KoPa WiFi Lab App
User's Manual

Content

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.

**iOS system:** iOS 11.0 and later version.
- CPU: Dual core 1.8GHz and later version
- Memory RAM: 2G or more
- Storage ROM: Recommended 32G or more

Android system: Android 5.0 and later version.
- CPU: Dual core 1.7GHz and later version.
- Memory RAM: 3G or more
- Storage ROM: Recommended 32G or more

2. APP download and installation.

Method 1: Scan the APP QR code on the camera with the smart terminal browser, and download and install [KoPa WiFi Lab] as per the operating system of the device.
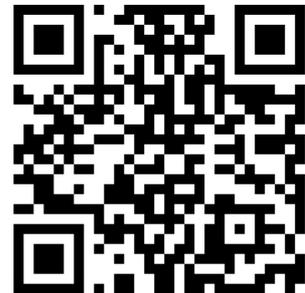
Method 2: Enter the following download link directly on the browser of your smart terminal: https://www.lanoptik.com/download
download and install [KoPa WiFi Lab] as per the operating system of the device.

Method 3: Android users can search and download [KoPa WiFi Lab] from 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.

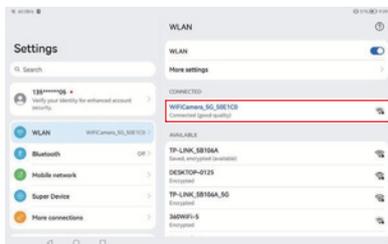# 3. Connect and capture images using the APP

3.1. Method of scanning the connection QR 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 camera and get live image, without entering a password.
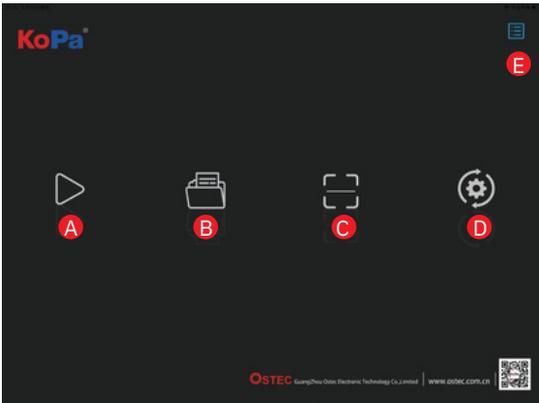

3.2. Method of manual connection:

- Search for the camera's WiFi SSID: WiFiCamera_5G_xxxxxx or WiFi5Camera_xxxxxx in the WLAN of the smart terminal; default connection password: 12345678.

- Enter the App [KoPa WiFi Lab] navigation interface, and click the button " " to connect to the microscope screen manually.

4. APP function introduction

A <u>Preview</u>: Click to enter the image preview window.

**B** <u>File folder</u>: View photo/video files.

C <u>Scan</u>: Scan the serial number QR code on the camera to acquire the image. To ensure preview speed, it is recommended that no more than 8 smart terminals connected to the same camera at the same time.

D <u>Settings</u>: APP settings.

E <u>User instructions</u> (top right corner): Retrieve/hide user instructions.

4.1 Preview window

Click the button " " on the [KoPa WiFi Lab] navigation interface and scan the QR code on the camera body to automatically connect to the camera and get live image, without entering a password.
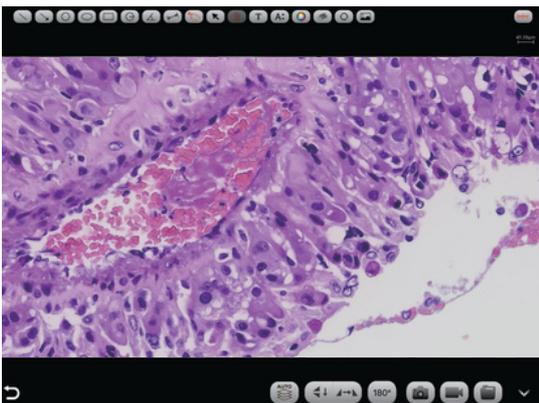

