

Wi-Fi DIGITAL MICROSCOPE USER MANUAL



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Welcome

Thank you for choosing Mic-Fi Wi-Fi digital microscope!

The Wi-Fi digital microscope is an exciting new device that let's you view clear many micro- objects with it, and It has a wide scope of applications, such as,

- Industrial Inspection
- Computer Parts inspection
- Telecom module inspection
- Scientific teaching tool
- Medical and Beauty analysis
- School Research tool
- Insect dissection / examination
- Plant dissection / examination
- Skin examination
- Textile Inspection
- Collections / Coin/ Jewelry Inspection
- Printing Inspection
- And more.....

Please read this manual carefully before using Mic-Fi Wi-Fi digital microscope!

1 Safety Cautions

Need to read Mic-Fi Wi-Fi digital microscope User's Manual before using and storing it

ITALECO S.R.L. will not be held responsible in case of damages or injuries due to an illegal or improper use of the product resulting from failure to follow instructions, warnings, notices or indications for use published in this book.

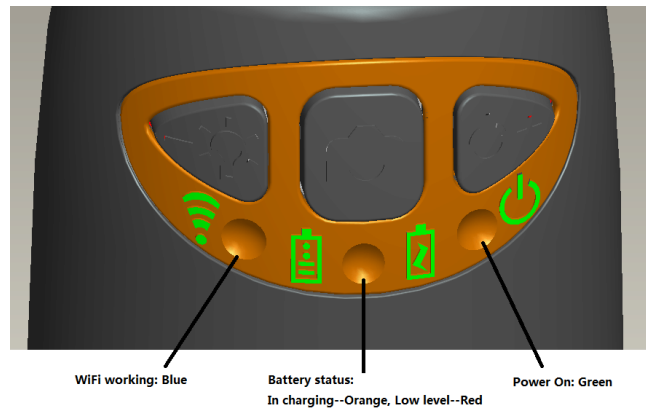
- Avoid touching the lens.
- Keep out of reach of children
- Do not direct the beam of light toward the eyes (not for Iridoscope)
- Protect the product from electrostatic damage.
- Do not attempt to disassembly any part of this product.
- Do not attempt to service this product yourself. Opening the covers may expose you to dangerous voltage points or other risks.
- Store and operate Wi-Fi Microscope at Temp: -20 ~ 45°C, Humidity: 45% ~ 85%, storing and operating outside these limits may reduce the life of the product.
- Do not expose this product to water or other liquids. If water or other liquids enter the product, immediately power off the product. Continued use of the product may result in fire or an electrical shock.
- Do not use any detergent or volatile solution, as this will damage the camera case, painted surfaces and lens. To clean the product uses only a soft cleaning cloth.
- Do not place this product near a heat source or expose direct flame, avoid the lens damaged by high temperature or humidity
- If the lens is dirty, please use a kens brush on soft cloth to wipe clean. Avoid touching it with your fingers. Exercise care to avoid scratching the lens.
- To avoid electric shock, remove all electricity source before removing PC.






2. Package Contents

- Mic-Fi Wi-Fi digital Microscope
- USB AC adapter
- USB cable
- Plastic Stand
- Calibration Ruler (according to the models)
- Focus Caps (according to the models)



3. Use of the Microscope

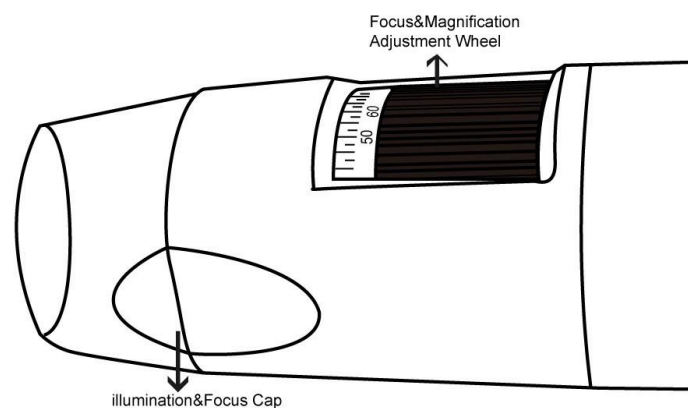
WARNING : IMPAIRMENT OF IMAGE OR SLOW VIDEO ARE THE RESULT OF A LOW BATTERY. BEFORE THE FIRST USE OF THE MICROSCOPE, PLEASE CHARGE THE BATTERY FOR AT LEAST 12 HOURS.



- **Wi-Fi:** Press  for 2 seconds; the microscope will generate a Wi-Fi network
- **Wi-Fi Indicator**  (**Blue LED**): Flashing light indicates data transmission; constant light indicates no data transmission.
- **Power Indicator**  (**Green LED**): Lights up when Wi-Fi power on or connected to PC or AC adaptor via MiniUSB cable.
- **LED :** Press  for 2 seconds to switch different LED (depend of the models); press + and – to increase or decrease the intensity of light
- **Photo:** Press  to capture the picture of the microscope image.
- **Snapshot Button:** Every time after the successful connection of the WiFi microscope, you have to enable the Snapshot feature on the App (The LED illumination will be off and then lights up again). The Snapshot only works with the receiver when the App snapshot feature has been enabled.




3.1 Charging Instructions

1. Connect the DC Adapter (plug the AC adapter into an AC outlet) or PC's USB cable, it charges whether the power switch is on Wi-Fi or OFF/USB. **We DO NOT recommend charging Wi-Fi Microscope while in use.**
2. **Battery LED**  (**Orange LED** or **Red LED**): **Red LED** when the battery level is low; **Orange LED blinking** when the battery is charging
3. **LED charge** : When the battery is at fully charged, the battery LED is **Orange** fix.



4. Working in Wi-Fi Mode

Before starting the Mic-Fi app, please make sure the Wi-Fi microscope has already connected to your display device by Wi-Fi.


1. Install:
 - a) For **iPad** and **iPhone**: Search “**Mic-Fi**” in **App Store** to download and install it.
 - b) For **Smart-Phone** and **Tablet Android**: Search “**Mic-Fi Plus 2**” in **Google Play** to download and install it.
 - c) For **Windows** and **Mac PC**: Download the Mic-Fi Software by www.mic-fi.com
2. Press  for 2 seconds, wait for ~20 seconds until the Wi-Fi indicator  and the illumination LEDs light, then the Wi-Fi signal will be transmitting correctly.
3. Check the wireless connection on your Phone/Tablet or PC and a list of available networks will appear. Select the SSID “Wi-Fi2SCOPE_xxxxxx” network from the list to connect; the network “Wi-Fi2SCOPE_xxxxxx” requires a password: enter the password “**12345678**” and click OK.
4. Once connected, please wait for about 5 seconds to open the “Mic-Fi” application to see your images. If there is no video display, please close and restart the “Mic-Fi” app again. When the Wi-Fi indicator LED  flashes the video stream signal should be displayed in the app. Video streaming can be broadcasted to many devices, but the frame rate of live video will decrease as the number of receiving devices increases.

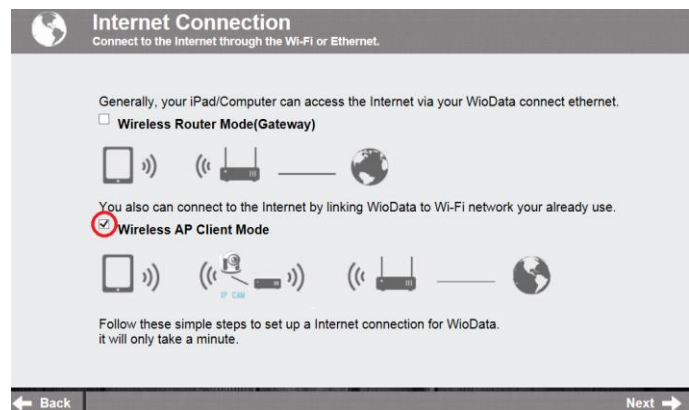
4.1 Simultaneous use of Internet and Microscope’s Wi-Fi Connections

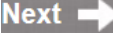
You can use the Wi-Fi network of the microscope and that of the PC / SmartPhone / Tablet at the same time

1. To access the internet by Wi-Fi connection at the same time the Wi-Fi microscope is working, open an internet browser, input <http://10.10.1.1> and click “enter”. A pop-up window will require you to enter a username and password, please enter: **admin** and **admin**, and then this window should appear:




2. Click  in the window to pop-up the screen:



3. Select “Wireless AP Client Mode”, click  to pop-up the screen:



4. Click  till your desired network SSID appears, and click it to pop-up the screen:




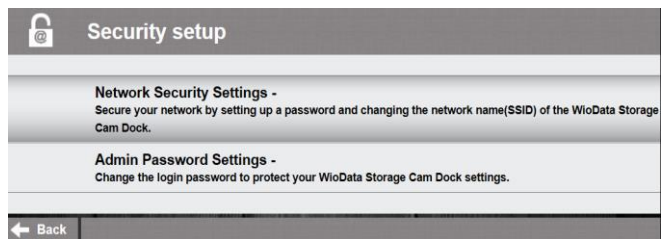
4.2 Wi-Fi Security Setup

To change the Wi-Fi access password:

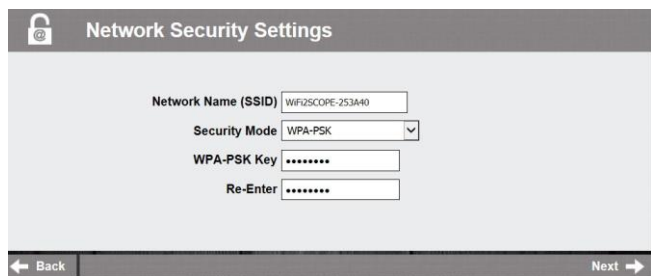
1. Open an internet browser, input <http://10.10.1.1> and click "enter". A pop-up window will require you to enter a username and password, please enter: **admin** and **admin**, and then this window should appear:



2. Click  in the window to pop-up the screen:



3. Click "Network Security Settings" to pop-up the screen on the right.
4. Enter your desired Network Name (SSID) and password in "WPA-PSK Key" and "Re-Enter", and click "Next". The setting is done, now you can re-connect the new SSID Wi-Fi by entering the new password.




5. "Mic-Fi" on iPad/iPhone

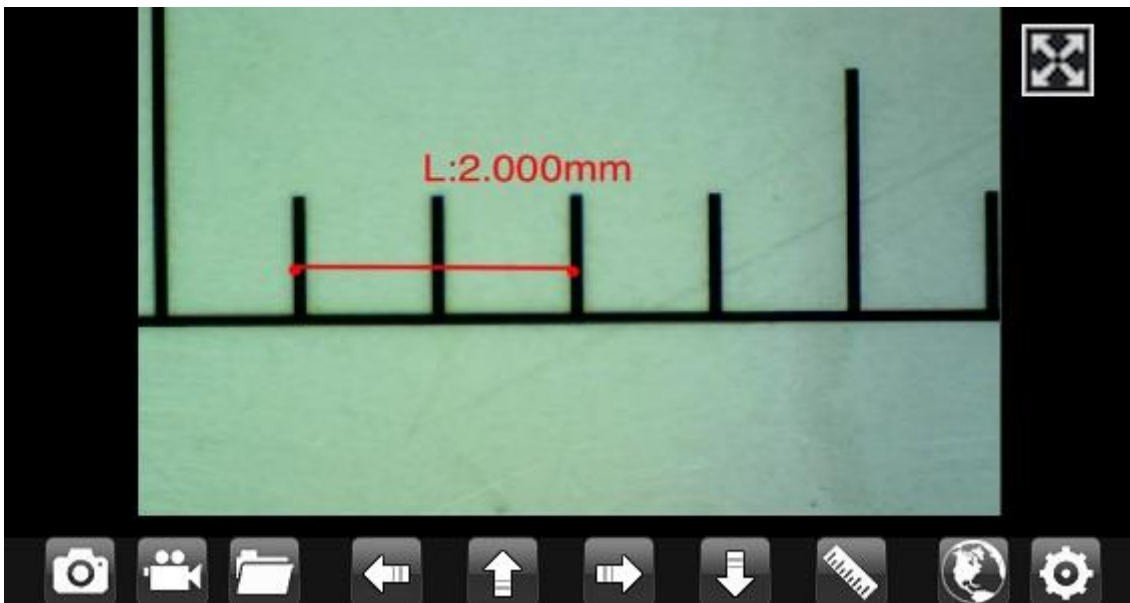
5.1 Installation on iPhone / iPad

Search "Mic-Fi" in the App Store to download and install it.

Note: Before start Mic-Fi app, please make sure the Wi-Fi microscope has already connected to your display device by Wi-Fi. (See point n. 4 of this manual)

Click the  icon to display Video.

Warm-up Tips: If the live video is blank or slow, please restart the "Mic-Fi" App again.



: Capture photo.



: Record video. (The pixel resolution has to be set at 640x480 when recording video).



: Album for Photos or videos.



: Navigation icon—moving a dot left/up/down/right for calibration or measurement operations.



: Measurement.



: Calibration.



: Line.



: Angle.



: 3 dots for circle.



: Text,



Crossline.

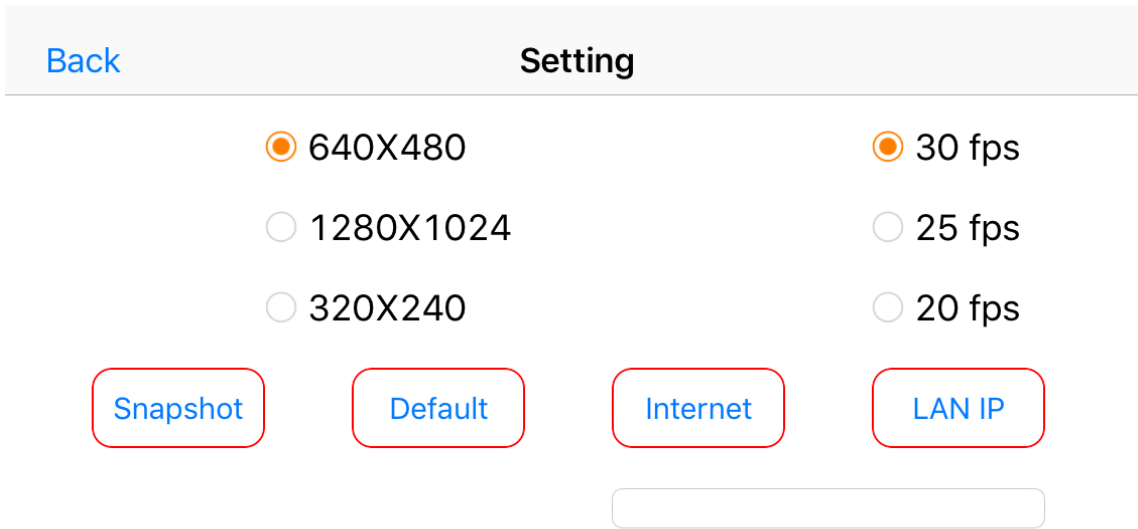


: Access a remote microscope in intranet: Input the LAN IP of the remote microscope.



