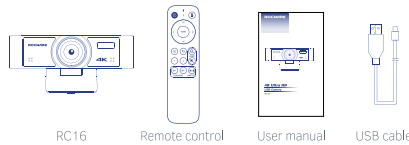# ROCWARE®

4K Ultra HD
USB Camera
RC16

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1 After-sales technical support

If there is a failure caused by non-human reasons within 3 years from the date of purchase, you can enjoy the product warranty service.
The warranty is not covered if any of the following conditions are met during the product use:

● Failures caused by man-made reasons such as unauthorized disassembly and modification.

● Failures caused by the use environment not meeting the product requirements.

● Failures caused by force majeure factors (such as fire, earthquake, lightning strike, etc.).

Service line: +1-800-416-1895
E-mail: rocware@rocware.com

2 Packing list

| RC16 | Remote control | User manual | USB cable |

3 Product main features

● **Ultra-high definition and ultra-large field of view**
Equipped with a new generation UHD CMOS image sensor, accurate native resolution, richer color, and 4K video with full detail. With a 110-degree ultra-large angle and low distortion 4K lens, the panoramic view is unobtrusive.

● **AI ability**
Multi-layer convolutional neural network design with cutting-edge deep learning algorithms, enable intelligent camera features, and high quality analysis data can be accessed through open APIs.

● **Auto Framing**
This advanced deep learning algorithm is adapted to automatically adjust the size of the picture according to the people in the detectable field of view, eliminating the need for manual adjustment, and bringing you a new intelligent experience.

● **AI humanoid tracking**
Embedded NNE hardware unit, using deep learning technology, through the extraction of target features, no matter where one is facing, smooth humanoid tracking can be achieved , suitable for tracking a speaker or other application scenarios.

● **Microphone array**
Built-in beamforming microphone array with unique noise reduction and automatic gain control algorithms, allow for a pick up distance of up to 6 meters, and makes your voice sound crystal clear.

● **Convenient operation**
With the infrared remote control and exclusive software, auto framing and humanoid tracking can be initiated with one button. As well as, preset positions, ePTZ, and image parameters can be set at the same time.

● **USB 3.0**
Full-function USB 3.0 interface offers power supply, video, and audio all in one USB cable / USB port. It can also support 2 USB video signal sources (optional), +1 channel audio source at the same time.

4 Specification

Camera

Sensor	1/2.7'', CMOS, Effective Pixel: 8.29M
Scanning Mode	Progressive
Lens Mount	M12
Lens	Focus: f=2.2mm, FOV: 110°
Minimum Illumination	0.5 Lux @ (F1.8, AGC ON)
Shutter	1/30s ~ 1/10000s
White Balance	Auto, Indoor, Outdoor, One Push, Manual
Camera bracket	Bracket with damper
Digital Noise Reduction	2D & 3D Digital Noise Reduction
Backlight Compensation	Support
Digital Zoom	8X

Input/Output interface

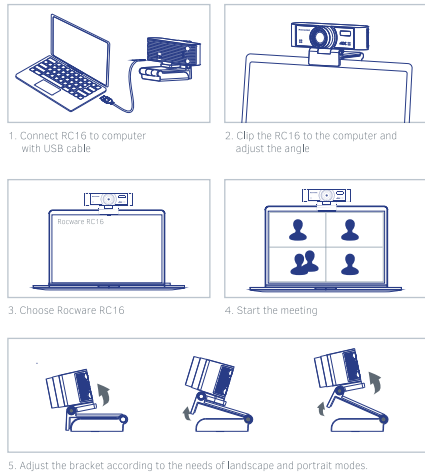|	
USB Interface	1xUSB 3.0: Type C, famale
IR Remote	Support

USB features

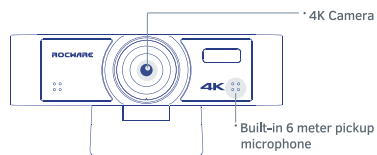|	
Operate System	Windows® 7 (1080P and under only), Windows 8.1, Windows 10 or higher macOS™ 10.10 or higher Google™ Chromebook™ Version 29.0.1547.70 or higher Linux (support UVC)
Hardware Requirement	2.4 GHz Intel® Core 2 Duo CPU or higher; 2 GB RAM or more; USB 2.0 interface
Color System/ Compression	YUY2 / H.264 / MJPEG
Video Format	4k@30fps/25fps, 1080p@30fps/25fps, 720p@30fps/25fps, 960x540p@30fps/25fps, 640x360p@30fps/25fps etc
USB Protocol	UVC 1.1
UVC PTZ	Support (EPTZ)

