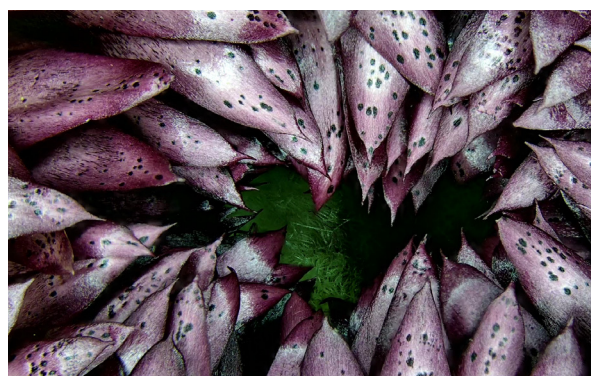
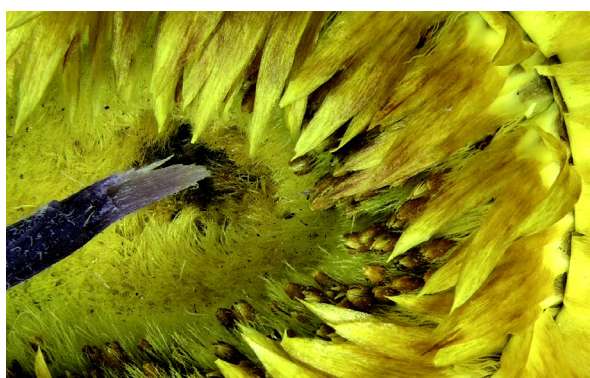
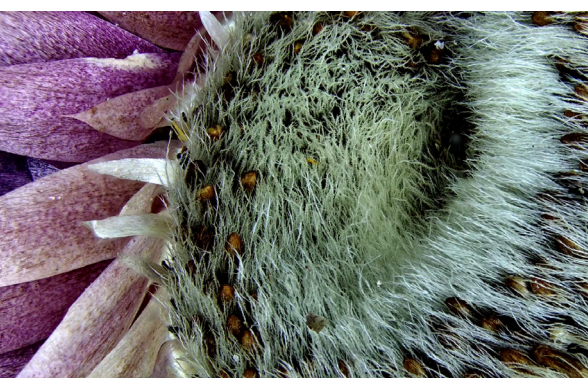
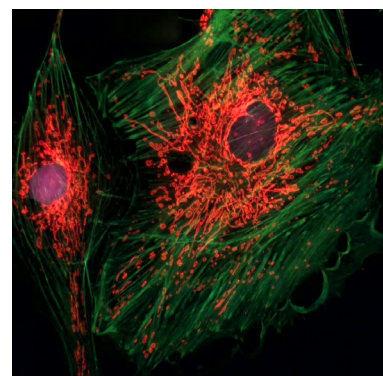
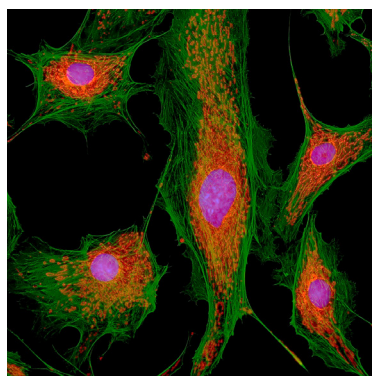
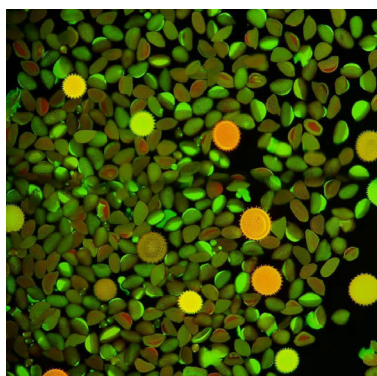
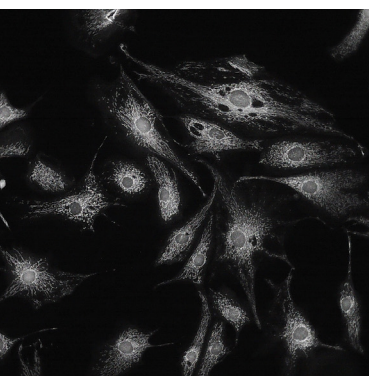
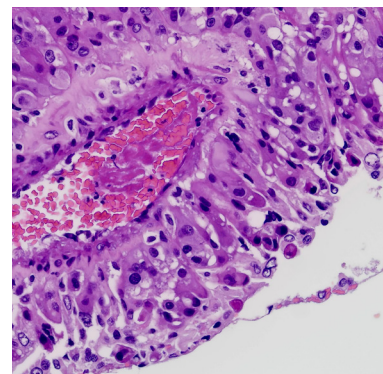
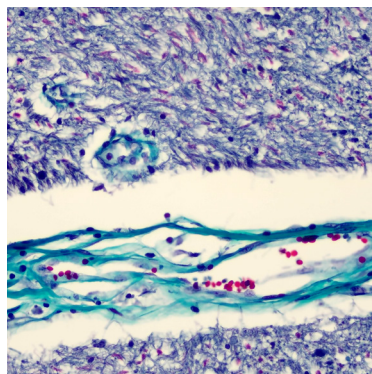
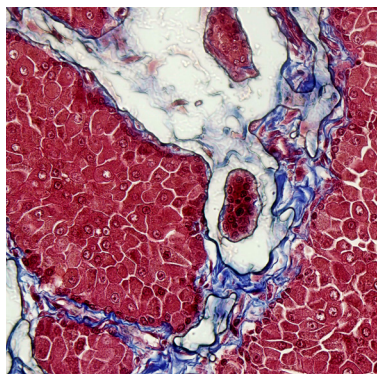
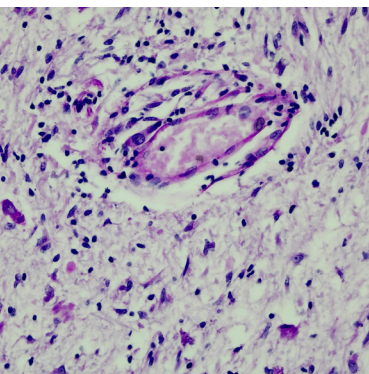