: Setting: (When changing the resolution, please wait until the illumination LED is off and lights up again – it takes about 5 seconds).

Resolution setting and Default:



Snapshot

: Enable the button snapshot.

Default

: Video setting is default.

Internet

: Setting for internet at the same time.

LAN IP

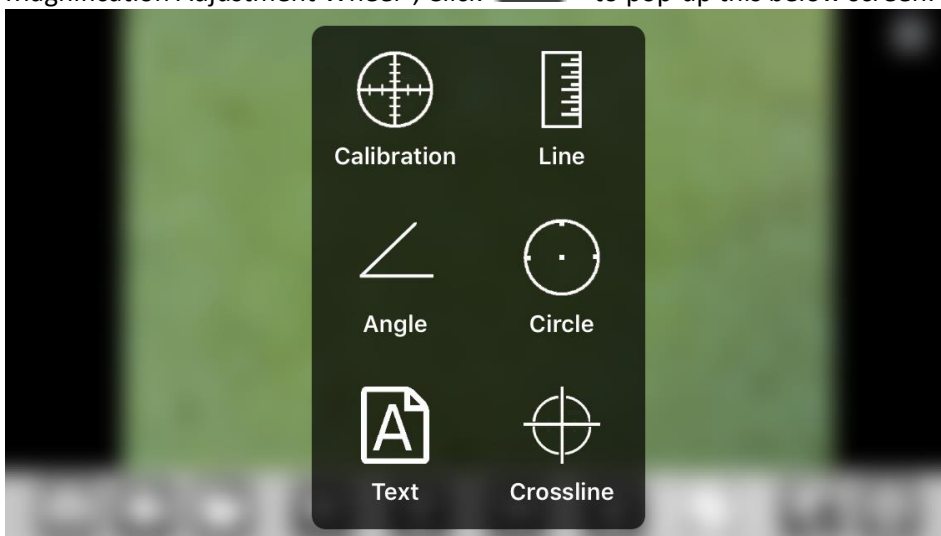
: Getting LAN IP for intranet access.






5.2 Calibration on iPad/iPhone

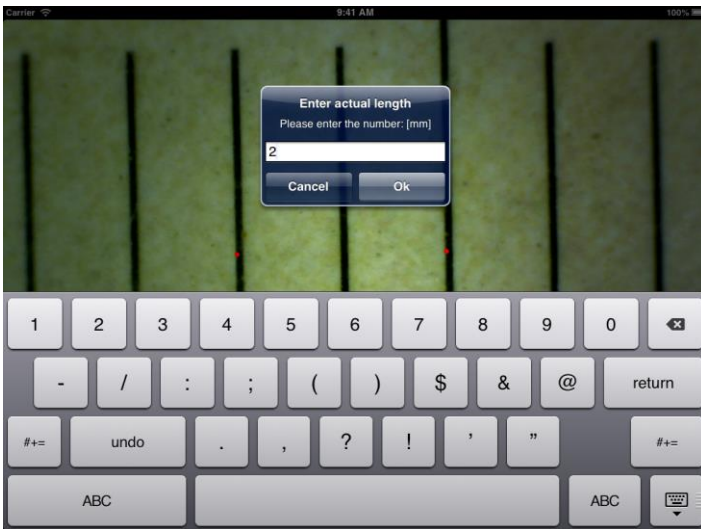
To obtain the accurate measurement data for each magnification , please calibrate before performing measurements.

Use the enclosed calibration ruler as the to-be-observed object. Bring photo into focus by turning the “Focus &

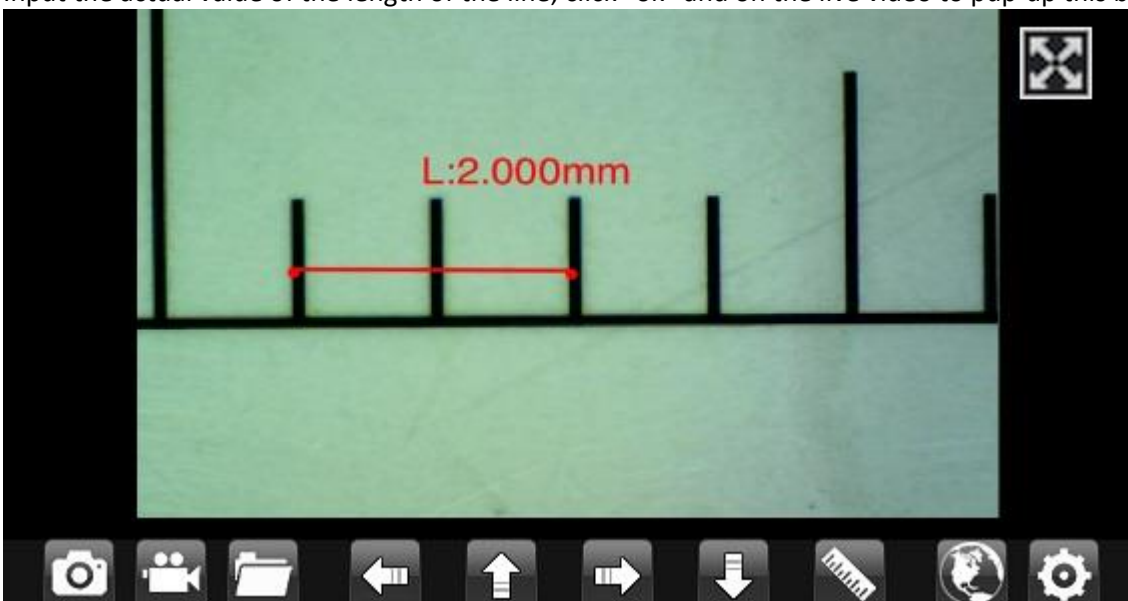
Magnification Adjustment Wheel”; Click  to pop-up this below screen:



Click  to back the live video, click two dots (move the dot by clicking , , , , in order to draw your desired line) then click on the live video to show the following :



Input the actual value of the length of the line; click “ok” and on the live video to pup-up this below screen:



Now the calibration is complete. Click on the screen again, and you can mark measurements accurately on the live video using the same focus. **(Do not adjust the “Focus & Magnification wheel!”)**. If the new photo object is not in focus, please only adjust the distance between the microscope and the object until the image becomes clear. The measurement data can be saved on the photo image.

5.3 Measurement on iPhone / iPad

Line Allows you to measure the linear distance between two points.


Simply click and drag to the desired length, and click again to finish.

Angle Allows the measurement of an angle. Start at the pivot point and extend out to start measuring an angle.

Circle Allows the measurement of the circumference, area, and radius of a circle. Simply click on any three points on the circle you wish to measure.

Click the ruler icon and select “line”.

Select the two points whose distance is to be measured on the image and click the screen again. The measurement will

show. Click  to save the image **(Please do not adjust the “Focus & Magnification wheel!”)**. If the new photo object is not in focus, please only adjust the distance between the microscope and the object until the photo becomes clear. The measurement data can be saved on the photo image.

To obtain accurate measurement data for each magnification, please calibrate before performing measurements.

6. Mic-Fi Plus on Android Tablet /Phone

6.1 INSTALLATION on Android Tablet /Phone

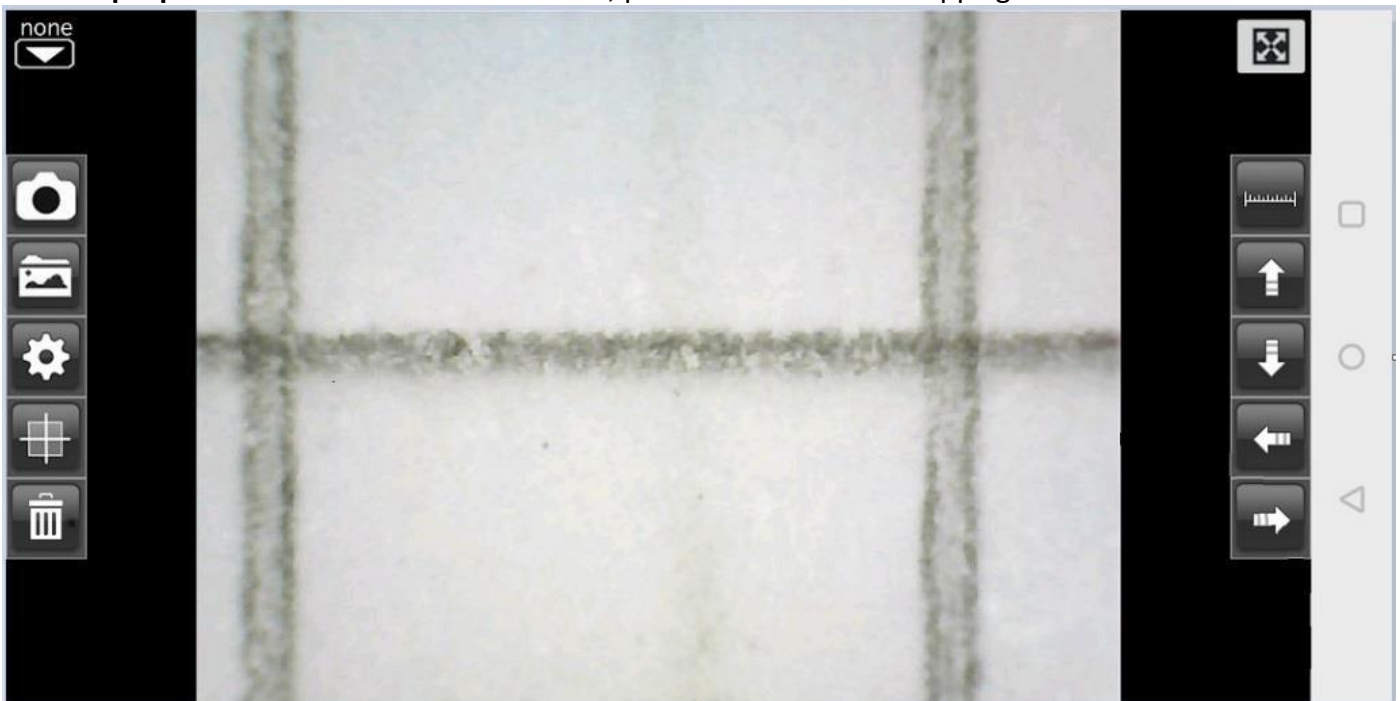
Search “Mic-Fi Plus 2” in App Store to download and install it.

Note: Before starting the Mic-Fi app, please make sure the Wi-Fi microscope has already connected to your display device by Wi-Fi. (See point n. 4 of this manual)


Click the  icon and the  icon to display video.

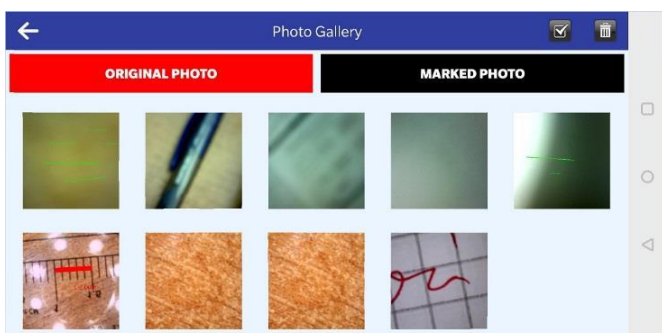
Warm-up Tips: If the live video is blank or slow, please restart the “Mic-Fi” app again.

Warm-up Tips: If the live video is black or slow, please restart “Mic-Fi” app again.



 : Capture photo.

 : Album folder. Is possible to edit the photo captured and save the changment

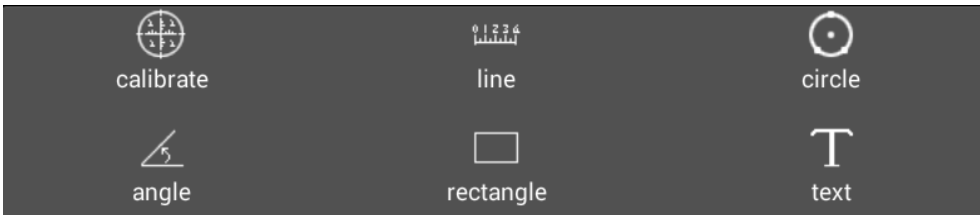




: Navigation icon—moving a dot left/up/down/right for calibration or measurement operation



: Measurement icon.



Calibration; Line; 3 Points Circle; Angle; Rectangle; Text



Resolution Setting (when changing the resolution, please wait until the illumination LED is off and lights up again – it takes about 5 seconds).

| Resolution | FPS | Unit | Decimal | Color | Line Size | Text Size |
|--|------------------------------|-------------------------------------|---|--|-----------|-----------|
| <input checked="" type="radio"/> 640X480 | <input type="radio"/> 30 fps | <input checked="" type="radio"/> um | <input type="radio"/> 0.00 | <input type="radio"/> Red | 5 | |
| <input type="radio"/> 1280X1024 | <input type="radio"/> 25 fps | <input type="radio"/> mm | <input type="radio"/> 0.000 | <input checked="" type="radio"/> Green | | 20 |
| <input type="radio"/> 320X240 | <input type="radio"/> 20 fps | <input type="radio"/> mil | <input checked="" type="radio"/> 0.0000 | <input type="radio"/> Blue | | |
| | | <input type="radio"/> inch | <input type="radio"/> 0.00000 | | | |

CLOSE SNAP OPEN RENAME INTERNET DEFAULT OK

CLOSE SNAP: able/disable the snapshot

OPEN RENAME: able/disable the name picture

INTERNET: access of the setting of the device



: Crosslines and gridlines.



