

12 Microscope WiFi+USB CMOS Camera

12.1 WUCAM Series C-mount WiFi+USB CMOS Camera

12.1.1 WUCAM's Basic Characteristic

ToupTek WUCAM is a camera that has the WiFi output and USB output. An on-camera switch is used to switch between the WiFi output and USB output.

When WiFi output is available, this camera is used as a WiFi camera and could be connected to mobile devices, such as smart phones, pads and computers. It could work with ToupView app on iOS, Android and windows platform. More than 6 users could connect the camera simultaneously by WiFi connection.

When USB output is available, this camera is used as a USB camera and could support UVC standard. The camera could be used with ToupView or other 3rd part software which could support UVC camera.

The basic characteristic of WUCAM series camera is as follows:

- C-Mount camera has 25.4 mm or 1 inch diameter with 32 threads per inch;
- Scientific research grade camera with Aptina CMOS sensor;
- Switchable USB+WiFi data interface;
- Send MJPEG encodec high-resolution images from camera to WiFi-enabled smartphones, computers, and tablets with iOS, Android, and Windows operating systems;
- Streams images to several devices simultaneously;
- Send MJPEG encodec high-resolution images from camera to USB-enabled computer with UVC standard protocol;
- Ultra-Fine color engine with perfect color reproduction capability;
- With advanced video & image processing application ToupView(only support simple video viewing capturing for IOS/ android system);
- Custom programmable with SDK provided(Windows/Linux/OS)(WiFi);



12.1.2 WUCAM Datasheet (1)

Order Code	Sensor Size(mm)	Pixel(μm)	G Responsivity Dynamic range SNR _{max}	FPS/Resolution	Binning	Exposure(ms)
WUCAM0720PA WU600720A	720P/MT9P001 (C) 1/2.5" (5.63x3.17)	2.2x2.2	0.53 V/lux-sec 66.5dB 40dB	30@1280x720	2x2	Auto/Manual Exposure

C: Color; M: Monochrome;

Other Specification for WUCAM Camera

Output Interface	USB or WiFi(on Camera Switch)
Spectral Range	380-650nm (with IR-cut Filter)
White Balance	Whole Area White Balance/ Manual Temp Tint Adjustment/NA for Monochromatic Sensor
Color Technique	Ultra-Fine™ Color Engine/NA for Monochromatic Sensor
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 and Movie
Cooling System*	Natural
Maximum Connected Device	6~10

Operating Environment

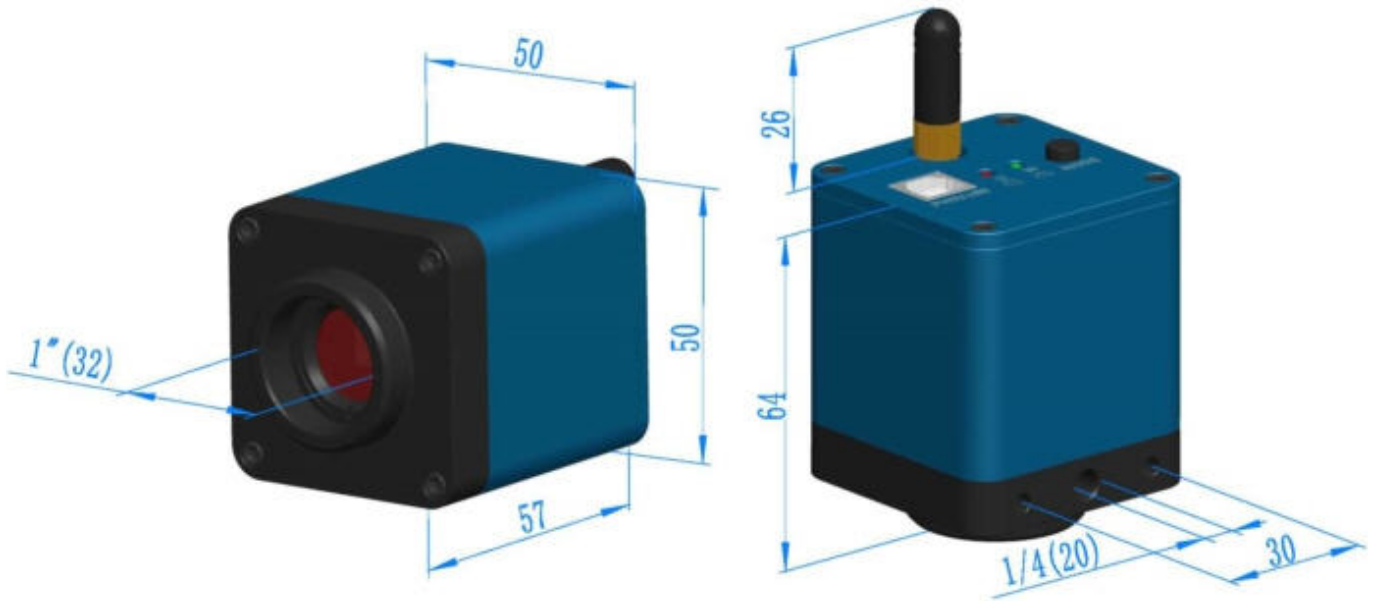
Operating Temperature(in Centidegree)	-10~ 50
Storage Temperature(in Centidegree)	-20~ 60
Operating Humidity	30~80%RH
Storage Humidity	10~60%RH
Power Supply	USB Charger USB port from PC