**INNOVATED FOR TOP BRAND MICROSCOPES**

*Create a Stunning Microscope Imaging System for You*





# For Binocular Upright Microscopes



Applicable Models:  
ECLIPSE Si binocular, Ei binocular, etc.

## Solution ①

Smart Embedded Display Camera  
With 0.43X tube lens



## Solution ②

Smart Embedded Camera  
With 0.43X tube lens



## Solution ③

WiFi Embedded Camera  
With 0.43X tube lens



## Function Comparison

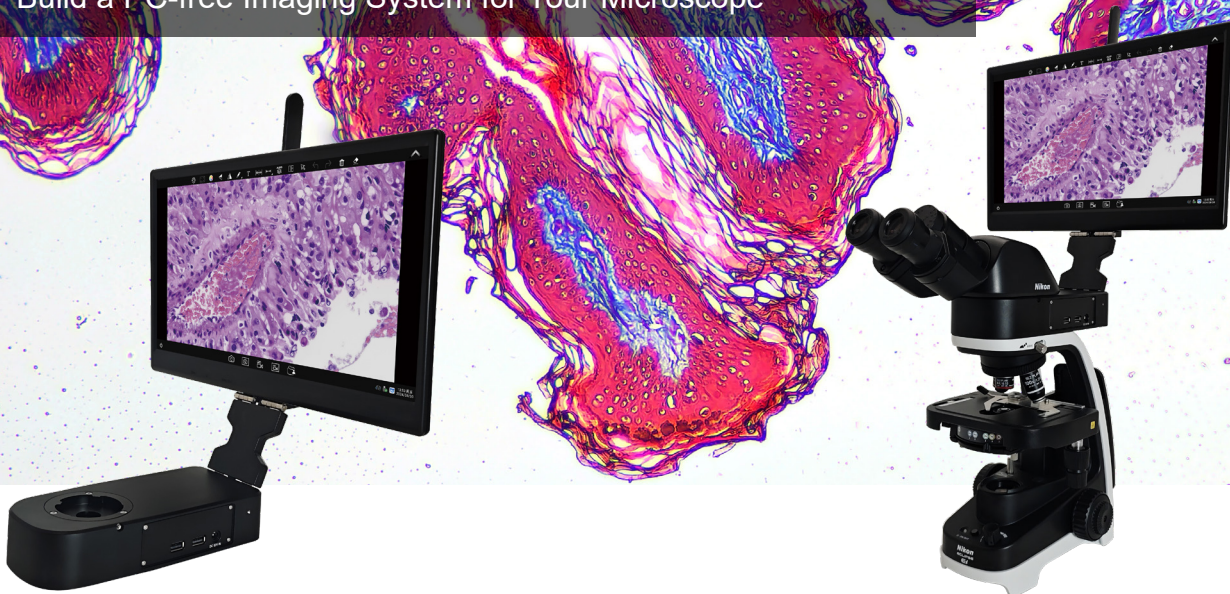
● Standard   ○ Optional   – N/A

	Solution①	Solution②	Solution③
Built-in Android OS	●	●	–
Pre-installed Office suits	●	●	–
15.6"high color gamut monitor	●	–	–
Image output methods			
5G WiFi	●	●	●
USB	–	–	●
HDMI or DP	● DP	● DP	● HDMI
Network	–	–	●

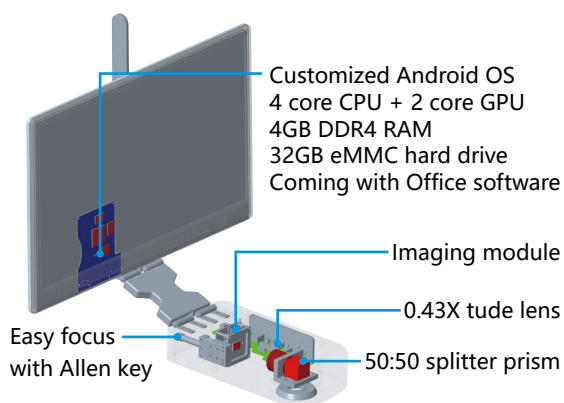
❗ Solution③ HDMI output method is unavailable for 20.0MP cameras.

# Solution① Smart Embedded Display Camera

Build a PC-free Imaging System for Your Microscope



## Features & Benefits



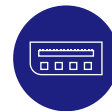
