INSTRUCTION MANUAL:

ACCU-CAM WiFi 4K

WiFi/USB Microscopy Camera



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Contents

1. The Characteristic of ACCU-CAM WiFi 4K Camera 3
2. ACCU-CAM WiFi 4K Camera Datasheet and Functions 3
3. Dimension of ACCU-CAM WiFi 4K Camera 5
4. Packing Information for ACCU-CAM WiFi 4K Camera 6
5. Software and App 7
6. WiFi 4K Camera Application Configurations 8
   6.1. Using the camera in USB mode 8
   6.2. Using the Camera in WiFi AP mode (Access Point) 8
   6.3. Using the Camera in WiFi STA Mode to Connect via Router (Station) 9
7. Configure the Camera's WiFi STA Mode's SSID and Password 10
8. Contacting Customer Service 11
9. LIMITED WARRANTY 11

1. The Characteristic of ACCU-CAM WiFi 4K Camera

The ACCU-CAM WiFi 4K camera can be connected to smart devices and computers through WiFi or directly connected to computers through USB Type-C interfaces, used for collecting videos and images of stereomicroscopes or biological microscopes,The main features are as follows:

- Sony Starvis 2 back illuminated CMOS sensor with lower noise and better photosensitive characteristics
- USB Type-C/WiFi multiple video outputs, using 802.11AC WiFi5 chip with high gain antenna, with higher transmission bandwidth
- Provide rich ISP processing functions, Hue, Saturation, ROI white balance
- AccuView/AccuView LITE software for PC, fully applicable for biological and stereological observations
- iOS/Android app for smart phones or tablets

2. ACCU-CAM WiFi 4K Camera Datasheet and Functions

Order Code	Sensor & Size(mm)	Pixel(μm)	G Sensitivity Dark Signal	Sensor Output (FPS/Resolution)	Binning	Exposure (ms)
AU-AC-WIFI4K	Sony IMX678(C) 1/1.8"(7.68x4.32)	2.0x2.0	1364mv with 1/30s 0. 15mv with 1/30s	30@3840*2160	1x1	0.04~1000

Camera Model	USB Type-C(FPS/Resolution)	WiFi(FPS/Resolution)
AU-AC-WIFI4K	30@3840*2160 30@2688*1512 30@1920*1080	30@3840*2160 30@1920*1080 30@1280*720



Figure 1 Available Ports on the Back Panel of the Camera Body

Interface	Function Description
USB	Connect the USB Type C 5V/2A power supply to power the camera, at this time the camera provides WiFi connection mode.

	Connect the USB Type C cable to the USB port of the computer to achieve video image output.
Slide Switch	WiFi AP/STA mode sliding switch, dial to the left for AP, dial to the right for STA mode. Connecting up to 2~3 devices for a single camera is recommended
RP-SMA Antenna Interface	It is commonly used for antenna connections in wireless routers and other devices.
LED	LED status indicator
Video Output Interface	**Function Description**
USB Interface	Connect to PC USB Type C cable to transfer MJPEG real-time images, support 30fps@3840*2160
WiFi Interface	Support 802.11ac protocols in AP/STA mode; 30fps@3840*2160
Software Environment under USB / WiFi Output	
White Balance	Auto, Manual and ROI White Balance
Color Technique	Ultra-Fine Color Engine

ISP	Exposure (Automatic/Manual Exposure)/ Gain, White Balance (Auto, Manual and ROI White Balance), Hue, Saturation Adjustment， Contrast Adjustment， Brightness Adjustment， Gamma Adjustment，50HZ/60HZ Anti- flicker， Mirror/Flip， Color to Grey, Network Bandwidth Adjustment
Capture/Control SDK	Windows/Linux/macOS/Android Multiple Platform SDK (Native C/C++, C#/VB.NET, Python, Java, DirectShow, Twain, etc)
Recording System	Still Picture or Movie
Operating System	Microsoft® Windows® 7 / 8 / 8.1 / 10 / 11(64 bit) OSx(Mac OS X) Linux
PC Requirements	CPU: Equal to Intel Core2 2.8GHz or Higher
	Memory: 4GB or More
	WiFi Adaptor: Support 802.11 ac
	Display:19” or Larger
Operating Environment	
Operating Temperature	-10°C ~ 50°C
Storage Temperature	-20°C ~ 60°C
Operating Humidity	30~80%RH
Storage Humidity	10~60%RH
Power Supply	USB Type C DC 5V/2A Adapter