: Delete

You can download the app with Video tool from our website and copy/install it in your android device

<http://mic-fi.it/it/download/42-mic-fi-plus-70-android.html>

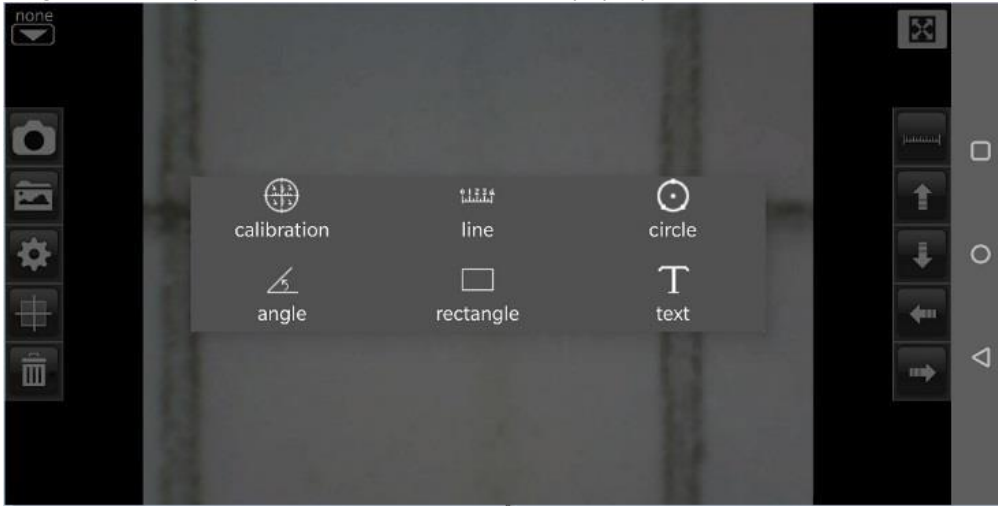
(Note: You **MUST** enable firstly “**Setting**→**Security**→**Unknown sources**: Allow installation of apps from unknown sources” in your Smart-phone or Tablet).






6.2 Calibration on Android Tablet / Phone

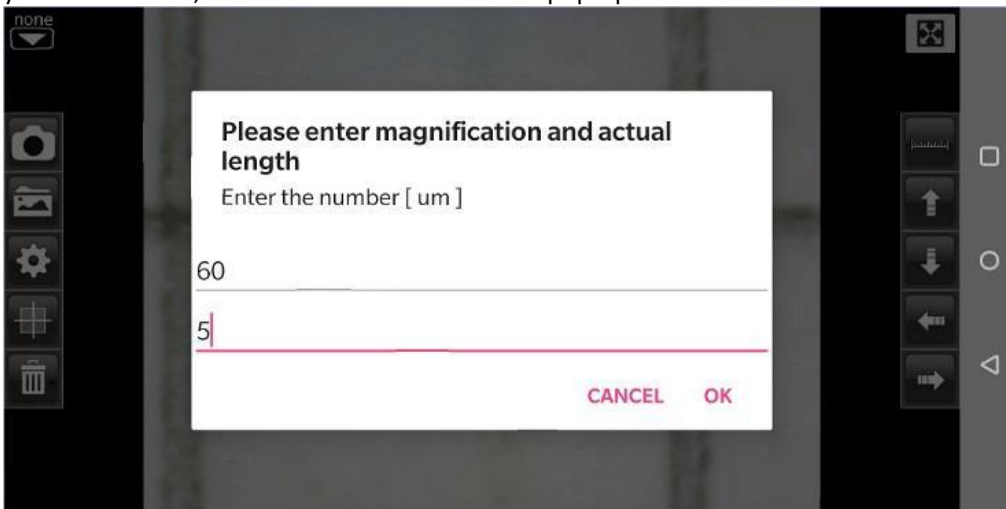
To obtain accurate measurement data for each magnification, please calibrate before performing measurements.

Use the enclosed calibration ruler as the to-be-observed object. Bring photo into focus by turning the “Focus &

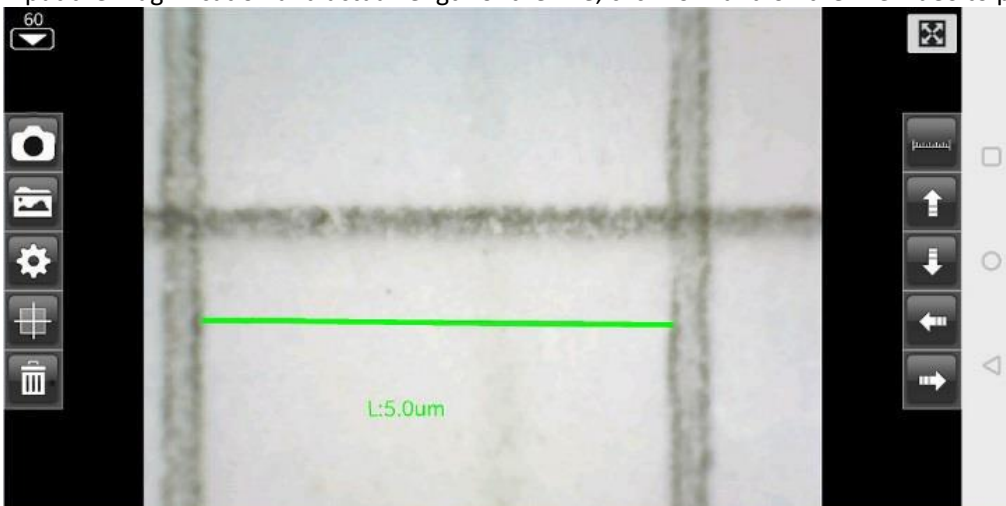
Magnification adjustment wheel”; Click  to pop-up this below screen:



Click  to back the live video, click two dots (moving the dot by clicking , , , ) which draw a your desired line, then click on the live video to pop-up this screen:



Input the magnification and actual length of the line; click “ok” and on the live video to pup-up this below screen:



Now the calibration is complete. By clicking on the screen again, you can mark measurements on the live video using

the same focus. (**Please, do not adjust the “Focus & Magnification wheel!”**). If the new photo object is not in focus, please only adjust the distance between the microscope and the object until the image becomes clear. The measurement data can be saved on the photo image.

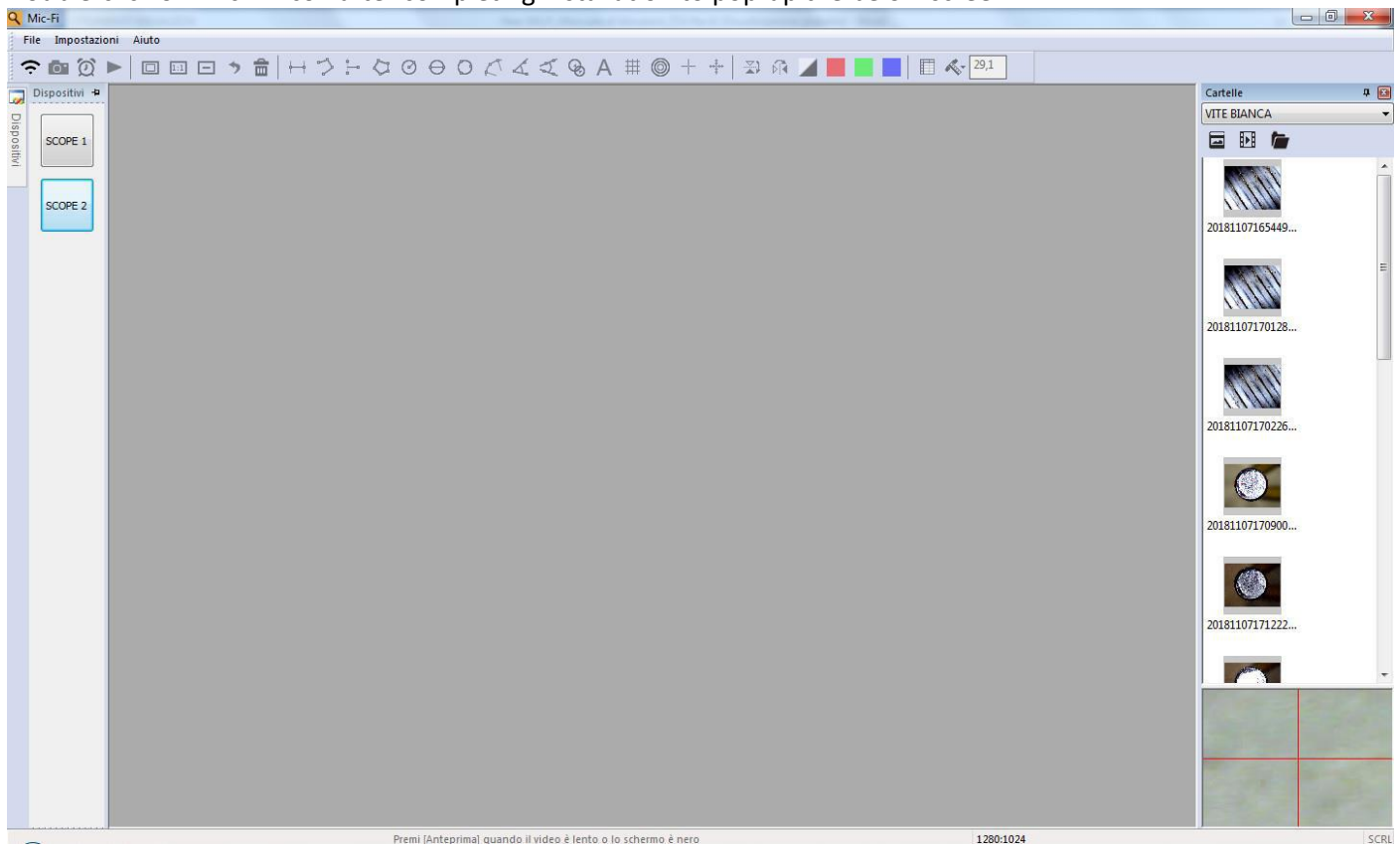
6.3 Measurement on Android Table / Phone

- Line** Allows you to measure the linear distance between two points. Simply click and drag to the desired length, and click again to finish.
- Angle** Allows the measurement of an angle. Start at the pivot point and extend out to start measuring an angle.
- Circle** Allows the measurement of the circumference, area, and radius of a circle. Simply click on any three points on the circle you wish to measure.

7. "Mic-Fi" WiFi and USB on Windows Computer


Download the SW from our website www.mic-fi.com


Double-click on Mic-Fi icon after completing installation to pop-up the below screen:





7.1 Tool Bar

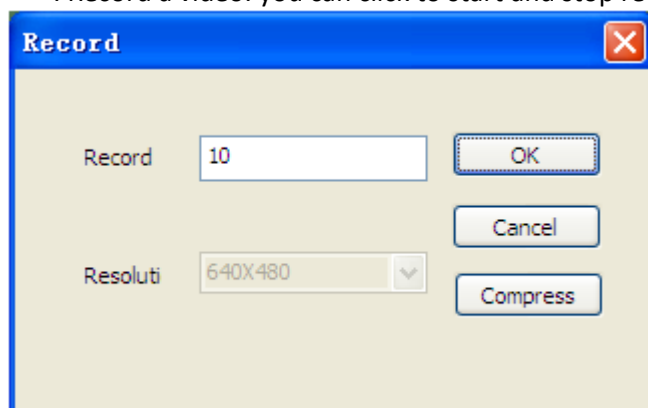



Connect USB cable to microscope and USB port of your PC and click on ; **please do NOT turn On the microscope.** You can connect 4 devices in USB + 1 in WiFi mode concurrently


Connect to Wifi your microscope as indicated in the point n. 4 of this manual and click on 

: Take a picture


: Record a video: you can click to start and stop recording a video.




: Full screen

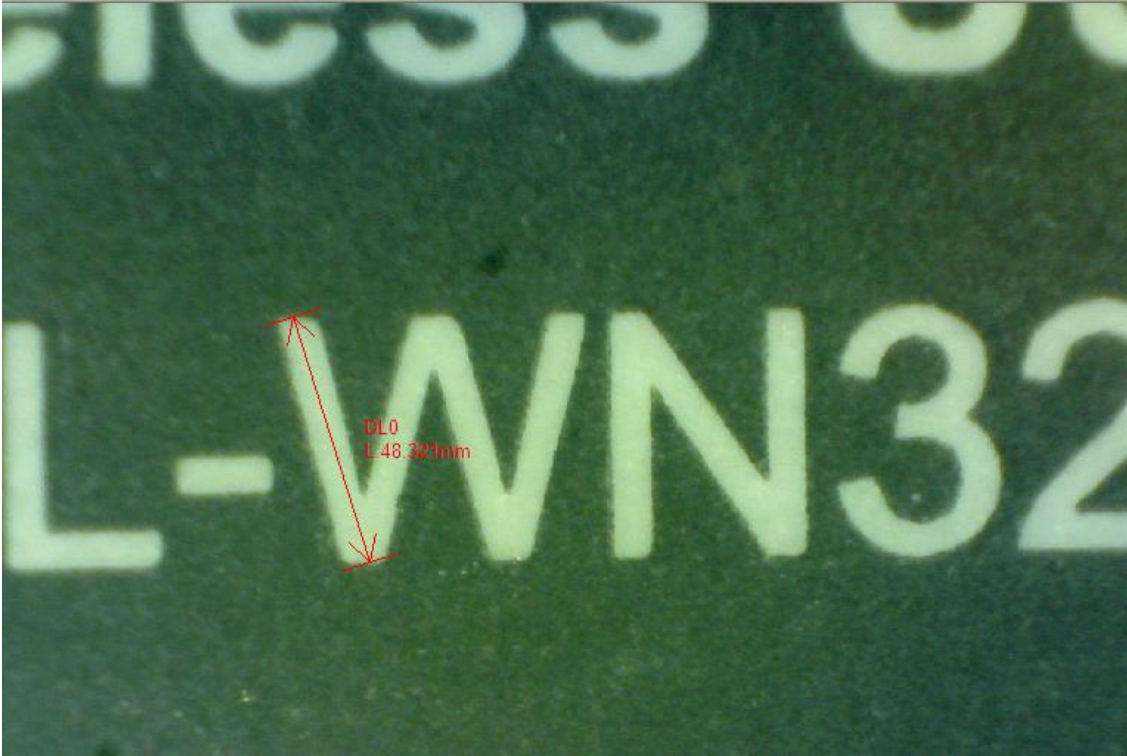
 : Normal the actual size.


 : Zoom out

 : Undo: undo the last action.


 : Delete: delete all measurement.

 : Line Measurement: The line measurement allows you to measure the linear distance between two points. Simple left-click and drag to the desired length, and click again to finish.




