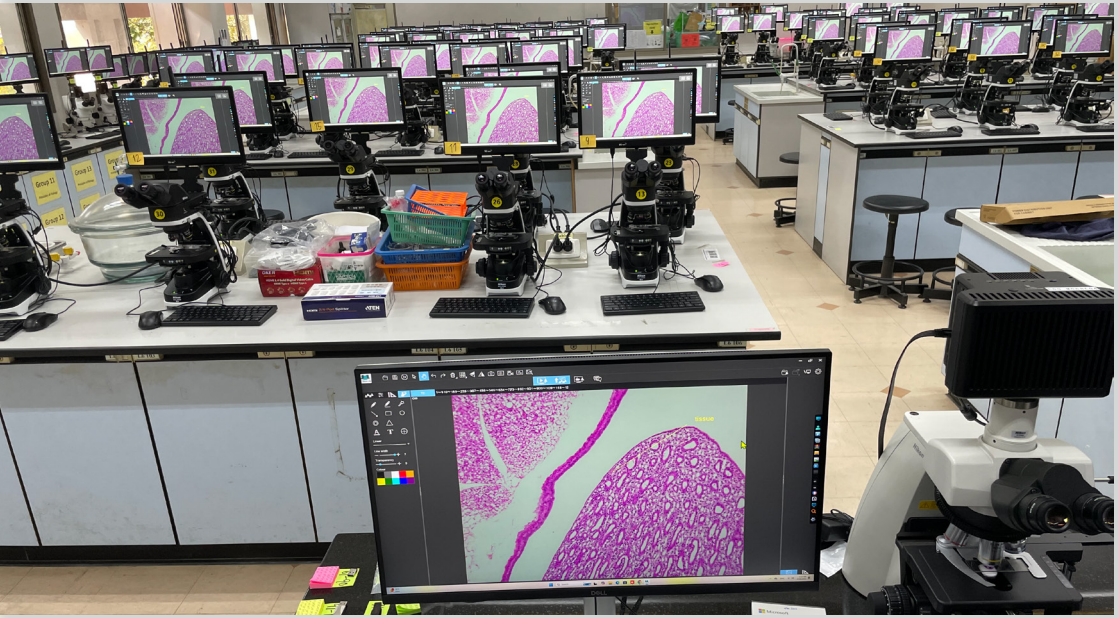


5G WiFi Digital Microscope Interaction System Solution

Compatible with Nikon Microscopes

KoPa®

www.ostec.com.cn

Scan to Watch Video

Contents

01 Why Choose This Interaction System?

Elevate Teaching Quality

Build smart wireless microscope classrooms and labs to enhance pedagogy, reduce administrative burdens, and enable efficient interactive teaching.

Digitization & Sharing

Digitize microscopy classrooms, enabling real-time image sharing over wireless networks

Smooth Multi-Station Sharing

Auto-create distributed 5G WiFi LANs supporting up to 120 stations for seamless HD real-time image sharing.

Precision Color Reproduction

Optimized imaging optics with dedicated camera parameters for biological, industrial, and fluorescence applications, achieving true-to-eye color accuracy.

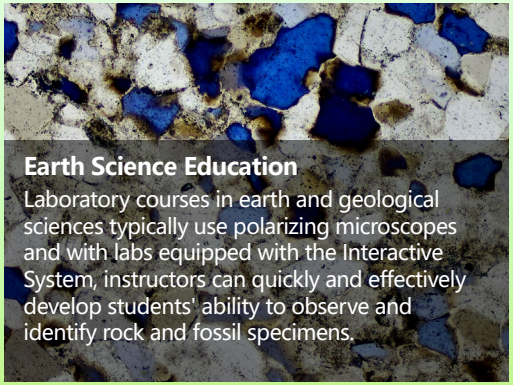
Powerful compatibility

Seamless integration with third-party virtual teaching platforms (e.g., CS&BS architecture, Android APP) and AI pathology databases.

Life Science Education
Ideal for building integrated smart morphology labs (anatomy, histology, pathology), enhancing experimental teaching in basic medical education.

Metallurgical Microscopy Teaching
Reveal material microstructures (grains, phases, defects) to deepen understanding of physical/chemical properties, laying foundations for materials science research.

Agriculture, Forestry, and Animal Science
The system plays an active role in zoological, botanical, entomological,and archaeological scenarios where stereo microscopes are widely used, and its high-content realm time depth of field fusion feature allows see all the clear images from different focal planes while observing at high magnification.

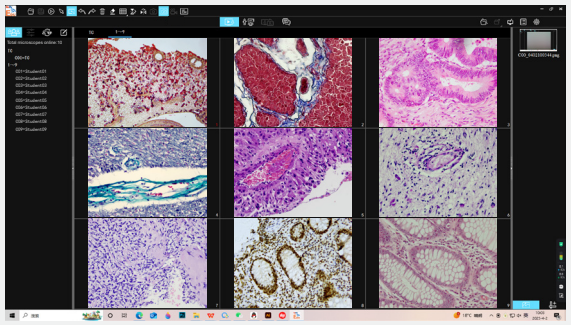


Earth Science Education
Laboratory courses in earth and geological sciences typically use polarizing microscopes and with labs equipped with the Interactive System, instructors can quickly and effectively develop students' ability to observe and identify rock and fossil specimens.

2.1 Tutor-Side Wireless Control Software: KoPa WiFi EDU for Windows

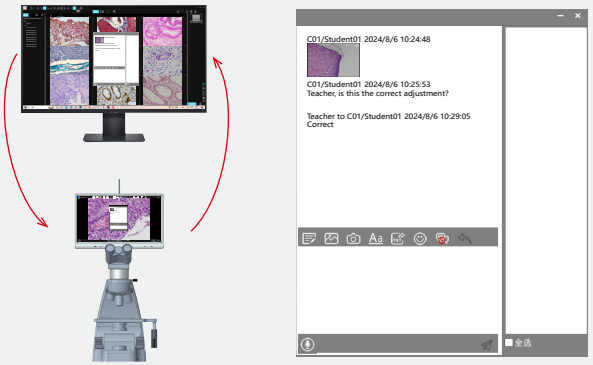
Monitoring

- Student images automatically sync to the tutor's software for real-time confirmation of students' understanding of experiments.
- The tutor's interface defaults to displaying nine student screens (arranged by number) and supports pagination to browse more student screens.
- View up to nine student images at a time, with the ability to switch between more student images using tabs.



In App Messaging

- Real-time tutor-student chat (text/images).
- Send assignments to individuals/class with Word, Excel, PPT, image files.



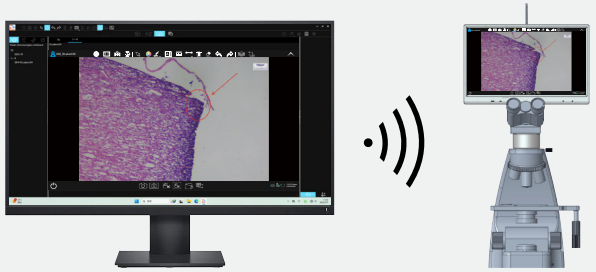
Lecturing Mode

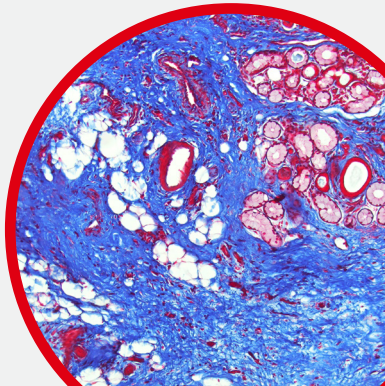
- Real-time screen sharing from instructor/selected student to all devices.
- Effortlessly sync instructor's microscope feed, PC interface, and lecture content (videos/PPT) to student devices.

Remote Desktop Control for Student Devices

Real-time Monitoring & Guidance

- Track all student software activity to ensure engagement.
- Instructors remotely operate student software via mouse-through functionality, offering instant assistance and personalized guidance.





Interactive Settings

Boost teaching/lab management efficiency.

