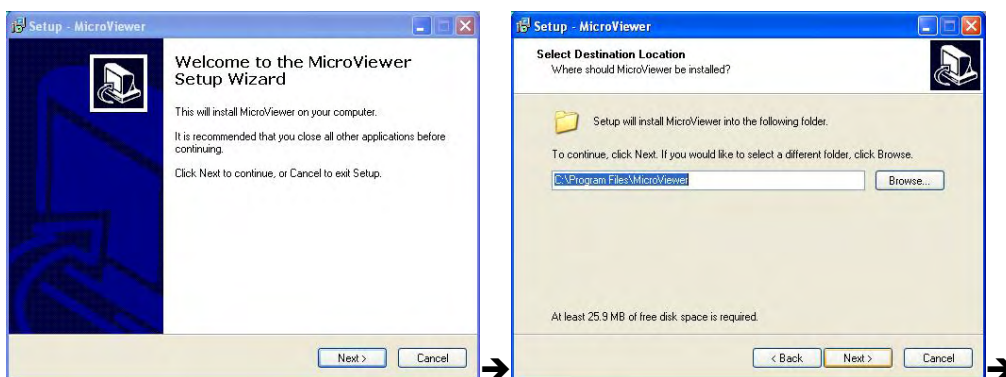


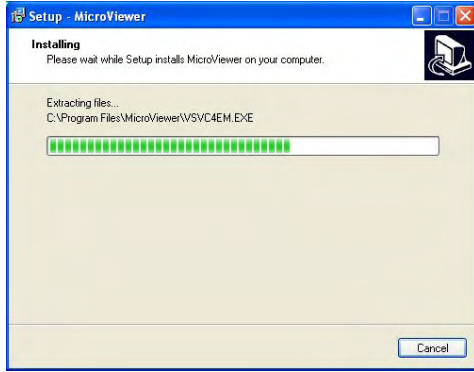
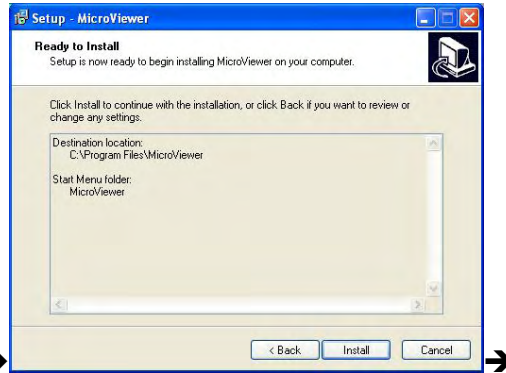
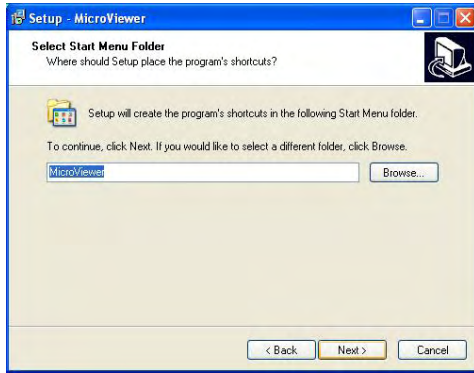
# Installation Instructions

1. Please insert the software installation CD into CD-ROM drive, the installation program will show up automatically.(If the software installation program didn't show up, please double click QutoRun.exe in the CD-ROM folder)
2. Please click MicroViewer button for installing MicroViewer software ◦



3. Install the MicroViewer program ◦



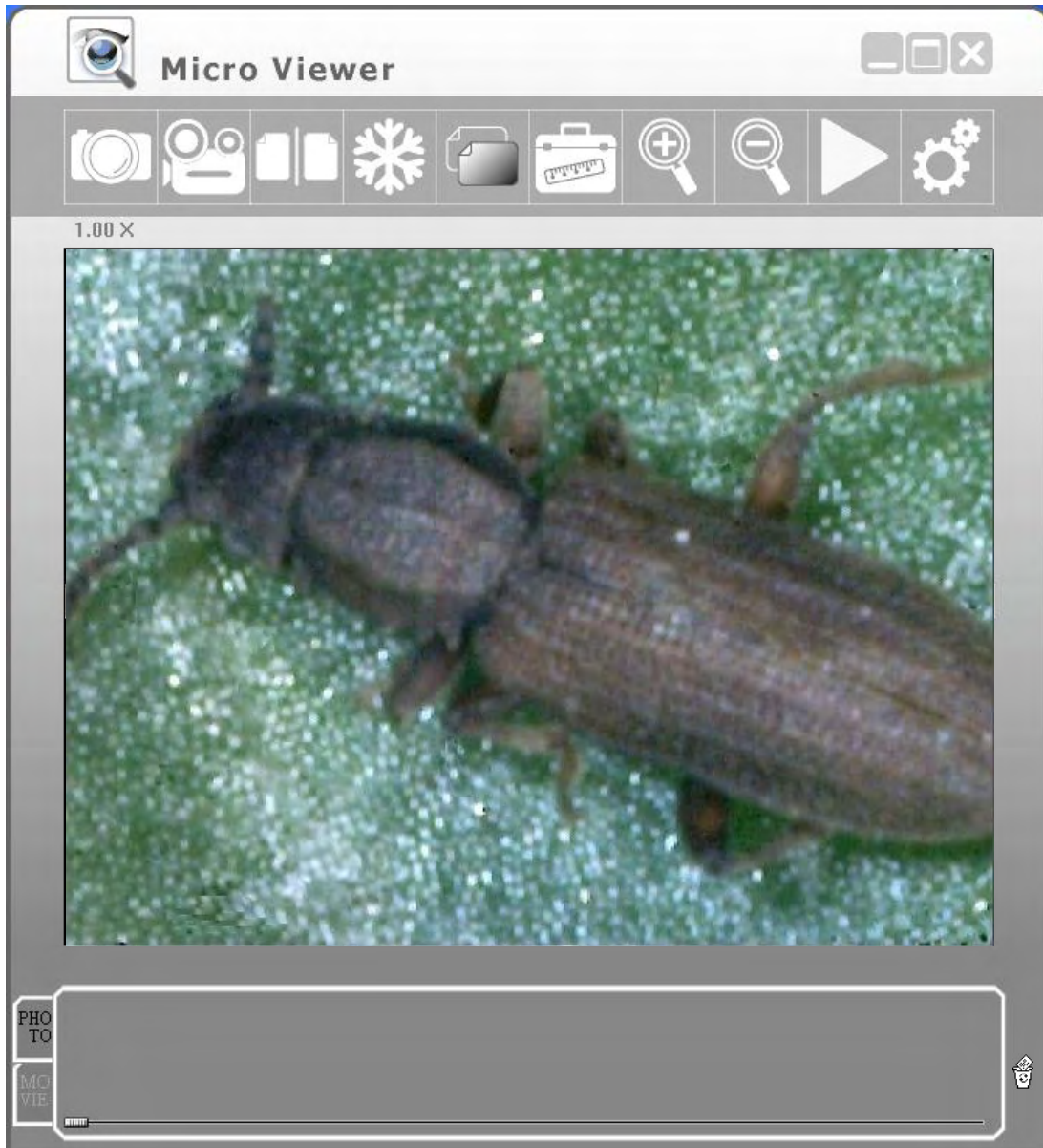


## ● Software application




1. Double click MicroViewer on your desktop ◦
  - Note:1.Please make sure connecting the Digital Microscope USB cable to the USB port.
  - Note:2.Please key in the Serial Number which you can find on the paper CD envelope or just press the Evaluate button for trial.