(2) Measurement tools

	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;
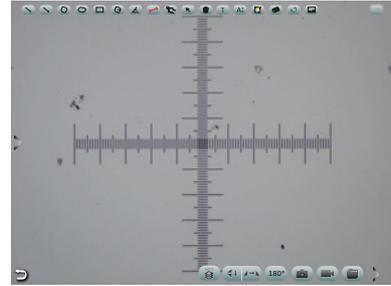
Step 2: Click on the Calibration button " 　　 " ;

Step 3: Select the Add button "　＋　";

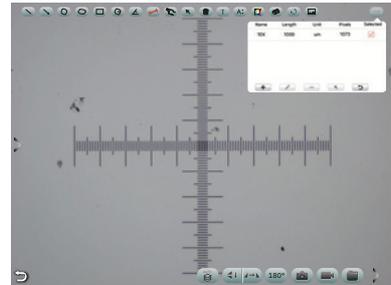| Name	Length	Unit	Pixels	Selected
10X	1000	um	1073	☑

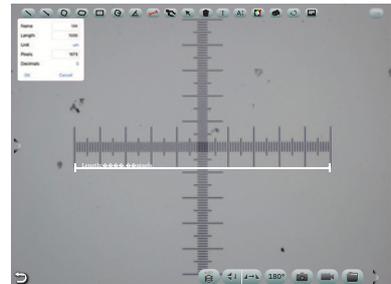＋　　✎　　－　　↖　　↩
New　　Edit　　Delete　　Select　　Exit

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 EDF function for high content images	⬅⬇ ⬆➡	Flip / Mirror	180°	180° Rotation
📷	Take picture	▬	Record	🗂	File management

Automatic EDF function for high content images

Automatic EDF (Extended Depth of Field) 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.
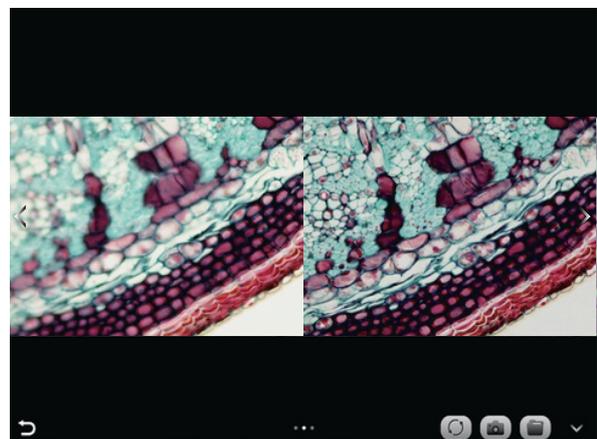
Operation steps:

1. Click " " 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.

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 " " button to refresh.

3. Click " " button to automatically save two pictures on the left and right screen , close the current window to exit , click " " 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.
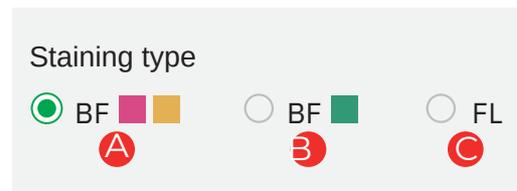
Image ratio

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

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 "Pixit Pro" or "KoPa WiFi Lab AO".