One-Click Image Control

- Reset All: Restore default settings for next class.
- Sync Parameters: Apply image settings to all devices.
- Lock Mode: Prevent accidental edits by locking student image control functionalities.
- Capture & Archive: Auto-save all student images to tutor’ s computer by date/user.

One-Click Power Management

- Remote Shutdown: Turn off cameras ,including Ei microscope lights and Android tablets that enable auto turn off.
- Restart cameras: Reboot all the student cameras.
- Reset Cameras: Factory-reset student devices in 25s. (All images,videos, user list will be deleted).

One-Click Background Control

- Batch Install: Deploy/upgrade apps (KoPa WiFi EDU AO & third-party Android apps).
- Desktop access: one click allows students to access their desktops.
- Desktop/Web Access: Enable student desktop or browser use (requires teacher-side internet connected).

E-Roll Call

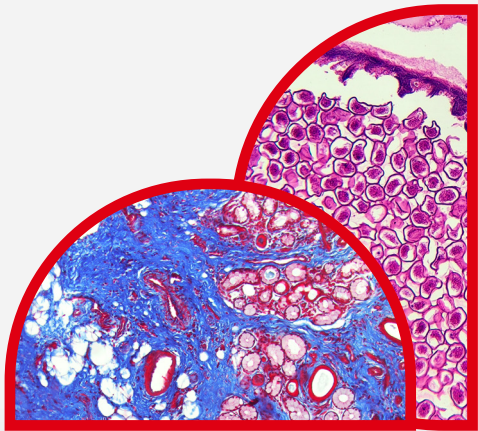
Auto-detects online users with names (updates every 10s).

Batch Calibration

Sync teacher-set calibration values to all devices, eliminating manual student input.

Digital Whiteboard

Tools: Pen, arrows, text, undo/redo, eraser, delete, object edit, micro imaging/video, mouse-through. Supports live annotations and synchronized content sharing.



Compare Mode

- Display 2/4 student screens for static/dynamic/mixed comparisons.
- Compare teacher view with selected student feeds.

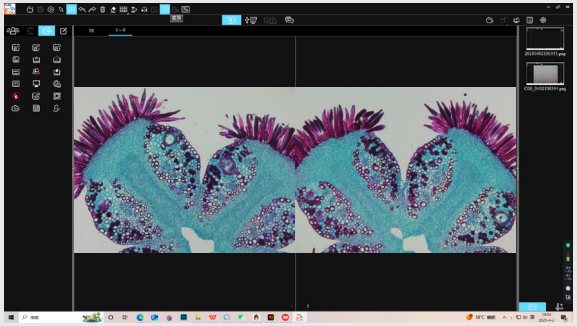
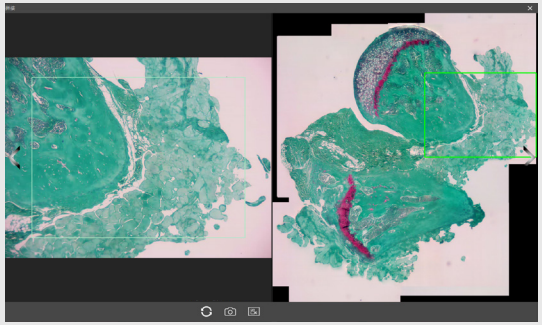


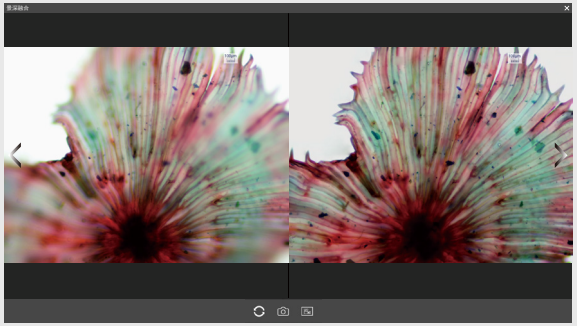
Image Stitching

Auto-stitches images in real-time while moving XY stage, generating full-sample panoramas.



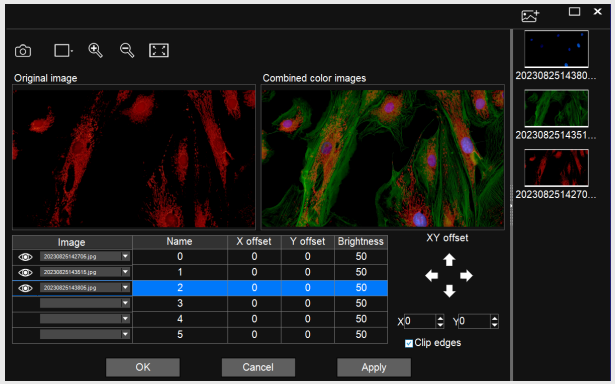
Focus Stacking

- AI-enhanced algorithm overcomes high-magnification depth limits.
- Achieve clearer multi-plane images via focal adjustments (no motorized stage required).



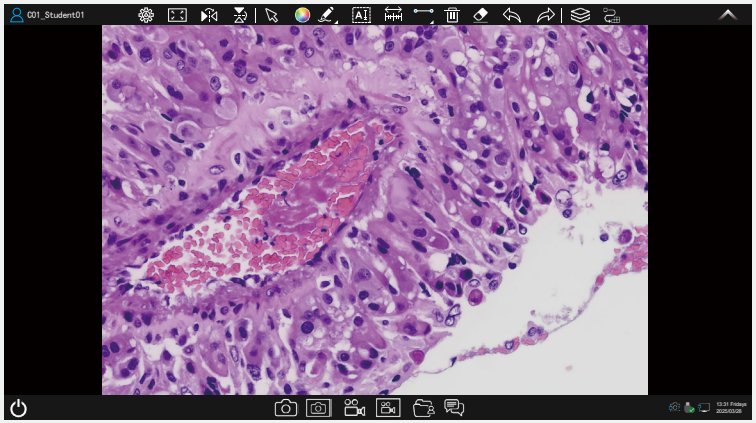
Composite Color Imaging

Overlay fluorescent images instantly.



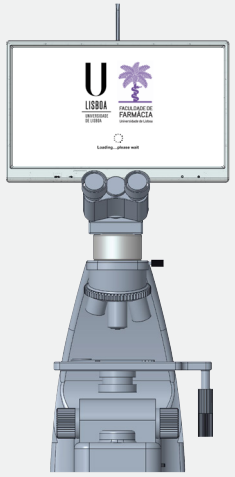
2.2 Student-Side Embedded Smart APP: KoPa WiFi EDU AO for Android

A pre-installed Android app for Solutions ① & ②, auto-launching on startup. Mandatory for teaching (uninstall disabled), updatable via teacher-side.



Custom Boot Animation

Displays school logo/motto for student engagement.



User Login

Optional (teacher-controlled). Supports multi-user switching for shared devices; auto-creates dedicated folders per user.

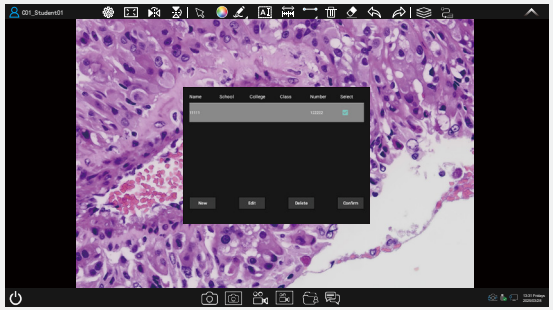
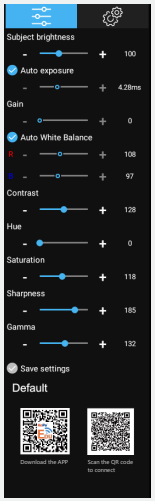


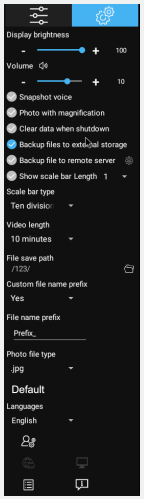
Image Adjustment

- Retains settings post-reboot. Adjusts brightness/exposure/white balance. Dual QR codes for mobile pairing.