- MicroViewer window will show up and you can see the live image through the Microscope.



***Function Key lists:***

	<p>Snapshot :</p> <p>Take a picture</p> <p>Hot key : F3 、 snapshot of device ◦</p>
	<p>Record :</p> <p>Capture AVI video files.</p> <p>Hot key : F4 ◦</p>
	<p>Compare :</p> <p>Compare the live image with picture or video.</p> <p>(Please see the Compare chapter for more detail) ◦</p>

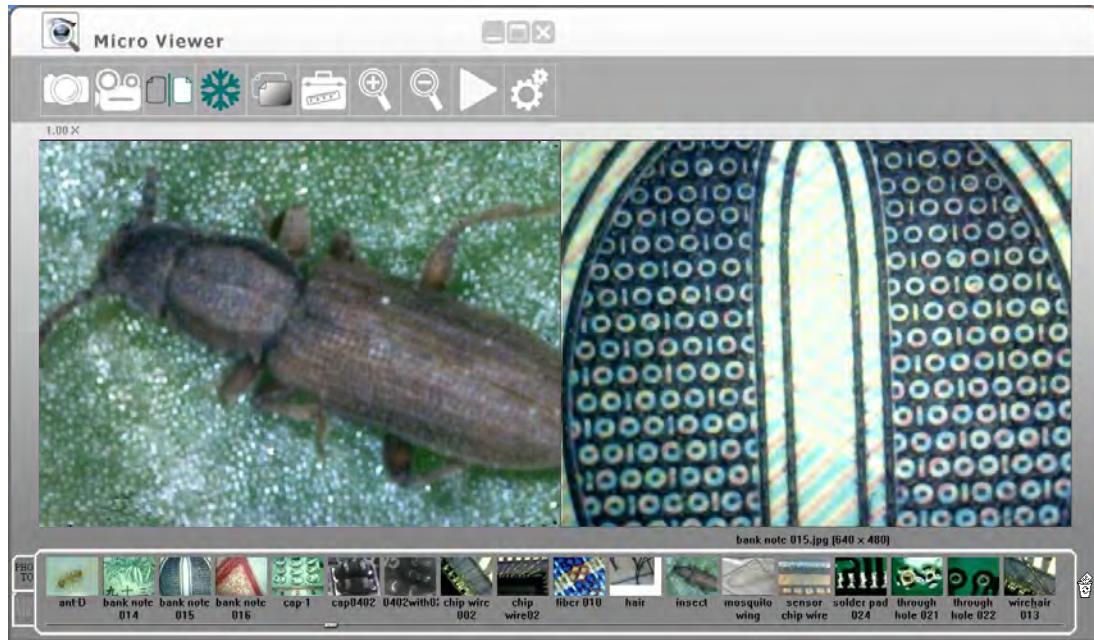
	Hot key : C ◦
	Freeze : Freeze the live image. Hot key : F ◦
	Save clipboard : Copy the live image to clipboard.
	Measurement : Measure lines, circles, angles, rectangles, triangles or radii. (Please see the Measurement chapter for more detail) ◦ Hot key : M
 	Zoom in / out : Select the zoom-in and zoom-out function on live image or existing pictures. The maximum of magnification is 6x, and it support arrow keys on the keyboard to move the image. Hot key : + 、 -
	Play : Playback the last recording video.
	Video Setup : The setup window. (Please see the Video Setup chapter for more detail) ◦ Hot key : V
	Zoom screen : Click “full screen” icon or double click the live image, it will switch to full screen.
	Exit: Close MicroViewer Hot key: X

Compare :

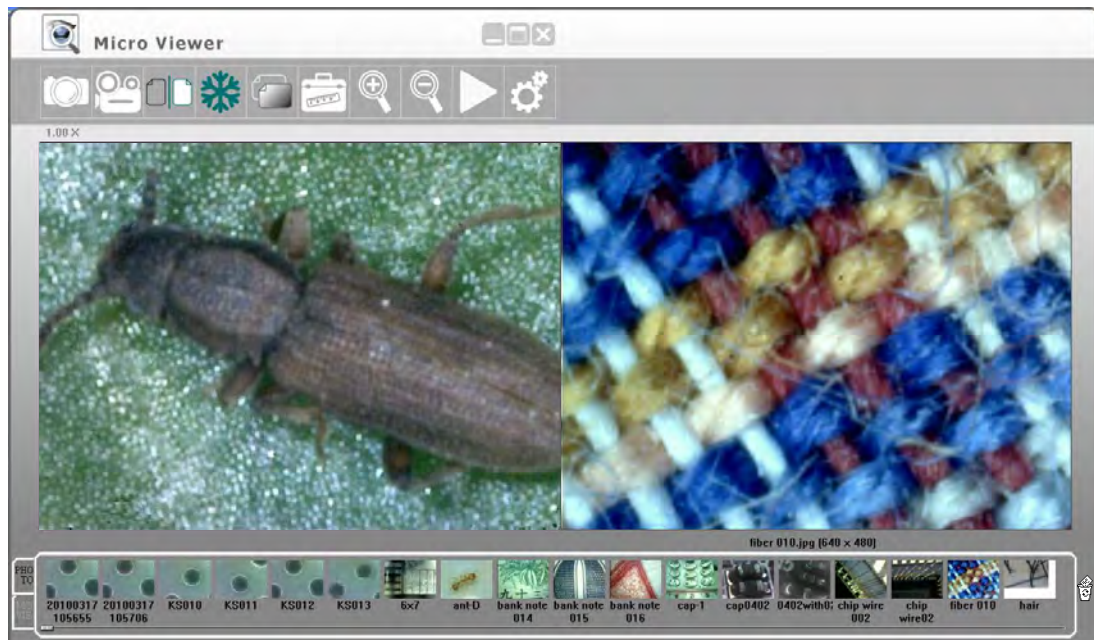
Please click the Compare button, and the compare window will show up.

