

coolingtech
**USB211 Digital
Microscope**



coolingtech USB211 Digital Microscope User Manual

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coolingtech USB211 Digital Microscope



Product Usage Instructions

- The Digital Microscope is a plug-and-play device and can be used immediately after connecting it to a computer with an operating system above the Windows 2000 version.
- Connect the portable digital microscope to your computer using the USB cable.
- Double-click on the 'My Computer' icon on your desktop.
- Locate and double-click on the Video device icon to start using the microscope.
- If the Video device is not found or your computer cannot recognize it, follow these steps to install the driver:
- Insert the attached CD.
- If the CD doesn't auto-run, manually run the AUTORUN.EXE file.
- Follow the on-screen instructions to complete the installation process.

Once the driver installation is complete, an icon will appear on your desktop. Double-click on the icon to start using the Digital Microscope.

FAQ

- **Q:** What are the main uses of the Digital Microscope?
- **A:** The Digital Microscope can be used in various fields including textile inspection, printing inspection, industrial inspection, educational purposes, hair and skin examination, microbiological observation, jewelry and coin inspection, visual assistance, and more.

Thank you for purchasing our Digital Microscope

It is a slim type of tool and can be easily used in different fields.

Including:

1. Textile industrial for textile inspection
2. Printing inspection
3. Industrial inspection: PCB, Precision machinery..

4. Educational purpose
5. Hair examination
6. Skin examination
7. Microbiological observation
8. Jewelry & coin (Collections) inspection
9. Visual Assistance
10. Others

Currently, we have two models of Digital Microscope: USB port and TV port formats.

The USB microscope must be connected to the computer or mobile phone, tablet PC, and TV microscope be connected to the visual device (N/P). The user interface is very friendly and you can do the Measure work easily. You can find more information of the product on this manual.

New features of Coolingtech software version 4.5

- All functions support the win10 system
- The software supports 19 languages (Chinese, English, Korean, Japanese, Spanish, German, French, Russian, Thai, Italian, Polish, Portuguese, Dutch, Turkish, Malay, Greek, Persian, and Arabic)
- The screenshot interface is sorted by chronological order from the back to the front

Parts of Microscope



Specification

- **Sensor:** high-performance chip
- **Main control chip:** dedicated master 24Bit DSP
- **Photo/video:** software control
- **Light source:** 8 LED white lights

- **Static resolution:** SD 640*480; HD 1200*1600; ultra clear 2592*1944
- **Digital zoom:** 5X
- **Working distance:** manual adjustment 0~40mm
- **Image resolution:** SD 640*480P, HD 1280 x 720P; Full HD 1960*1080P
- **CD:** driver software, measurement software, use manual
- **Support operating system:** 32bit and 64bit Windows,, XP, VISTA, WIN7, WIN 8, WIN 10; MAC, Linux
- **Power supply:** USB (5V DC), WIFI, or mobile OTG cable
- **Interface:** USB 3.0 &USB 2.0 & USB 1.1 compatible,OTG
- **Dynamic Frames:** 30f/s Under 600 LUX Brightness
- **Illumination range:** 0 ~ 30000LUX adjustable by USB cable Hardware requirements: Unlimited
- **Language support:** Chinese (Simplified), Chinese (traditional), English, Korean, Japanese, Spanish, German, French, Russian, Thai, Italian, Polish, Portuguese, Dutch, Turkish, Malay, Greek, Persian, Arabic (other languages need to be customized)
- **Product color:** matte black, other colors can be customized
- **Body size:** 112 mm (length) 33 mm (outer diameter)
- **Single package weight:** 265g

product support Windows 2000 XP VISTA WIN 7 WIN 8 WIN 10 Pentium 1G, Celeron, AMD 1G & above, 128MB Memory, 150MB Hard Disc memory space,16-bit & above VGA, CD-ROM, USB2.0 or USB1.1

Product Outlook & Standard parts

1. Digital Microscope (1pcs)
2. USB 2.0 cable
3. Metal fixed Stand (1pcs)
4. CD (Driver software, Measurement software, User Manual)
5. Microscope Micrometer Calibration Rule

Notes before use

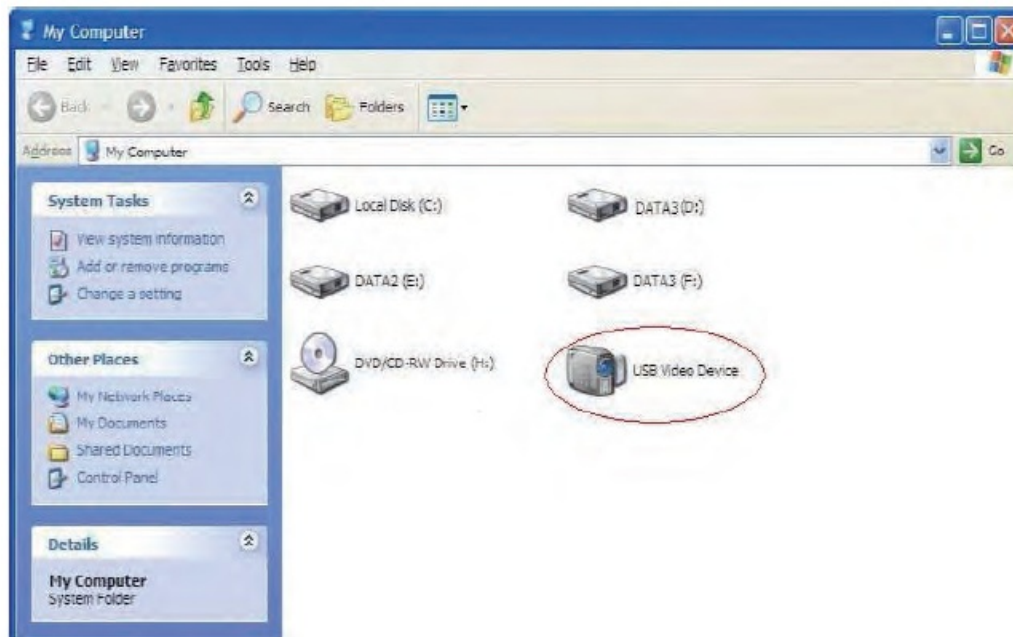
1. Don't disassemble the digital Microscope or change the interior parts, it can cause damage.
2. Don't clean the Microscope with alcohol organic solvents
3. Don't touch the lens with your fingers.
4. Avoid outdoor use if possible.
5. Storage temperature, 0°C ~ 40°C, Humidity:45%RH ~ 85RH%.
6. In case the product gets wet, leave the PC connection immediately. And do not disassemble or dry by hair dryer.
Send to the repair center if the digit microscope is affected by liquid or other elements.
7. Measurement Data only for reference

Hardware and system requirements

Digital Microscope is a free Driver Product it can be worked immediately after being connected to the computer with an operation system above the Win2000 version.

1. Connect the Portable digital microscope by USB cable to your computer, double click the 'my computer' icon on

your computer desktop, below interface will be shown up.




2. Double click the Video device icon as above red marked in your computer. Now it is ready to use.

If you can't find the Video device, or if your computer can't recognize it, please follow the below steps to install the driver.