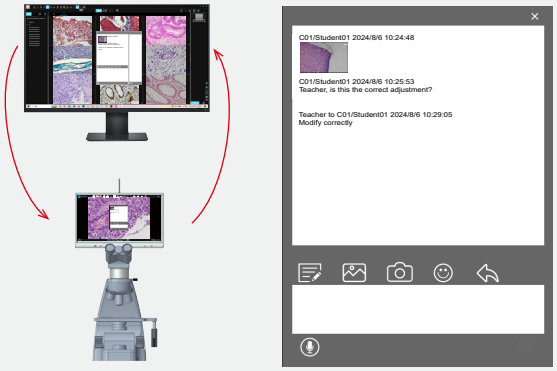
Preferences

- Set language/brightness/scale, backup to USB. Internet/system desktop access (admin-authorized).



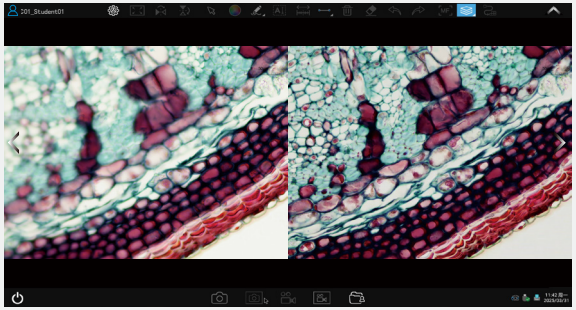
In-App Messaging

Text/image/voice communication with teacher. Files auto-archive to teacher-side; no peer to peer chat.



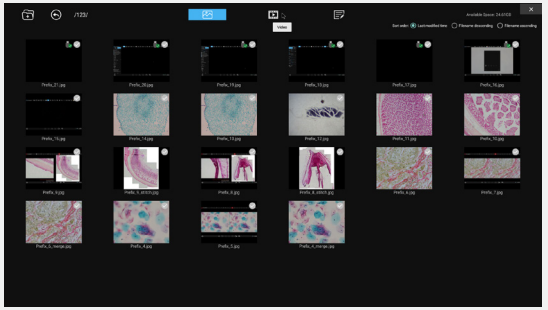
Focus Stacking

Advanced algorithm resolves high-mag depth limitations.



File Management

Browse, rename, send to teacher, or copy to USB drive.



Manual Cell Counting

Nuclear statistics with one-click report export.

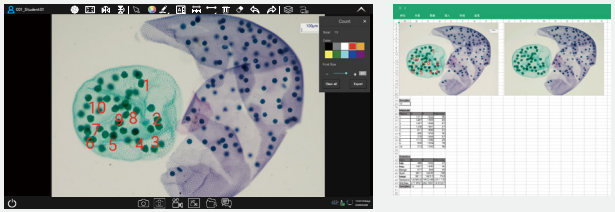
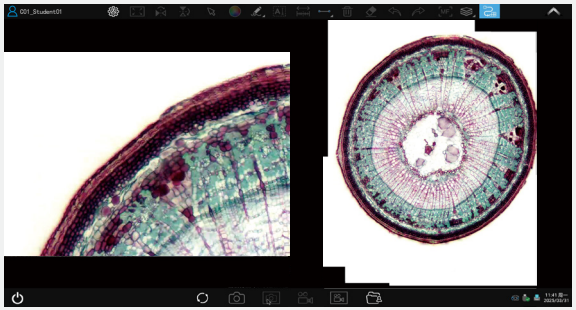


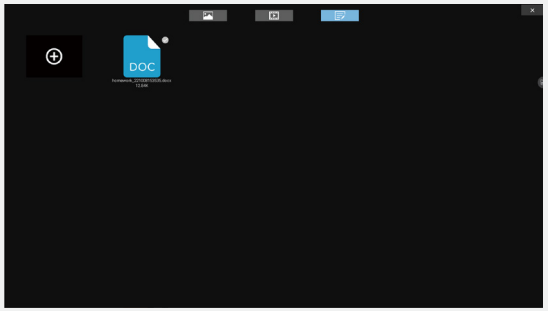
Image Stitching

Real-time XY-stage panorama stitching.



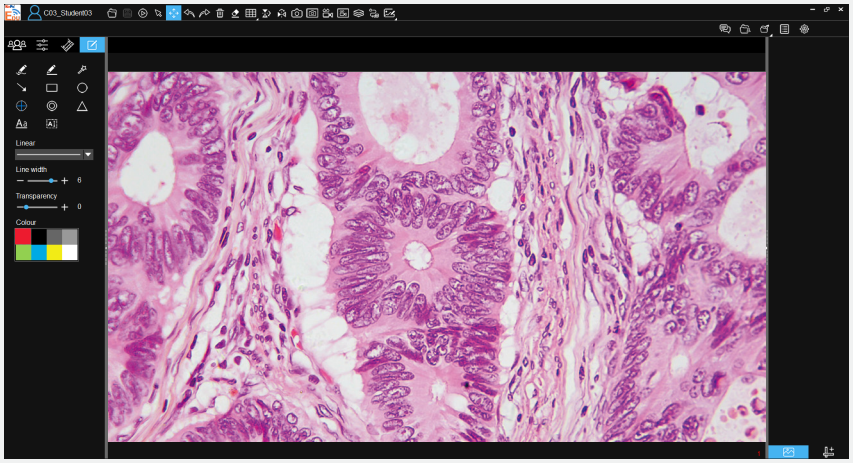
Lab Report Module

Built-in Office suite (Word/Excel/PPT) for report creation. Teachers share custom templates/-feedback.



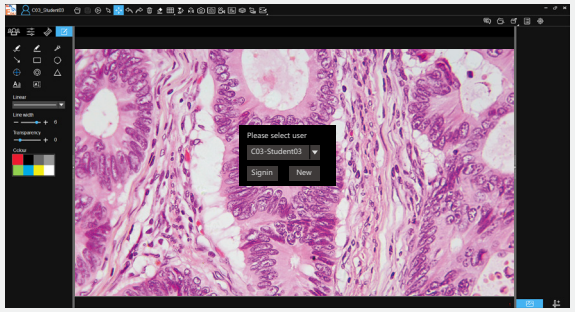
2.3 Student Software: KoPa WiFi EDU-S for Windows

KoPa WiFi EDU-S is a Windows-based student software supporting USB and WiFi connections for versatile and convenient image transmission.



User Login

Login requirements are set by the teacher. If enabled, students must enter a username. Supports multi-user switching and new user creation for shared device use. The system automatically generates a corresponding folder on the teacher's end.



Work Mode Bar

Allows previewing at different resolutions and switching between MJPG or H264 formats. Teacher can enable or disable mobile device access. When enabled, a QR code is displayed for connection; when disabled, the QR code and related functions are hidden.

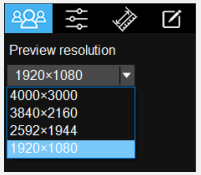
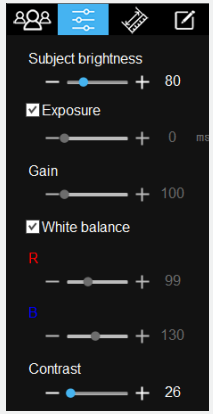
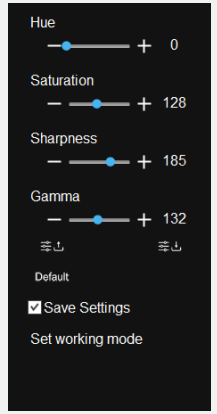


Image Adjustment

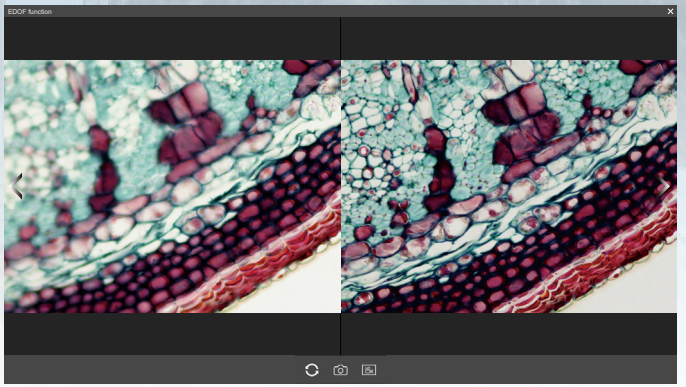
Features image property memory, restoring previous settings upon reboot. Adjustable parameters include brightness, exposure, gain, white balance, contrast, hue, saturation, sharpness, and gamma. Includes a one-click default reset.