- Built-in operating system Android processor RK3399, office suit( Word,Excel, Powerpoint) are preinstalled, no need computer.
- Integrated with 15.6" high-definition ISP display.
- Comes with an imaging app that displays live images upon startup.
- Features a 50:50 light-splitting design that preserves the original optical system.
- Professional NPBS beam splitter to ensure true color reproduction.
- Includes a high-power 0.43X tube lens for a wide field of view.
- 32GB built-in eMMC with support for external U-disk storage for pictures and videos.
- USB interface allows for easy connection of keyboards and mouse.

5G WiFi and DP are simultaneous outputs



### 5G WiFi output

Compatible with various devices and operating systems, including Windows, iOS, and Android. Mobile devices can access the system by scanning a QR code. connects to PC via WiFi.



### DP output

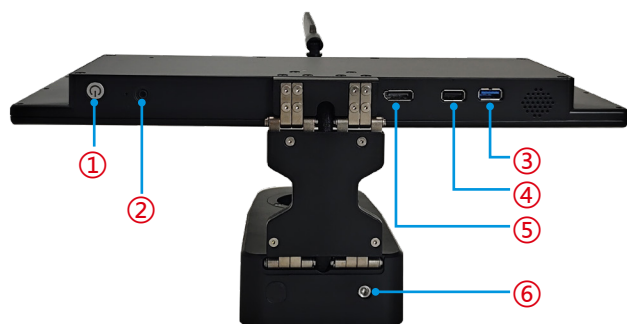
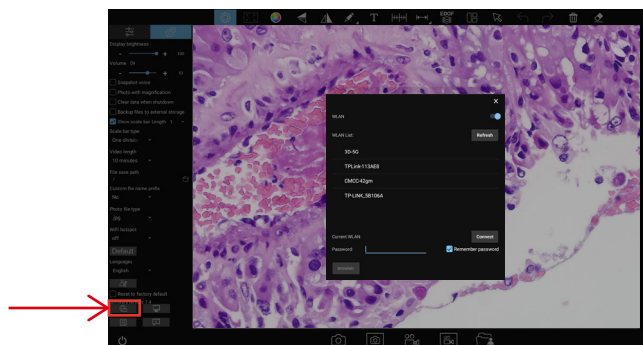
With DP output for display on monitors, TVs and projectors.