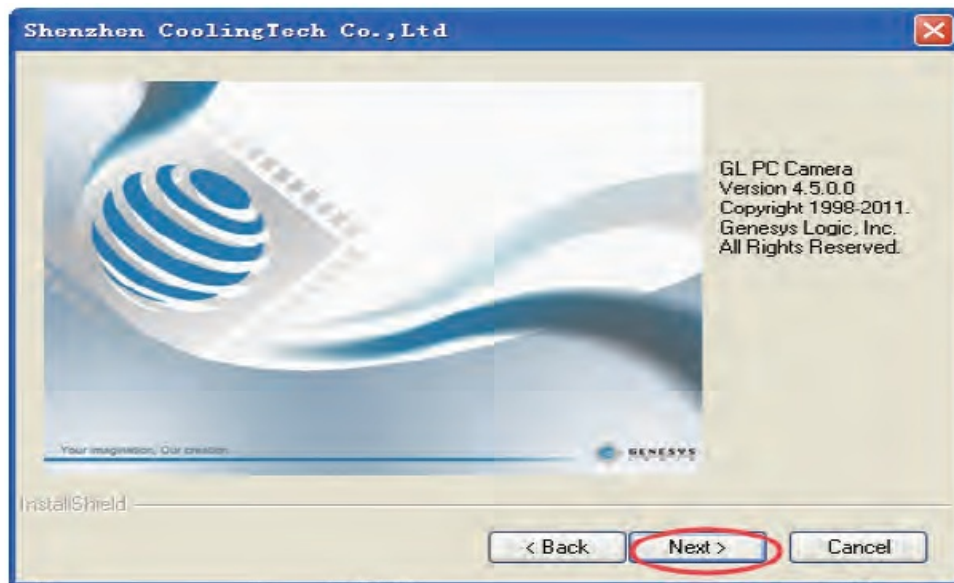
Insert the attached CD, system will auto-run to the interface as below follow the steps to complete the installation:

(NOTE If the computer can't auto-run the disc, you need to operate it manually by clicking "My Computer"→ "DVD/CD Driver"→run" AUTORUN.EXE")

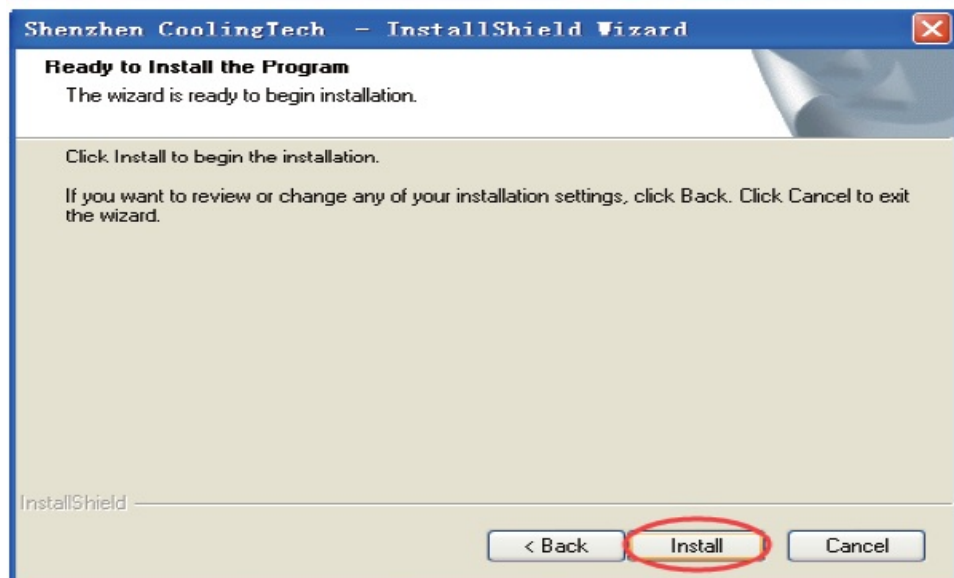
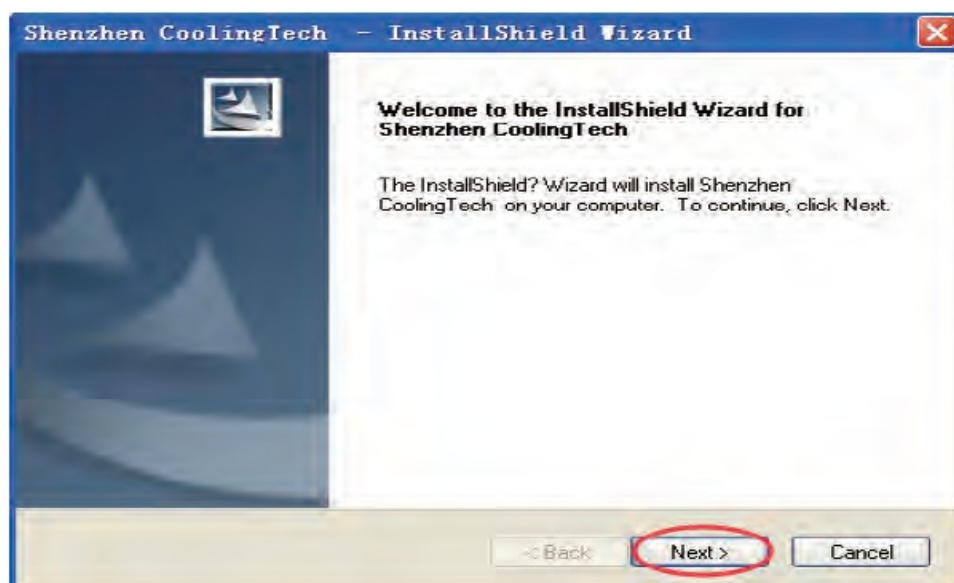
How to install the Driver software

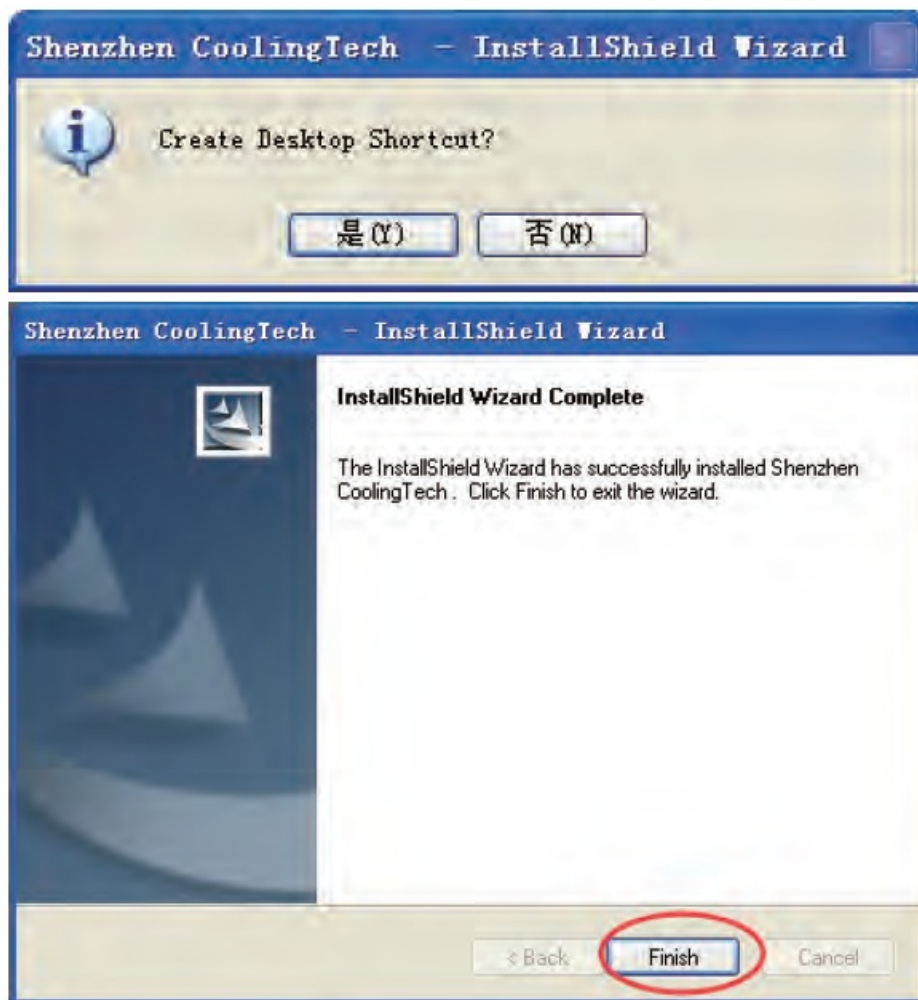
- Click  to continue, the screen will show the installation progress.