Software Environment

Operating System	Microsoft® Windows® XP / Vista / 7 / 8 / 10 (32 & 64 bit) IOS IPAD or iPhone, Android PAD and Phone
PC Requirements	CPU: Equal to Intel Core2 2.8GHz or Higher
	Memory:2GB or More
	WiFi Adapter with DHCP Enabled
	Display:17" or Larger
	CD-ROM
PAD	IPAD or PAD with Android System
Mobile Phone	iPhone or Smart Phone with Android System

12.1.3 Dimension of WUCAM

The WUCAM body, made from tough, CNC aluminum alloy, ensures a heavy duty, workhorse solution. The camera is designed with a high-quality IR-CUT filter to protect the camera sensor. No moving parts included. This design ensures a rugged, robust solution with an increased lifespan when compared to other industrial camera solutions.



Dimension of WUCAM

12.1.4 Packing Information of WUCAM



Packing Information of WUCAM


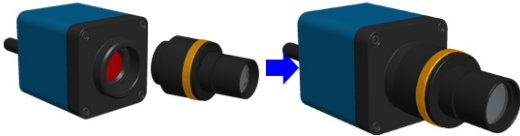
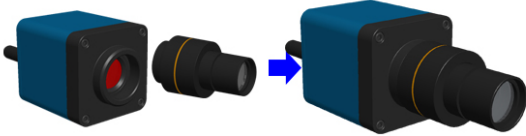
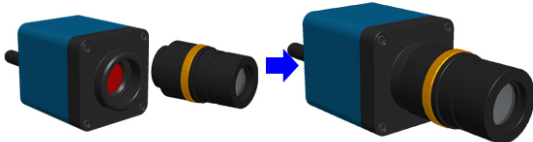
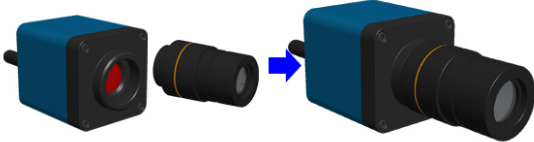
Standard Camera Packing List

A	Carton L:52cm W:32cm H:33cm (20pcs, 11.4~14Kg/ carton, 0.045m3), not shown in the photo
B	Gift box L:15cm W:15cm H:10cm (0.46~0.47Kg/ box)
C	WUCAM series WiFi+USB2.0 C-mount CMOS camera
D	High-speed USB2.0 A male to B male gold-plated connectors cable /2.0m(for PC power only) or with USB charger
E	CD (Driver & utilities software, Ø12cm)

Optional Accessory

F	Adjustable lens adapter	C-mount to Dia.23.2mm eyepiece tube (Please choose 1 of them for your microscope)	108001/AMA037 108002/AMA050 108003/AMA075
		C-mount to Dia.31.75mm eyepiece tube (Please choose 1 of them for your telescope)	108008/ATA037 108009/ATA050 108010/ATA075
G	Fixed lens Adapter	C-mount to Dia.23.2mm eyepiece Tube (Please choose 1 of them for your microscope)	108005/FMA037 108006/FMA050 108007/FMA075
		C-mount to Dia.31.75mm eyepiece Tube (Please choose 1 of them for your telescope)	108011/FTA037 108012/FTA050 108013/FTA075
Note: For F and G optional items, please specify your camera type(C-mount, microscope camera or telescope camera), ToupTek engineer will help you to determine the right microscope or telescope camera adapter for your application;			
H	108015(Dia.23.2mm to 30.0mm Ring)/Adapter rings for 30mm eyepiece tube		
I	108016(Dia.23.2mm to 30.5mm Ring)/ Adapter rings for 30.5mm eyepiece tube		
J	108017(Dia.23.2mm to 31.75mm Ring)/ Adapter rings for 31.75mm eyepiece tube		
K	Calibration kit	106011/TS-M1(X=0.01mm/100Div.); 106012/TS-M2(X,Y=0.01mm/100Div.); 106013/TS-M7(X=0.01mm/100Div., 0.10mm/100Div.)	

12.1.5 Extension of WUCAM with Microscope or Telescope Adapter

Extension	Picture	
C-mount Camera		Machine vision; Medical imaging; Semiconductor equipment; Test instruments; Document scanners; 2D barcode readers; Web camera and security video; Microscope imaging;
Microscope Camera	 WUCAM+AMAXXX(23.2mm Adapter)	 WUCAM+FMAXXX(23.2mm Adapter)
Telescope Camera	 WUCAM+ATAXXX(31.75mm Adapter)	 WUCAM+FTAXXX(31.75mm Adapter)