## Connecting to the Internet

The camera supports wireless Internet connection (only supports 5G WiFi router signal), by entering the password of any 5G WiFi network, you can directly open the browser to access the Internet. This will allow you to take advantage of online features and functionalities directly from your camera.



①	Power switch	Switch on/off
②	Headphone and microphone ports	Connect with headset cable for audio output
③	USB 3.0 interface	Can be connected to a mouse, keyboard, USB flash drive (for copying videos and images). Or you can use the manufacturer's optional USB to DC5V power cord to power the Ei and Si
④	USB 2.0 interface	
⑤	DP output interface	Transmission via DP cable, connected to a display device
⑥	Easy focus with allen key	Simple and precise focus adjustment for synchronization between eyepiece and monitor
⑦	5G WiFi antenna	5G WiFi signal transmission to connect the camera to capture images or control the camera
⑧	USB 2.0 interface	Can be connected to mouse, keyboard, U disk
⑨	Power input	DC 12V 3A



## Specifications

### 15.6" high color gamut display

Number of pixels	1920( horizontal) x 1080 (vertical)
Pixels arrangement	RGB vertical stripe
Colour gamut	100% (sRGB)
Display number of colors	16.7M(8Bit)
Surface treatment	Anti-glare
Surface hardness	3H
Viewing angel range	170 horizontal, 170 vertical
Contrast	800
Brightness	500cd/m <sup>2</sup> (average of 5 points)

Applicable to	Nikon	Nikon
Models	TC200	TC200
Category	ED-N-12	ED-N-20
Physical resolution	12.0MP	20.0MP
Image sensor	SONY IMX412 CMOS	SONY IMX147 CMOS
Exposure mode	Rolling Shutter	Rolling Shutter
Maximum resolution	4000×3000 (12,000,000Pixels)	5184×3888 (20,155,392 Pixels)
ISO sensitivity	Equivalent to 100-12800	Equivalent to 100-12800
Sensor size	1/2.3"	1/2.3"
Pixel size	1.55μm×1.55μm	1.2μm×1.2μm
Spectral response	380-650nm	380-650nm
Exposure capability	Real-time auto and manual adjustment	Real-time auto and manual adjustment
Exposure time	10μs-333ms	10μs-333ms
White balance	Real-time auto and manual RB adjustment	Real-time auto and manual RB adjustment
Preview resolution	4000×3000@30fps,3840×2160@30fps	5184×3888@10fps,3840×2160@15fps
Power supply	DC 12V 3A	DC 12V 3A
Wireless protocol	5G WiFi IEEE802.11ac	5G WiFi IEEE802.11ac
A/D conversion bit depth	12bit	12bit
Software and App	Windows Software:KoPa Capture Pro,Embedded software:KoPa WiFi Lab AO,App:KoPa WiFi Lab	

## Accessories

Power adapter and power cord  
(Optional Chinese, American, European, Australian, Korean, British standard etc.)