General specification

Input Voltage	5V (USB power supply)
Current Consumption	600mA(MAX)
Operating Temperature	0°C ~ 40°C
Storage Temperature	-40°C ~ 60°C
Power Consumption	3.0W(MAX)
Size	118mm x37.2mm x 30.8mm (Bracket not included)
Net Weight	0.2Kg
WTBF	30000h

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5 Simple operation steps

1. Connect RC16 to computer with USB cable
2. Clip the RC16 to the computer and adjust the angle
3. Choose Rocware RC16
4. Start the meeting

5. Adjust the bracket according to the needs of landscape and portrait modes.

6 Product details

- 4K Camera
- Base stand
- Built-in 6 meter pickup microphone

Type C USB 3.0 interface
For power supply & audio and video data transmission

1/4"-20 standard screw holes
Various brackets and tripods can be easily installed

Base stand
Various angles of the bracket can be adjusted freely (see the picture on the right)

7 Caution while handling product

In the process of transportation, storage, and installation, the damage caused by heavy pressure, violent vibration, and immersion should be prevented.
Install carefully:
The product should be placed on a stable surface or other horizontal platforms, The shell of this product is made of organic materials; avoid contact with liquids, gases, or solids that may cause corrosion of the shell. Do not disassemble the product without authorized permission.
This product has no parts that consumers can repair by themselves; damage caused by consumer disassembly is not covered by a warranty.

⚠ Specific frequencies of the electromagnetic field may affect the image quality of this product.

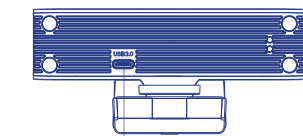## 8 Maintenance and troubleshooting

Camera maintenance
● If the camera will not be used for a long time, please disconnect the USB;
● Use a soft cloth to clean the camera housing.
● Please use a soft dry cloth to clean the lens. If the camera is seriously dirty, clean it with diluted neutral detergent. Do not use any solvents which may damage the lens and affect the image quality;
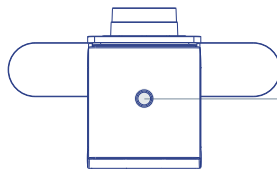
Unqualified application
● Do not operate in extremely bright conditions such as bright sunlight.
● Do not operate in unstable lighting conditions, otherwise the image will flicker.
● Do not operate close to powerful electromagnetic radiation, such as TV or radio transmitters.
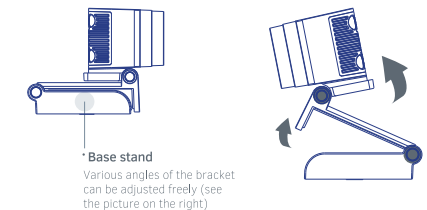
Troubleshooting

Fault phenomenon	Solution
No image output	1. Check whether the privacy cover is open. 2. Whether to enable multiple software access. The camera supports only one access.
The camera cannot be recognized after power on	Check whether the USB cable of camera is properly connected.
Upgrade failed	1. Check whether the camera is recognized correctly after connecting to PC, and whether the connection issuccessful. If yes, re-upgrade it. 2. Check if multiple software is trying to access the camera. The camera supports only one access. 3. Open the upgrade software, if it shows that the connection fails, but the camera is connected to the PC and can be accessed normally. It is recommended to try connecting to another PC.
Image flip	If the image is flipped, please use the remote control to call up the "Image Rotation" option in the menu bar to adjust.
Image has stripes that scroll up and down	Check the anti-flicker frequency of the camera. Set the power supply frequency to the same value as the anti-flicker frequency.
Image comes and goes from time to time	Check whether the cable of the video platform and TV is properly connected.
Android platform device has no image	1. Check whether the camera is recognized in the system. If not, restart the Android platform. 2. Set H264 to off by default on the tool and restart the camera.

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