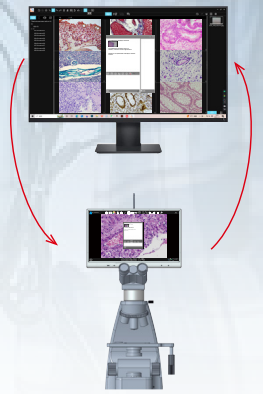
Depth Fusion

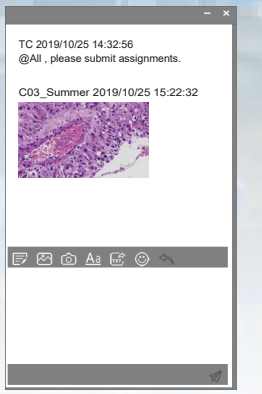
Utilizes advanced image processing and real-time fusion technology to address depth-of-field issues at high magnifications, delivering clearer images than single-frame captures.



In-software Messaging

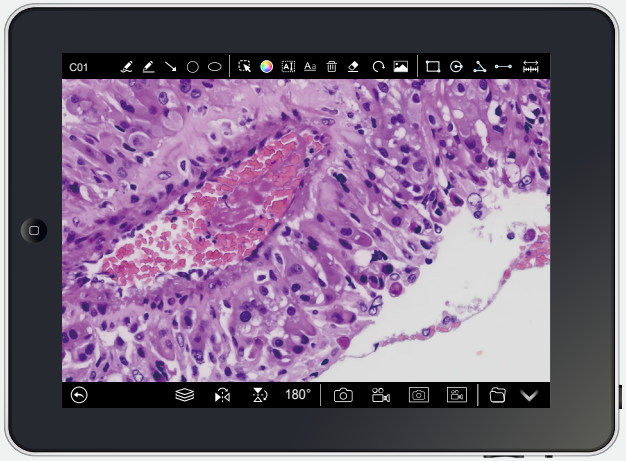
Enables text, image, and voice communication between students and teachers. Files are automatically archived in the teacher's file manager. Students can only communicate with the teacher, not each other.

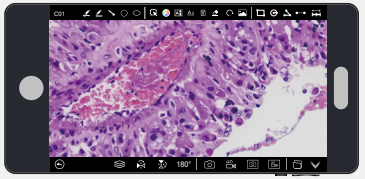




2.4 Student Mobile App: KoPa WiFi EDU

Compatible with iOS and Android devices. Scan the QR code to access the microscope live image without manual password entry.





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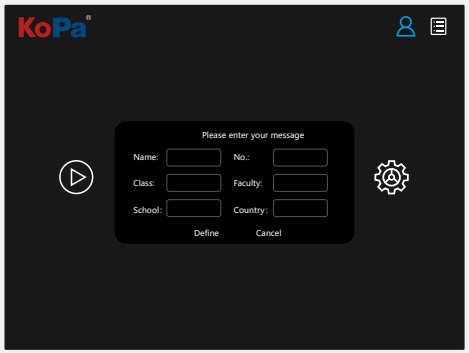

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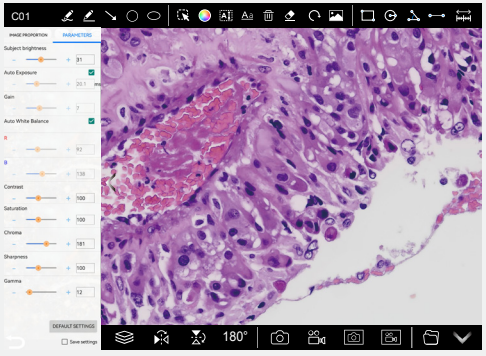

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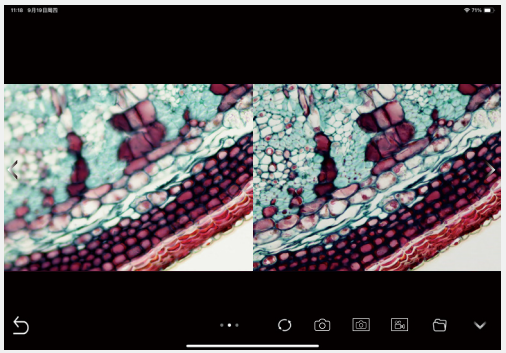
Utilizes advanced image processing and real-time fusion technology to address depth-of-field issues at high magnifications, delivering clearer images than single-frame captures.

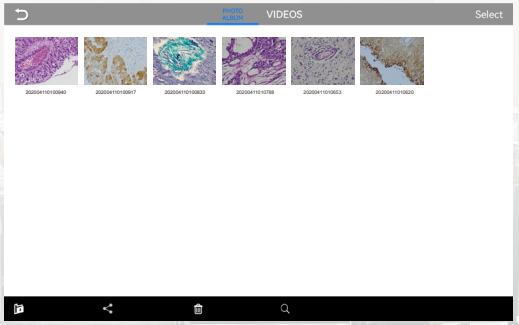


Wireless USB-drive Function

Supports wireless transfer of files/images from the student-side camera to tablets or smartphones, enabling easy data storage while eliminating virus risks associated with traditional USB drives.

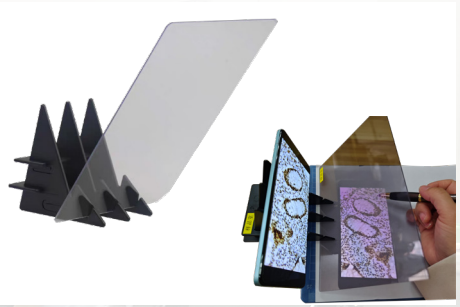
File Management

Supports browsing images and videos, renaming files, exporting to local albums, sharing on social networks, one-click deletion, and searching by file name.



Optional Accessories

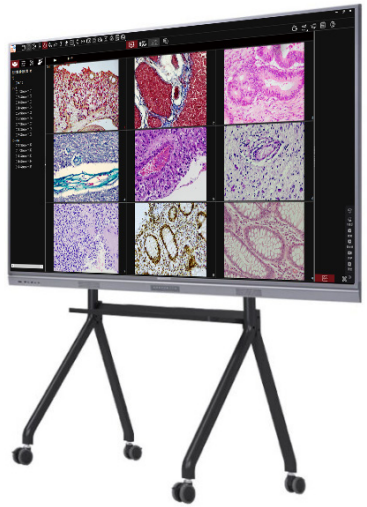
Optical Drawing Aid – For pathology sketching practice.



How to Choose the Right Solution for Your Microscope?

3.1 Components of the teacher's side

Microscope Compatibility：
Supports all types of microscopes (upright, stereo, metallurgical, polarized), and needs to be equipped with a trinocular viewing tube to install the interactive workstation on the teacher's end.
The workstation has a simple design and powerful functions to meet the needs of efficient teaching.



Interface options

Integrated with 0.43X adapter

C-mount

1 Trinocular Micoscope

2 interactive workstation

3 Windows-based PC

4 Optional: Teacher's large screen (recommended by dealer)

- Create a self-built 5G WiFi LAN covering 500㎡, plug-and-play, no extra routers or servers needed, ideal for lab or classroom relocation.
- Integrated camera and optical adapter (optional 0.43X, designed for interactive workstations), connects to teacher's PC via Ethernet and wirelessly to students' cameras or phones.
- Simple setup, stable performance, smooth operation.
- Utilizes 5G WiFi with 802.11ac protocol, up to 3464Mbps for high-speed, stable transmission.
- Supports up to 120 stations wireless connections per classroom, allow connect to Internet without WiFi SSID switching . Teacher-to-student end transmission delay under 0.4 seconds.