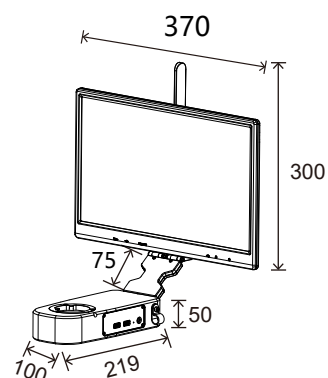


USB mouse  
and keyboard



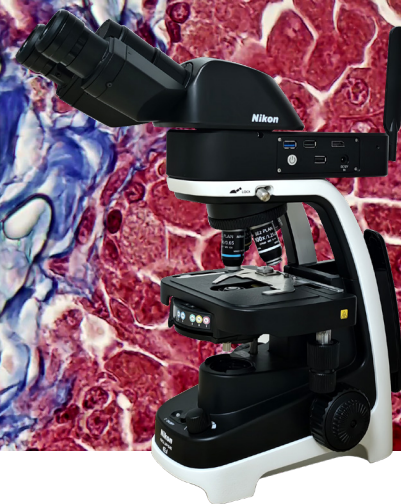
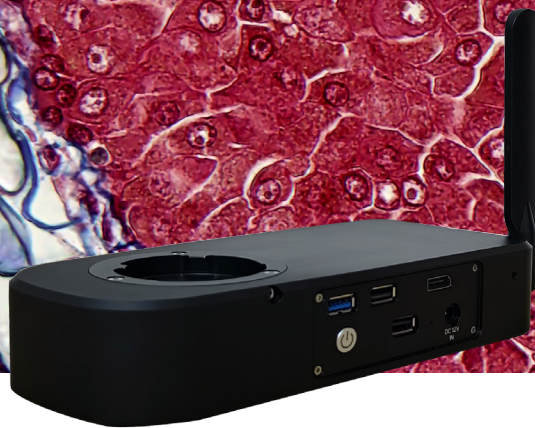
## Dimensions(Unit:mm)

Net weight ≈2.6kg

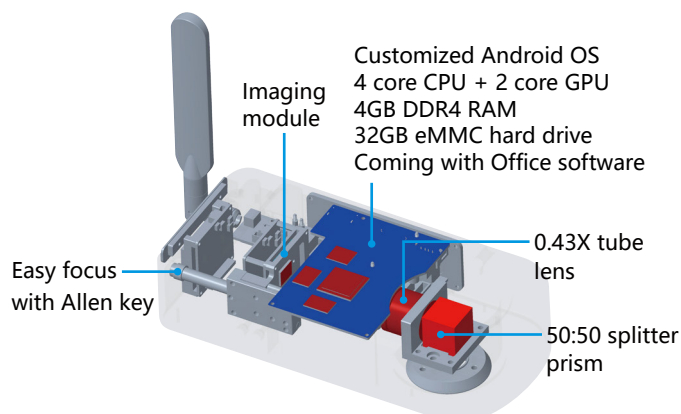


# Solution② Smart Embedded Camera

Build a PC-free Imaging System for Your Microscope



## Features & Benefits



- Built-in operating system Android processor RK3399, office suit( Word,Excel, Powerpoint) are preinstalled, no need computer.
- Comes with an imaging app that displays live images upon startup.
- Features a 50:50 light-splitting design that preserves the original optical system.
- Professional NPBS beam splitter prism to ensure true color reproduction.
- Includes a high-power 0.43X tube lens for a wide field of view.
- 32GB built-in eMMC with support for external U-disk storage for pictures and videos.
- USB interface allows for easy connection of keyboards and mouse.

## 5G WiFi and DP are simultaneous outputs



### 5G WiFi output

Compatible with various devices and operating systems, including Windows, iOS, and Android. Mobile devices can access the system by scanning a QR code. connects to PC via WiFi.



### DP output

With DP output for display on monitors, TVs and projectors.