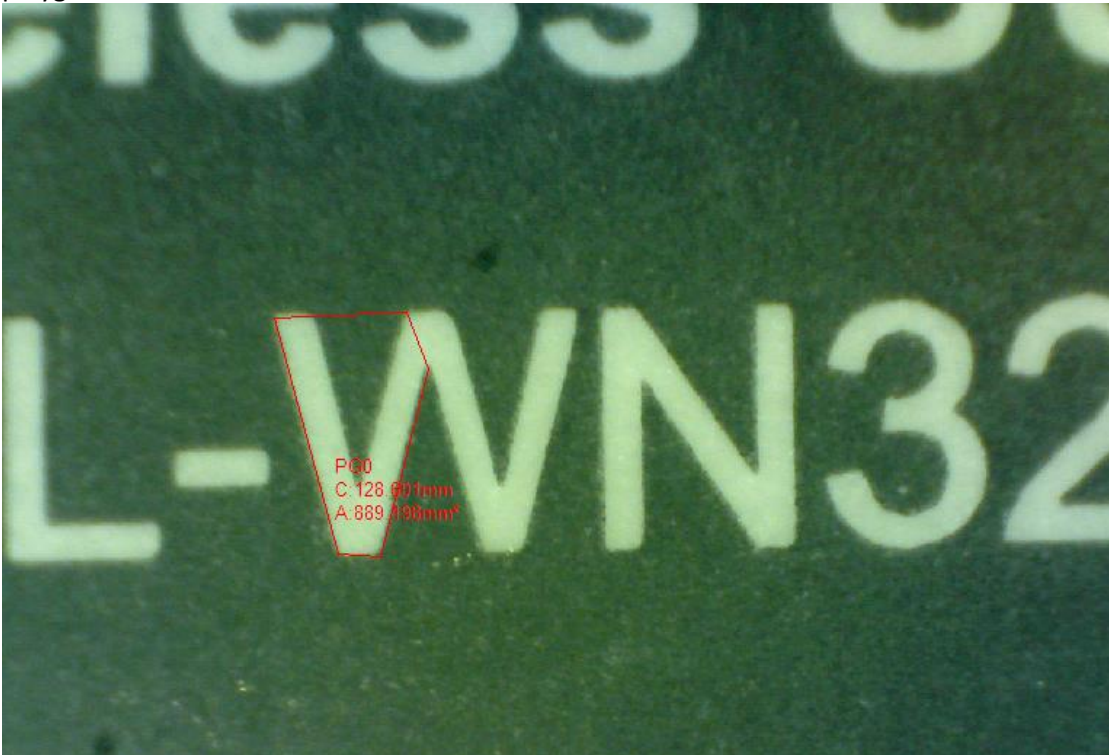
 : Continuous line Measurement: The continuous line function allows measurement of the distance between multiple connecting lines. Simply click and drag to from on section of distance, click again to start another section. Continue until the total desired distance is measured. Right click to finish.




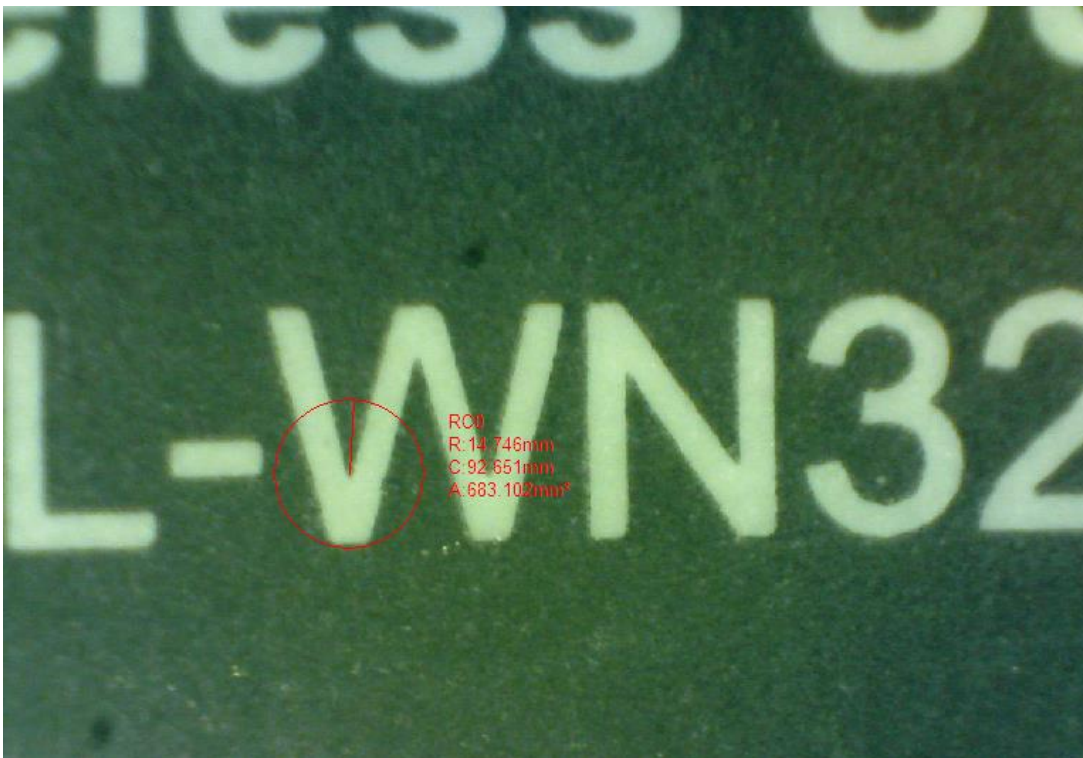
 : Point to line measurement: the point to line measurement feature allows measurement of a line 90 degree from a certain line. Simply create a line to represent the base (e.g. the light blue line in the sample picture below) by clicking once to start, drag, and then click again to set the endpoint. Branch off from the base line to start measuring the line that is 90 degrees from the base line and a final click to finish the measurement.



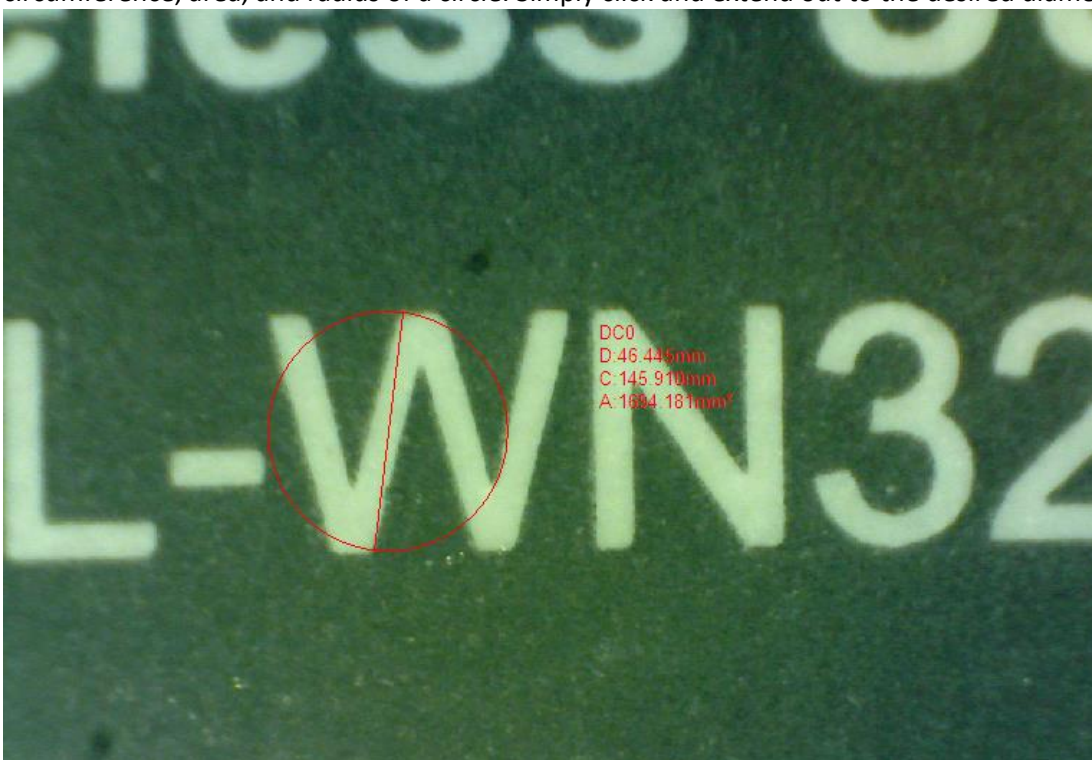
 : Polygon Measurement: The polygon measurement feature allows measurement of a polygon. Simply click and drag to form the desired length, and click again to start the next section. When finished, double-click to finish the polygon measurement.



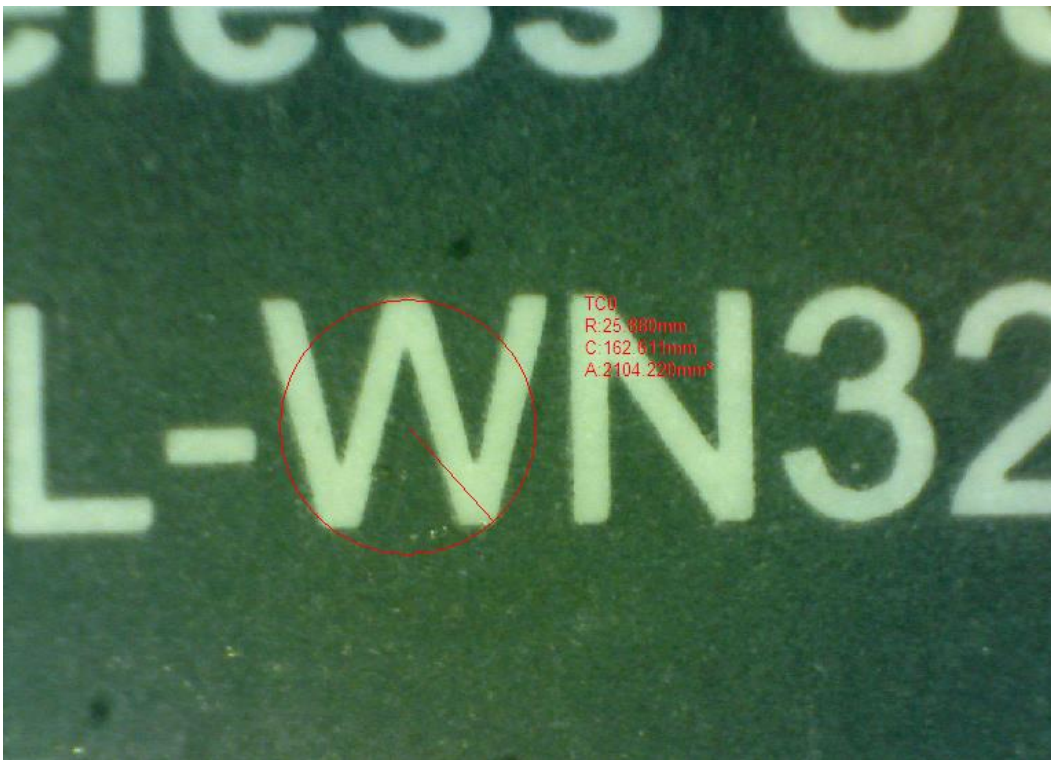
 : Radius of Circle Measurement: The radius of circle measurement allows you to measure the circumference, area, and radius of a circle. Simply click and extend out to the desired radius.




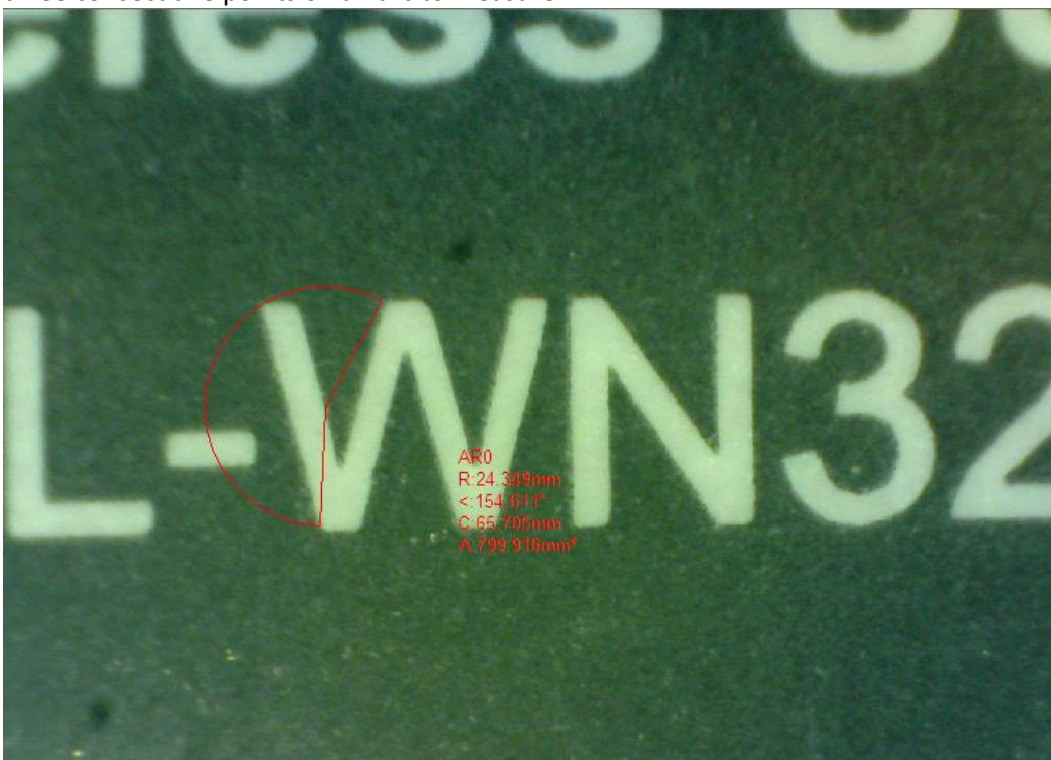
☉ : Diameter of Circle Measurement: The diameter of a circle measurement allows you to measure the circumference, area, and radius of a circle. Simply click and extend out to the desired diameter.