①	PC network output	It is connected to a computer through a network cable, and the computer side can capture images through software
②	Power output	Can power microscope (output voltage 12V, output current max. 1A)
③	Power input	DC 12V 5A
④	USB2.0 interface	Power supply for microscope is available (output voltage is 5V, maximum output current is 2A)
⑤	LAN network output	Connect to the Internet, so that the teacher's computer and the student's camera can get the permission to connect to the Internet.
⑥	WAN network output	Supports to connect to Internet by a network cable
⑦	Power switch	Switch on/off
⑧	Indicator light	Indicates fan operation, 5G WiFi module operation status, and power status
⑨	Easy focus with allen key (Only for 0.43X tube lens camera)	Simple and precise focus adjustment for synchronization between eyepiece and monitor

Installation Reference

Tutor's computer requirements

System	Win10 or later versions
CPU	Intel Core i7 10th generation or later versions
Hard Drive	512GB or more
Memory	16GB or more
Graphics card	nuclear graphics or Nvidia graphics card (Nvidia RTX2060 or later versions)
Wired Network Card	10/100/1000 adaptive

Interactive workstation specifications

Applicable to	Nikon	Nikon	Nikon
Physical resolution	8.3MP	12.0MP	20.0MP
Models	CG12	CG12	CG12
C-mount category	IW-C-08	IW-C-12	IW-C-20
With 0.43X tube lens	IW-N-08	IW-N-12	IW-N-20
Image sensor	SONY IMX678 CMOS	SONY IMX412 CMOS	SONY IMX147 CMOS
Exposure mode	Rolling Shutter	Rolling Shutter	Rolling Shutter
Maximum resolution	3840×2160 (8,294,400Pixels)	4000×3000 (12,000,000Pixels)	5184×3888 (20,155,392 Pixels)
ISO sensitivity	Equivalent to 100-12800	Equivalent to 100-12800	Equivalent to 100-12800
Sensor size	1/1.8''	1/2.3''	1/2.3''
Pixel size	2μm×2μm	1.55μm×1.55μm	1.2μm×1.2μm
Spectral response	400-650nm	380-650nm	380-650nm
Exposure capability	Real-time auto and manual adjustment		
Exposure time	10μs-10s	10μs-333ms	10μs-333ms
White balance	Real-time auto and manual RB adjustment		
Preview resolution	3840×2160@60fps	4000×3000@30fps	5184×3888@10fps
Power supply	DC 12V 5A		
A/D convertsion bit depth	12bit		
WiFi protocol	5GHz WiFi(IEEE802.11ac)		
WiFi coverage	Approx. 15 m (radius)		
WAN type	Dynamic IP		
Record fornat	Picture:JPG,BMP,PNG,TIFF;video:MP4		
Software and App	KoPa WiFi EDU for Windows		

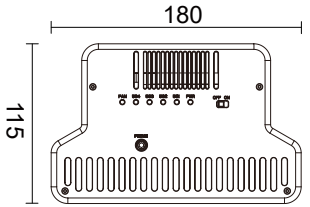
Accessories

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

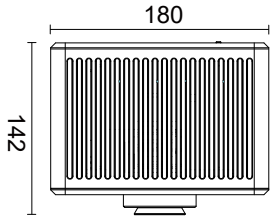
Gigabit Ethernet cable

Dimensions(Unit:mm)

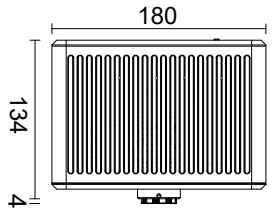
Net weight ≈2kg



Camera with 0.43X tube lens



Camera with C-mount



3.2 For upright microscope Si, Ei (binocular)

Applicable Models:

ECLIPSE Si binocular, Ei binocular, etc.

Solution ①

Smart Embedded Display Camera

No additional configuration required

Solution ②

Smart Embedded Camera

Use with a monitor or tablet

Solution ③

WiFi Embedded Camera

Use with a Windows-based computer

Function Comparison

● Standard ○ Optional – N/A

	Solution①	Solution②	Solution③
Built-in Android OS	●	●	–
Pre-installed Office suits	●	●	–
15.6''high color gamut monitor	●	–	–
Built-in 50:50 spectroscopic prisms	●	●	●
Built-in 0.43X tube lens	●	●	●
Allows connection of mobile phones or tablets	●	●	●
Image output methods			
5G WiFi	●	●	●
USB	–	–	●
DP	●	●	–
Network	–	–	–

For upright Ei polarized (binocular)

Applicable Models:

ECLIPSE Ei binocular.

Solution ①

Smart Embedded Display Camera

No additional configuration required

Solution ②

Smart Embedded Camera

Use with a monitor or tablet

Solution ③

WiFi Embedded Camera

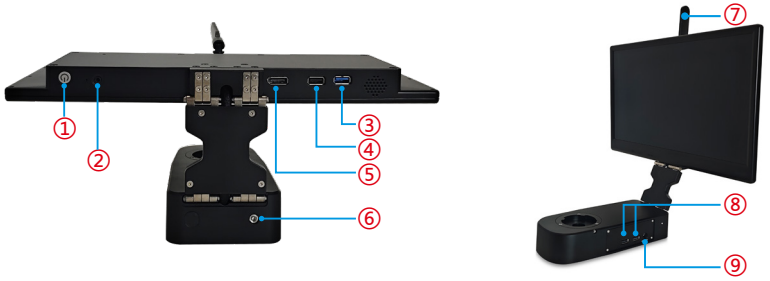
Use with a Windows-based computer

Function Comparison

● Standard ○ Optional – N/A

	Solution①	Solution②	Solution③
Built-in Android OS	●	●	–
Pre-installed Office suits	●	●	–
15.6''high color gamut monitor	●	–	–
Built-in 50:50 spectroscopic prisms	●	●	●
Built-in 0.43X tube lens	●	●	●
Allows connection of mobile phones or tablets	●	●	●
Image output methods			
5G WiFi	●	●	●
USB	–	–	●
DP	●	●	–
Network	–	–	–

1 Smart Embedded Display 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 DC 5V 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

Model

Name	Smart embedded display camera	
Physical resolution	12.0MP	20.0MP
Models	TC200	TC200
With 0.43X tube lens	ED-N-12-H	ED-N-20-H

Accessories

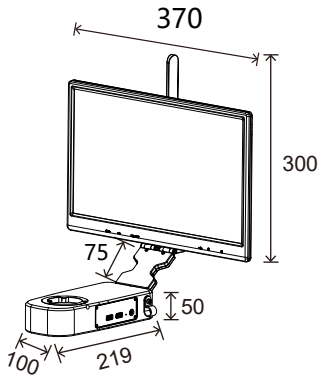
Power adapter and power cord
(Optional Chinese, American, European, Australian, Korean, British standard etc.)

USB mouse and keyboard

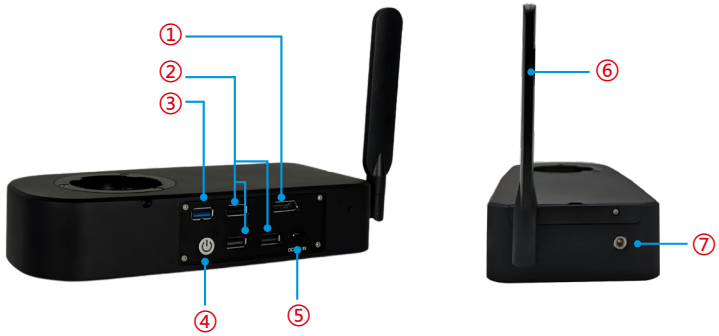
USB to DC 5.0 power cable

Dimensions(Unit:mm)

Net weight ≈2.6kg



2 Smart Embedded 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

Model

Name	Smart embedded camera	
Physical resolution	12.0MP	20.0MP
Models	HW200	HW200
With 0.43X tube lens	EC-N-12-H	EC-N-20-H

Accessories

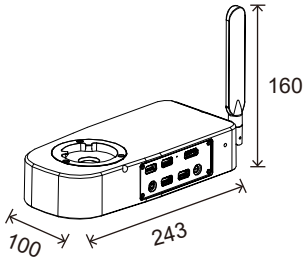
Power adapter and power cord
(Optional Chinese, American, European, Australian, Korean, British standard etc.)