3. Dimension of ACCU-CAM WiFi 4K Camera



Figure 2 Dimension of ACCU-CAM WiFi 4K Camera

4. Packing Information for ACCU-CAM WiFi 4K Camera

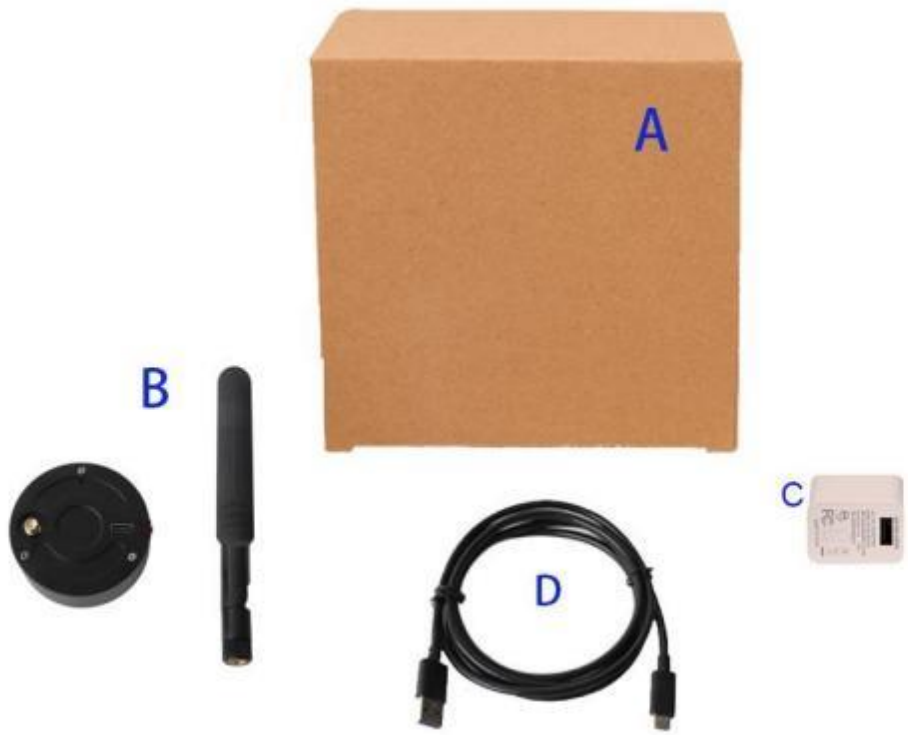


Figure 3 Packing Information for ACCU-CAM WiFi 4K Camera

Standard Packing List	
A	Gift box: L:17cm W:15cm H:6cm (1pcs, 0.5kg/ box)
B	One ACCU-CAM WiFi 4K camera
C	Power Adapter: Input: AC 100~240V 50Hz/60Hz, Output: DC 5V 2A **American standard**: Model: POWER-U-5V2A(SK12G-0500100U): UL/CE/FCC
D	USB Type C cable 1.5 metres

5. Software and App

For Windows user (Windows 7/8/10/11 (32/64 bit)), we recommend using AccuView.

For macOS (macOS 10.10 or above), please use AccuView LITE. When connecting the camera with a mobile device, the free AccuView App is required. Just make sure that the mobile device uses iOS 11 or higher/Android 5.1 or higher operating systems.

The software or the App can be downloaded from the following link：

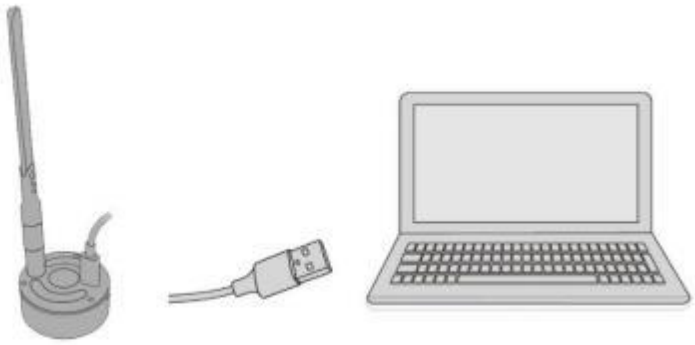
Windows and macOS: https://www.accu-scope.com/support/software/

Android:

iOS (Apple):

6. WiFi 4K Camera Application Configurations

6.1. Using the camera in USB mode



The setup steps are as follows:

1. Install the AccuView/AccuView LITE software on the PC;
2. Connect the USB Type C cable to the PC and wait for the camera to start. The position of the AP/STA switch is not recognized when using the direct USB connection to the PC.
3. Start the AccuView/AccuView LITE software, usually the software on the PC will automatically recognise the ACCU-CAM WiFi 4K camera. In the AccuView/AccuView LITE software, select the corresponding ACCU-CAM WiFi 4K camera by clicking the camera name in the camera list;

6.2. Using the Camera in WiFi AP mode (Access Point)

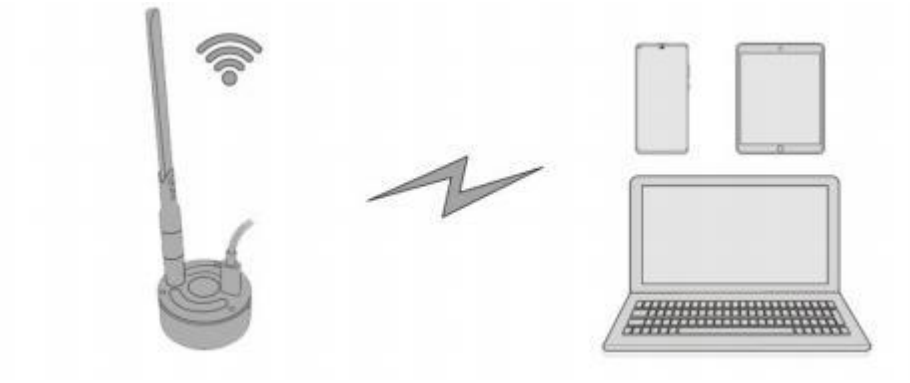


Figure 4 The PC or Mobile Device Connect to the Camera through WiFi AP Mode

The steps to start the camera are listed below:

1. Install the AccuView/AccuView LITE on your PC or install the ToupView App on the mobile device;
2. Connect the USB Type C cable to the 5V 2Apower adapter;
3. Switch the AP/STA sliding switch to AP mode. Move the paddles to the left to indicate that the camera is in WiFi AP mode;
4. Connect the PC or mobile device to the camera. In WiFi settings on your device, look for WUCAMxxxx. If asked for a password, use “12345678”.
5. Start the AccuView/AccuView LITE software or ToupView App and check the configuration. Normally, active WUCAM cameras are automatically recognized. The connected cameras will be listed in the Camera List group of the Camera Control Bar of AccuView/AccuView LITE on PC. On mobile device, connected cameras will be listed in the Camera Thumbnail page of AccuView App. Click the corresponding camera to start the video stream.

6.3. Using the Camera in WiFi STA Mode to Connect via Router (Station)

In WiFi STA mode, the camera is supposed to connect to router.



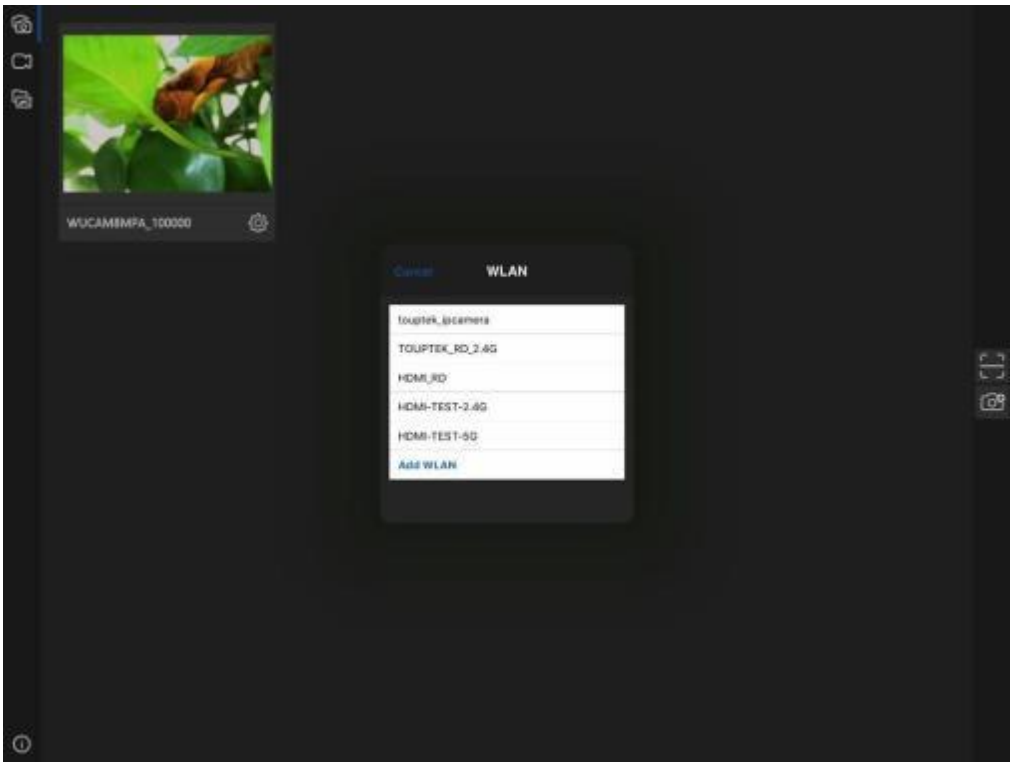
Figure 5 Multiple WiFi Cameras Connecting to the Router through the WiFi STA Mode