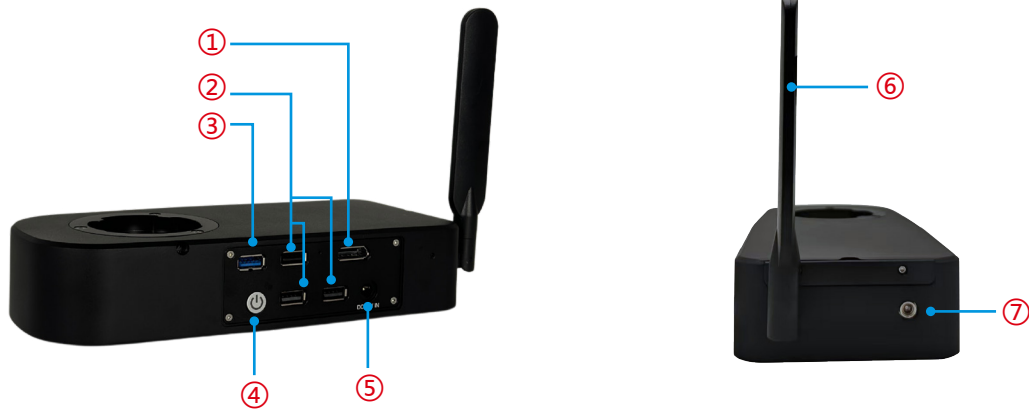
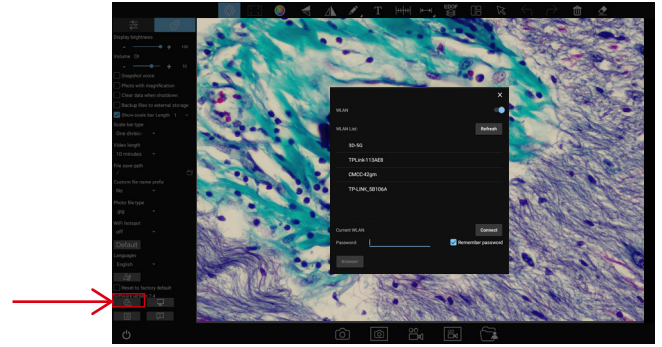






## Connecting to the Internet

The camera supports wireless Internet connection (only supports 5G WiFi router signal), by entering the password of any 5G WiFi network , you can directly open the browser to access the Internet. This will allow you to take advantage of online features and functionalities directly from your camera.



①	DP output interface	Transmission via DP cable, connected to a display device
②	USB 2.0 interface	Can be connected to a mouse, keyboard, USB flash drive (for copying videos and images).Or you can use the manufacturer's optional USB to DC5V power cord to power the Ei and Si
③	USB 3.0 interface	
④	Power switch	Switch on/off
⑤	Power input	DC 12V 3A
⑥	5G WiFi antenna	5G WiFi signal transmission to connect the camera to capture images or control the camera
⑦	Easy focus with allen key	Simple and precise focus adjustment for synchronization between eyepiece and monitor

## Specifications

Applicable to	Nikon	Nikon
Models	HW200	HW200
Category	EC-N-12	EC-N-20
Physical resolution	12.0MP	20.0MP
Image sensor	SONY IMX412 CMOS	SONY IMX147 CMOS
Exposure mode	Rolling Shutter	Rolling Shutter
Maximum resolution	4000×3000 (12,000,000Pixels)	5184×3888 (20,155,392 Pixels)
ISO sensitivity	Equivalent to 100-12800	Equivalent to 100-12800
Sensor size	1/2.3"	1/2.3"
Pixel size	1.55μm×1.55μm	1.2μm×1.2μm
Spectral response	380-650nm	380-650nm
Exposure capability	Real-time auto and manual adjustment	Real-time auto and manual adjustment
Exposure time	10μs-333ms	10μs-333ms
White balance	Real-time auto and manual RB adjustment	Real-time auto and manual RB adjustment
Preview resolution	4000×3000@30fps,3840×2160@30fps	5184×3888@10fps,3840×2160@15fps
Power supply	DC 12V 3A	DC 12V 3A
Wireless protocol	5G WiFi IEEE802.11ac	5G WiFi IEEE802.11ac
A/D conversion bit depth	12bit	12bit
Software and App	Windows Software:KoPa Capture Pro,Embedded software:KoPa WiFi Lab AO,App:KoPa WiFi Lab	

## Accessories

Power adapter and power cord  
(Optional Chinese, American, European, Australian, Korean, British standard etc.)