USB mouse and keyboard

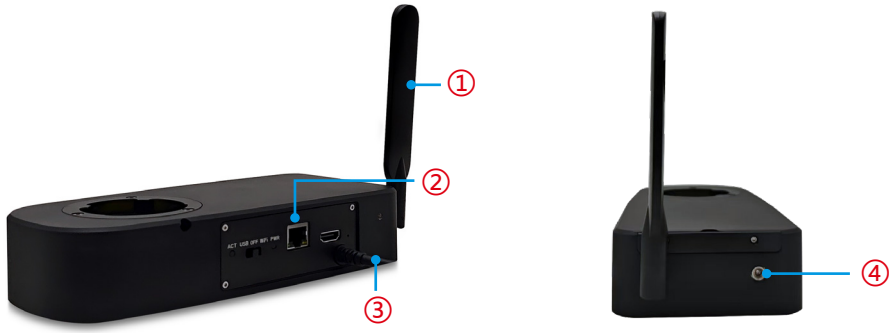
DP cable

Dimensions(Unit:mm)

Net weight ≈1.3kg



3 WiFi Embedded Camera



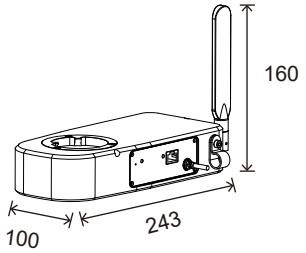
①	5G WiFi antenna	5G WiFi signal transmission to connect the camera to capture images or control the camera
②	Network output interface	Connecting to a computer and capturing images
③	USB output/ power supply	Two in one: data transmission and power supply.
④	Easy focus with allen key	Simple and precise focus adjustment for synchronization between eyepiece and monitor.

Model

Name	WiFi embedded camera	
Physical resolution	12.0MP	20.0MP
Models	FF48	FF48
With 0.43X tube lens	EB-N-12-H	EB-N-20-H

Dimensions(Unit:mm)

Net weight ≈1.2kg



Student's computer requirements

System	Win10 or later versions
CPU	Intel Core i5 10th generation or later versions
Hard Drive	512GB or more
Memory	16GB or more
Graphics card	nuclear graphics or Nvidia graphics card (Nvidia RTX2060 or later versions)
Wired Network Card	10/100/1000 adaptive

3.3 For stereo , metallurgical trinocular microscopes

Applicable Models:
SMZ745T、

Solution ①

Smart Display Camera

No additional configuration required

Solution ②

Smart Camera

Use with a monitor or tablet

Solution ③

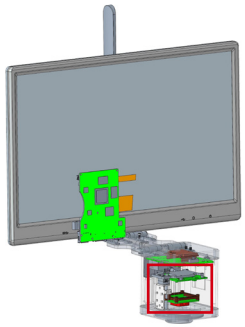
WiFi Camera

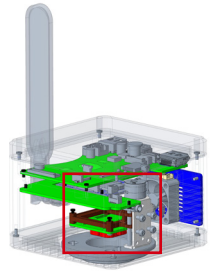
Use with a Windows-based computer

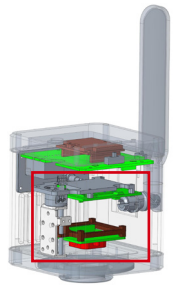
Function Comparison

● Standard ○ Optional – N/A

	Solution①	Solution②	Solution③
Built-in Android OS	●	●	–
Pre-installed Office suits	●	●	–
15.6''high color gamut monitor	●	–	–
Built-in 50:50 spectroscopic prisms	●	●	●
Built-in 0.43X tube lens	○	○	○
Allows connection of mobile phones or tablets	●	●	●
Image output methods			
5G WiFi	●	●	●
USB	–	–	●
DP	●	●	–
Network	–	–	–

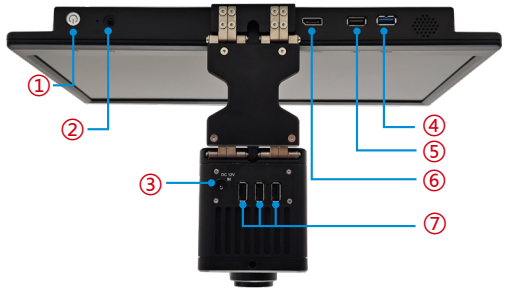






The built-in high-speed motor shifts the CMOS to capture multi-focal images and merge them into a fully focused frame, eliminating depth fusion artifacts from Z-axis variations in stereoscopy.

1 Smart Display Camera



①	Power switch	Switch on/off
②	Headphone and microphone ports	Connect with headset cable for audio output
③	Power input	DC 12V 3A
④	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
⑤	USB 2.0 interface	
⑥	DP output interface	Transmission via DP cable, connected to a display device
⑦	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
⑧	5G WiFi antenna	5G WiFi signal transmission to connect the camera to capture images or control the camera

Model

Name	Smart display camera
Physical resolution	8.0MP
Models	JX200
C-mount category	DJ-C-08-H
With 0.43X tube lens	DJ-N-08-H

Accessories

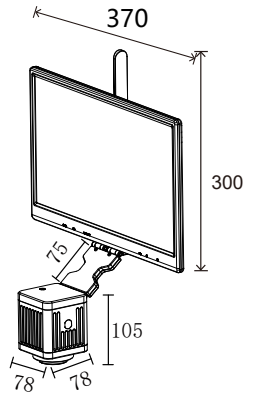
Power adapter and power cord
(Optional Chinese, American, European, Australian, Korean, British standard etc.)

USB mouse and keyboard

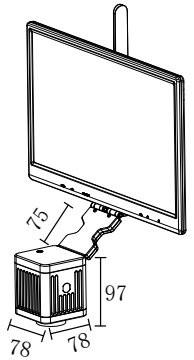
Dimensions(Unit:mm)

Net weight ≈2kg

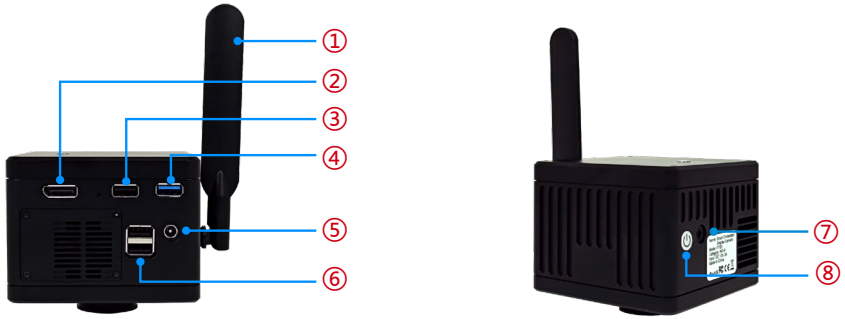
Camera with 0.43X tube lens



Camera with C-mount



2 Smart Camera



①	5G WiFi antenna	5G WiFi signal transmission to connect the camera to capture images or control the camera
②	DP output interface	Transmission via DP cable, connected to a display device
③	USB3.0 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	USB2.0 interface	
⑤	Power input	DC 12V 3A
⑥	USB2.0 interface	Can be connected to a mouse, keyboard, USB flash drive (for copying videos and images)
⑦	Headphone and microphone ports	Connect with headset cable for audio output
⑧	Power switch	Switch on/off

Model

Name	Smart camera
Physical resolution	8.0MP
Models	TE2000
C-mount category	CJ-C-08-H
With 0.43X tube lens	CJ-N-08-H

Accessories

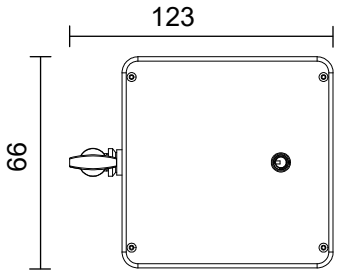
Power adapter and power cord
(Optional Chinese, American, European, Australian, Korean, British standard etc.)