1. Install the AccuView/AccuView LITE software on your PC. Alternatively, install the free AccuView App on the mobile device;
2. Insert the power adapter to the camera's power jack;
3. Connect the camera to the router with WiFi STA mode. Switch the AP/STA sliding switch to STA mode. Move the paddles to the right to indicate that the camera is in WiFi STA mode (See Sec.7 on how to set the router's name and password in the camera);
4. Connect PC or mobile device to router;
5. Start the AccuView/AccuView LITE software or AccuView App and check the configuration. Normally, active WiFi cameras are automatically recognized. The connected cameras will be listed in the Camera List group of the Camera Control Bar of AccuView/AccuView LITE on PC. On mobile device, connected cameras will be listed in the Camera Thumbnail page of AccuView App. Click the corresponding camera to start the video stream.

7. Configure the Camera's WiFi STA Mode's SSID and Password

Referring to the Section 6.3 Process, the detailed steps are as follows:

1. Connect the ACCU-CAM WiFi 4K camera working in WiFi AP mode using iOS or Android devices;



2. Open the ToupView app on iOS or Android devices, Press the configuration button in the camera thumbnail above to pop up the interface for selecting WiFi SSID;

3. Select the SSID to be connected and input the Password, press OK to finish the SSID and Password setup process;



4. If the pop-up UI does not have the desired SSID, press the Add WiFi item on the bottom and input SSID name and Password manually (The current SSID is HDMI_RD and the password is 12345678).



5. After completion, turn the AP/STA slider switch on the ACCU-CAM WiFi 4K camera to STA mode. Move the paddle to the right to indicate that the camera is in WiFi STA mode and connected to the designated router for operation.

8. Contacting Customer Service

Please contact your local distributor if you have any questions about the product.

9. LIMITED WARRANTY

Digital Cameras for Microscopy

This digital camera is warranted to be free from defects in material and workmanship for a period of one (1) year from the date of invoice to the original (end user) purchaser. This warranty does not cover damage caused in-transit, damage caused by misuse, neglect, abuse or damage resulting from either improper servicing or modification by other than ACCU-SCOPE or UNITRON approved service personnel. This warranty does not cover any routine maintenance work or any other work that is reasonably expected to be performed by the purchaser. No responsibility is assumed for unsatisfactory operating performance due to environmental conditions such as humidity, dust, corrosive chemicals, deposition of oil or other foreign matter, spillage or other conditions beyond the control of ACCU-SCOPE Inc. This warranty expressly excludes any liability by ACCU-SCOPE INC. and UNITRON Ltd for consequential loss or damage on only grounds, such as (but not limited to) the non-availability to the End User of the product(s) under warranty or the need to repair work processes. All items returned for warranty repair must be sent freight prepaid and insured to ACCU-SCOPE INC., or UNITRON Ltd., 73 Mall Drive, Commack, NY 11725 – USA. All warranty repairs will be returned freight prepaid to any destination within the Continental United States of America. Charges for repairs shipped back outside this region are the responsibility of the individual/company returning the merchandise for repair. To save your time and expedite service, please prepare the following information in advance:

• Camera model and S/N (product serial number).

• Software version number and computer system configuration information.

• As much detail as possible including a description of the problem(s) and any images help to illustrate the issue.