

KoPa WiFi Lab App User Manual



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1.1 Smart terminal system requirements

Note: smart phones and tablets are collectively referred to as smart terminals in the following.

Please confirm that the smart terminal device hardware must support the 5G WiFi IEEE802.11ac protocol, otherwise it will not be able to acquire the image correctly.

System	System version	CPU	Memory RAM	Storage ROM	Protocol
Android	5.0 and later version	Dual core 1.7GHz and later version	3GB or more	32GB or more	5G WiFi IEEE802.11ac
iOS	11.0 and later version	Dual core 1.8GHz and later version	2GB or more	32GB or more	

1.2 APP download and installation

Method 1: Scan the camera's APP QR code with the smart terminal's browser, and download and install [KoPa WiFi Lab] according to your cell phone system.

Method 2: Enter the following download link directly on the browser of your smart terminal: <https://cn.ostec.com.cn/downloads/kopa-wifi-lab>

Download and install [KoPa WiFi Lab] according to your cell phone system.

Method 3: Android users outside of mainland China can search and download [KoPa WiFi Lab] from Google Play, the Google App store.


iOS users can search and download [KoPa WiFi Lab] from the Apple App Store.

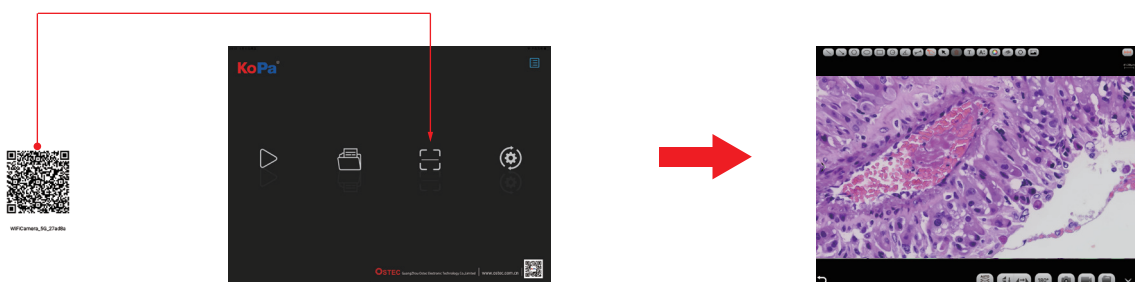


Note! APP installation process will prompt to allow permissions, please click all allow, otherwise the APP will not be able to use normally.

1.3 Capture images by using the APP

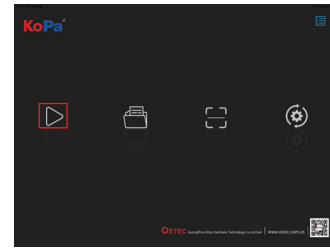
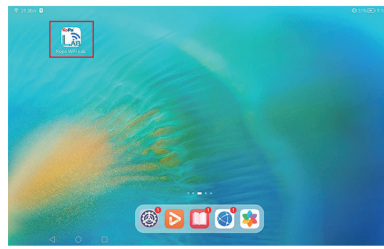
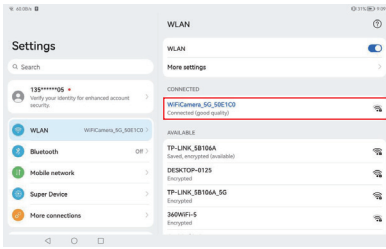
1.3.1 The method of scan the connection code:

Click the button “” on the [KoPa WiFi Lab] navigation interface and scan the QR code on the camera body to automatically connect to the microscope screen without entering a password.



1.3.2 Manual connection method:

- 1) Search for the camera's WiFi SSID: WiFiCamera_5G_xxxxxx or WiFi5Camera_xxxxxx in the WLAN of the smart terminal; default connection password: 12345678.
- 2) Enter the App [KoPa WiFi Lab] navigation interface, and click the button “▶” to connect to the microscope screen manually.