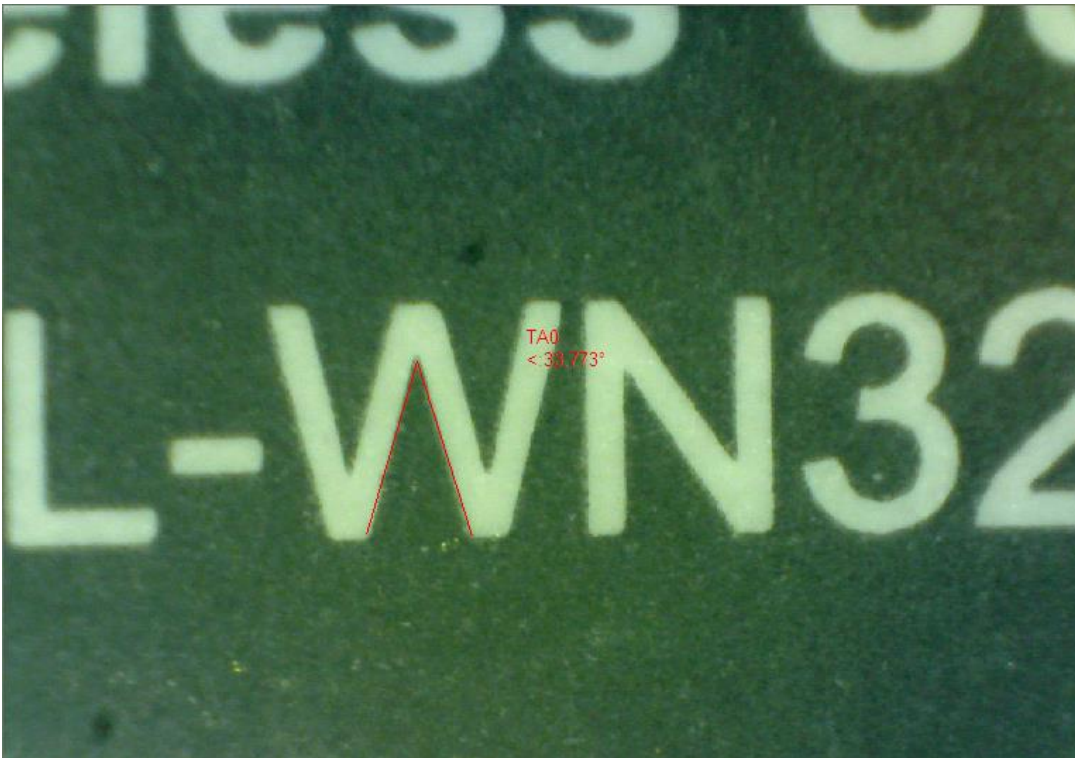
☉ : Three Points Circle Measurement: The three points circle measurement allows the measurement of the circumference, area, and radius of a circle. Simply click on any three points on the circle you wish to measure.




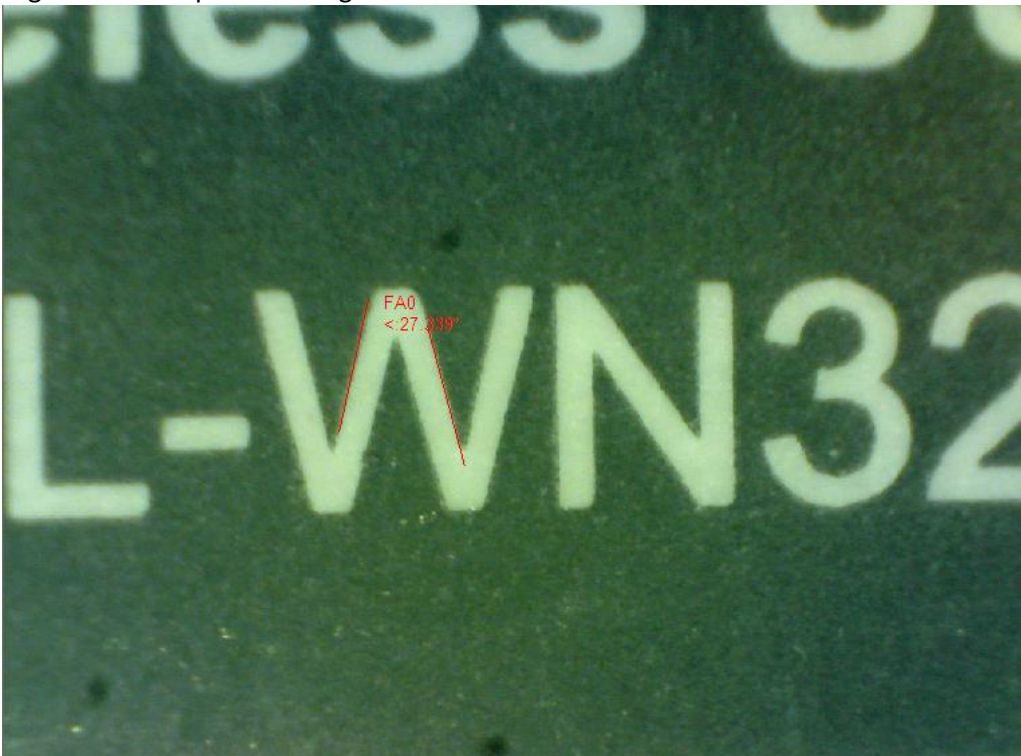
 : Three Points Arc Measurement: The three points arc measurement allows a measurement of an arc. Click on three consecutive points on an arc to measure.




 : Three Point Angle Measurement: The three point angle measurement allows the measurement of an angle. Start at the pivot point and extend out to start measuring an angle.



 : Four Point Angle Measurement: The four point angle measurement allows the measurement of an angle by selecting four points. Simply select two points from one line segment and another two points from another line segment to complete the angle measurement.

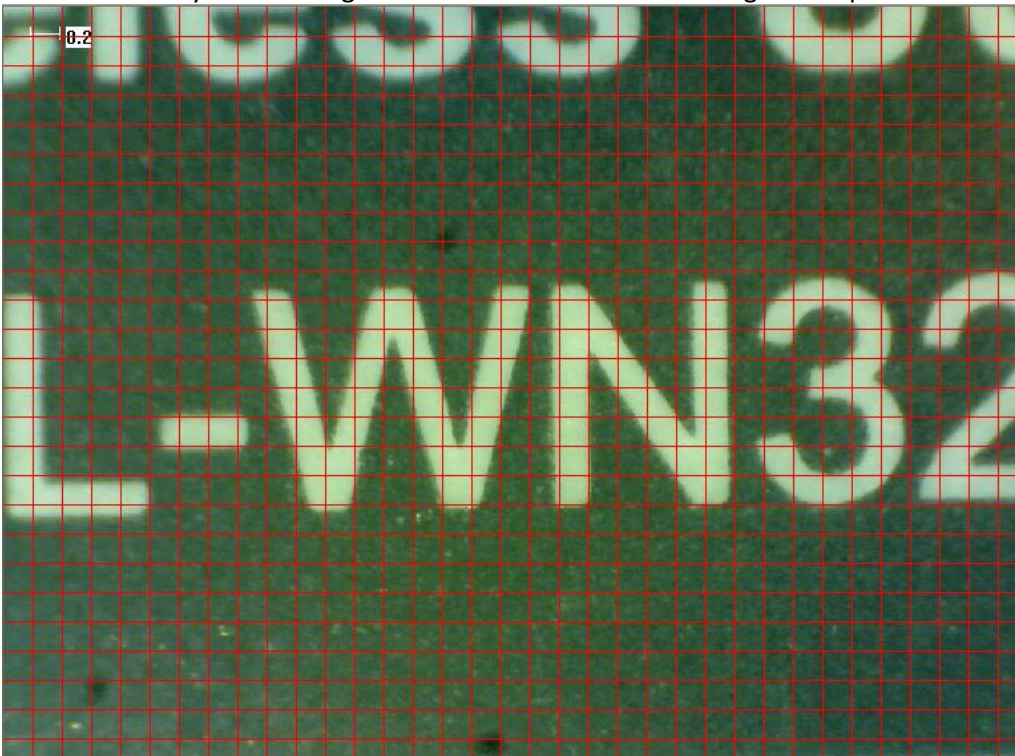


 : Circle Distance: draw two circle and measure the distance of the two circles.

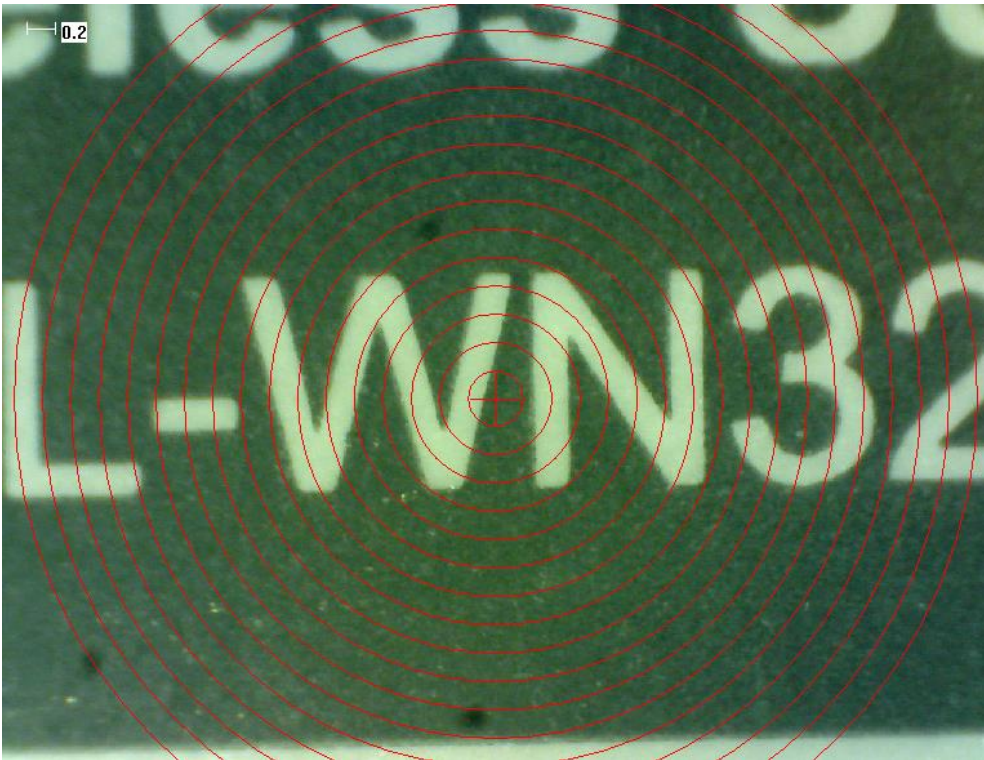


A : Add Text: The text tool lets you write text anywhere on the video and picture.

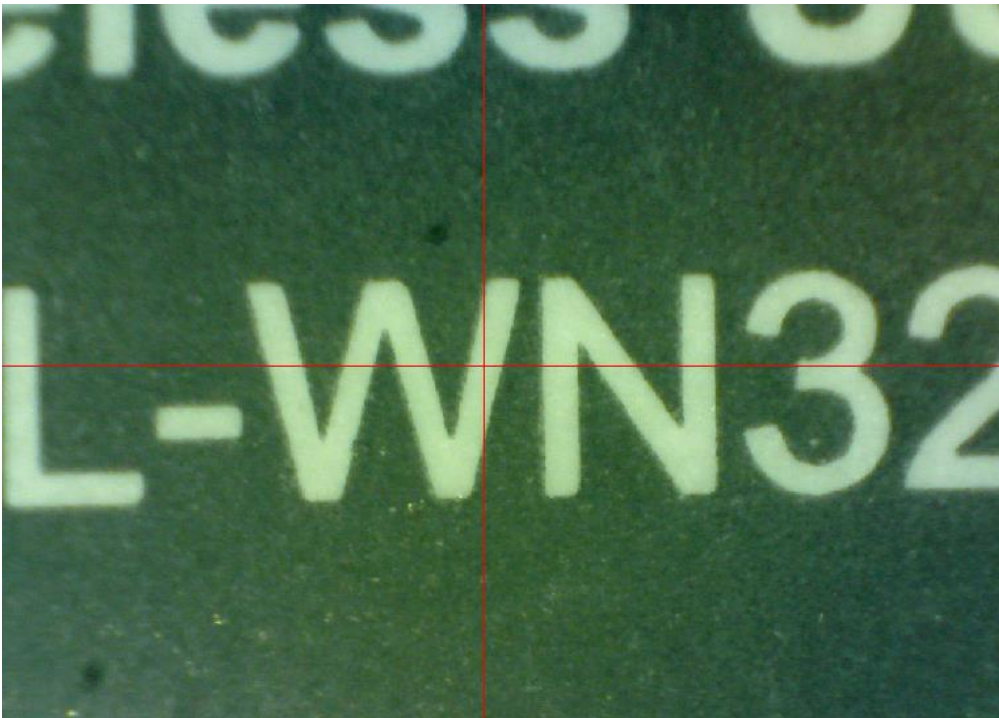
: Gridlines: you can add gridlines to the live video and images. The pitch will match the magnification inputted.



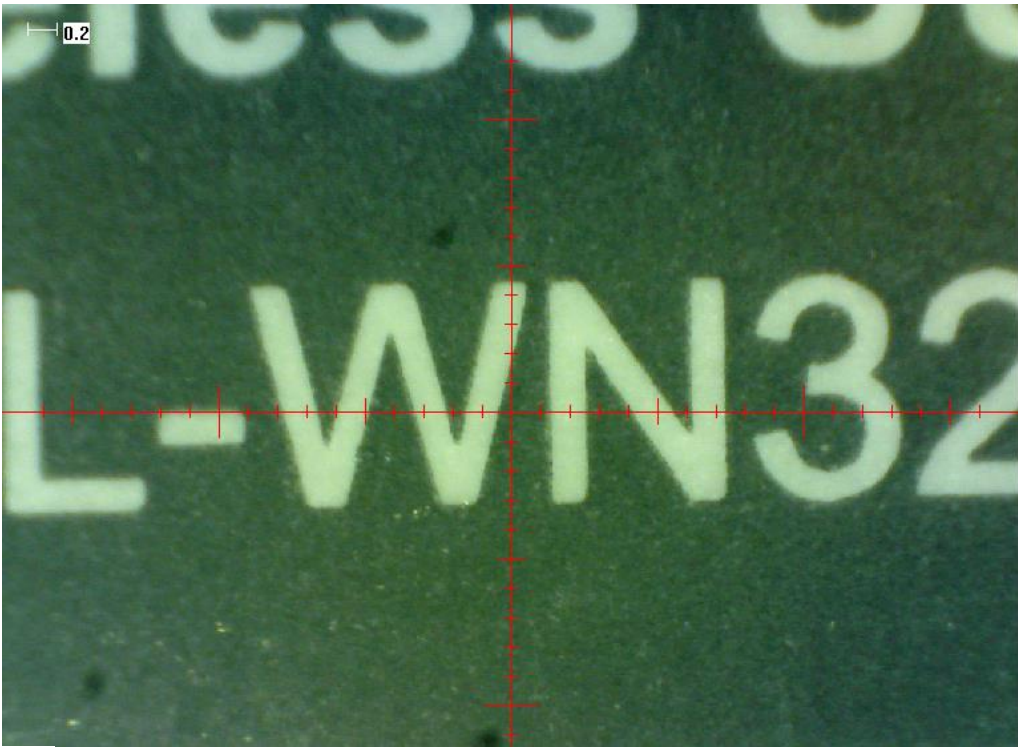
◎ : Circle Grid: you can add circle grid to the live video and images. The pitch will match the magnification inputted.




