide	5
Dimensional Drawings (mm)	5
Features:	6
Technical Specifications	7
IR Remote Control	8
Maintenance and Troubleshooting	9
Camera Maintenance	9



Preface

Congratulations on receiving your new MiniTrack 4K Pro.

This manual introduces the function, installation, and operation of the HD camera. Prior to installation and usage, please read the manual thoroughly.

Precautions

To avoid any damage to the unit, please take these precautions when using yourthe MiniTrack 4K Pro.

- Please read this manual carefully before using the camera.
- Avoid damage from stress, violent vibration or liquid intrusion during transportation, storage or installation.
- Take care of the camera during installation to prevent damage to the camera case, ports, or lens.
- Do not apply excessive voltage. (Use only the specified voltage.) Otherwise, you may experience electrical shock.
- Keep the camera away from strong electromagnetic sources.
- Do not aim the camera at bright light sources (e.g. bright lights, the sun, etc.) for extended periods of time.
- Do not clean the camera with any active chemicals or corrosive detergents.
- Do not disassemble the camera or any of the camera's components. If problems arise, please contact your authorized dealer.
- After long term operation, moving components can wear down. Contact your authorized dealer for repair.



Warranty

HuddleCamHD includes a limited parts & labor warranty for all HuddleCamHD manufactured cameras. The warranty is valid only if HuddleCamHD receives proper notice of such defects during the warranty period. HuddleCamHD, at its option, will repair or replace products that prove to be defective. HuddleCamHD manufactures its hardware products from parts and components that are new or equivalent to new in accordance with industry standard practices.

Supplied Accessories

When you unpack your camera, make sure that all the supplied accessories are included:

- Camera 1
- USB Cable 1
- Remote Control 1
- AAA Batteries 2
- Quick Start Guide 1



FCC Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radiofrequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. Operation is subject to the following two conditions: This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

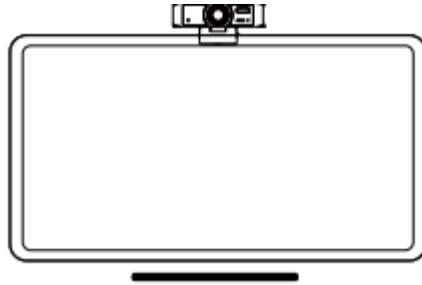
- **Warning** - This is a class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.
- **Remote Control Battery Safety Information** - Store batteries in a cool and dry place. Do not throw away used batteries in the trash. Properly dispose of used batteries through specially approved disposal methods. Remove the batteries if they are not in use for long periods of time. Battery leakage and corrosion can damage the remote control. Do not use old batteries with new batteries. Do not mix and use different types of batteries: alkaline, standard (carbon-zinc) or rechargeable (nickel-cadmium). Do not dispose of batteries in a fire. Do not attempt to short-circuit the battery terminals.

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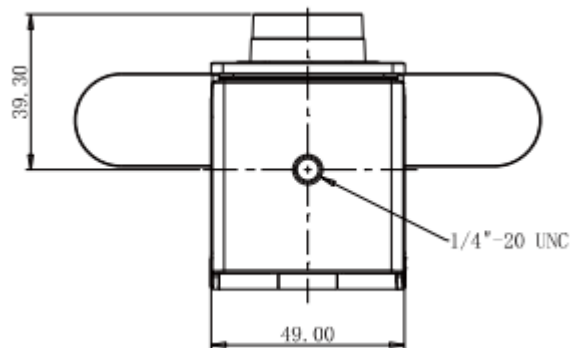
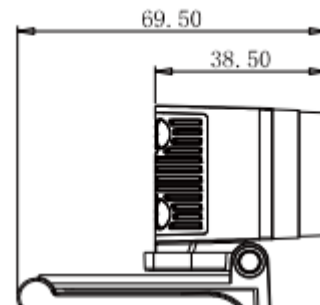
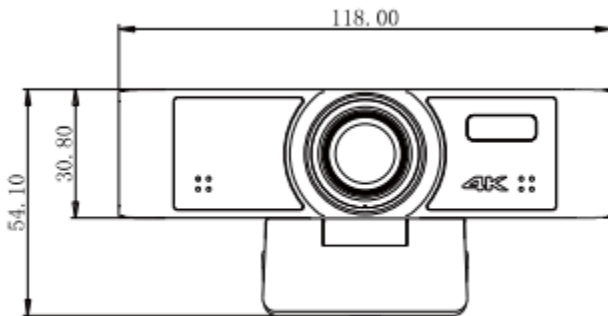
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Connection Guide