DP cable

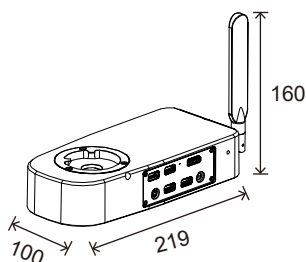


USB mouse  
and keyboard



## Dimensions(Unit:mm)

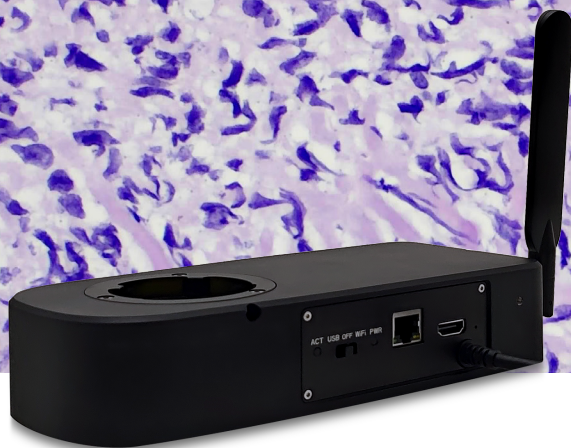
Net weight ≈1.3kg



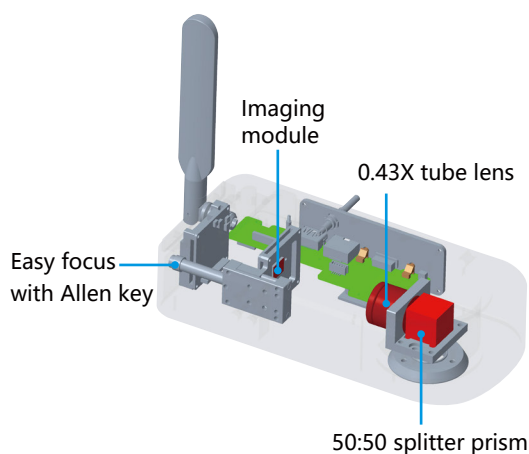


# Solution③ WiFi Embedded Camera

Embedded and Multiple Outputs,Seamlessly Fits to Your Microscope



## Features & Benefits



- Features a 50:50 light-splitting design that preserves the original optical system.
- Professional NPBS beam splitter prism to ensure true color reproduction.
- Includes a high-power 0.43X tube lens for a wide field of view.



### 5G WiFi output

Compatible with various devices and operating systems, including Windows, iOS, and Android. Mobile devices can access the system by scanning a QR code. Allows to connect to PC via WiFi.



### HDMI output

Connects to PC via WiFi, with HDMI output for display on monitors, TVs and projectors.



No software, only live images are available, at which point the camera image properties can be controlled via WiFi or USB.



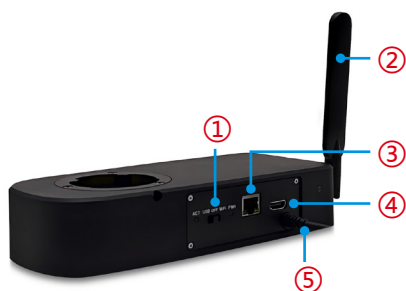
## USB output

Supports connection to a computer via USB 2.0. You can utilize the KoPa Capture Pro software or any standard UVC 2.0 protocol software to access the camera's real-time images without the need for driver installation.



## Network output

Connect the camera to the router or switch through the network cable, up to 13 units computers, mobile phones and tablets in the LAN can access and control the images as long as they have installed the software and APP.



①	USB/OFF/WiFi working mode switching	Two working modes switching
②	5G WiFi antenna	5G WiFi signal transmission to connect the camera to capture images or control the camera
③	Network output interface	When in WiFi working mode,: connect to a router or switch to access a LAN so that Windows computers, smartphones, and tablets on the LAN can share the microscopic screen; or connect to the Internet directly.
④	HDMI output interface (only 12.0MP camera)	The display device is connected and the image can be displayed, but the image cannot be controlled
⑤	USB output/ power supply	Two in one: data transmission and power supply.
⑥	Easy focus with allen key	Simple and precise focus adjustment for synchronization between eyepiece and monitor.



