Digital 5G Usb Microscope Camera OPTO EDU A59.4972

Basic Information

- Place of Origin: China
- Brand Name: CNOEC, OPTO-EDU
- Certification: CE, Rohs
- Model Number: A59.4972
- Minimum Order Quantity: 1 pc
- Price: FOB $1~1000, Depend on Order Quantity
- Packaging Details: Carton Packing, For Export Transportation
- Delivery Time: 5~20 Days
- Payment Terms: T/T, West Union, Paypal
- Supply Ability: 5000 pcs/ Month

Product Specification

- Physical Resolution: 12.0MP (20.0MP Optional)
- Image Sensor: Sony IMX412 CMOS
- Exposure Mode: Rolling Shutter
- MaximumResolution: 4000×3000 (12,000,000Pixels)
- ISO Sensitivity: Equivalent To 100-12800
- Sensor Size: 1/2.3"
- Pixel Size: 1.55µm×1.55µm
- Spectral Response: 380-650nm
- Exposure Capability: Real-time Auto And Manual Adjustment
- Exposure Time: 10µs-333ms
- Highlight: **5G Digital Microscope Camera**, **5G Usb Microscope Camera**, **OPTO EDU Usb Microscope Camera**

More Images
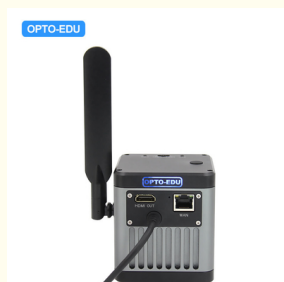
Product Description

Digital 5G Usb Microscope Camera OPTO EDU A59.4972

A59.4972 5G WIFI+4K HDMI+USB+LAN Digital Camera, 12.0M, C-Mount, USB/WIFI Measuring			
Output	USB Output, PC Software HDMI Output 5G WIFI Output, App Software Ehternet Output, LAN Port		
Physical Resolution	12.0MP		
Image Sensor	Sony IMX412 CMOS		
Exposure Mode	Rolling Shutter		
MaximumResolution	4000×3000 (12,000,000Pixels)		
ISO Sensitivity	Equivalent to 100-12800		
Sensor Size	1/2.3"		
Pixel Size	1.55µm×1.55µm		
Spectral Response	380-650nm		
Exposure Capability	Real-time auto and manual adjustment		
Exposure Time	10µs-333ms		
White Balance	Real-time auto and manual RB adjustment		
Preview Resolution	4000×3000@30fps,3840×2160@30fps		
Power Supply	DC 5V 2A		
Wireless Protocol	5G WiFi IEEE802.11ac		
A/D Convertsion Bit Depth	12bit		
Software And APP	Windows Software:KoPa Capture Pro, App for mobilesKoPa WiFi Lab		
Applicable To	Olympus	Nikon	Leica	Zeiss
Dovetail	HD1210-W	HD1211-W	HW200(L)	HW200Z
Optional	20.MP		

Note: When ordering, the model need to be listed at the same time. For example, when ordering a 12.0MP camera, which needs to be installed on the Olympus trinocular dovetail slot, the corresponding order list: number: model: HD1210-W

OPTO-EDU (BEIJING) CO., LTD.

OPTO-EDU

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A59.4972
5G WIFI+4K HDMI+USB+LAN Digital Camera, 12.0M, C-Mount, USB/WIFI Measuring