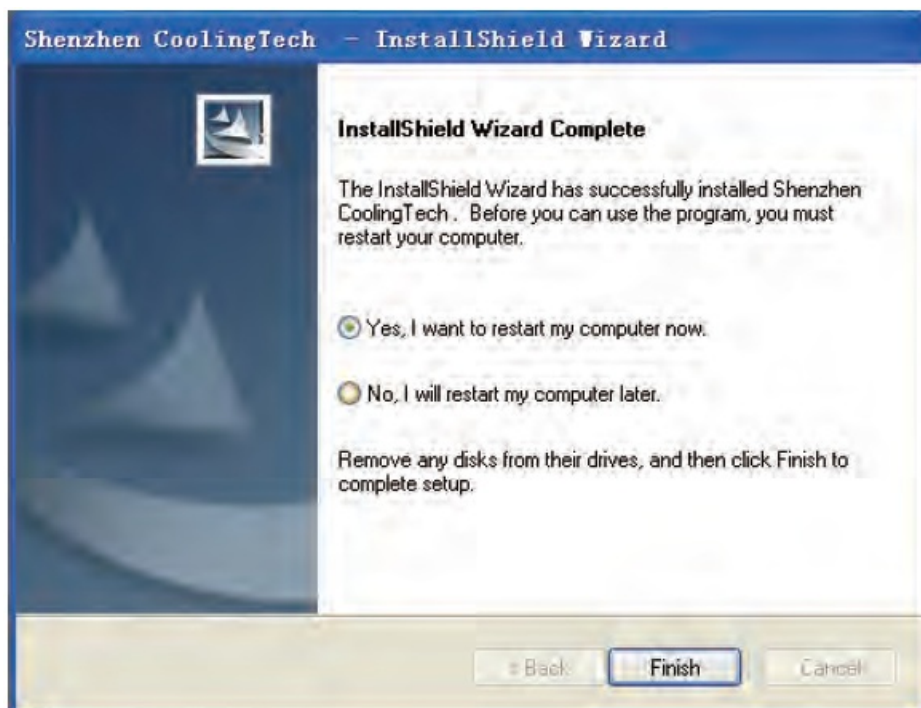


- Click“Next”——Click“Next”——Click“Install”——Click“(Y)”——Click“Finish”



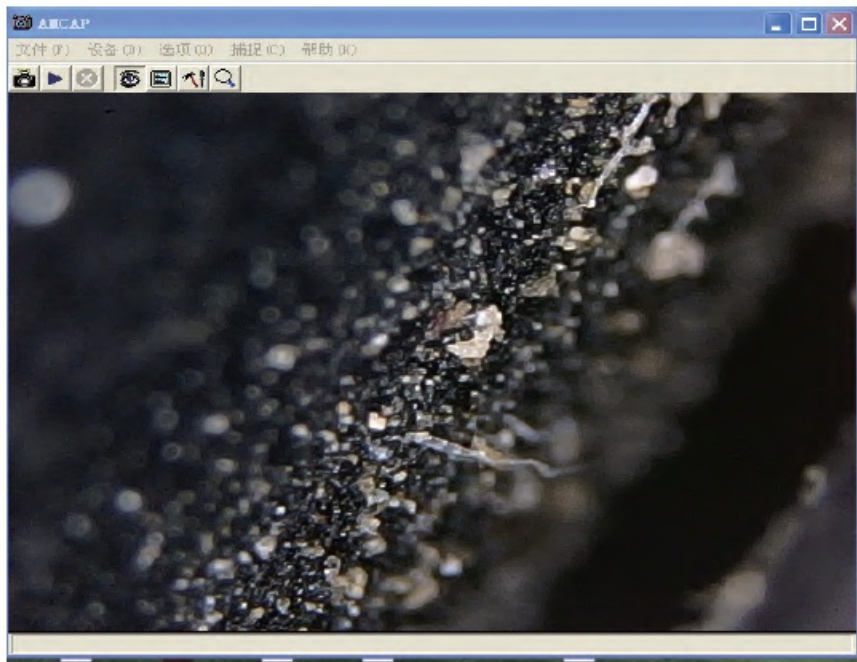


- Select 'Finish' at last. Driver installation completed, if it is the first installation, it is recommended to restart your computer. If warning information appears, please click "continue".

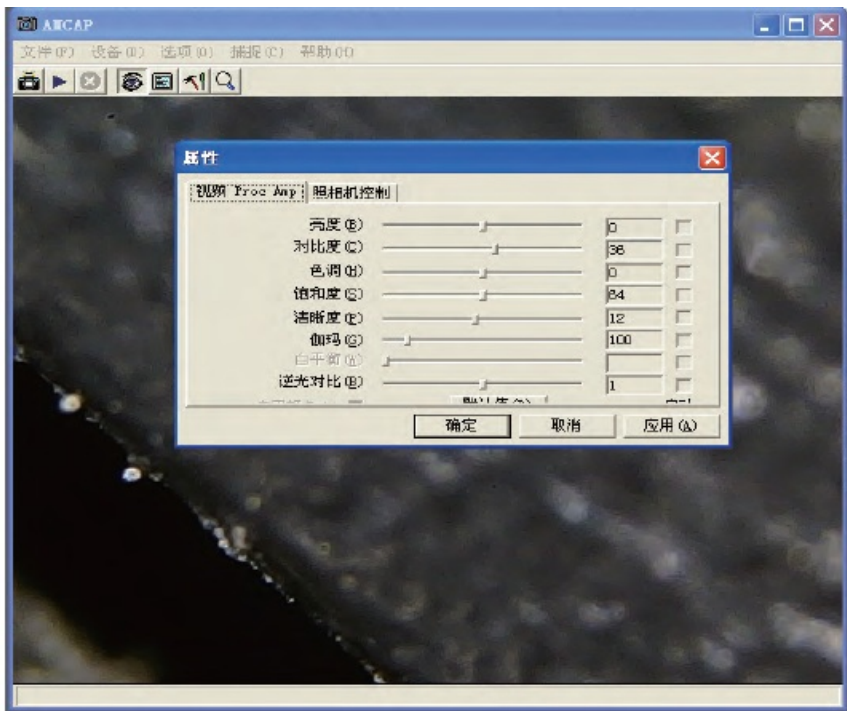


- After the installation is complete, the following icon appears on the desktop, double-click the icon, click on

the “device” option, and select “USB 2 PC camera”, will see the picture of the microscope capture



- options in the Menu bar can be set according to needs, for example, click the “Options” – “set the video effect”, in the dialog box, you can adjust the picture effect. If you need to restore default settings, click “default”.