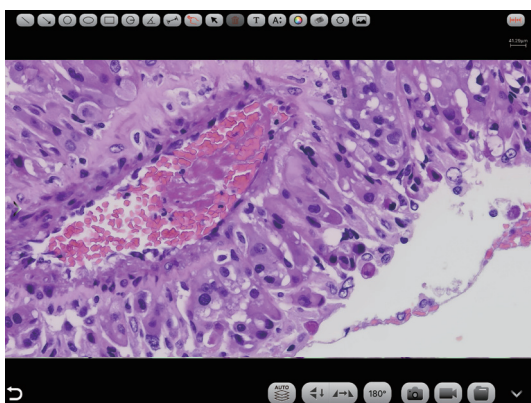


1.4 APP function introduction



A	Preview	Click and enter the image preview window.
B	File folder	View photo / video files.
C	Scanning	Scan the camera's serial number SSID QR code to acquire the image. Note: To ensure preview speed, it is recommended that no more than 13 smart devices (mobile phone or tablet) connect to the same camera at the same time.
D	Settings	APP settings.
E	User instructions	Retrieve / hide user instructions.

1.4.1 Preview window



(2) Measurement tools

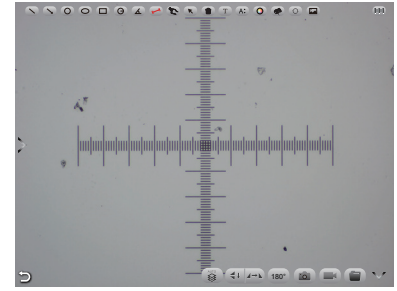
	Rectangular		Linear measurement
	Rounded radius		Calibration
	Protractor		

(1) Annotation tools

	Line		Add text
	Single-arrow		Font size
	Round		Colour
	Oval		Eraser
	Hand-draw		Rotate
	Select		Add a picture
	Delete		

Use the APP for calibration and measurement (mouse access to cell phone is recommended for calibration and measurement) .

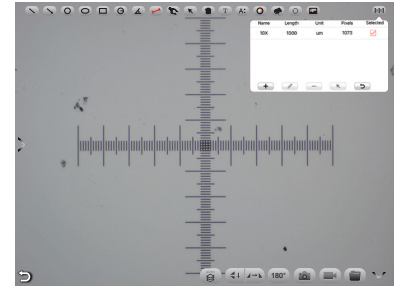
Step 1: Place the calibration scale within the microscope's field of view;



Name	Length	Unit	Pixels	Selected
10X	1000	um	1073	<input checked="" type="checkbox"/>

Step 2: Click on the Calibration button “”;


Step 3: Select the Add button “”;



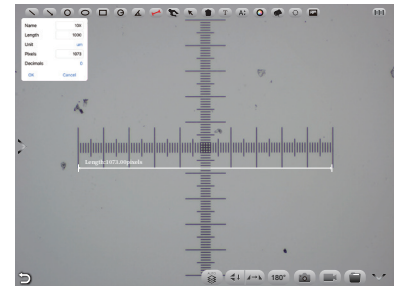
Step 4: Enter the name, the actual length of the calibration scale, and select the unit.

When you draw on the ruler, the pixels are automatically entered as shown below.







Click "OK" to complete the calibration;

Step 5: Click on the calibration value matching the objective and use the Select button “”;

Step 6: Use the measurement tool of the preview window to measure.



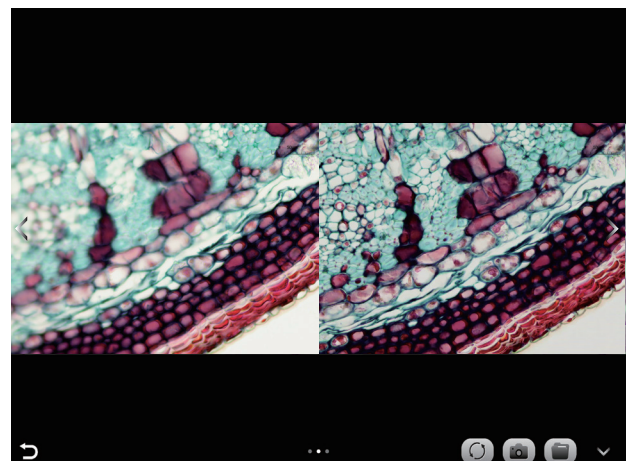
(3)Image processing tools

	Automatic depth-of-field fusion function for high content images		Flip / Mirror		180°Rotation
	Take picture		Record		File management

Automatic depth-of-field fusion function for high content images

Automatic depth-of-field fusion function for high content images works with USB or WiFi connection.