**Warning:** To get better operation, the screen resolution requirement is at least 1440\*900 pixel



Live image shows in the left zone, and you can drag a picture in the list bar to right zone.

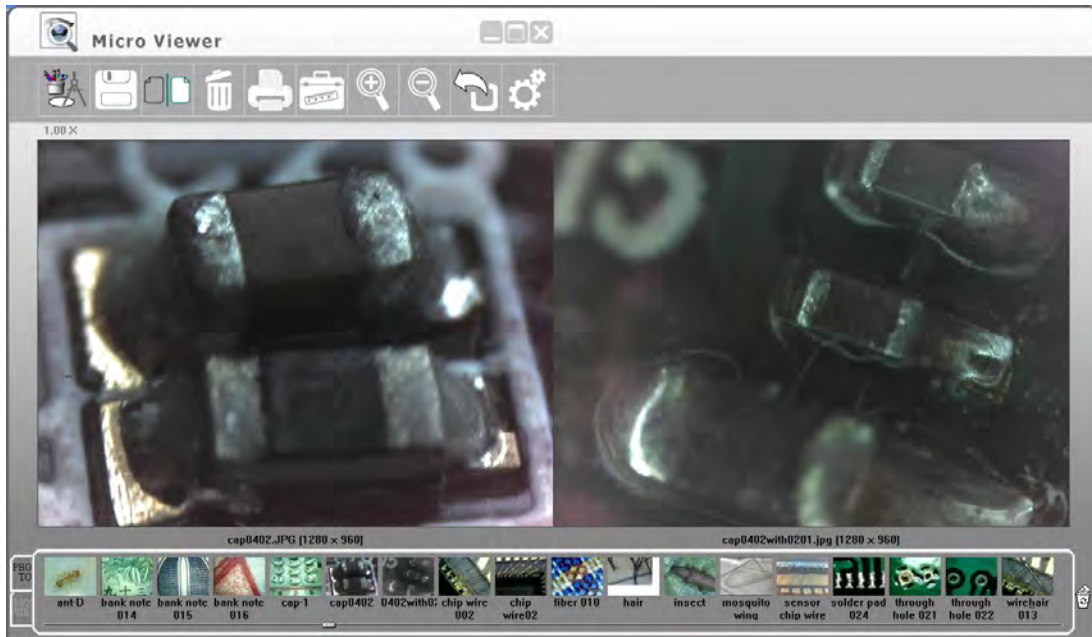


It supports freeze function to compare two images.



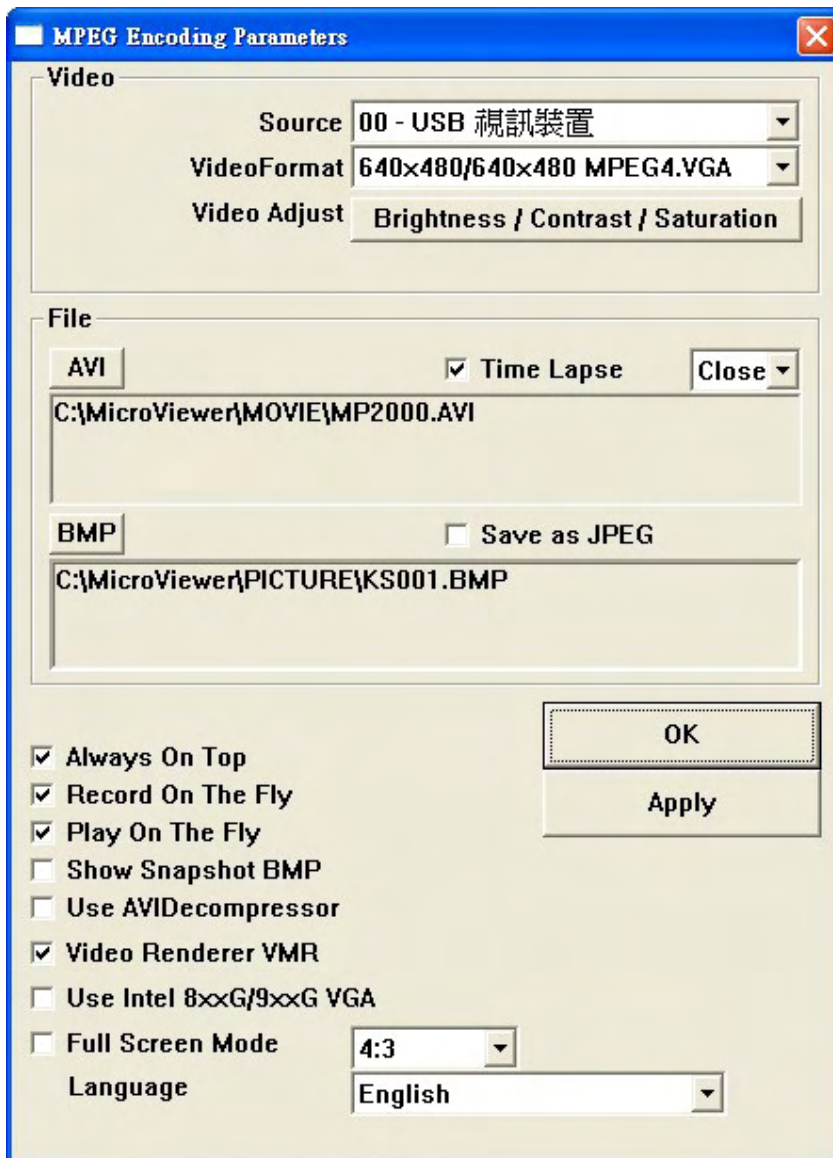
It also supports dragging two pictures and compare two existing pictures.

3. Please click  (Go Back) button or  (Compare button) to back normal mode °



## Video Setup

Click the Setup button, the following window will appear:



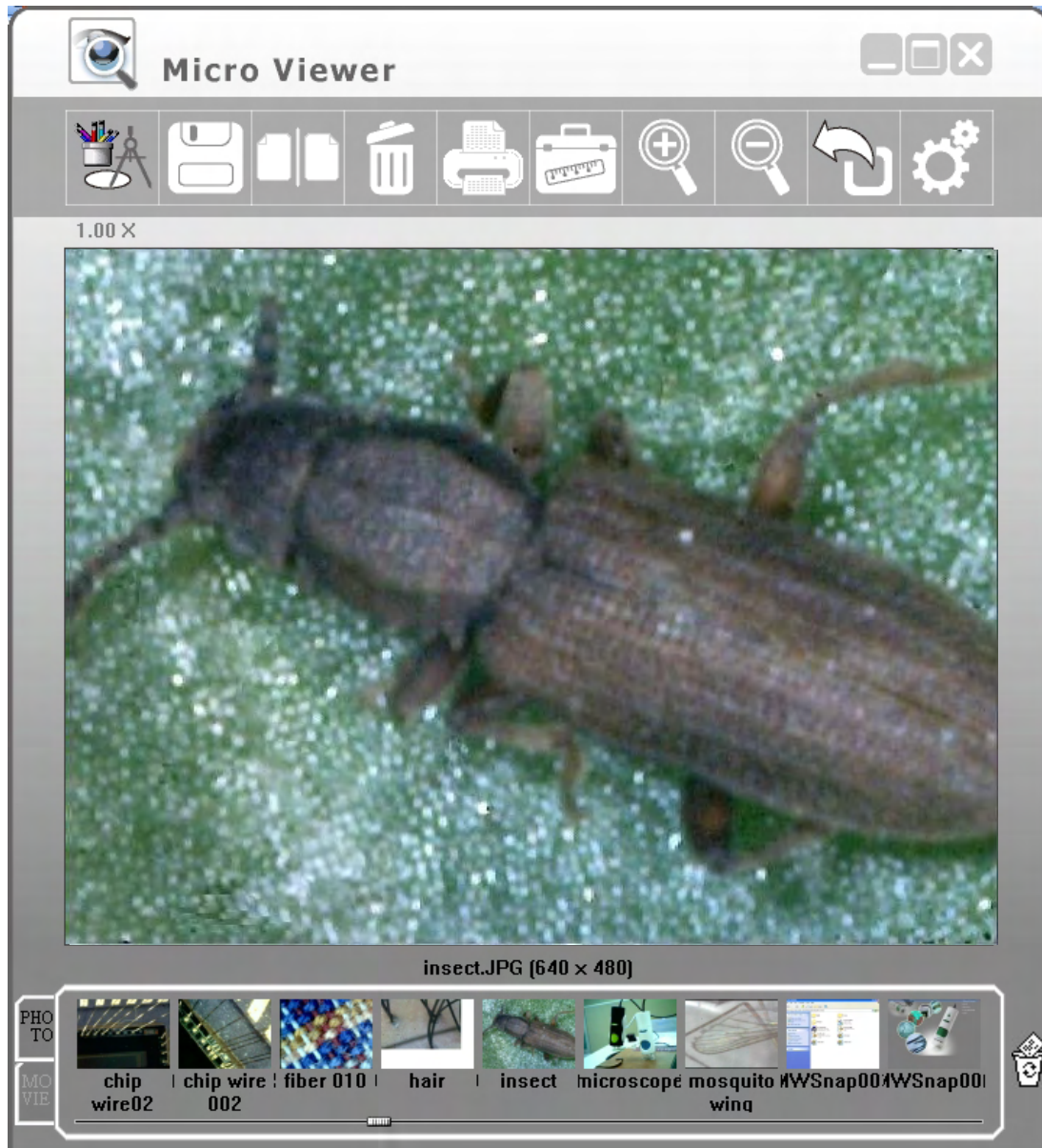
- Source : It allows user to choose the image source if there are more than one microscope connecting the PC.
- Video Format : It supports two options:640\*480 or 1280\*1024.  
Note: The Snapshot and Record format will be changed at the same time.
- Video Adjust : Change the Video values.
- AVI : Set up the video saving location and file name.
- Time Lapse : If you need time-lapse function, please check the box and select the time-lapse rate.
- BMP : Set up the picture saving location and file name.  
If you want to save JPEG files, please check the Save as JPEG box.
- Always On Top : If you check this box, the MicroViewer window is always on the top layer.
- Record On The Fly : Recording on the fly.











- Play On The Fly : Play the latest video automatically.
- Show Snapshot BMP : After snapshot, the preview window will appear.
- Use AVIDecompressor : Under some special computers, image zoom shows abnormal image. Please check this box to solve this problem.
- Video Renderer VMR : Please mark this box for most of computers.
- Use Intel 8xxG/9xxG VGA: Under some special computers with Intel chip, live zone shows abnormal image. Please mark this box to solve this problem.
- Full Screen mode : If the full screen mode box is checked, MicroViewer will start on full-screen mode automatically.
  - 4:3 : Live zone will keep in 4:3 aspect ration. This mode is suitable for measurement.
  - FULL : The screen will be filled with live zone. Objects would be expanded possibly.
  - ICON : The Screen will be filled with MicroViewer, and all function buttons will be kept. In this mode, image will be expanded and it is not suitable for measurement.

## Preview picture mode

Drag the picture to the live zone or just double click the picture in the list bar. The Image will show in the live zone for editing.