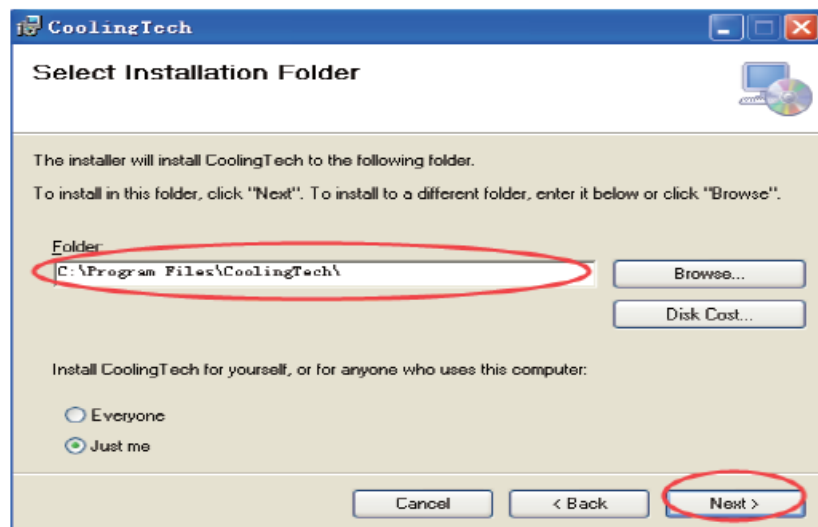


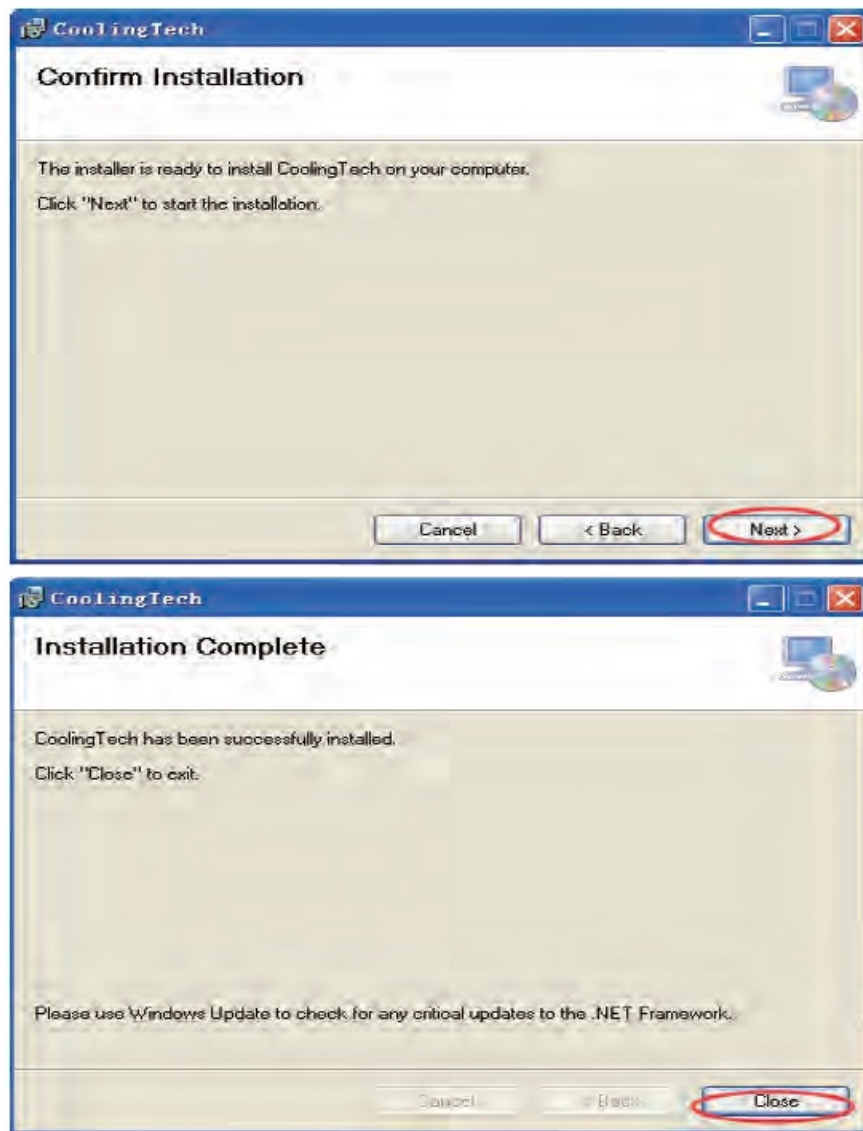
note in the amcap software, the 'ZOOM' button can increase the magnification 5 times; and a double click or long-press the 'SNAP' button can take the photo. Set photo save path: select 'capture' , set image path'. The amcap software can do general observation, if you need to measure objects, please install “Coolingtech” software on the CD. installation steps as follows:

How to install the measurement software



- Please connect the product to your computer before installation. click measurement **Measurement** open CD, double click Measurement.exe, select 'Next' →setting setup path, select 'next'→select 'close'.In the installation process, if the system prompt needs to install 'Net framework V2.0', then open the 'dotnetfx.exe' in CD, to install Net framework V2.0, then you can successfully install measurement software.

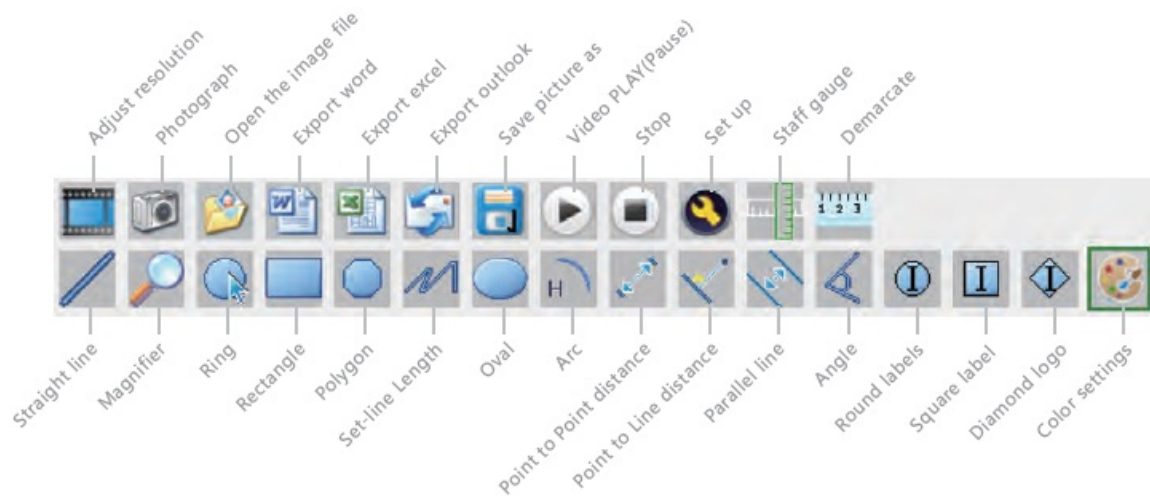
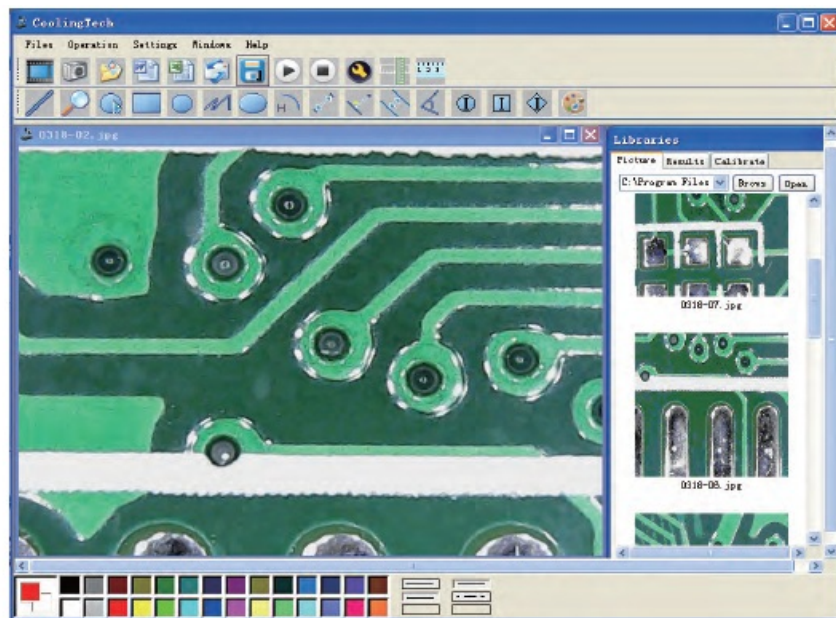