## Specifications

Applicable to	Nikon	Nikon
Models	FF48	FF48
Category	EB-N-12	EB-N-20
Physical resolution	12.0MP	20.0MP
Image sensor	SONY IMX412 CMOS	SONY IMX147 CMOS
Exposure mode	Rolling Shutter	Rolling Shutter
Maximum resolution	4000×3000 (12,000,000Pixels)	5184×3888 (20,155,392 Pixels)
ISO sensitivity	Equivalent to 100-12800	Equivalent to 100-12800
Sensor size	1/2.3"	1/2.3"
Pixel size	1.55μm×1.55μm	1.2μm×1.2μm
Spectral response	380-650nm	380-650nm
Exposure capability	Real-time auto and manual adjustment	Real-time auto and manual adjustment
Exposure time	10μs-333ms	10μs-333ms
White balance	Real-time auto and manual RB adjustment	Real-time auto and manual RB adjustment
Preview resolution	4000×3000@30fps,3840×2160@30fps	5184×3888@10fps,3840×2160@15fps
Power supply	DC 12V 3A	DC 12V 3A
Wireless protocol	5G WiFi IEEE802.11ac	5G WiFi IEEE802.11ac
A/D conversion bit depth	12bit	12bit
Software and App	Windows Software:KoPa Capture Pro, App:KoPa WiFi Lab	

## Accessories

HDMI cable(optional,  
only for 12.0MP camera)

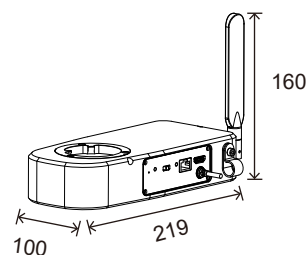


Gigabit ethernet cable  
(optional)



## Dimensions(Unit:mm)

Net weight ≈1.2kg



Certifications

1. Comply with FCC certification of The US Federal Communication Commission.
2. Comply with European (standard) safety CE certification.
3. Comply with the MIC certification issued by the Ministry of Internal Affairs and Communications of Japan (Electric Wave Method and Electro-Optical Communication Business Law).
4. Comply with JATE certification of Japanese telecommunications law directive.
5. Comply with the “Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment” (RoHS) Directives in accordance with EU legislation.

Evaluation object	Certification	Certificate File Name & Report	Certificate number & corresponding report number
WF01A(5G WiFi 11ac)module Certification	US FCC Report	SZEM180100024801-5G wifi RPT-WF01A FCC Report	SZEM180100024801
		SZEM180100024802-RT-WF01A FCC Report	SZEM180100024802
		Appendix A-Photographs of EUT Constructional Details for SZEM1801000248CR-FCC	SZEM1801000248CR
	US FCC ID Certification	2AFO3WF01A_NII-WF01A FCC ID	2AFO3WF01A
	EU CE report	SZEM180100024901 EN301489 RPT-WF01A CE Report	SZEM180100024901
		SZEM180100024902 WIFI5G RPT-WF01A CE Report	SZEM180100024902
	Japanese MIC Certification	CSRT180084-WF01A Japanese MIC Certification	CSRT180084
	Japanese JATE Certification	CSTT180018-WF01A Japanese JATE Certification	CSTT180018

Patented

Patent category	Patent name	Patent number
Design patent	Electronic eyepiece	ZL 2015 3 0193227.8
	Wireless electronic eyepiece	ZL 2015 3 0193223.X
	Electronic eyepiece with spectroscopic system	ZL 2019 3 0331144.9
	Microscope (with splitting prism camera)	ZL 2019 3 0717439.X
	Microscope with camera	ZL 2019 3 0717442.1
Utility model patents	WiFi microscope eyepiece	ZL 2015 2 0296469.4
	Electronic eyepiece	ZL 2015 2 0426409.X
	Wireless electronic eyepiece	ZL 2015 2 0426313.3
	Microscope with displayer	ZL 2019 2 0928962.1
	Electronic eyepiece with splitting prism system	ZL 2019 2 1022863.3

Software copyright

Category	Name of software	Platform	License number
Computer software copyright registration certificate	KoPa Capture Pro	Windows	2021SR1287730
	KoPa WiFi Lab AO	Android	2021SR1304520
	KoPa WiFi Lab	Android	2019SR0117768
		iOS	2019SR0028558
	KoPa View	Linux	2024SR1617066

KoPa<sup>®</sup>

GuangZhou Ostec Electronic Technology Co.,Limited

Manufacturer: No.8 West Lane, Jiangcheng Road, Bangjiang East Village,Dalong street, Panyu District, Guangzhou, China.



High-Tech Enterprise certificate number: GR202344009665



ISO9001 Verification No:00223Q26818R3S

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