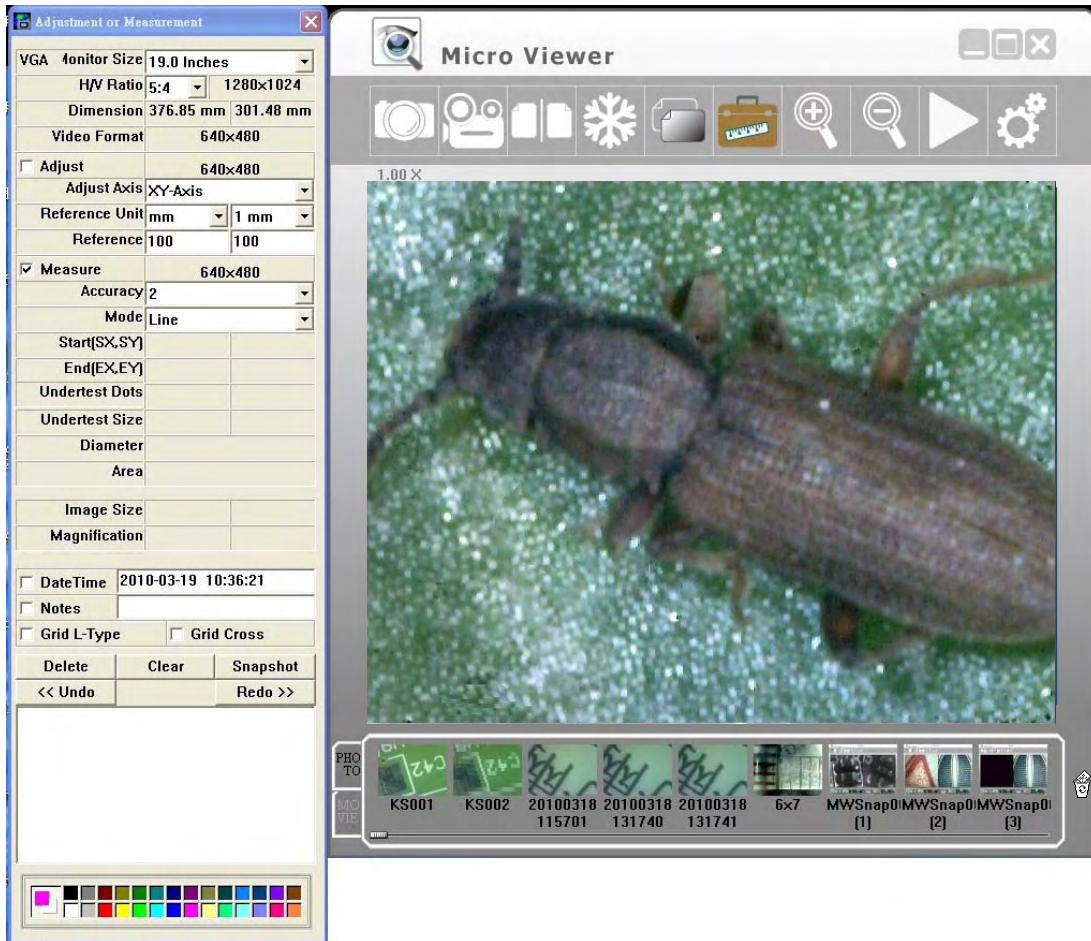


	<p>Drawing mode :</p> <p>Click the Drawing mode button, Microsoft Paint will appear. After editing, please close Microsoft Paint, and the image will update automatically.</p>
	<p>Save file :</p> <p>Click this button to save as a new file. New file name will be renamed by date and time. Hot key : S °</p>

	<p>Compare :</p> <p>Enter Compare mode (Please see the Compare chapter for more detail) ◦</p> <p>Hot key : C ◦</p>
	<p>Delete :</p> <p>Click Delete button to delete image. If you want to recover this file, just click Save file button.</p> <p>For deleting files, you can also hold the picture in the list bar by the left button of mouse and drag to the Delete icon.</p> <p>Hot key : D ◦</p>
	<p>Print file :</p> <p>Print the picture.</p>
	<p>Measurement :</p> <p>To measure lines, circles, angles, rectangles, triangles or radii. (Please see the Measurement chapter for more detail) ◦</p> <p>Hot key : M</p>
 	<p>Zoom in / out :</p> <p>Select the zoom-in and zoom-out function on live image or existing pictures. The maximum of magnification is 6x, and it support arrow keys on the keyboard to move the image.</p> <p>Hot key : + ◦ - Hot key : + ◦ -</p>
	<p>Go Back :</p> <p>Back to the live mode ◦</p>
	<p>Video Setup :</p> <p>Enter the setup window. (Please see the Video Setup chapter for more detail) ◦</p> <p>Hot key : V</p>

## ● Measurement Function

Click Measurement button, and the measurement window will show up. You can measure the live image or existing pictures.



**Adjustment or Measurement**

①	VGA Monitor Size	19.0 Inches	
②	H/V Ratio	5:4	1280x1024
	Dimension	376.85 mm	301.48 mm
	Video Format	720x480	
③	<input type="checkbox"/> Adjust	640x480	
	Adjust Axis	XY-Axis	
	Reference Unit	mm	1 mm
	Reference	100	100
④	<input checked="" type="checkbox"/> Measure	640x480	
	Accuracy	2	
	Mode	Line	
⑤	Start(SX,SY)		
	End(EX,EY)		
	Undertest Dots		
	Undertest Size		
	Diameter		
	Area		
	Image Size		
	Magnification		
⑥	<input type="checkbox"/> DateTime	2010-03-18 10:10:23	
	<input type="checkbox"/> Notes		
⑦	<input type="checkbox"/> Grid L-Type	<input type="checkbox"/> Grid Cross	
⑧	Delete	Clear	Snapshot
	<< Undo		Redo >>
⑨			

Instruction of Measurement window:

① VGA monitor size : Please select the monitor size to make sure the exact magnification.

② H/V ratio : Select monitor aspect ratios to make sure the precise measurement.

③ Adjust : Adjust the calibration .  
Adjust axis : X axis /Y axis /X-Y axis .  
Reference Unit : Please select a unit of measurement and calibration .

There are three units: mm/inch/mil

④ Measure : Choose the measurement type.

Accuracy : The number is accurate to the 9<sup>th</sup> digit after decimal point.

Mode : Please elect a measurement mode from the following options:  
Angle / Circle / Ellipse / Line / Rectangle / Triangle / 3DotsRadius .

⑤ Data of the measurement.

⑥ Remarks : It supports Time and Notes .

⑦ Ruler guides : Check the L-type or Cross if you need this function.

⑧ Record history :

Record the measurement actions. It allows user to delete a record or clear all history records.

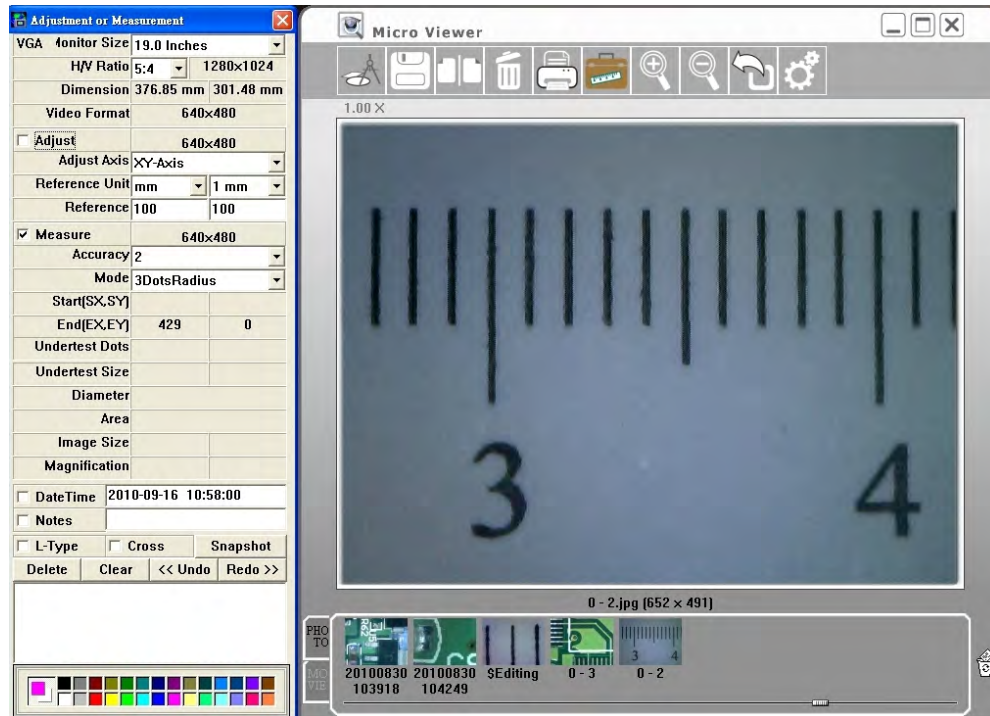
After finish the measurement, just click Snapshot button to save this picture.