A59.4972

➤ High Content 12.0M 5G WIFI+4K HDMI+USB2.0+LAN 12.0M Digital Camera
➤ 1/2.3" CMOS H264 Codec Supply Accurate Color Restoration For Fluorescent Image
➤ Ultra-High Resolution 4000x3000 Preview At Super High Speed 30fps
➤ Multiple Image Modes Specially Adjusted For Different Microscope Brands
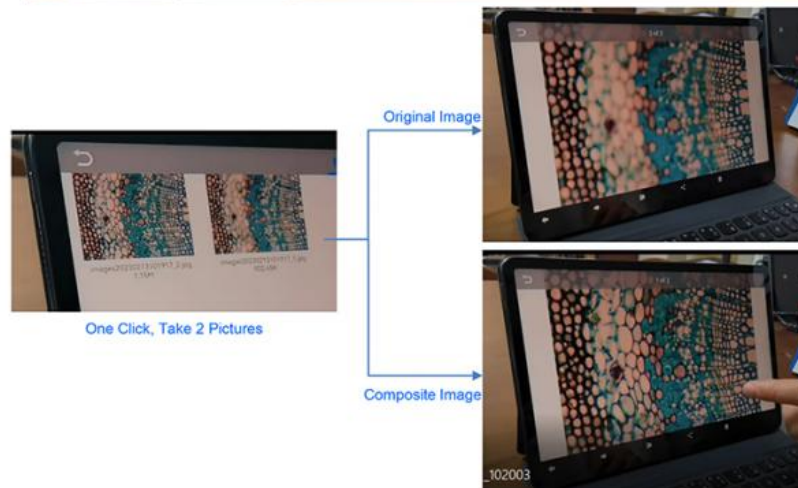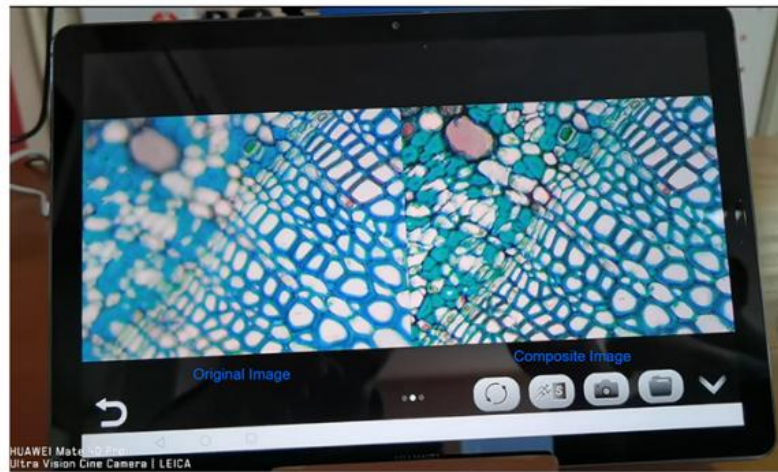➤ APP of Auto Real Time Depth of Field Fusion & Auto Focus
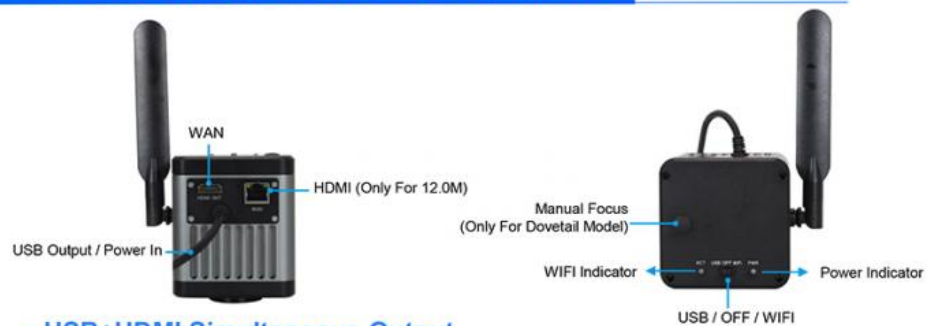
A59.4972 Features

OPTO-EDU

APP of Auto Real Time Depth of Field Fusion & Auto Focus

The world's first digital camera with a built-in advanced algorithm, which can achieve real-time depth of field fusion and auto focus. During the manual focusing process, the camera will automatically capture the sharply focused area and synthesize it into a clear image in real time. Through this algorithm, for those samples with different thicknesses or unevenness, the camera can also easily obtain full-frame images with clear focus through auto-focus and depth-of-field fusion.

This function supports mobile phone and tablet APP. In the APP, by sliding the screen left and right, you can easily switch between the original image, the composite image, or the comparison image between the two. Every time you take a photo, the camera will simultaneously shoot and save the original image and the composite image for later recall.