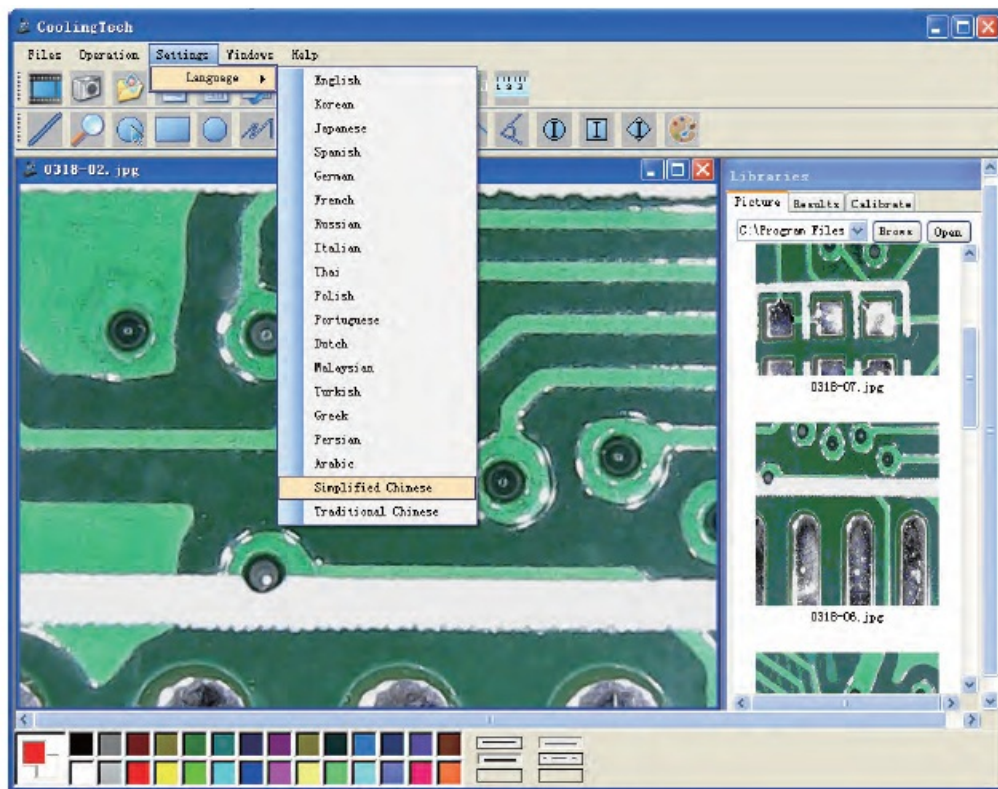
- After the successful installation of the program, click on the desktop called “CoolingTech MicroScope” folder, and enter the following interface. Double-click the ‘CoolingTech MicroScope’ Icon.





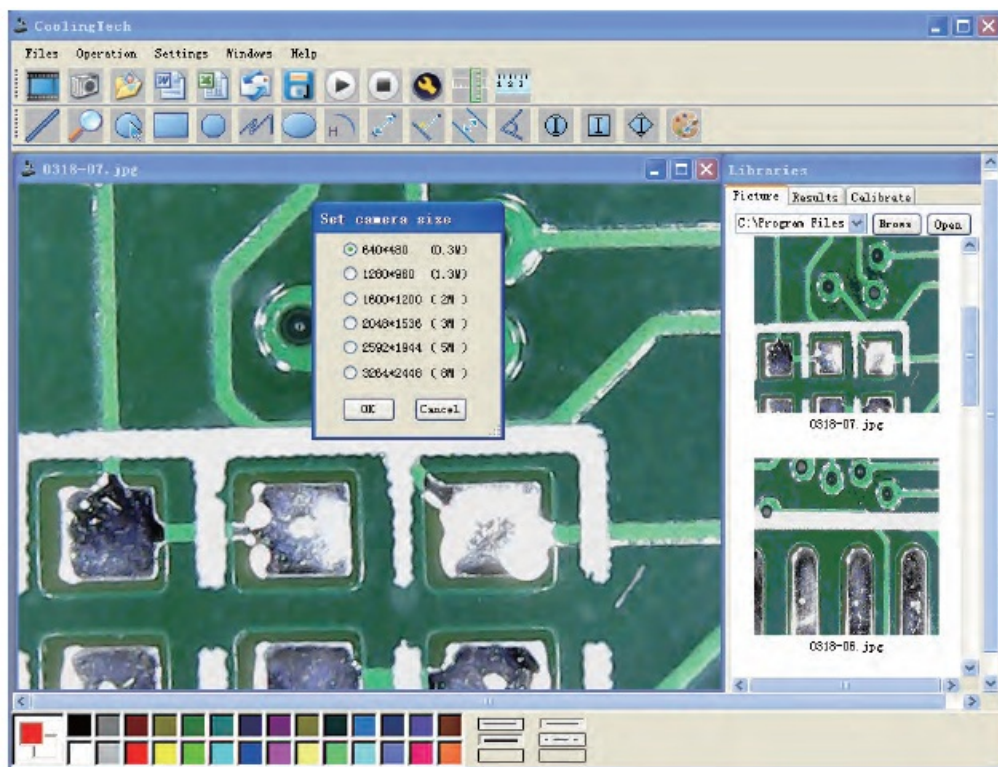
- Follow the prompts to connect the device, the program automatically runs to the main interface.