Break through the limitation of insufficient depth-of-field in high magnification objective lenses, and to adjust the focal length can obtain a greater depth of field, thus obtaining a sharper image than a real-time single-frame image, support taking one picture, two archives.



Operation steps:

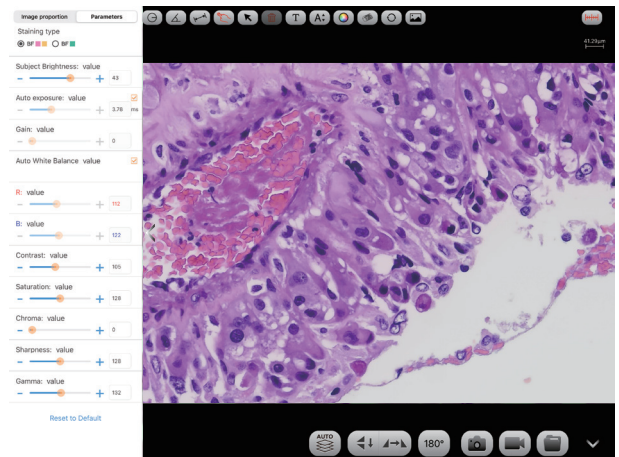
Step 1. Click "AUTO" button, a dual screen appears, the left screen is in line with the focal plane under the eyepiece, and the right screen is the result of high content fusion.

Step 2. Adjust the microscope coarse/fine focus knob, the depth-of-field fusion in real time on the right screen. If you switch the field of view midway, you can click "refresh" button to refresh.

Step 3. Click "camera" button to automatically save two pictures on the left and right screen, close the current window to exit, click "file manager" button to enter the file manager and export pictures.

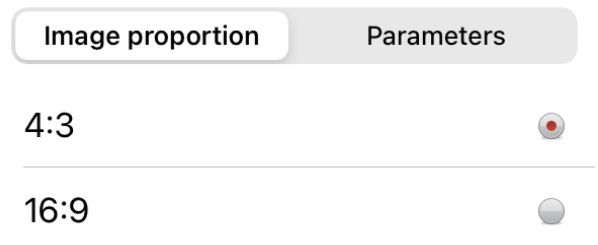
(4) Camera control tools

Click the arrow button on the left side of the preview window to bring up the camera control bar.



1) Image ratio

Support switching 4:3 /16:9 image ratio.



2) Camera staining type

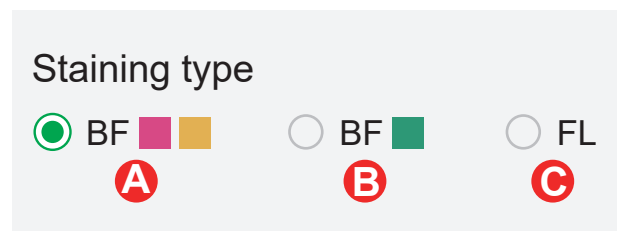
Users can select different exclusive types of stained pathology sections to obtain matching image effects and more accurate color reproduction.

Type A: for bright-field, red or gold-based sections;

Type B: for bright-field, cyan-dominated sections;

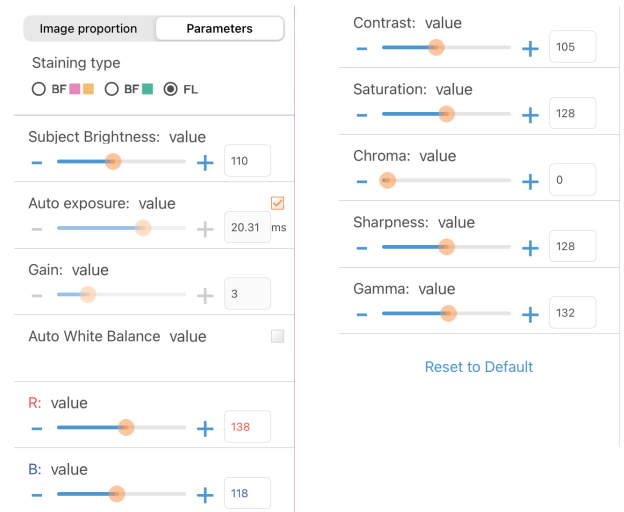
Type C: for fluorescence observation.