Original Image
Composite Image
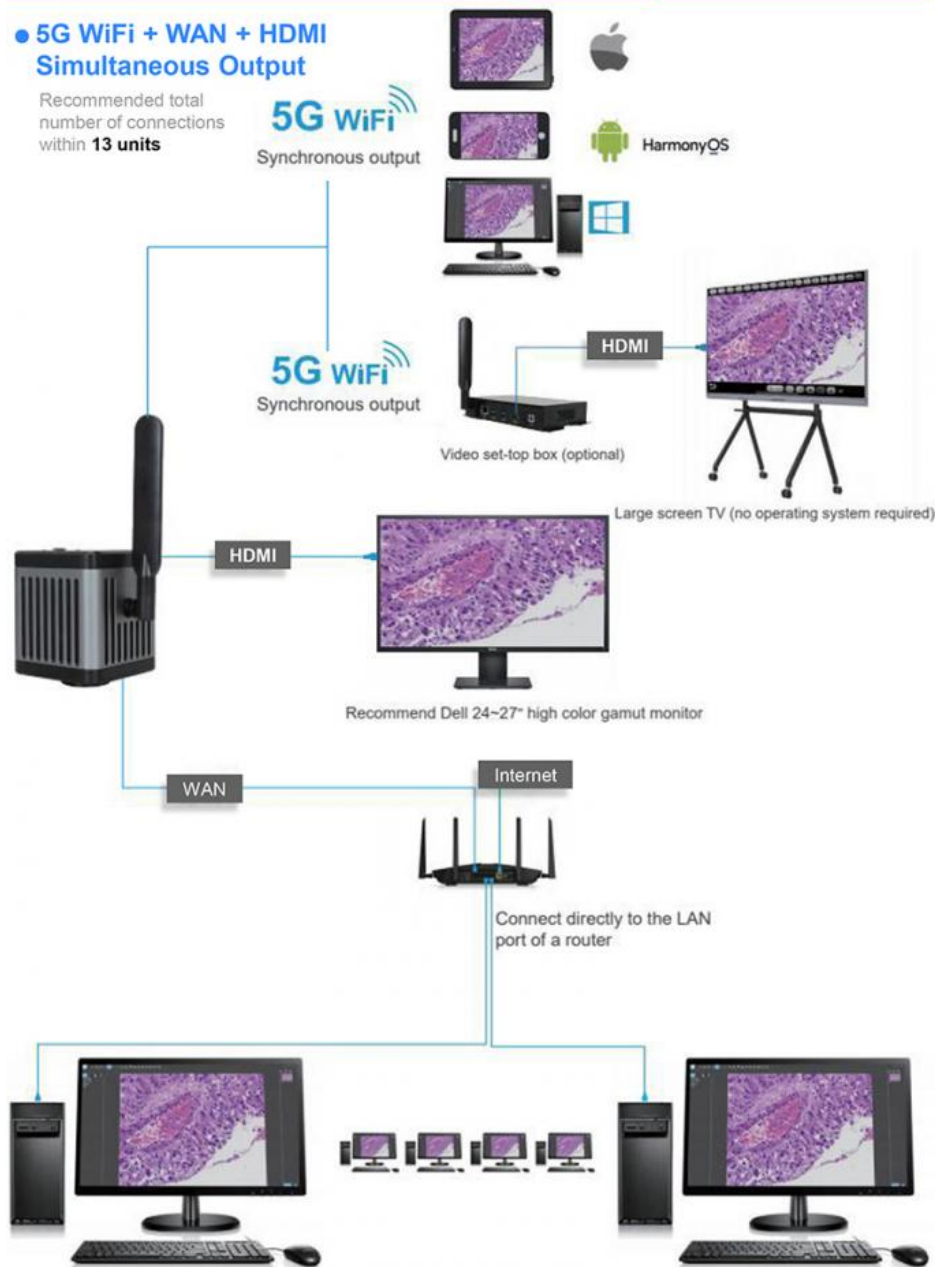HUAWEI Mate 40 Pro
Ultra Vision Cine Camera | LEICA

One Click, Take 2 Pictures
Original Image
Composite Image

A59.4972 Multiple Image Output Methods

WAN
HDMI (Only For 12.0M)
USB Output / Power In
Manual Focus (Only For Dovetail Model)
WIFI Indicator
Power Indicator
USB / OFF / WIFI

● USB+HDMI Simultaneous Output

USB
HDMI
Recommend 24~27"high color gamut monitor

A59.4972 Multiple Image Output Methods

OPTO-EDU

● **5G WiFi + WAN + HDMI Simultaneous Output**

Recommended total number of connections within **13 units**

5G WiFi
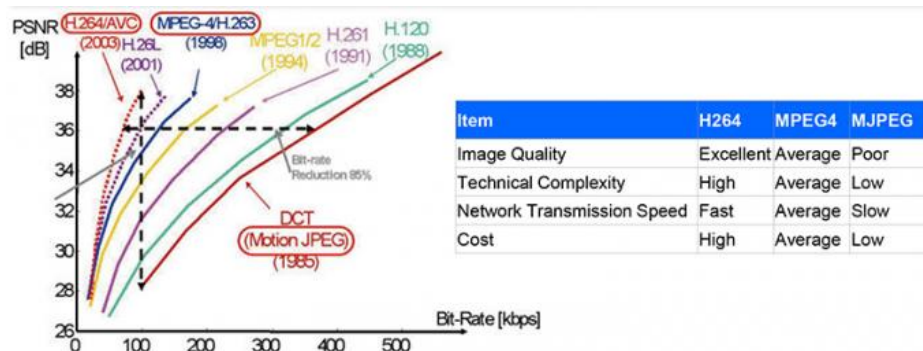Synchronous output

HarmonyOS

5G WiFi
Synchronous output

HDMI

Video set-top box (optional)

Large screen TV (no operating system required)

HDMI

Recommend Dell 24~27" high color gamut monitor

WAN

Internet

Connect directly to the LAN port of a router

A59.4972 Advantages

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One-stop Digitalize Optical Microscopes

The camera and large FOV optical adapter are skillfully integrated, plug & play, easy using, no need maintain, no more worrying about adapter matching to different microscopes

Cutting-edge Image Codec Technology

Using H264 codec, the camera color is accurately restored. Compared with the traditional MJPEG, it has the characteristics of low bit rate, low noise, transparent picture quality, and high frame rate of full resolution preview (for example , it can realize up to 30fps at 4000x3000 preview)

Item	H264	MPEG4	MJPEG
Image Quality	Excellent	Average	Poor
Technical Complexity	High	Average	Low
Network Transmission Speed	Fast	Average	Slow
Cost	High	Average	Low

Color-calibration Algorithm

Users can choose different image modes according to the staining type of pathological sections to obtain accurate image color.