- 19 languages are optional: “set” – “language” – (select the language you want)



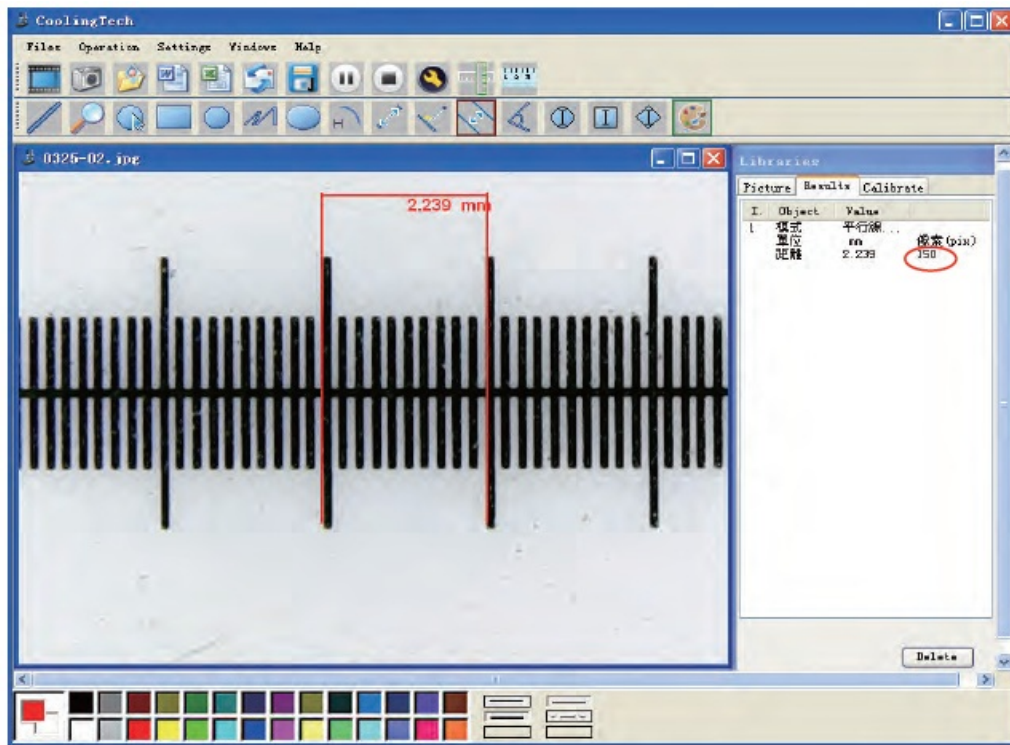
- Click  and select the video resolution, The video resolution range is 320*240 to 1960*1080, and the default resolution is 640*480. click  to take pictures. The latest pictures at the top.



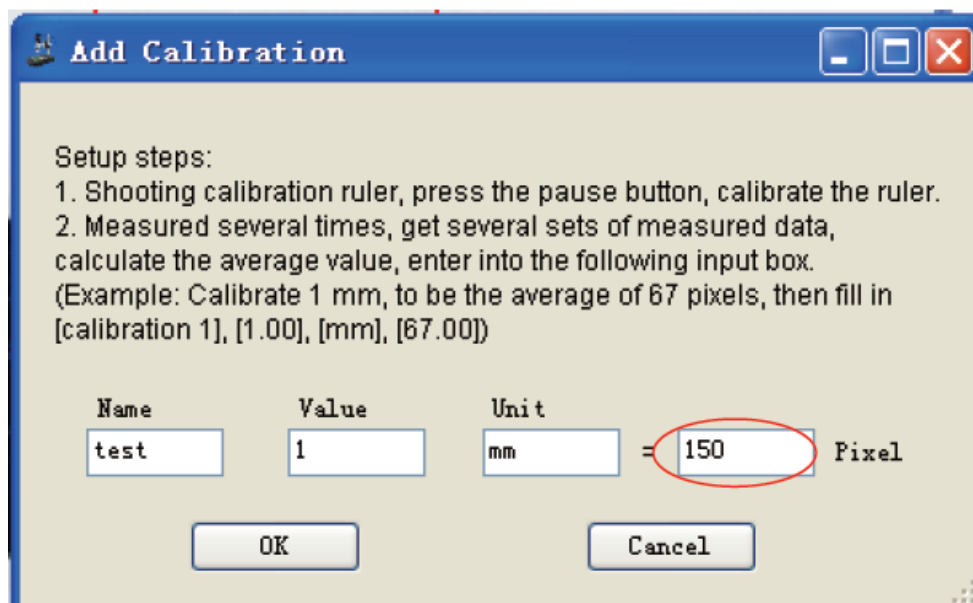
How to do the calibration


- Put the microscope on the calibration ruler gift with the product , adjust the roller to get a clear picture, press pause, and click the icon  to do a calibration To improve the measurement accuracy, you must do calibration

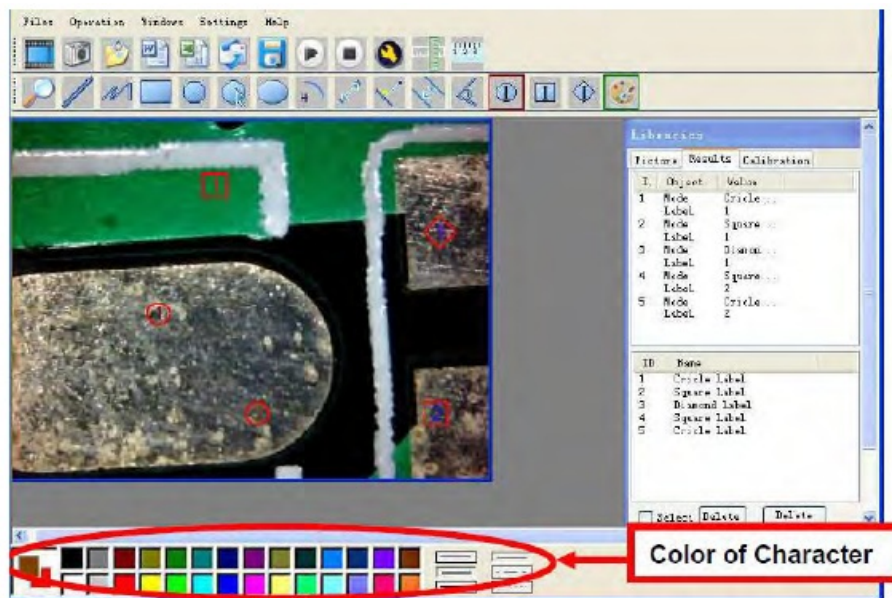
before using the microscope to measure. the magnification change each time, the calibration should be changed. It is recommended to measure the same actual value several times, and then take the average value.




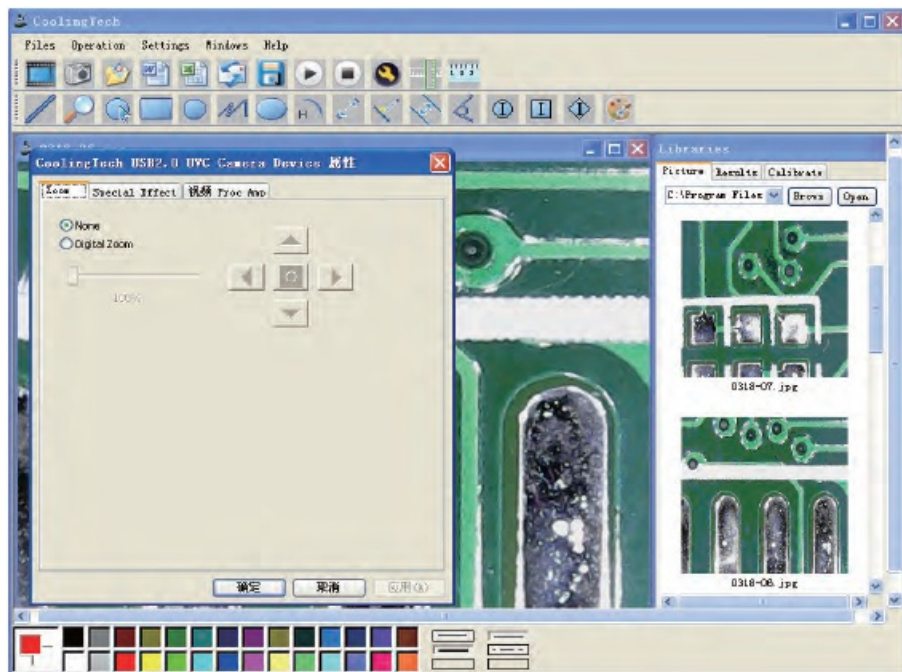
- Enter the actual distance value and the corresponding unit. The calibration is done. This calibration can be used to measure at this magnification.
- **Note:** magnification change, must be corrected, calibration result will be different at the same time.