When the monitor thickness is less than or equal to 45mm, you can mount the conference camera onto the monitor as shown:



Dimensional Drawings (mm)





Features:

- **Ultra HD Super Large Field of View**
This new generation of UHD CMOS image sensors features more accurate native resolution, richer color, and a low-distortion 4K lens. With a 108-degree viewing angle, this ultra-large panoramic view allows the best possible visibility.
- **USB 3.0**
Supports USB 3.0 interface, power supply, video, audio in one, can support 2 USB video signal sources (optional) + 1 audio source at the same time.
- **Built-in Microphone Array**
Built-in beamforming microphone array, unique noise suppression algorithm and automatic gain algorithm. The pickup distance is up to 6 meters, so that your voice is perfectly presented.
- **AI Ability**
Multi-layer convolutional neural network design and cutting edge algorithms make the MiniTrack 4K Pro one of the most intelligent cameras on the market. High-quality analysis data can be obtained through open API.
- **Auto Framing**
Using advanced deep learning algorithms, the camera automatically adjusts the viewing angle of the screen according to the people in the detection field of view, eliminating the need for manual adjustment of camera operations, eliminating the need for manual adjustment of camera operations, bringing you a better user experience.
- **AI Tracking**
Built-in NNE hardware unit, using deep learning technology, by extracting target features, it can achieve smooth human shape tracking no matter where the face is facing, which is suitable for application scenarios such as speaker automatic tracking.
- **Convenient Operation**
The MiniTrack 4K Pro features infrared remote control, exclusive control software, one-button automatic frame selection, and auto-tracking to suit any workflow. It allows you to set preset positions, ePTZ, image parameters, and more.



Technical Specifications

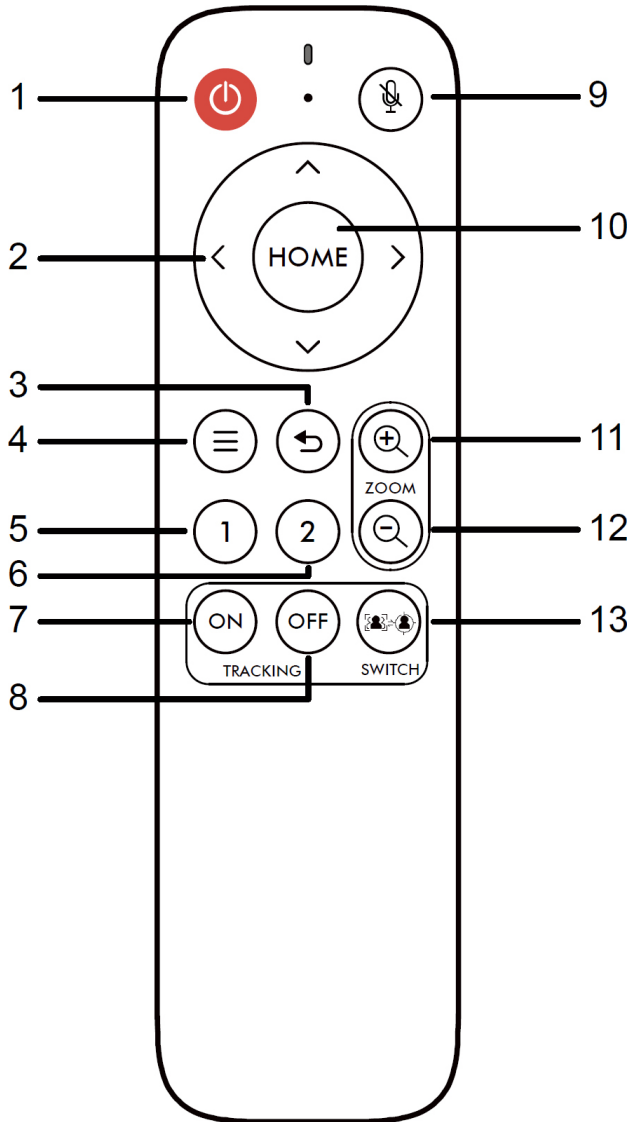
Model	HC-MT-4KPRO
Type	HuddleCamHD MiniTrack 4K Pro
Camera & Lens Specifications	
Sensor	1/2.8" CMOS, 8.29M Effective Pixels
Zoom ^[1]	8X Digital Zoom
Field of View	Horizontal: 20° (Tele) ~ 108° (Wide), Vertical: 11° (Tele) ~ 68° (Wide),
Shutter	1/1 ~ 1/10000
Minimal Illumination	0.5 Lux @ F1.8 (AGC ON)
White Balance	Auto, Indoor, Outdoor, OnePush, Manual, VAR
Backlight Compensation	Supported
Digital Noise Reduction	2D & 3D Digital Noise Reduction
USB Specifications	
USB Port	USB 3.0, Type C
Operating Systems	Windows 8.1 / 7 / 10 / 11, Mac OS X+, Google Chromebook V29.0.1547.70+, Linux (supports UVC)
Hardware	2.4 GHz Intel® Core 2 Duo processor or higher 2 GB RAM or more
Compression	H.264 / MJPEG / YUY2 ^[2]
Resolution	3840x2160, 2560x1440, 1920x1080, 1280x720, 1024x576, 800x600, 640x480, etc.
Frame Rate ^[3]	50Hz = 1 ~ 50, 60Hz = 1 ~ 60
Video Communication Protocol	UVC Version 1.1, supports EPTZ
General Specifications	
Control Methods	IR Remote, UVC 1.1
Input Voltage	5V USB Power
Current Consumption	600mA (Max)
Power consumption	3.0W (Max)
Operating Temperature	32° F ~ 104° F (-10° C ~ 40° C)
Storage Temperature	-40° F ~ 140° F (-40° C ~ 60°C)
WTBF	300000h
Dimensions (W x D x H)	4.65" x 2.74" x 2.13" 118 W x 69.5 D x 54.1 H
Weight	0.35 lbs 0.16kg