Staining type
- BF ■■
- BF ■
- FL
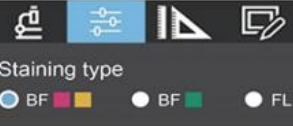
Microscope type

- ○ 9   Leica DM series(N PLAN)
- ● 11   Leica DM series(HI PLAN)
- ● 12   Leica DMn(HI PLAN)(BF-RD/GD)
- ● 13   Leica DMi1(HI PLAN)(BF-GN)

- ● 2   Nikon E series- Embedded camera
- ● 5   Nikon E series-C-mount/dovetai groove camera
- ● 10   Nikon TS2

- ● 1   0LYMPUS CX series- Embedded camera
- ● 4   0LYMPUS CX series-C-mount/dovetail groove camera
- ● 6   0LYMPUS BX series- C-mount/ dovetail groove camera (BF-RD/GD)
- ● 7   0LYMPUS BX series-C-mount / dovetail groove camera (BF-GN)
- ● 8   0LYMPUS BX series-C-mount / dovetail groove camera (FL)

- ● 0   Stereo Microscope·Embedded camera
- ● 3   Stere Microscope-C-mount/ davetai groave camera
- ......

Image Mode for Best View

- Multiple image modes specially adjusted for different microscope famous brands including Leica, Nikon, Olympus, Zeiss, and more.

- User can choose image mode options for different microscope models as listed in menu. (Need to enter a password to set it in the background)
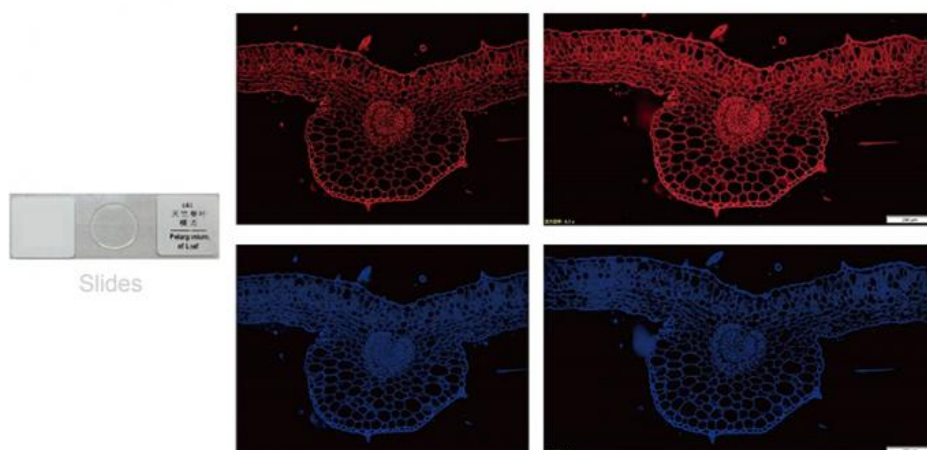
A59.4972 Accurate Color Reproduction

OPTO-EDU

A59.4972
5G 12.0M Digital Camera
12.0MP、1/2.3''
1.55μm×1.55μm

Top Camera From Four Major Microscope Brands
2.3MP、1/1.2"、
5.86μm×5.86μm
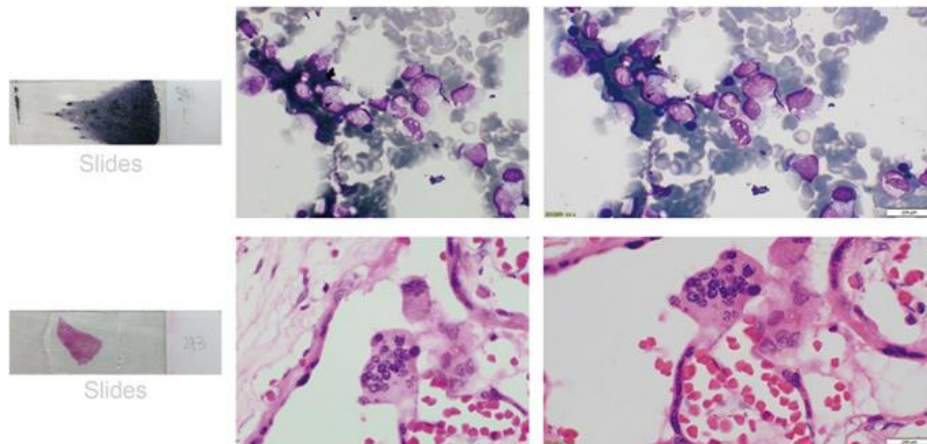
Slides