USB mouse and keyboard

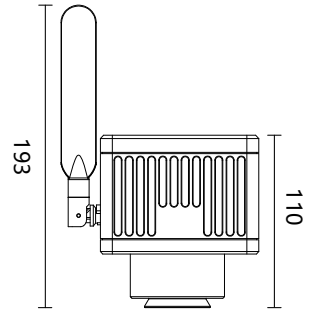
DP cable

Dimensions(Unit:mm)

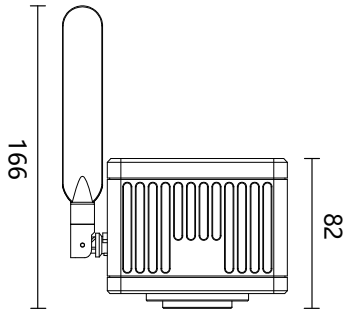
Net weight ≈1.3kg



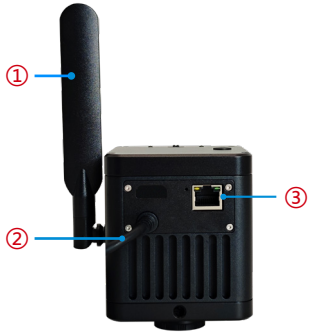
Camera with 0.43X tube lens



Camera with C-mount



3 WiFi Camera



①	5G WiFi antenna	5G WiFi signal transmission to connect the camera to capture images or control the camera
②	USB output/ power supply	Two in one: data transmission and power supply.
③	Network output interface	Connecting to a computer and capturing images

Student's computer requirements

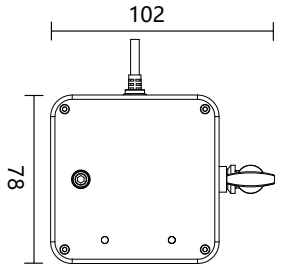
System	Win10 or later versions
CPU	Intel Core i5 10th generation or later versions
Hard Drive	512GB or more
Memory	16GB or more
Graphics card	nuclear graphics or Nvidia graphics card (Nvidia RTX2060 or later versions)
Wired Network Card	10/100/1000 adaptive

Model

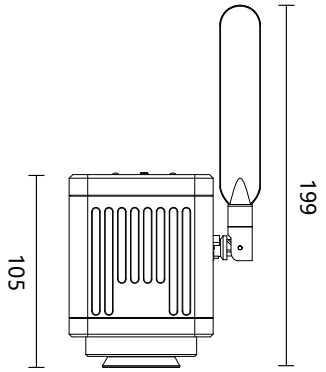
Name	WiFicamera
Physical resolution	8.0MP
Models	CF48
C-mount category	BJ-C-08-H
With 0.43X tube lens	BJ-N-08-H

Dimensions(Unit:mm)

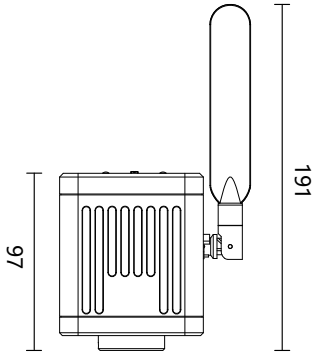
Net weight ≈1kg



Camera with 0.43X tube lens



Camera with C-mount



Specifications of student side

Physical resolution	8.3MP	12.0MP	20.0MP
Image sensor	SONY IMX678 CMOS	SONY IMX412 CMOS	SONY IMX147 CMOS
Exposure mode	Roll-up Exposure	Rolling Shutter	Rolling Shutter
Maximum resolution	3840×2160 (8,294,400 pixels)	4000×3000 (12,000,000Pixels)	5184×3888 (20,155,392 Pixels)
ISO sensitivity	Equivalent to 100-12800	Equivalent to 100-12800	Equivalent to 100-12800
Sensor size	1/1.8 ''	1/2.3''	1/2.3''
Pixel size	2μm×2μm	1.55μm×1.55μm	1.2μm×1.2μm
Spectral response	400-650nm	380-650nm	380-650nm
Exposure capability	Real-time auto and manual adjustment	Real-time auto and manual adjustment	Real-time auto and manual RB adjustment
Exposure time	10μs-10s	10μs-333ms	10μs-333ms
White balance	Real-time auto and manual RB adjustment	Real-time auto and manual RB adjustment	Real-time auto and manual RB adjustment
Preview resolution	3840×2160@30fps(solution ①②),3840×2160@60fps(solution ③)	4000×3000@30fps	5184×3888@10fps
Power supply	DC 12V 3A(solution ①②),DC 5V 3A(solution ③)	DC 12V 3A(solution ①②),DC 5V 3A(solution ③)	DC 12V 3A(solution ①②),DC 5V 3A(solution ③)
A/D convertsion bit depth	12bit	12bit	12bit
WiFi protocol	5GHz WiFi (IEEE802.11ac)	5GHz WiFi(IEEE802.11ac)	5GHz WiFi(IEEE802.11ac)
WAN type	Dynamic IP	Dynamic IP	Dynamic IP
Record fornat	Image: JPG, BMP, PNG, TIFF; Video: MP4	Picture:JPG,BMP,PNG,TIFF;video:MP4	Picture:JPG,BMP,PNG,TIFF;video:MP4
Software and App	Built-in camera App：KoPa WiFi EDU AO(solution ①②); Windows Software：KoPa WiFi EDU-S(solution ③); App for mobiles：KoPa WiFi EDU(solution ①②③)		

4.1 Some customer cases

University of Plymouth,UK
60+1：SMZ745T+Tri solution①
20+1：Si+Bino solution①
60+1：Ci-POL+Bino solution① ; CX31P+Bino solution①

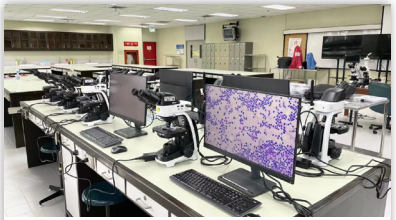
Mae Fah Luang University , Thailand
120+1: Ei+Bino solution①; SMZ745T+Tri solution①

Burapha University，Thailand
12+1：Ei+Bino solution①

Bunker Hill Community College,U.S.A
18+1：Si+Bino solution②

South Dakota State University,U.S.A
28+1：Si+Bino solution①

University of Arkansas,U.S.A
37+1：E100+Bino solution②



Mahidol University，Thailand
12+1：Ei+Bino solution②

Kasetsart University，Thailand
50+1：Ei+Bino solution①

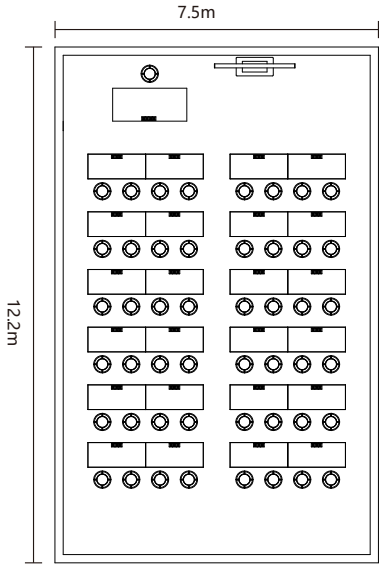
Maejo University,Thailand
12+1：Ei+Binosolution①

Phayao University, Thailand
12+1：Ei+Bino solution①

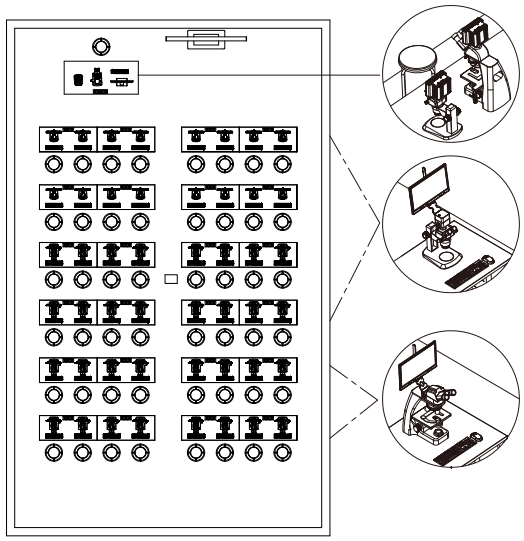
King Mongkut's Institute of Technology, Thailand
12+1：E100+Bino solution①

4.2 Tailor-made layout of a new interactive classroom

When setting up a new interactive classroom, if you're unsure about the layout, simply provide the room's length, width, student or stations number . We'll design a custom layout for you at no cost.
Example: A 12m by 7m classroom layout for 48 students and 1 teacher station.