⑨ Choose the color of the line and words.

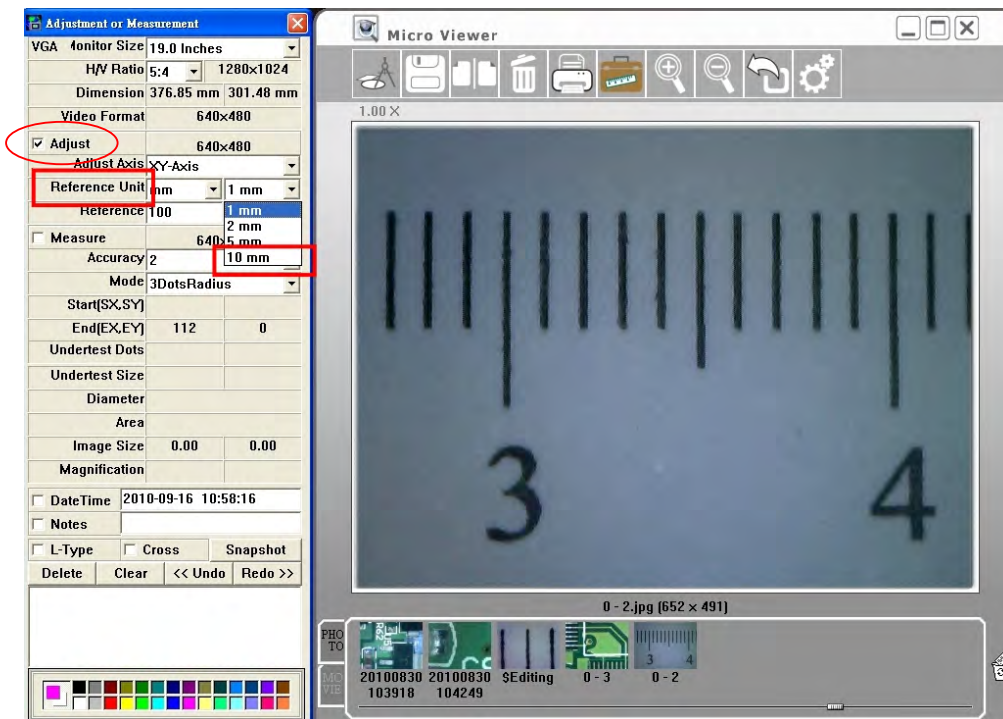
- Calibrate :

1. Please take a ruler, and adjust the focus knob until the image is sharp.
2. Click „Snapshot“ button to capture a picture, and double click this picture in the list bar.
3. Please click the “Measurement” button, the “Adjustment or Measurement” window will show up.

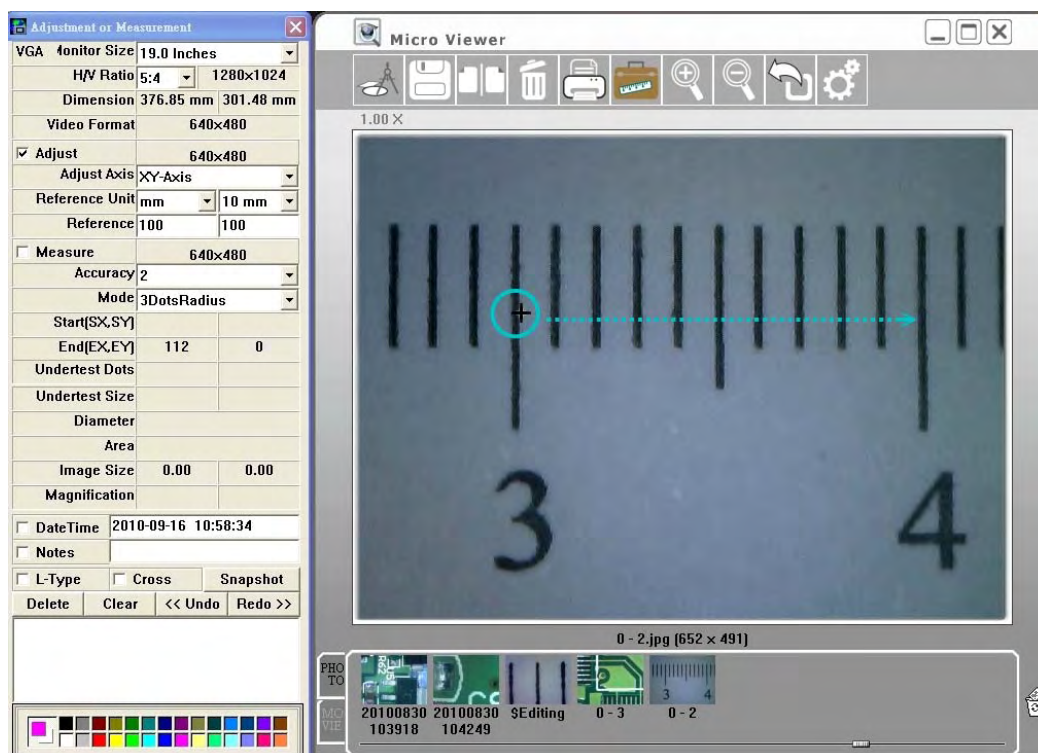
Note: Please calibrate again if you change the distance, magnification, or resolution.