Slides

**Histological HE 100X Oil Lens In Bright Field**

Slides

Pelargonium Leaf 10X Lens In Fluorescence

Testing method：Photos are taken at the same position in the same slide with same microscope by the same person , the cameras are all adjusted to their best parameters.(Photos are real without handling by Photoshop.)
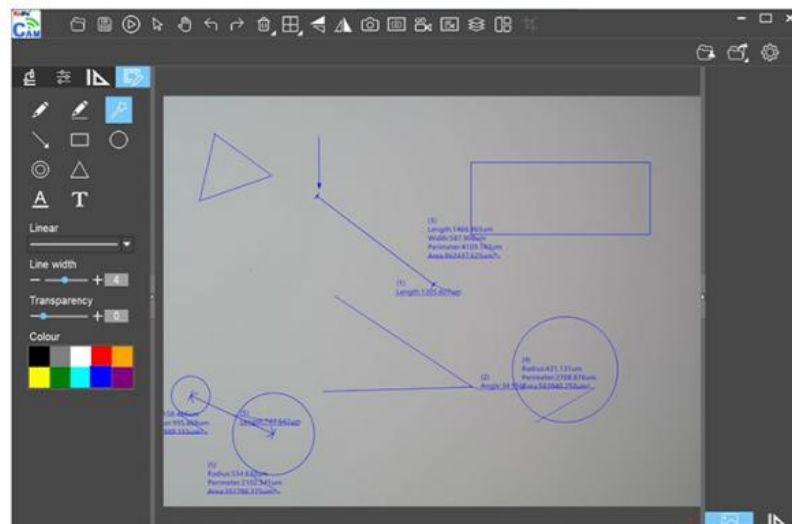
The software can realize preview, save, export, image stitching, depth of field fusion. Measurement Function and other functions.

♦ Brightness, Exposure etc. Adjustable

Multi-dimensional adjustment can make the picture clearer, and it will be easier to study the object
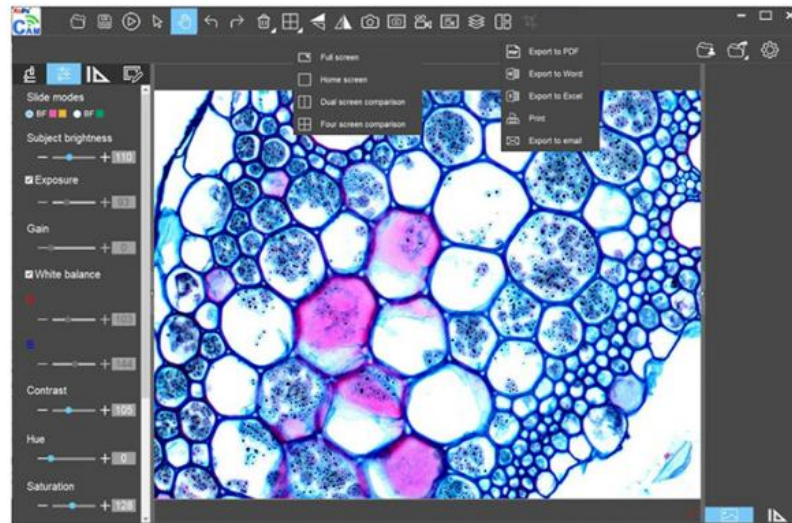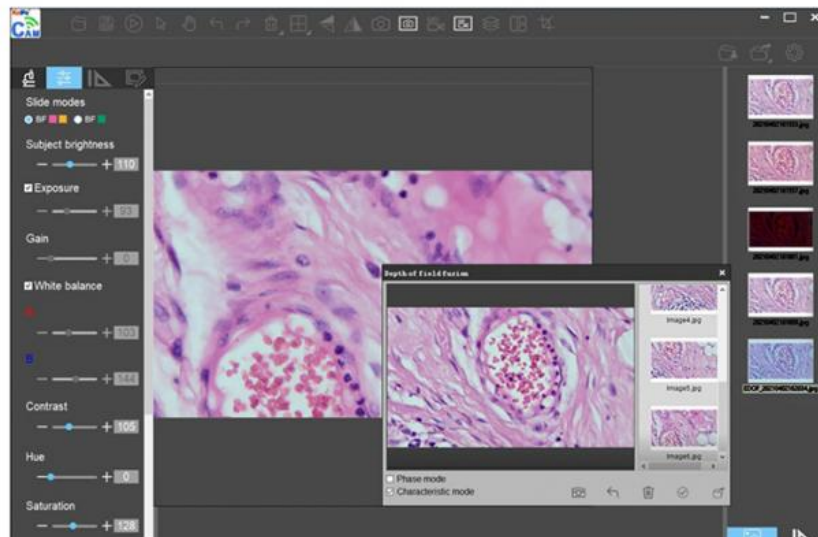