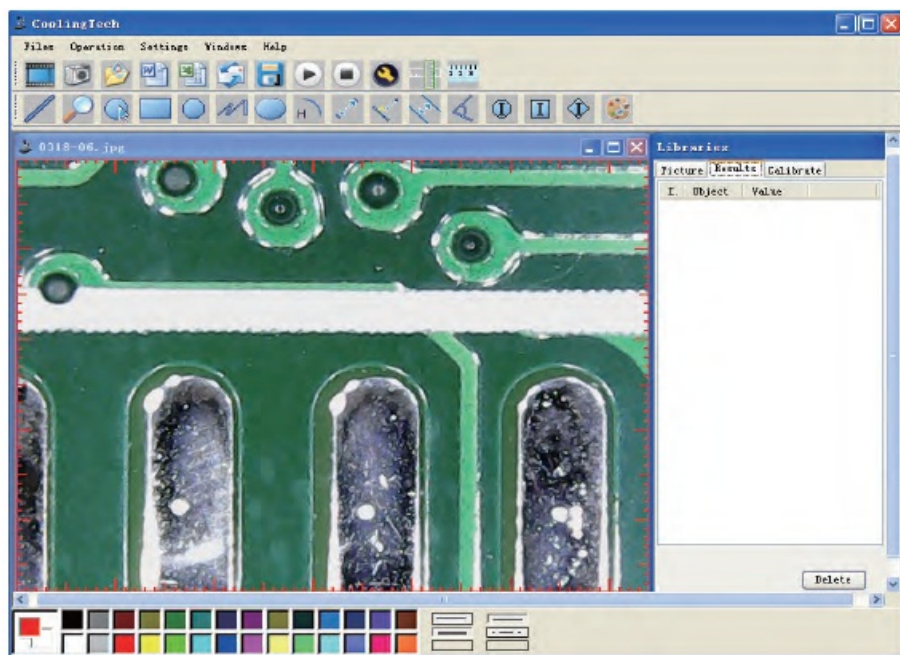
- Calibration is done, do not make any changes to the microscope, replace the object with the calibration ruler, and put it in the right position before the microscope. Click  to take pictures. Double-click on the image, then you can measure it. The software can measure various points, lines, shapes, lengths, angles, radians, and other parameters. Measurement results can be exported by Word or Excel, or mail.




- Click  set screen brightness, contrast, and other parameters.



- Click  Ruller, as followings

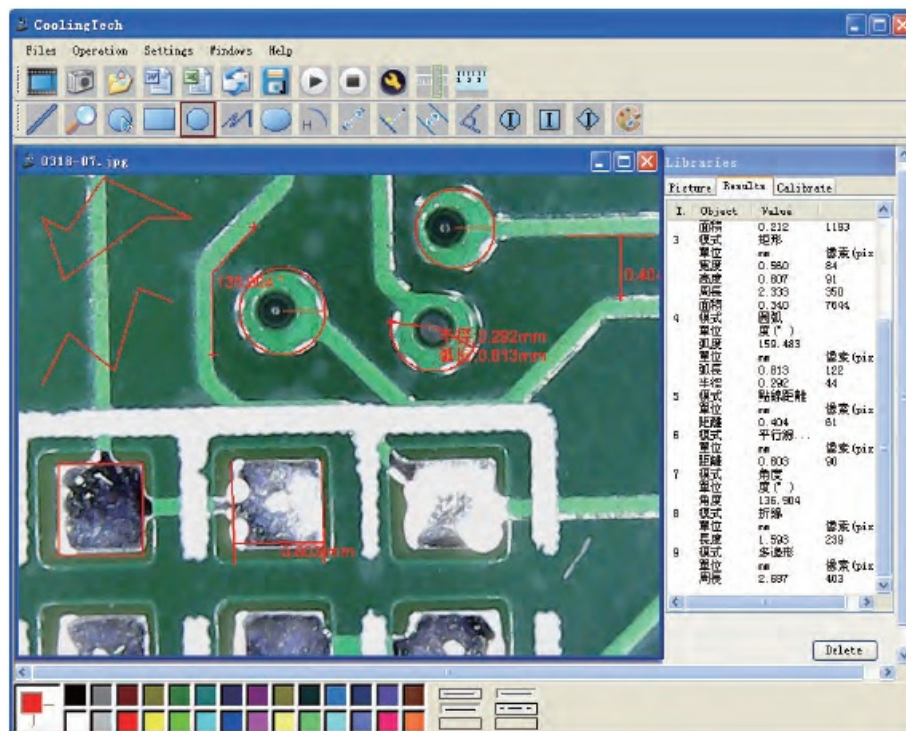


-  Annotation and color selection



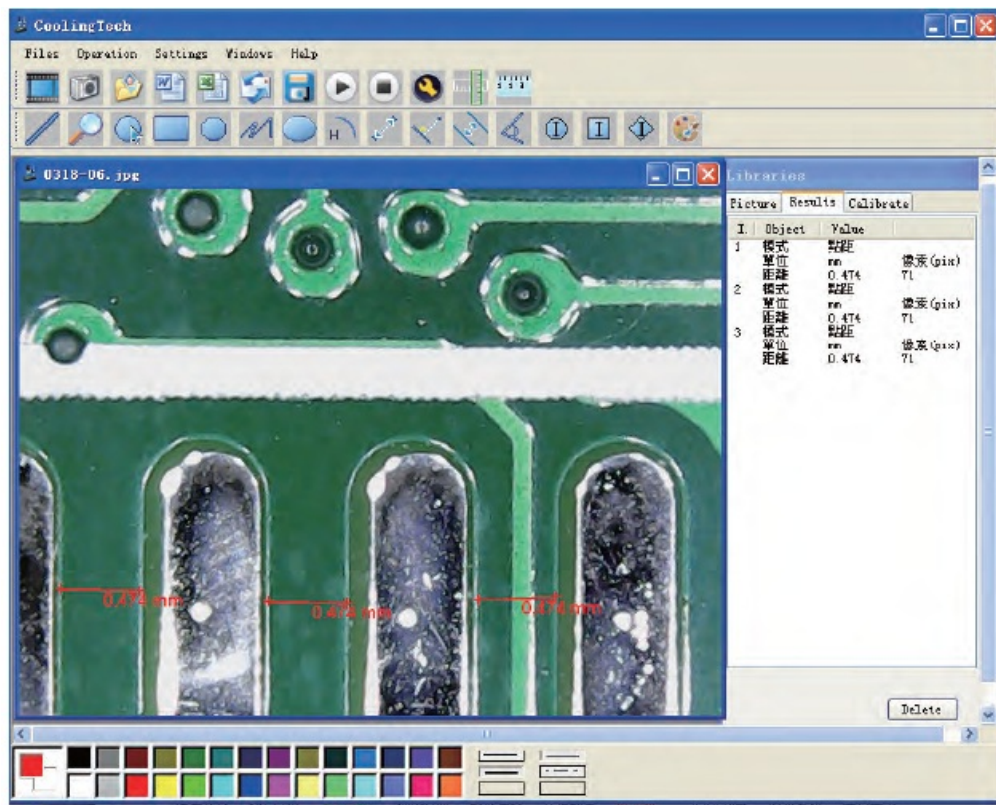
Icon Description(left to right)

- Linear measurement, circular measurement, rectangular measurement, polygon measurement, curve measurement, ellipse measurement, arc measurement, point-to-point measurement, point-to-line measurement, parallel line measurement, angle measurement.