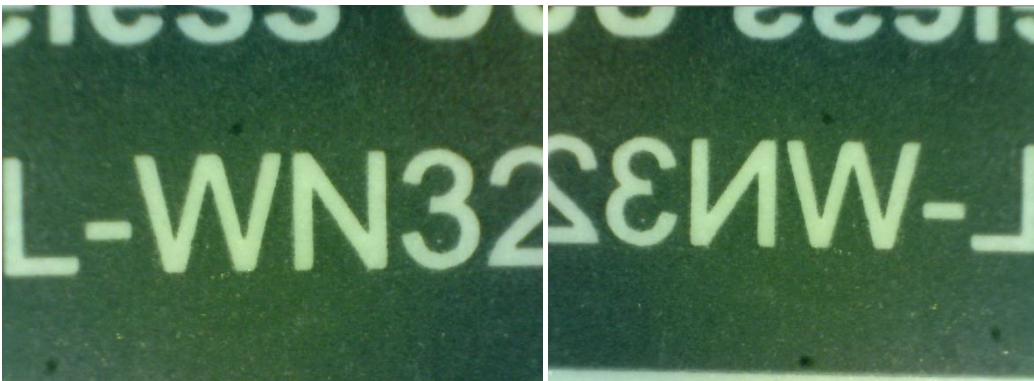
⊕ : Crosshair: you can add a crosshair to the live video and images. The crosshair XY position can be moved when you select it. The cursor position is the location of the mouse pointer and location 0,0 is center coordinates of the crosshair.




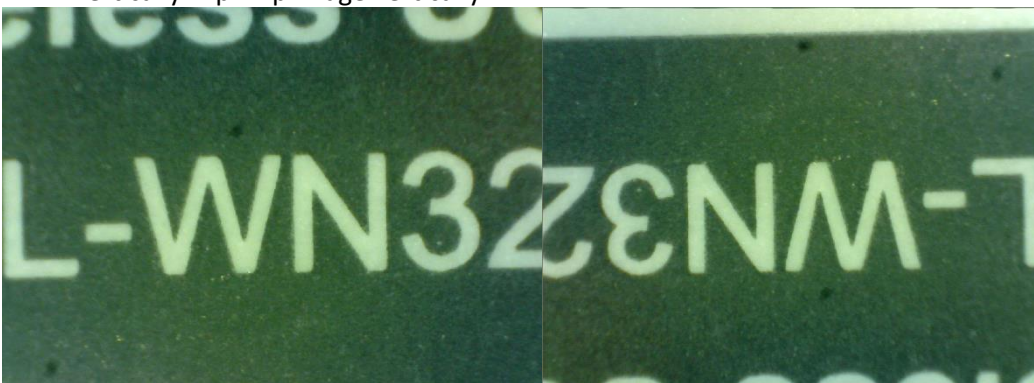
⊕ : Scale Crosshair: you can add a scale crosshair to the live video and images. The crosshair XY position can be moved when you select it.





 : Horizontal Flip: flip an image horizontally.




 : Vertically Flip: Flip image vertically.



 : Negative

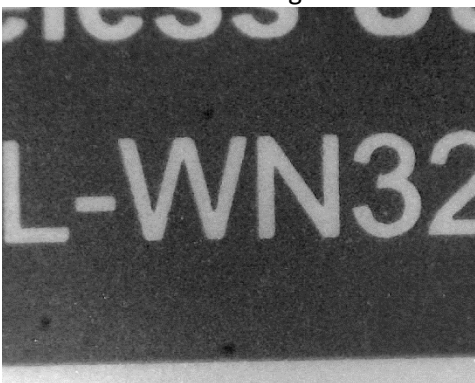
 : Monochrome image: Red monochrome image.




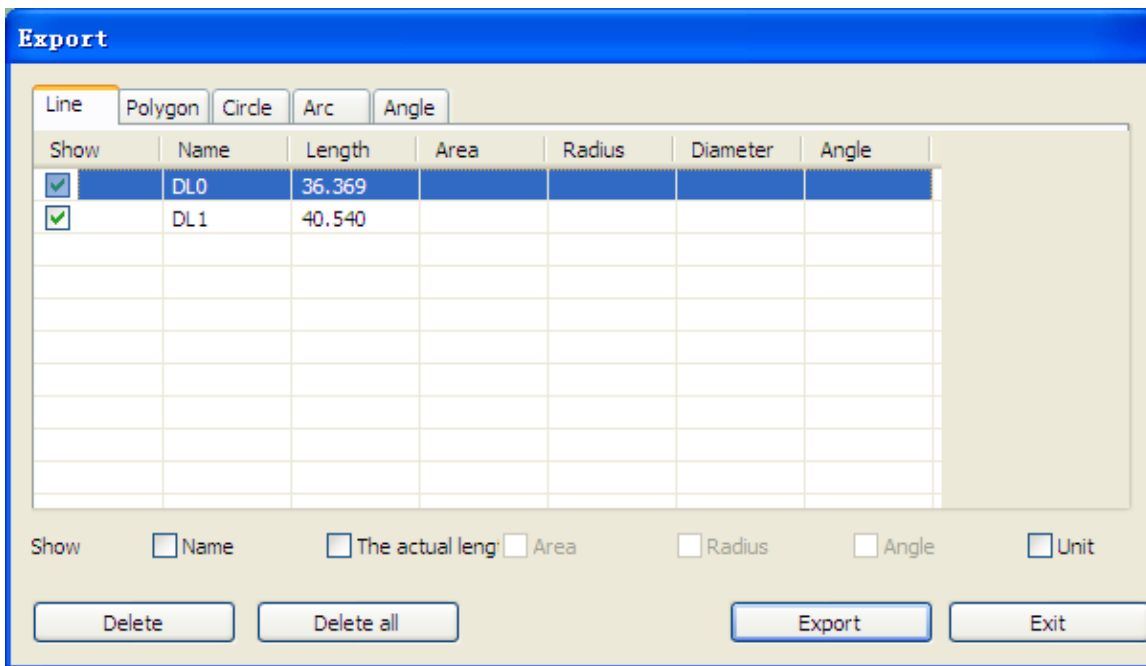
 : Monochrome image: Green monochrome image.



 : Monochrome image: Blue monochrome image.



Clicking on the  icon allows you to show or hide the measurement properties window. The measurement property window organizes and shows the status of all the measurements as well the ability to adjust how the results are shown on the image.



The Tabs

The Mic-Fi software separate each type of measurements into tabs helping you to organize your measurements.

Line: The line tab show all the properties of the line measurements as well as the ability to select what information is shown on the image, ability to delete, change units of measurement and also export data to excel.

Polygon: The polygon tab shows all the properties of the polygon measurements. As well as the ability to select what information is shown on the image, ability to delete, change units of measurement, and also export data to excel.

Circle: The Circle tab shows all the properties of the circle measurements. As well as the ability to select what information is shown on the image, ability to delete, change units of measurement, and also export data to excel.

Arc: The Arc tab shows all the properties of the arc measurements. As well as the ability to select what information is shown on the image, ability to delete, change units of measurement, and also export data to excel.

Angle: The Angle tab shows all the properties of the angle measurements. As well as the ability to select what information is shown on the image, ability to delete, change units of measurement, and also export data to excel.

Categories

Show –The show checkbox let you see the measurement result for the selected measurement on the image. Deselecting the checkbox hides the selected measurement results.

Name –Display the name of the measurement.

Length –Display the length of the measurement.

Area –Display the area of the measurement.

Radius –Display the radius of the measurement.

Angle –Display the angle of the measurement.

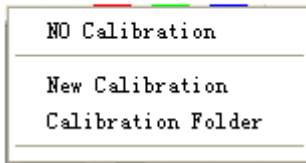
Unit –Display the unit of measure on the picture.

Delete: Select a measurement and click on “Delete” to remove the measurement.

Delete all: Clear all measurements and drawings on the active window.

Export to excel: Exports data from the active windows to excel.

7.2 Calibration Menu



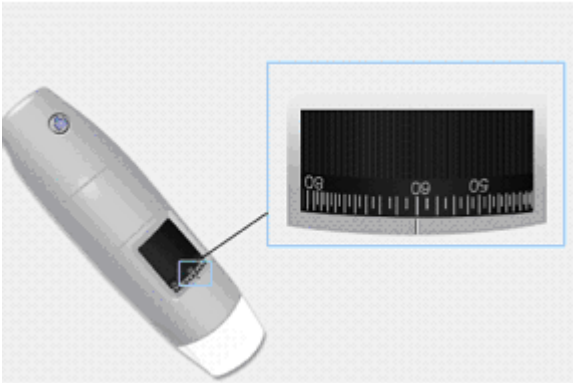
No Calibration: Use the default measurement settings.

New Calibration: Create a new calibration profile.

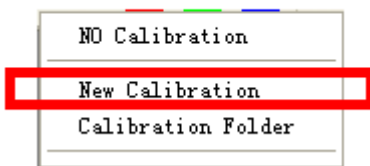
Open Calibration: Opens the folder where your calibration setting are located. From that window, you can select already created calibration profiles or delete them.

It is strongly suggestion: To obtain the accurate measurement data, please calibrate before any measurement function at each magnification.

Select a known measurement standard as the to-be-observed object, such as a ruler, to be used for calibration. Bring photo of the selected ruler into focus by turning the “Focus & Magnification adjustment wheel”, determine the magnification by taking a reading from the scale on the focus dial as below(The default magnification is 60):



1. In the live video window select the calibration drop down menu.
2. Select “New Calibration”.



3. A small window will pop-up, please enter profile name 、 magnification and the actual length.

Calibration

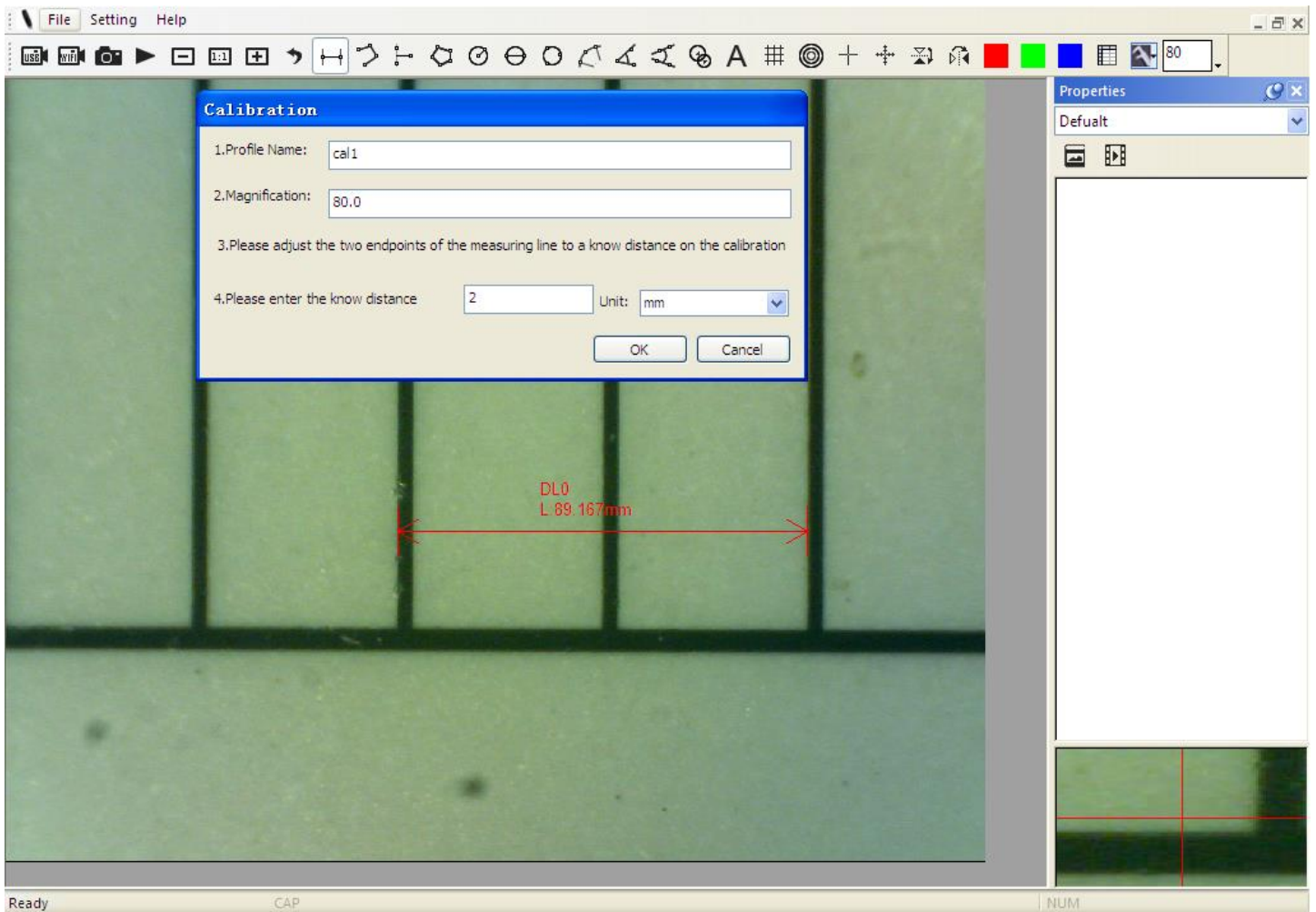
1.Profile Name:

2.Magnification:

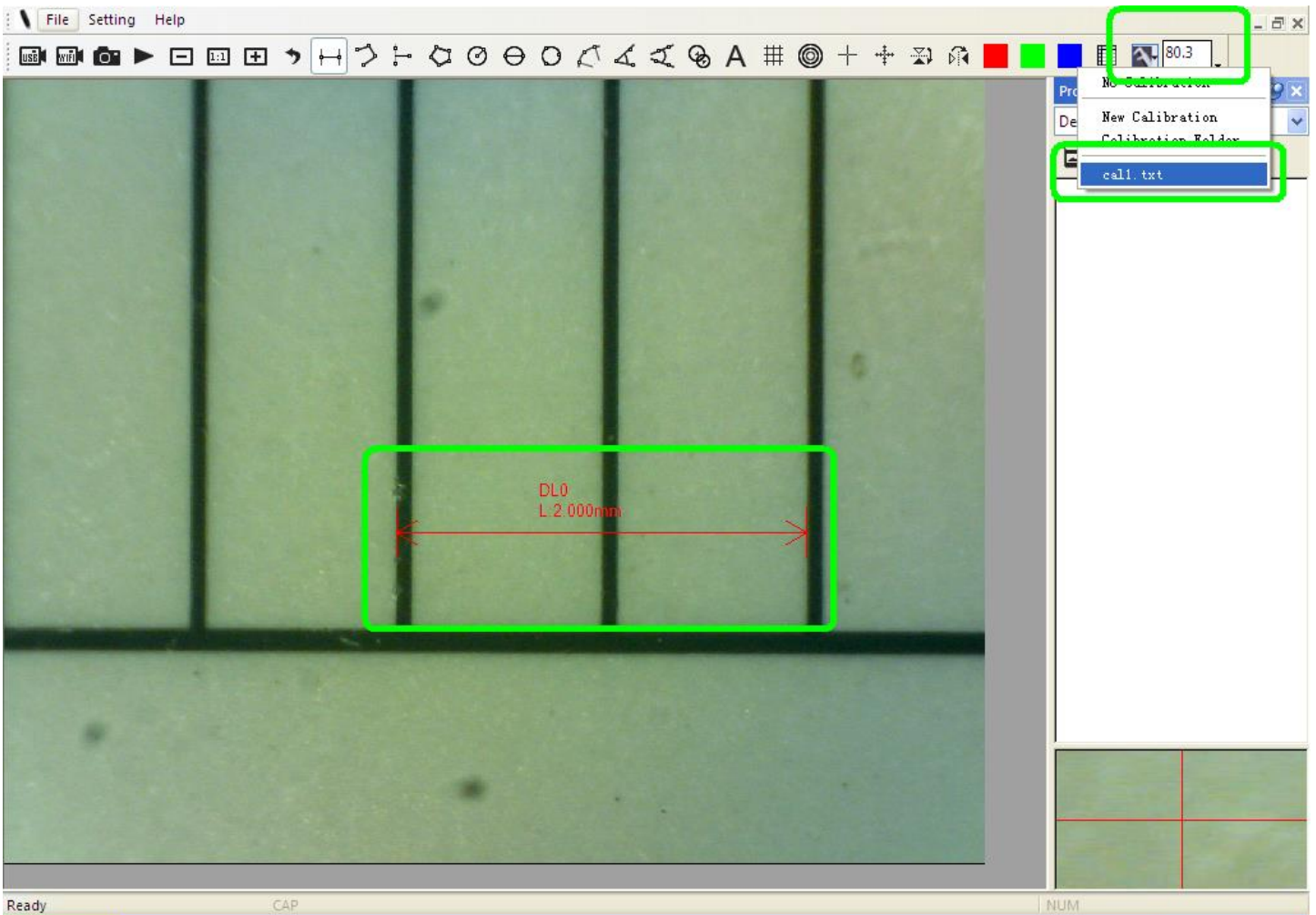
3.Please adjust the two endpoints of the measuring line to a know distance on the calibration

4.Please enter the know distance Unit:

4. Drag the mouse to draw a line which has actual length.

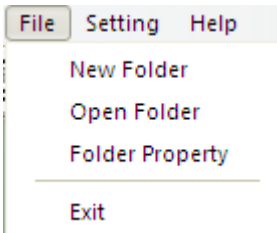


5. Press "OK" button to finish calibration.



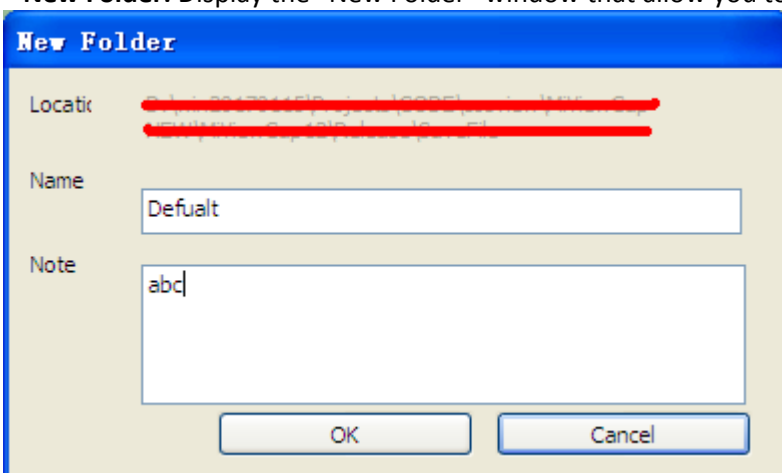
Now the calibration is By clicking on the screen again, you can mark measurements on the live video using the same focus. (Please, do not adjust the “Focus & Magnification wheel!”). If the new photo object is not in focus, please only adjust the distance between the microscope and the object until the image becomes clear. The measurement data can be saved on the photo image.

Menu

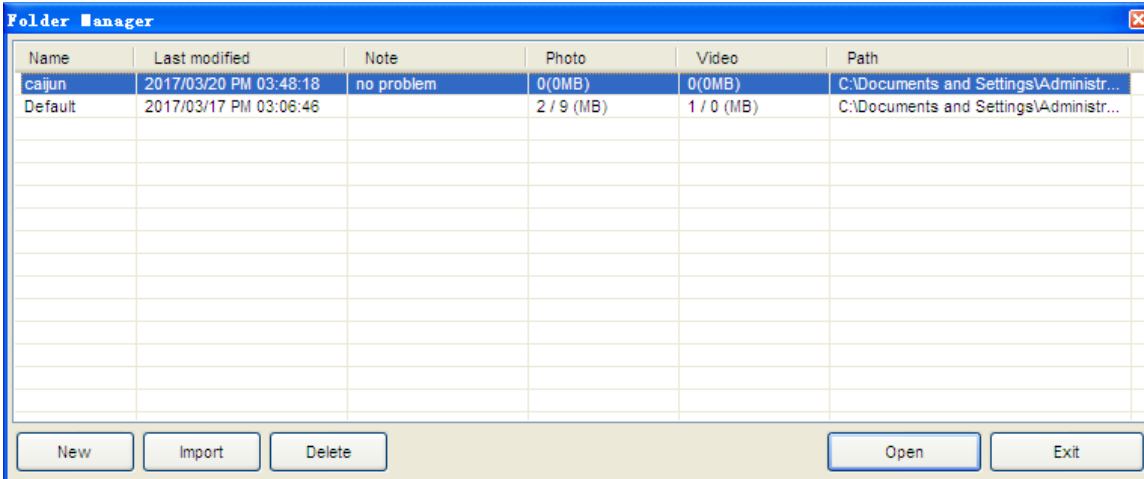


File.

New Folder: Display the “New Folder” window that allow you to create a new folder to save pictures/videos.



Folder Manager: Display the “Folder Manager” window, which allows you import, create, open, delete, as well as change the sorting order of folders.



Folder Properties: Display the “Folder Property” window. Allow you to see the properties of the current save folder and also allow changing the name and edit notes about the current save folder.

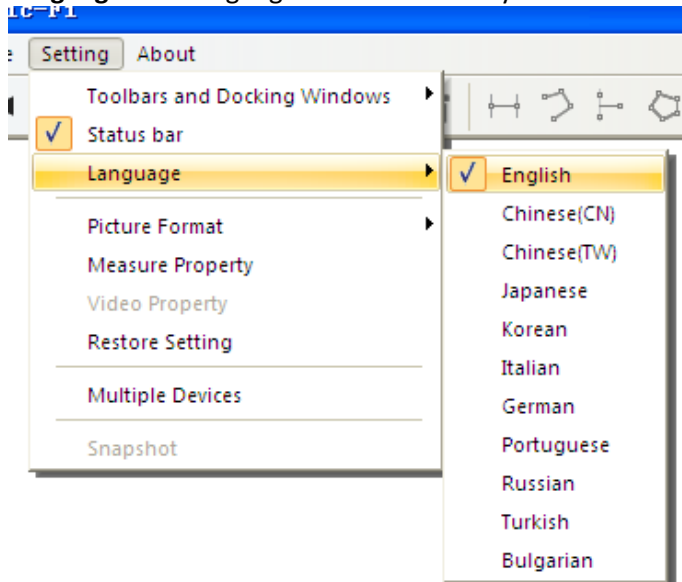
Exit: Exits Mic-Fi software.

7.3 Setting

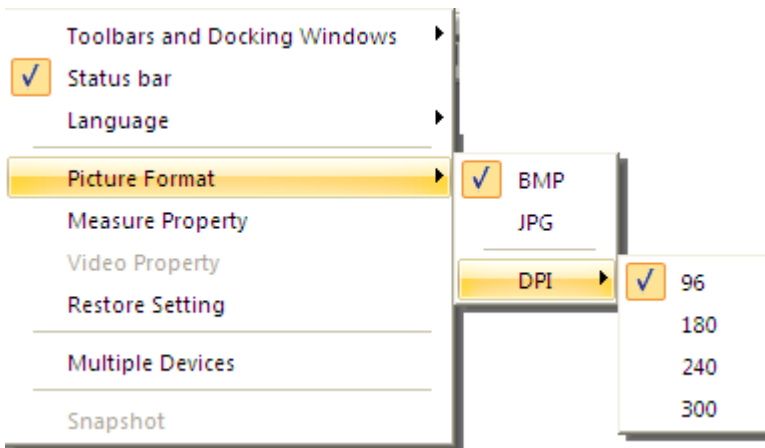
Toolbar and Docking windows: Check to show the tool bar. Uncheck to hide the tool bar

Status bar: Check to show the status bar. Uncheck to hide the status bar.

Language: The language selection allows you to select the Mic-Fi interface language.



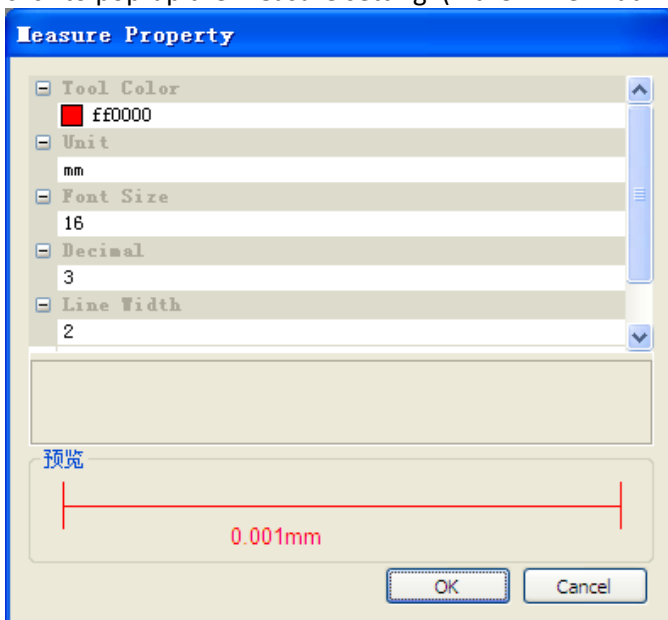
Picture Format: Change the default picture format from BMP to JPG and also set the default picture DPI settings to 96,180,240,300.



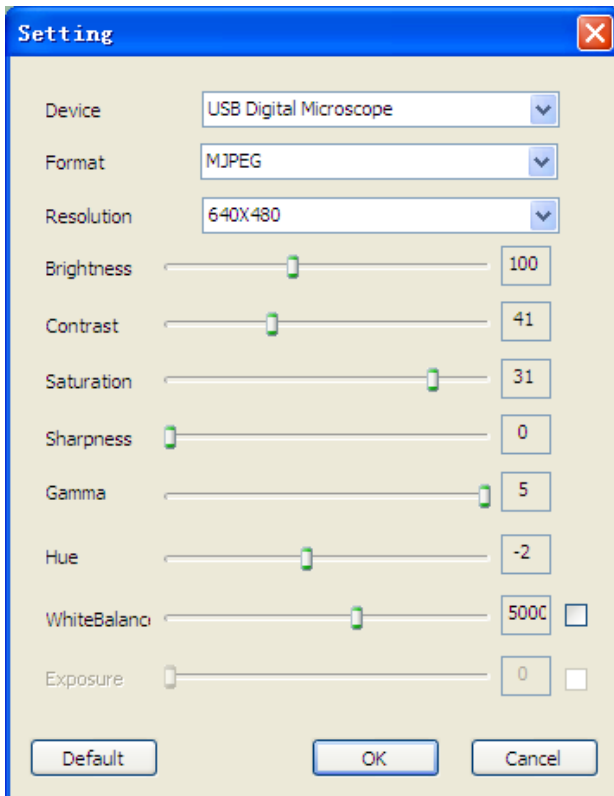
IF SOFTWARE REPORT ERRORS OR INTERRUPTS, PLEASE RESTORE SETTINGS.

7.3.1 Measure setting

click to pop-up the measure setting: (If the "Line width" is 2 or 3 Pixel, the "Pen Type" must be Solid-Line)



7.3.2 Video Setting



Restore Settings: Restore default settings.

7.3.3 Snapshot Enable

Warm Tips: If the Windows Security Alert appears when enable snapshot (Windows 8 as example) as below window:



You MUST select the both check boxes of “Private networks” and “Public networks”, and then click “Allow access” to allow “Snapshot” program communicate on these networks, or the button snapshot doesn’t work. If miss the Allow operation, please click “Control panel->Windows firewall->Restore defaults”, and restart Mic-Fi and “Snapshot Enable” to reset it.

Help:

About: Opens the “About” page pop-up for Mic-Fi.

8. New WiFi&USB Mic-Fi for MAC

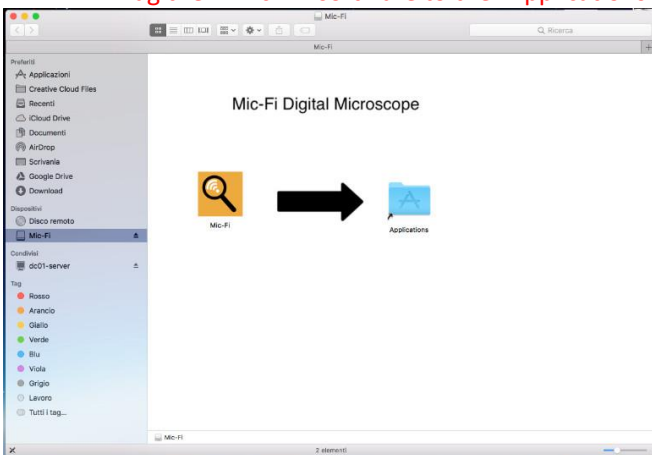
8.1 Installation

Download the “Mic-Fixxx.dmg” software from www.mic-fi.com and install it.

Copy the file on the “desktop” and open with “DiskImageMounter”




Drag the “Mic-Fi” software to the “Applications” folder to complete installation.



P.S If will appears a pop-up windows Security&Privacy see the following information.



You need to adjust the following settings:

Click the Apple icon  to pop-up the window on the right and click "System Preference" to open the next window.



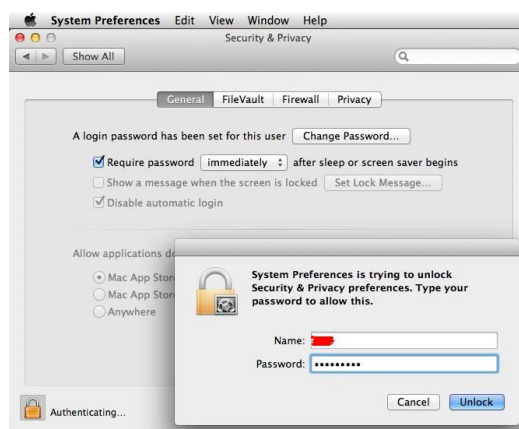
Click on "Security&Privacy" to show the following window.