♦ Measurement Function

♦ Depth Of Field Fusion

When the thickness of the observed object is thick, the problem of insufficient depth of field of the camera is perfectly solved, and the images of different heights of the observed object can be combined into a clear picture in all directions

♦ Image Stitching

Due to the limited field of view of the microscope, the object under observation is generally not fully displayed under high magnification. The Image Stitching function can stitch the images of different positions observed under the same magnification into a complete picture, which is convenient for observation and recording.
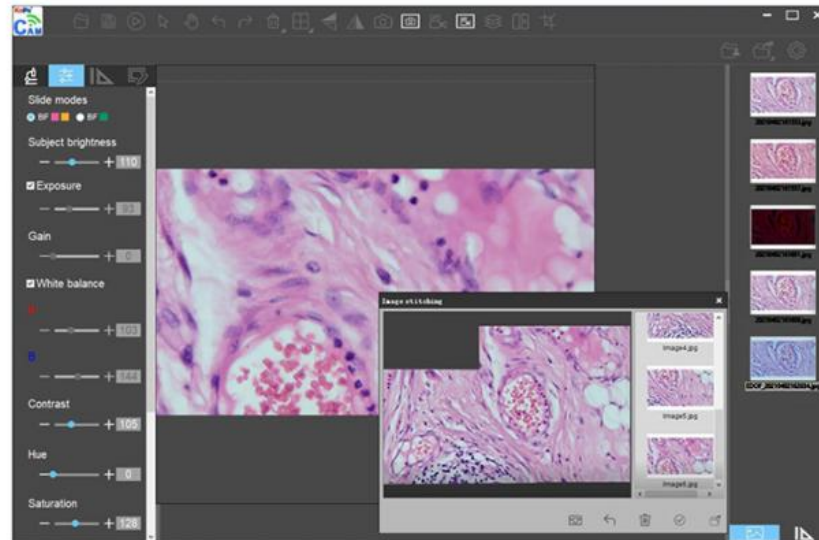

Creative APP For Phone, Pad

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♦ Real Time Depth of Field Fusion & Auto Focus

Due to the limited field of view of the microscope, the object under observation is generally not fully displayed under high magnification. The Image Stitching function can stitch the images of different positions observed under the same magnification into a complete picture, which is convenient for observation and recording.
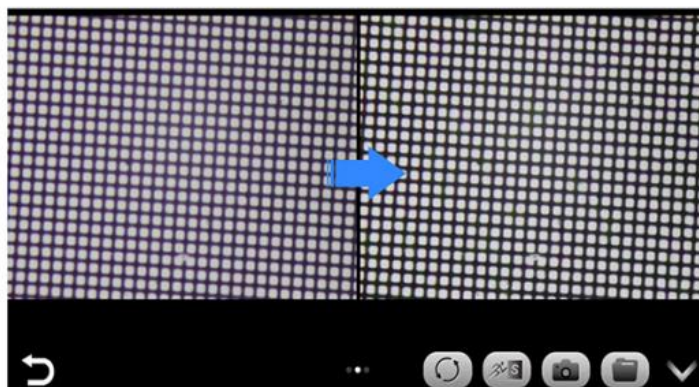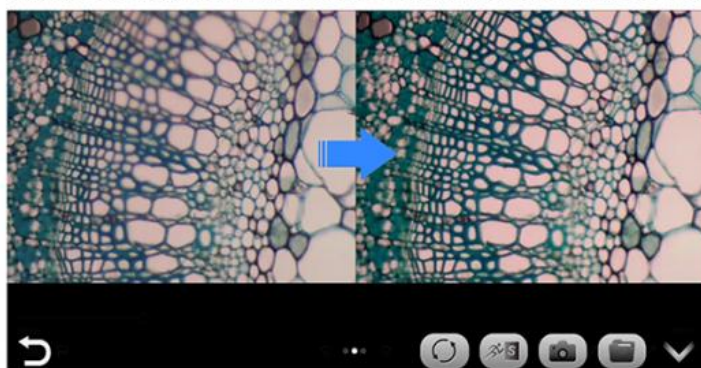
A59.4972 Structure

Ergonomic Design

Structural parts are cleverly designed, stable and durable.