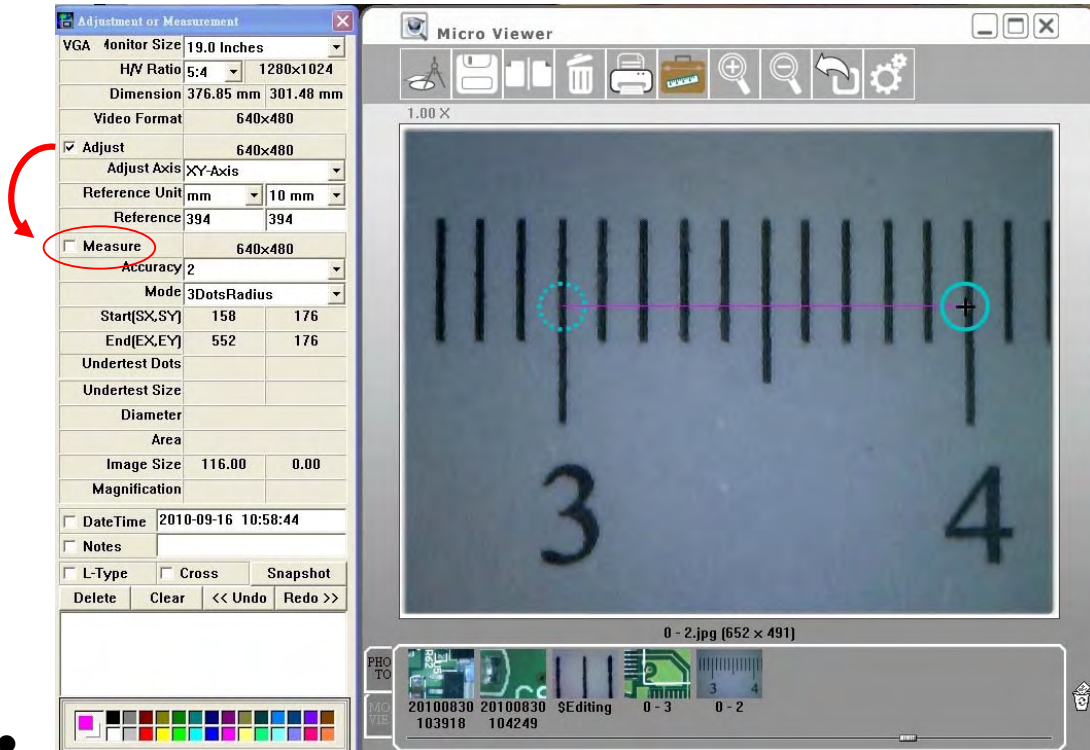
4. Mark the “Adjust”, and choose the “Reference Unit” according to the real dimension.  
EX: The real dimension between 3 centimeter and 4 centimeter is 10 millimeter.  
Therefore, we choose the 10 mm as the “reference Unit”.



5. Hold the right button at the point of 3 centimeter and drag to the point of 4 centimeter.



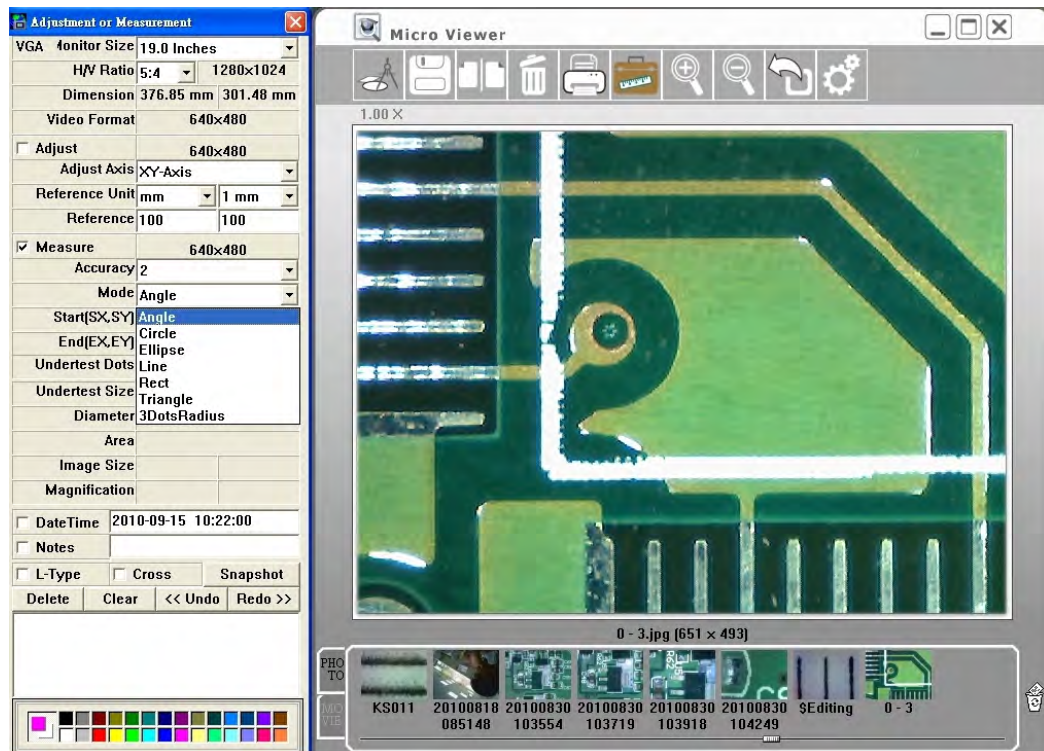
6. Release the right button, and calibration is done. Now you can proceed to measure.



●

● Angle Measurement:

1. Mark the "Measure" box. Then select "Angle" accuracy mode.



2. Hold the right button at the first point.



**Adjustment or Measurement**

VGA Monitor Size: 19.0 Inches  
 HV Ratio: 5:4 1280x1024  
 Dimension: 376.85 mm 301.48 mm  
 Video Format: 640x480

Adjust: 640x480  
 Adjust Axis: XY-Axis  
 Reference Unit: mm 1 mm  
 Reference: 100 100

Measure: 640x480  
 Accuracy: 2  
 Mode: Angle  
 Start(SX,SY): 435 108  
 End(EX,EY): 435 108  
 Undertest Dots:  
 Undertest Size:  
 Diameter:  
 Area:  
 Image Size:  
 Magnification:

DateTime: 2010-09-15 10:22:24  
 Notes:  
 L-Type  Cross  Snapshot  
 Delete Clear << Undo Redo >>

Color calibration chart with various color patches.