4Table and Chair Layout



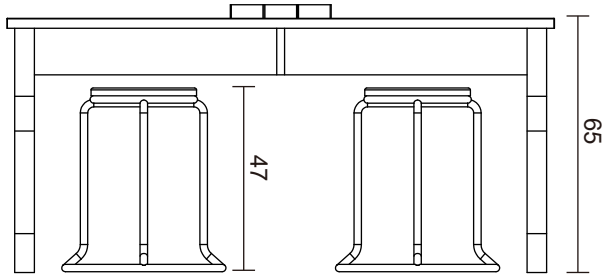
Classroom with Interactive System Layout

1. 86-inch smart TV: 880W
2. Tutor's computer: 800W
3. Interactive Workstation: 60W
4. Student camera: 60W x 48=2880W
Total power needed: 4680W

Note: The above is only the electric power required by the interactive system, and does not include other equipment (such as air conditioner, lighting, etc.)

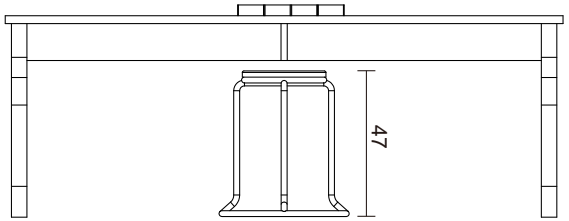
Student's desk and chair

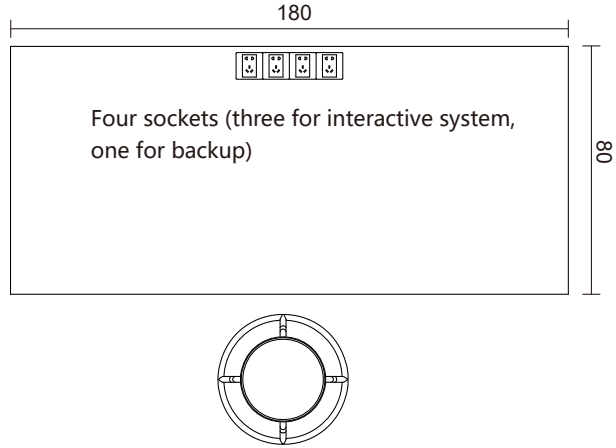
Unit: cm

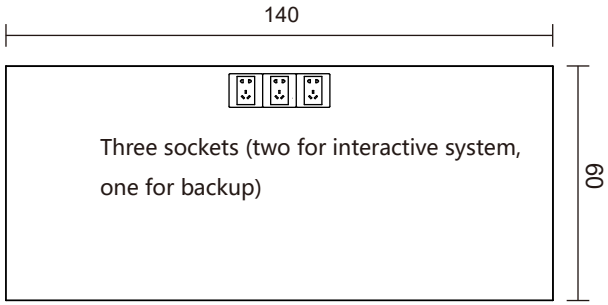


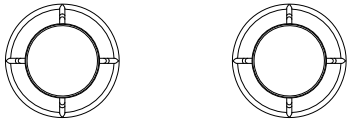
Tutor's desk and chair

Unit: cm



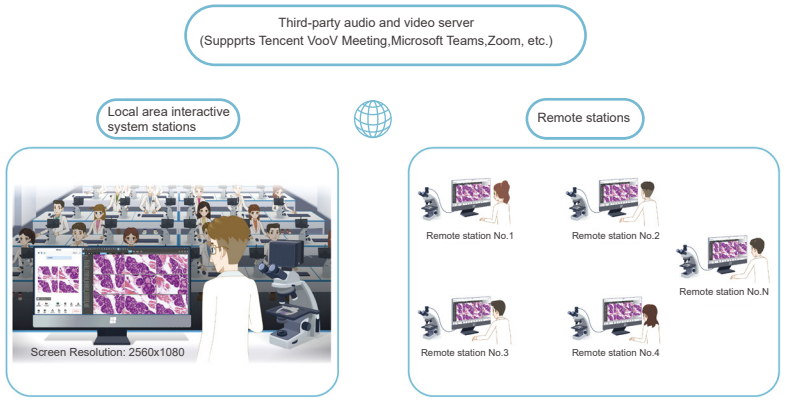






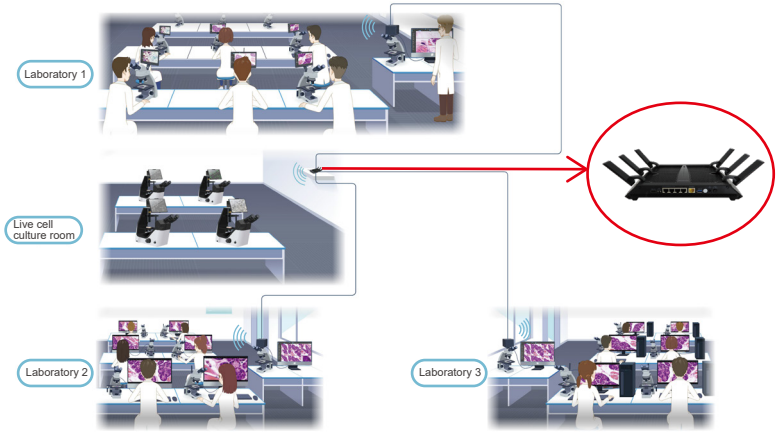
5.1 Cloud-based Interactive System

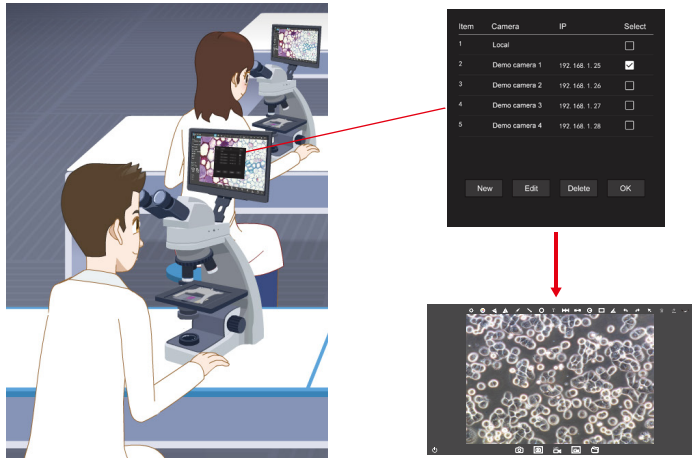
Using a third-party audio and video server,such as commercial version of Tencent VooV Meeting, the remote and local area interactive systems can be carried out simultaneously.
Cameras that want to join the interactive system through remote conferences need to support the standard UVC protocol and free of driver, so it is recommended to use the student solution ③ cameras . In this way, efficient sharing and collaboration with the 5G WiFi digital interactive system in the local area network can be realized.



5.2 Demostration Classroom

Independent 5G WiFi microscope digital interactive systems are installed in different classrooms. When you need to live stream image under microscopes in other classrooms, our "Demostration" function can easily help you achieve this goal, by using a ViMmatrix to connect the tutor interactive workstations in each classroom through network cables.
For example as follows, the student stations in the laboratory only needs to select camera from list to call the real-time image of live cell culture under the inverted microscope, or switch back to the local real-time image of biological microscope.





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

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High-Tech Enterprise certificate number：GR202344009665

ISO9001 Verification No:00223Q26818R3S

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