Seamless coupling of Olympus, Nikon, Leica, Zeiss brands of microscopes, no damage to the original optical path.
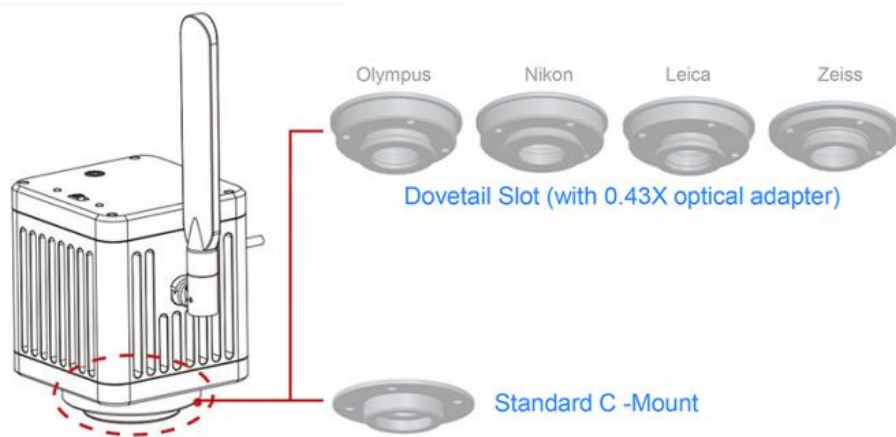
5G WiFi

Easy focus with Allen key (Only for dovetail camera models)

Imaging module

Dovetail mount (with 0.43X optical adapter)

Olympus   Nikon   Leica   Zeiss

Dovetail Slot (with 0.43X optical adapter)

Standard C -Mount

Camera Connect To Microscope

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A59.4972 Connect to Trinocular Microscope

1.2 Remove the dust cover of microscope dovetail slot or standard C –mount
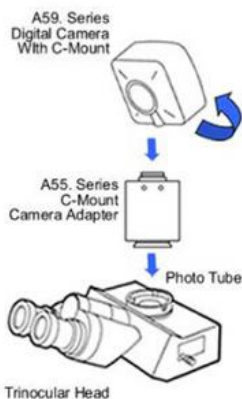
3. Snap the camera onto the dovetail slot or screw it onto the standard C -mount of the microscope; tighten the fastening screws on the dovetail slot of the microscope, fix the camera on the microscope.
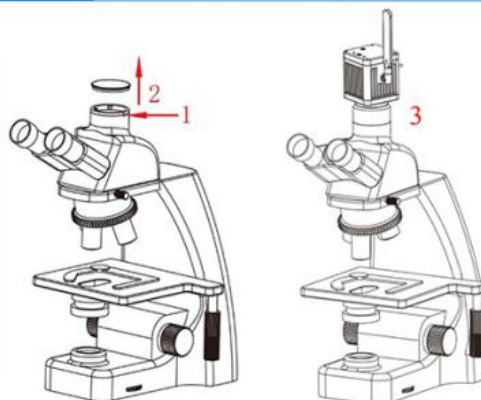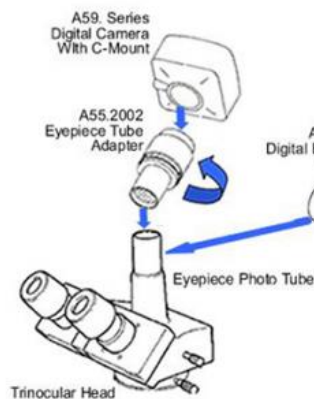
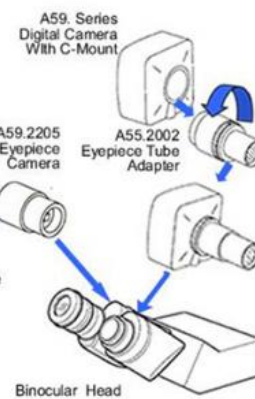OPTO-EDU   **How Camera Connect To Microscope**

1. To Trinocular Microscope On Straight Photo Tube

A59. Series Digital Camera With C-Mount

A55. Series C-Mount Camera Adapter

Photo Tube

Trinocular Head

2. To Trinocular Microscope On Eyepiece Photo Tube

A59. Series Digital Camera With C-Mount

A55.2002 Eyepiece Tube Adapter

Eyepiece Photo Tube

Trinocular Head

3. To Binocular Microscope On Eyepiece Tube

A59. Series Digital Camera With C-Mount

A59.2205 Digital Eyepiece Camera

A55.2002 Eyepiece Tube Adapter

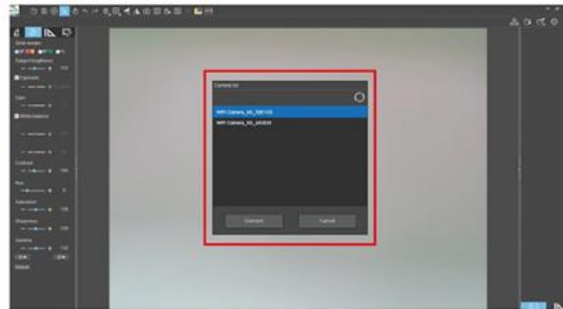Binocular Head

HDMI Cable(2m)
(For 12.0MP Cameras
Only)