[1] 3840x2160 (4K) & 2560x1440 (2K) are limited to 3x digital zoom

[2] YUY2 compression is limited to 30 FPS

[3] 3840x2160 (4K) & 2560x1440 (2K) are limited to 30 FPS

IR Remote Controller



- 1. Standby Button**
Enter / Exit Standby Mode
- 2. Direction Button**
Electronic pan / tilt
Traverse the on screen display menu.
- 3. Return Button**
Return to the previous on screen display menu position
- 4. Menu Button**
Open / Close the on screen display menu.
- 5. No. 1 Preset Button**
Press and hold the preset 1 button for 3 seconds to set preset 1.
Quickly press the preset 1 button to call preset 1.
- 6. No. 2 Preset Button**
Press and hold the preset 2 button for 3 seconds to set preset 2.
Quickly Press the preset 2 button to call preset 2
- 7. Tracking On Button**
Enable auto tracking / auto framing.
- 8. Tracking Off Button**
Disable auto tracking / auto framing.
- 9. Mute Button**
Enable / Disable the built-in microphone.
- 10. Home Button**
Zoom out to the home position.
Make selections within the on screen display menu.
- 11. Zoom + Button**
Electronic zoom in.
- 12. Switch Button**
Toggle between auto tracking / auto framing.



Maintenance and Troubleshooting

Camera Maintenance

- If the camera will not be used for a long time, please disconnect it from the PC.
- Use a soft cloth or cotton paper to remove dust from the camera housing.
- Use a soft dry lint-free cloth to clean the lens. If the camera is very dirty, clean it with a diluted neutral detergent. Do not use any type of solvent or harsh detergent, which may damage the surface
- **Unqualified Applications**
 - Avoid shooting at particularly bright objects, such as sunlight, lights, etc.
 - The camera should not be used under unstable lighting conditions, otherwise the image will flash.
 - Do not operate close to powerful electromagnetic radiation, such as TV or radio transmitters, etc.

Troubleshooting

- **No image**
 1. Check whether the USB cable is connected properly to the PC.
 2. Check whether the LED glows when USB is connected to the PC.
- **Abnormal display of image**
 1. Check OSD of camera through the OSD Menu app.
 2. Check settings of software you're viewing the video feed in.
- **Image is shaky or vibrating.**
 1. Check whether camera is mounted solidly or sitting on a steady horizontal and level surface.
 2. Check the building and any supporting furniture for vibration.
 3. Any external vibration that is affecting the camera will be more apparent when in zoomed in.