Note: Type C will only be displayed if the camera's firmware type supports type FL. Please switch the firmware type from "KoPa Capture Pro" or "KoPa WiFi Lab AO".



3) Camera properties adjustment

Support adjusting Subject Brightness, auto/manual Exposure, Gain, auto/manual White Balance (RB channel is adjusted separately), Contrast, Saturation, Chroma, Sharpness, Gamma, Restore to Default.



1.4.2 Folder Management

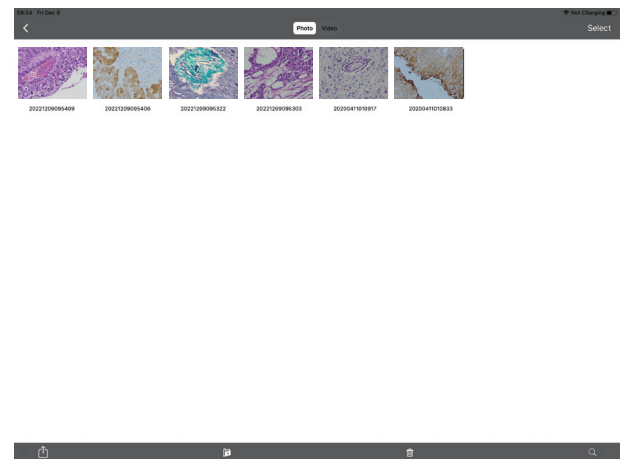
(1) Images management

Click on "Select" in the upper right corner to make single or multiple selections and then click the button at the bottom, from left to right, respectively:

One-click export to local album;

Note: Please select Allow APP to access your album by setting your smart devices (mobile phone or tablet) "Setting - Privacy - Photo" , otherwise it will prompt "Export fail".

Share to social networks; One-click delete; Search image file by name.

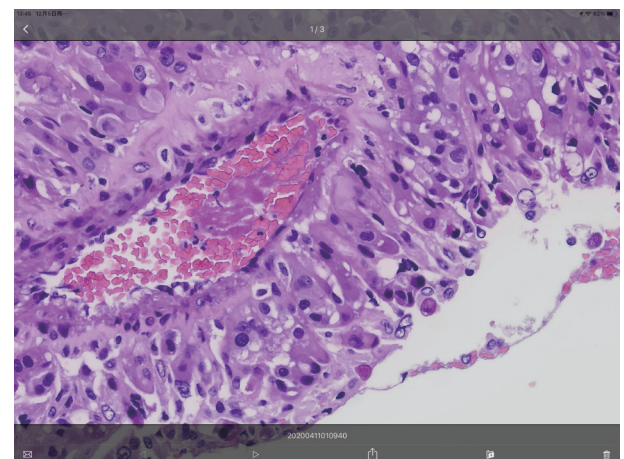


Click to enter any image, the button at the bottom from left to right:

Send to the mailbox (the smart devices needs to be installed in advance with the mailbox);

The previous image; The next image; Share a single image to the social network;

Export the image to the local album; Delete the picture.



Click on the file name to rename.

Video management

Click "Select" in the top right corner and then click the button at the bottom, from left to right, respectively:

One-click Export to local album;

Note: Please select Allow APP to access your album by setting your smart devices (mobile phone or tablet) "Setting - Privacy - Photo". otherwise it will prompt "Export fail".

One-click Delete.

1.4.3 APP settings

Select camera	When there are two or more cameras in the LAN, you can select the cameras to be connected through the list.
Export QR code	Electronic digital QR code exportable.
Export photo to album	The photos taken by the APP will be automatically backed up to your phone album after you check the box.
Always show guidelines	The operation guide will show every time you launch the APP after you check the box.
Show scale bar	Check the box to show the scale in the preview window, uncheck it to hide the scale.
Allow switching image quality mode in high content mode	When checked, two image quality mode functions, speed priority and quality priority, will appear each time the high content mode is opened to switch.