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.
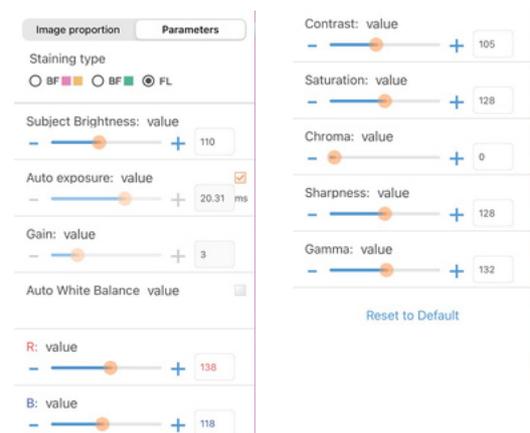
4.2 Folder management

(1) Image 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.
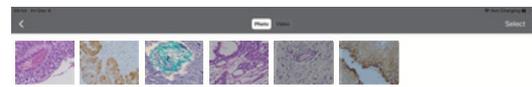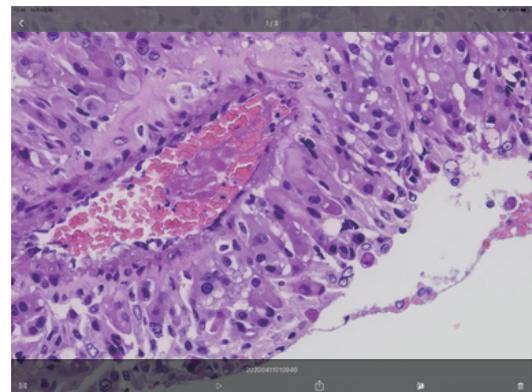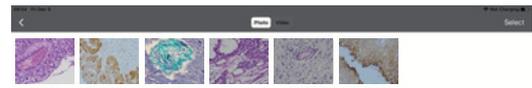

Click to enter any image, the button at the bottom from left to right:

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.
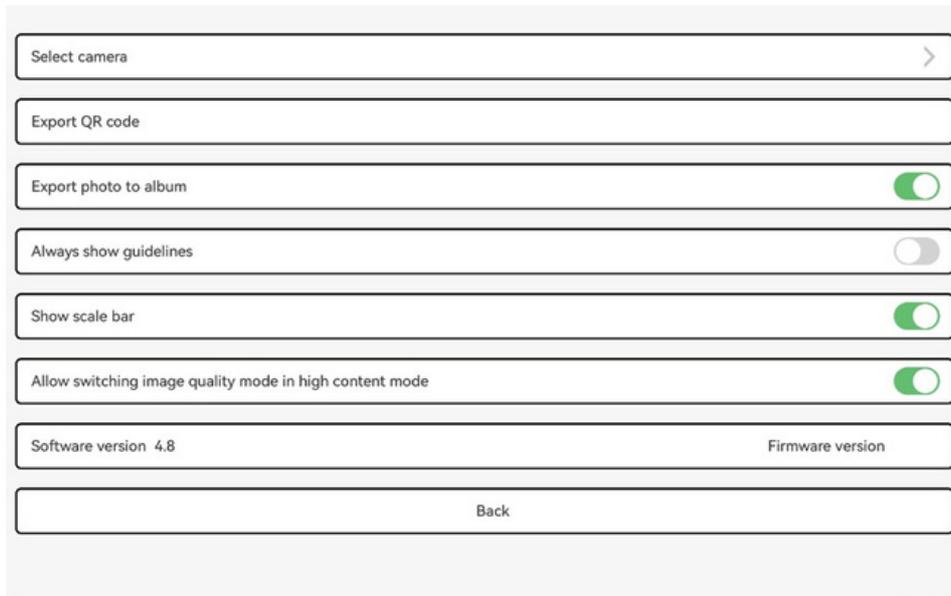

(2) Video management

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.
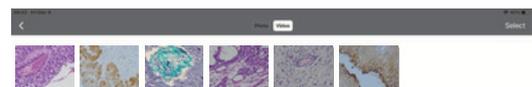
4.3 APP settings

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.

LANOPTIK TECHNOLOGIES LTD

No. 72 Hongjing Street, Lejia Road, Baiyun District, Guangzhou, China. 510400
Phone: +86 13925000400 | Email: info@lanoptik.com
Website: www.lanoptik.com