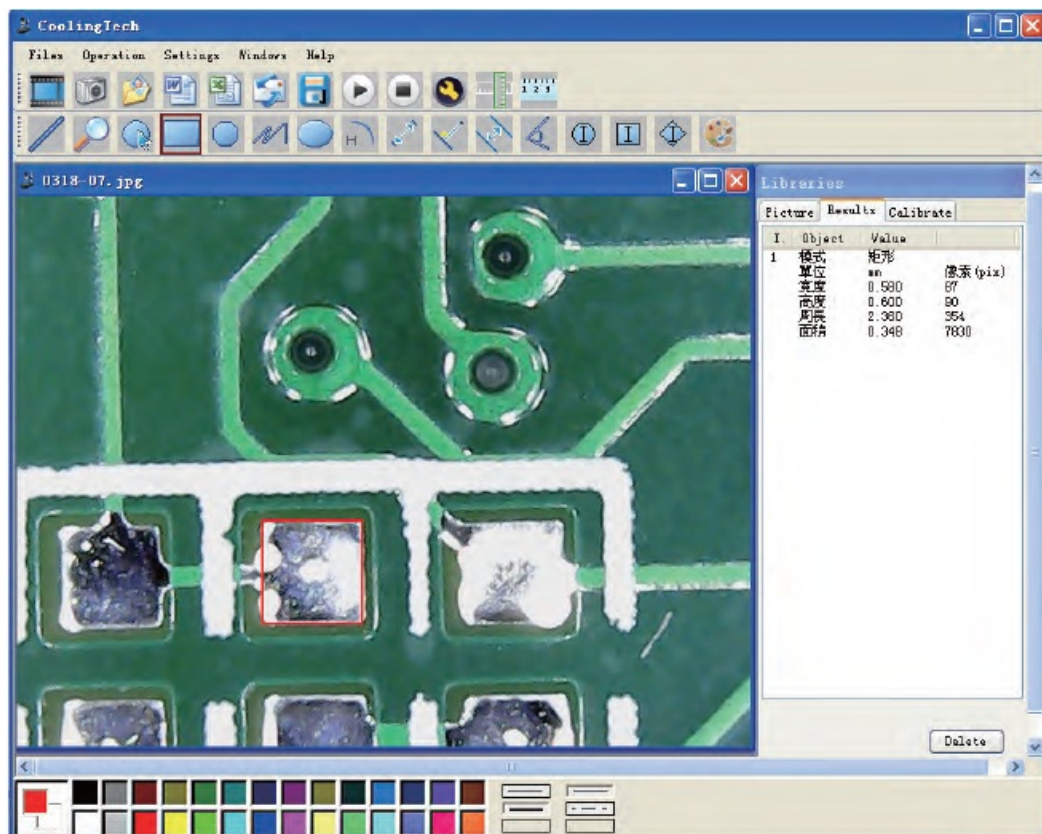
For example 1

- Line measurement:



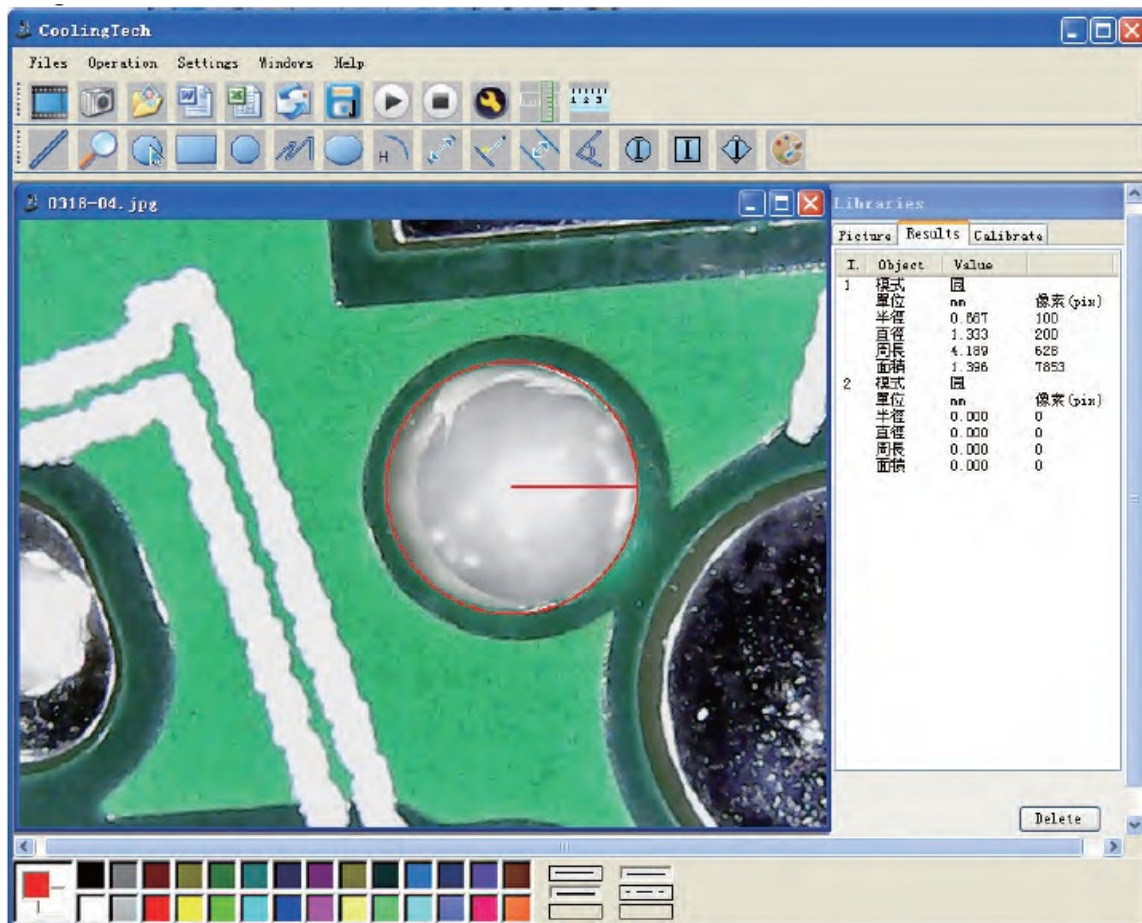
For example 2

- Rectangular measurements:




For example3

- Ring measurements:



Documents / Resources

	<p>coolingtech USB211 Digital Microscope [pdf] User Manual TV211, USB211 Digital Microscope, USB211, Digital Microscope, Microscope</p>
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References

- [User Manual](#)

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