Click "Click the lock to make changes" to pop-up the following window.




Input "Name" and "Password" of your system, and click "Unlock" to show the following window:



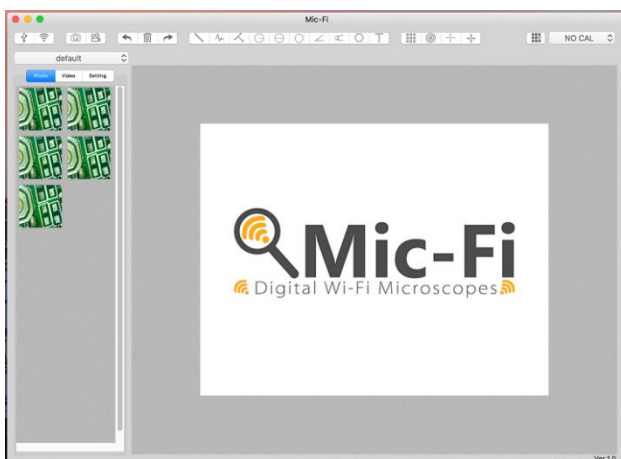
Select “Anywhere” to finish the setting.


Now you may install the “Mic-Fi” software.




After the installation, double click on this icon  to open the SW.

8.2 Mode of use



Connect USB cable to microscope and USB port of your PC and click on 

Connect to Wifi your microscope as indicated in the point n. 4 of this manual and click on 



- 1) Take picture
- 2) Take/Stop Video



- 1) Undo
- 2) Delete
- 3) Redo



- 1) Line
- 2) Continuous line
- 3) Point to line
- 4) Radius Circle
- 5) Diameter Circle
- 6) Three Points Circle
- 7) Three Points Angle

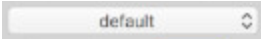
- 8) Four Points Angle
- 9) Polygon
- 10) Add Text



- 1) Gridlines
- 2) GridCircles
- 3) Crosshair
- 4) Scale lines

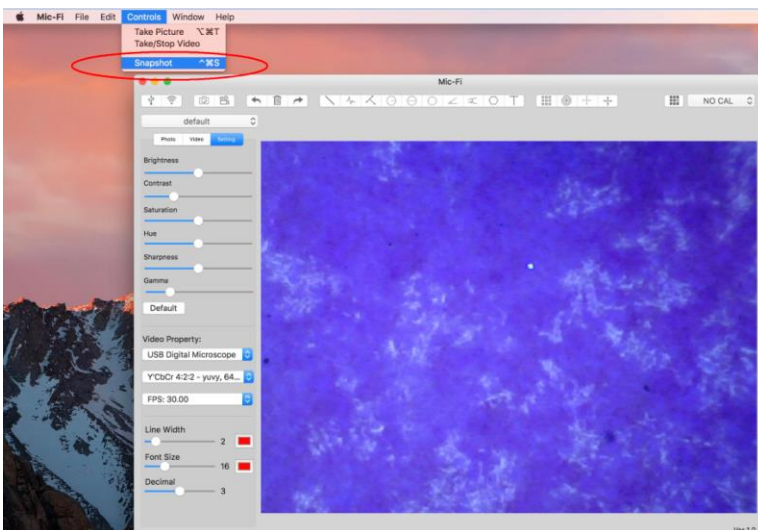
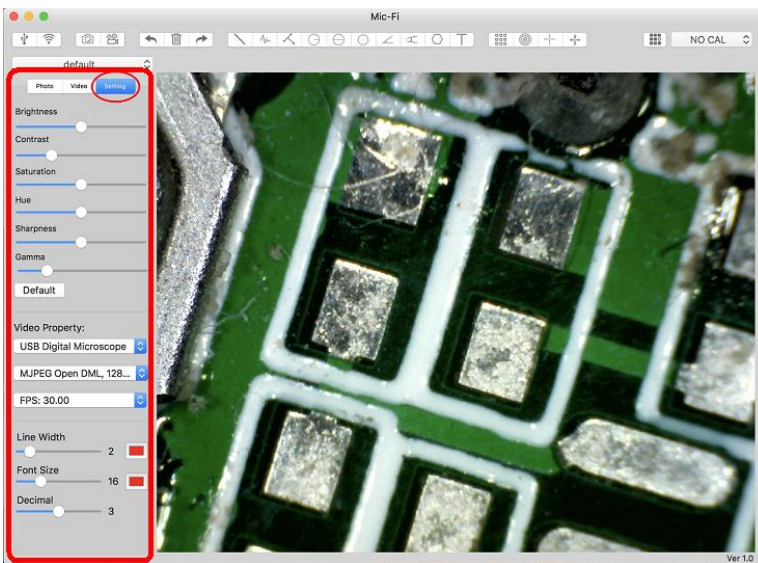


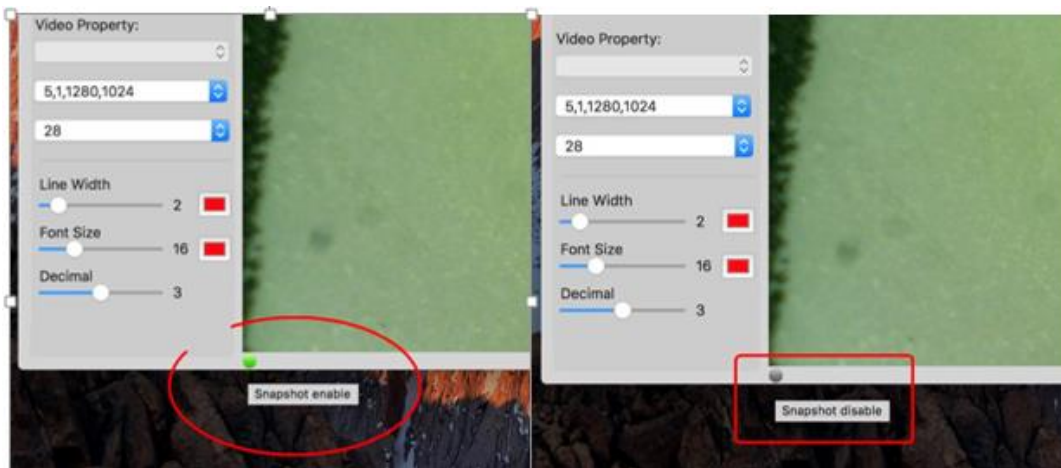
- 1) Calibration



- 1) Folders Image/video

8.3 Setting

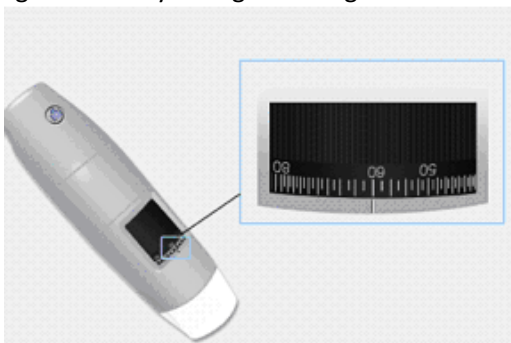





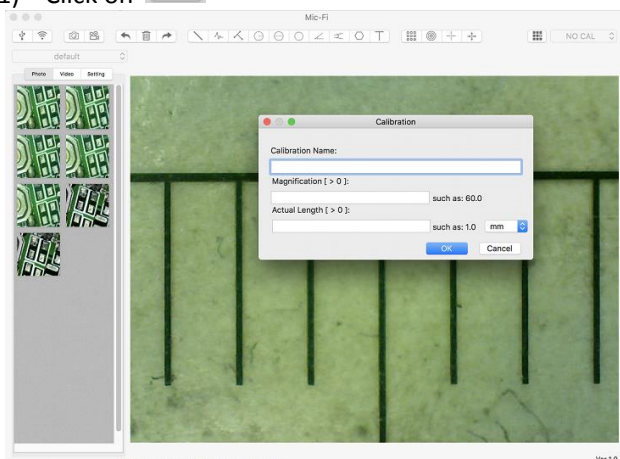
P.s. The snapshot works only in WiFi mode.


8.4 Calibration

Select a known measurement standard as the to-be-observed object, such as a ruler, to be used for calibration. Bring photo of the selected ruler into focus by turning the “Focus & Magnification adjustment wheel”, determine the magnification by taking a reading from the scale on the focus dial as below (The default magnification is 60):



1) Click on 



- 1) Fill the fields and click on OK
- 2) Drag the mouse to draw a line which has actual length.
- 3) Select the calibration from this menu 

Now the microscope is calibrated and you can mark measurements on the live video using the same focus. (**Please, do not adjust the “Focus & Magnification wheel!”**). If the new photo object is not in focus, please only adjust the distance between the microscope and the object until the image becomes clear.

9. Product Specifications

- Operation system: Windows / Mac / iOS and Android

Wi-Fi Spec:

- IEEE 802.11 b/g/n standards compliant
- Wireless Transmission Distance: up to 5m
- Transmit Power:
 - 11n HT40 MCS7: +13 dBm
 - 11b CCK: +18 dBm
 - 11g OFDM: +15 dBm
- Data Rate:
 - 802.11n: up to 150Mbps
 - 802.11b: 1, 2, 5.5, 11Mbps
 - 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps
- The Temperature: ≤ 60 °C (Celsius degree) with full speed running.
- Frequency Range: 2.400 ~ 2.4835GHz
- Power Consumption: Max 2.5W
- Frame Rate: 10fps~30fps
- Li-ion Battery: Continuous Working Time—Appx.2 Hours, Full Charging Time—Appx.2 Hours
- Power Source: DC5.0V/1A

Camera Spec:

- Camera Sensor: CMOS
- Optical features:
Exposure, Gamma Correction, Numerical Aperture, White Balance, Black Reference, Flicker Avoidance, Defect Identification, Color Saturation: Auto

Microscope Spec:

- Adjustable Magnification: According to the model
- The Object Distance: According to the model
- Focus Range: According to the model
- Light Source: According to the model
- Lens: High Definition Microscopy Lens

Wired USB Spec:

- PC interface: USB 2.0
- MiniUSB Cable: 1.2m

10. Troubleshooting

10.1 Wi-Fi Mode

- 1. There is no video display after changing the resolution to 1280 x 1024, but it works well at 640x480:**
 - a) Low battery, please charge your microscope.
- 2. The microscope video stops after working for a long time:**
 - a) Check if low battery or the battery is exhausted.
 - b) Power off Wi-Fi microscope and close Mic-Fi app, then restart it again.
- 3. The live video's frame rate of Wi-Fi microscope is slow:**
 - a) Click the  icon again on "Mic-Fi" SW when using on Window PC or Mac PC. Close and restart "Mic-Fi" app again for Smart-Phone or Tablet.
 - b) Set the video resolution to 640 x 480 if the current resolution is 1280 x 1024.
 - c) Check if low battery or there are many other Wi-Fi networks interference around.
 - d) Power off Wi-Fi microscope and close the SW to restart it again.
- 4. There is no video display or slow video after successful Wi-Fi connection:**
 - a) Smart-Phone or Tablet: if the illumination LEDs don't light up, please power off Wi-Fi microscope and close "Mic-Fi" app to restart it.
 - b) Smart-Phone or Tablet: if the illumination LEDs light up, restart "Mic-Fi" app
 - c) Windows PC or Mac PC: click the  icon again on "Mic-Fi", or power off Wi-Fi microscope and close "Mic-Fi" to restart it.
- 5. Why does the screen stop video displaying after changing the resolution?**
 - a) When changing the resolution, please wait until the illumination LED is off and lights up again before clicking OK - it takes about 5 seconds. Please restart "Mic-Fi" app.
- 6. Why does the device feel rather warm after Wi-Fi microscope has been working for some time?**
 - a) The Power dissipation of Wi Fi microscope is about 2.5W, so the highest internal temperature of the device can reach about 60°C.
- 7. How long can the Wi-Fi microscope works for after the battery is full charged?**
 - a) It is about 2 hours at 640x480 resolution. Full charging time is also about 2 hours.
- 8. How do I use the wired set-up?**
 - a) Please refer to the USB Mode chapters of this manual for wired USBMic-Fi scope usage.
- 9. Why Wi-Fi Microscope may encounter some interferences?**

Interference will occur if there are some other wireless sources, for example, analog 2.4GHz FM wireless, Wi-Fi, cordless phone and Bluetooth etc., please keep away from these wireless sources, and then operate the Wi-Fi Microscope.

10.2 USB Mode

- 1. The USB Digital Microscope and the USBMic-Fi software were working, but suddenly stop working properly. Please try the following:**
 - a) Unplug or Power off USB DigitalMicro from PC, close Mic-Fi program.
 - b) After waiting for 1 minute, plug and power on USB Digital Microscope and open Mic-Fi program to try.
- 2. After PC resume from standby or hibernate, maybe USBMic-Fi will not work properly, please close it and re-open to try.**
- 3. If USB Digital microscope driver can not be installed completely, maybe your pc OS is not XP SP2 or above, please update it. If you installed the driver and application completely, but there is a tips: please connect USB Digital Microscope after running the program, please uninstall USBMic-Fi and reboot PC, then re-install Mic-Fi to try again.**

11. DISPOSAL



The crossed waste bin indicates that the product at the end of its useful life has to be collected separately from other waste.

It has to be disposed of in accordance with local WEEE regulations.

12. WARRANTY

Congratulations for purchasing our product. This product HAS BEEN MANUFACTURED TO THE HIGHEST QUALITY AND STANDARDS. Italeco guarantees this product against any defects due to materials or workmanship for a period of 2 years from the date of original purchase. To take advantage of the guarantee, you have to retain your purchase invoice. If the product show any defects within the warranty time it has to be returned to the selling agent with proof of purchase. The warranty is null and void if the damage is resulting from carelessness or misuse. No compensation will be given by Italeco and its distributors if the product is returned during the warranty period. In addition, any replacement or repair carried out during the warranty time will not prolong the duration of the guarantee.

The warranty lapses in the following cases:

- The product has been tampered with or the label placed on the usb cable bearing the serial number has been removed, damaged or rendered unreadable
- The product has been damaged or has been misused
- The product has been opened or repaired by unauthorised personnel
- The product has been damaged due to non compliance with the instructions in the booklet

Products considered to be defective should be returned only to the dealer from which it was purchased accompanied by the invoice.

The product will be repaired or replaced, under our sole discretion.

ITALECO SRL

Via Pavia 105/i, 10098 Rivoli (To), Italy

Tel: +39-011-5690297

Fax: +39-011-5690298

<http://www.mic-fi.com>