Gigabit Ethernet
cable (2 m)

Video Set-top
Box (Optional)

Allen Key (3mm)
(Dovetail Models)

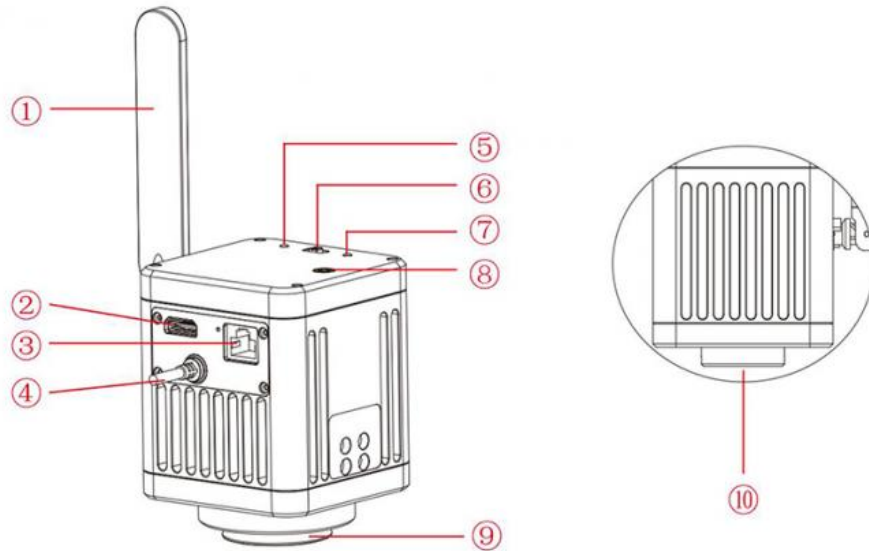One Paper With QR Code And Link To
Download Software

A59.4972 Dimensions (mm)

78

78

199

105

Dovetail Model,
Net Wight≈0.9kg

191

97

C-mount Model,
Net Wight≈0.9kg

①	5G WiFi Antenna	Enhance The 5G WiFi Signal Transmission, To Achieve Wireless Connection To The Camera Forimage Acquisition.
②	HDMI Output Interface (Only For 12.0MP Camera)	Through HDMI Cable, Connect With External Monitor With HDMI Interface To Realize Video, Signal Transmission,Etc.
③	WAN Network Interface	Turn To WiFi: It Can Be Connected To The Router And Access To The Local Area Network, Ao That Windows PC, Smartphones And Tablets In The Local Area Network Can Share The Microscopicscreen; It Can Also Be Directly Connected To The Internet.
④	USB Output / Power Supply	Turn To USB: Connects To Windows PC For Data Transfer, And The Windows PC Side Can Imageacquisition Through Software. Turn To WiFi: Connects To Adapter To Enable Powering The Camera, And Wireless Devices Canconnect To The Camera WiFi To Image Acquisition.
⑤	PWR (Power Indicator)	Turn To OFF, The Indicator Light Is Red. Turn To USB Or WiFi, The Indicator Light Is Green.
⑥	USB / OFF / WiFi Working Mode Switching	USB: When The USB Cable Connected To The Computer, It Can Image Acquisition Through Thecomputer Software. OFF: Turn Off The Power, The Camera Stops Working On This Time. WiFi: The Wireless Devices Connect To The Camera WiFi To Image Acquisition.
⑦	ACT Indicator:	Turn To WiFi, The Indicator Light Is Blue. Turn To Other Gears, The Indicator Light Does Not Light Up.
⑧	Easy Focus Hole (Only For Dovetail Mount Model)	Internal Filament Focus Structure Is Used To Adjust The 0.43X Field Lens Of The Camera To Achievepar-focal With Electronic Imaging And Observation Under Eyepiece.
⑨	Dovetail Mount	Connect With The Dovetail Slot On The Trinocular Microscope.
⑩	Standard C -mount	Connect With Trinocular Microscope Which Has C-mount.

A12.0933+ A59.4972

QR Code to Download APP

QR Code to Connect Camera WiF

Name: WiFi Camera
Input: DC 5V 2A
Made in China
RoHS

HDMI OUT   WAN

ACT   USB OFF WiFi   PWR

A12.0933 + A59.4972 More Pictures **OPTO-EDU**

USB + HDMI Simultaneous Output

5G WIFI + HDMI Simultaneous Output

HDMI to Monitor

WIFI to Phone

WIFI to Pad

WIFI to PC

Real Time Depth of Field Fusion & Auto Focus APP