**Micro Viewer**

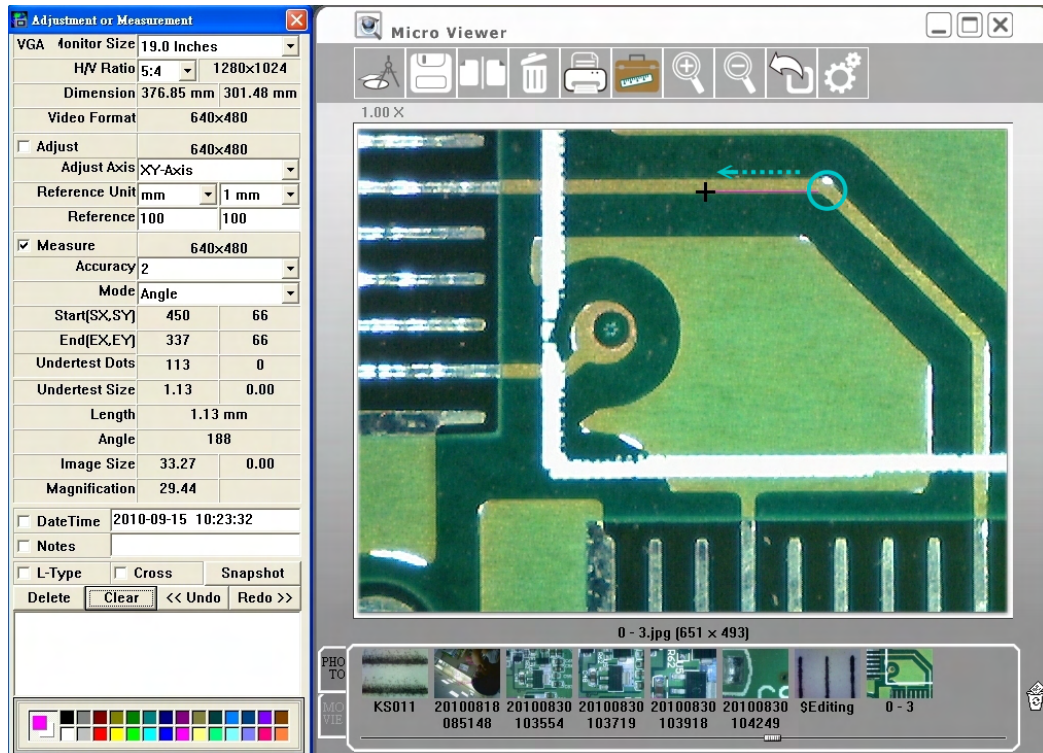
1.00 X

0 - 3.jpg (651 x 493)

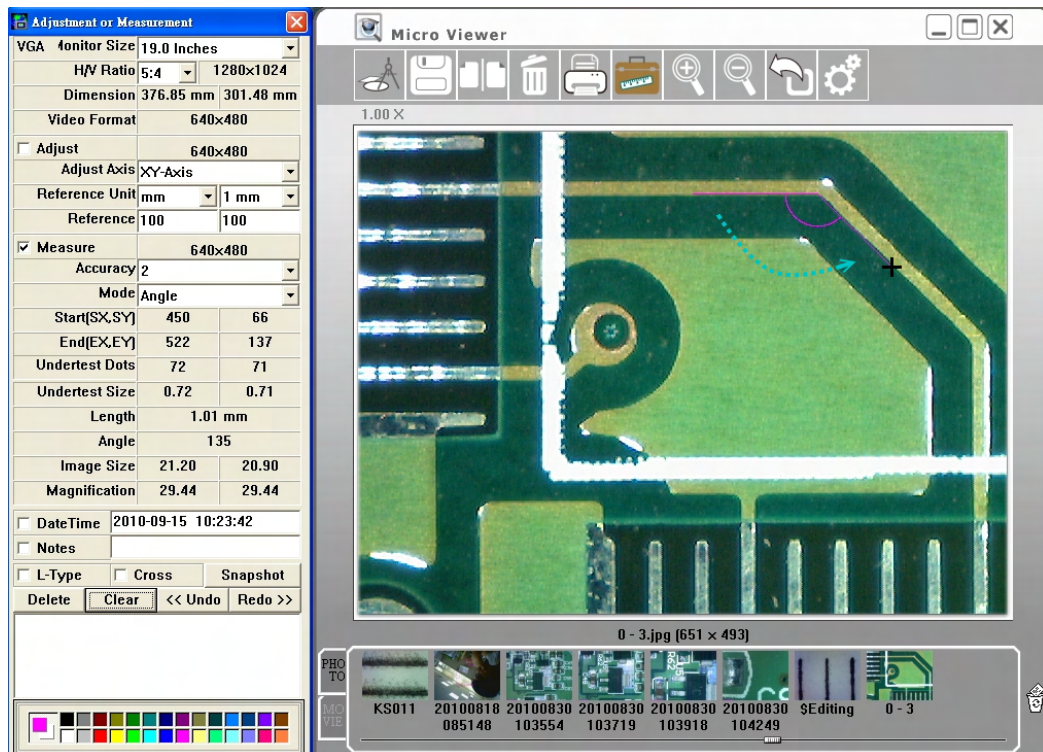
PHOTO  
 MS VIEW

KS011	20100818	20100830	20100830	20100830	20100830	20100830	\$Editing	0 - 3
	085148	103554	103719	103918	104249			

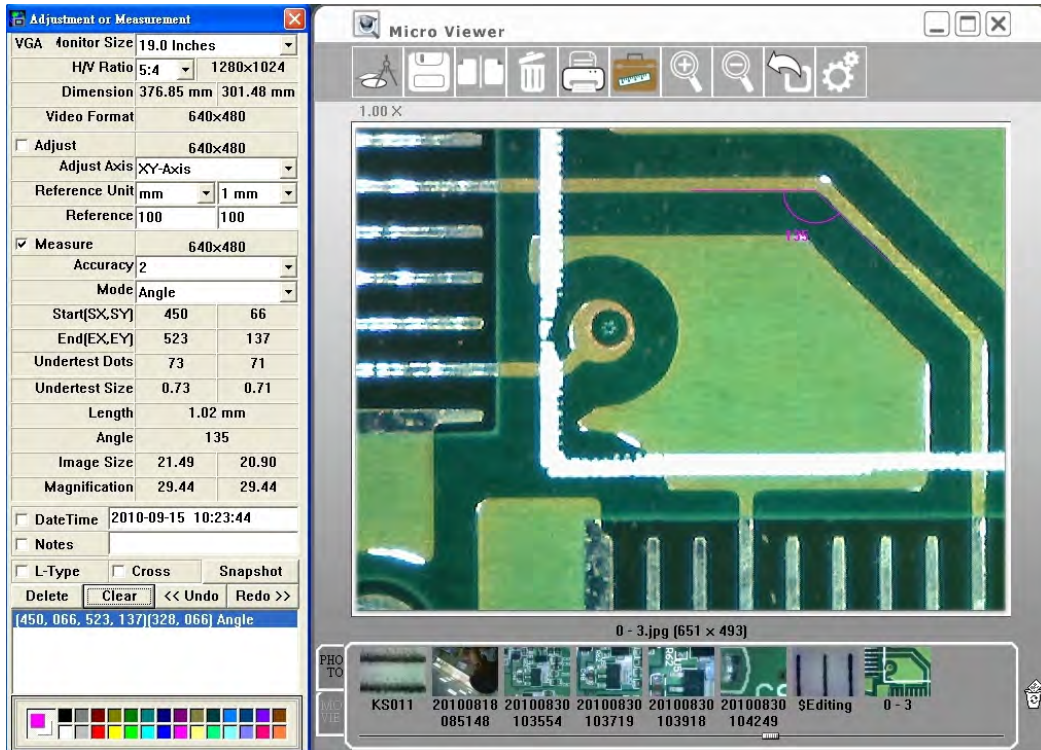
3. Drag to the left sight and release the right button.



4. Hold the right button and drag to the another side counterclockwise.

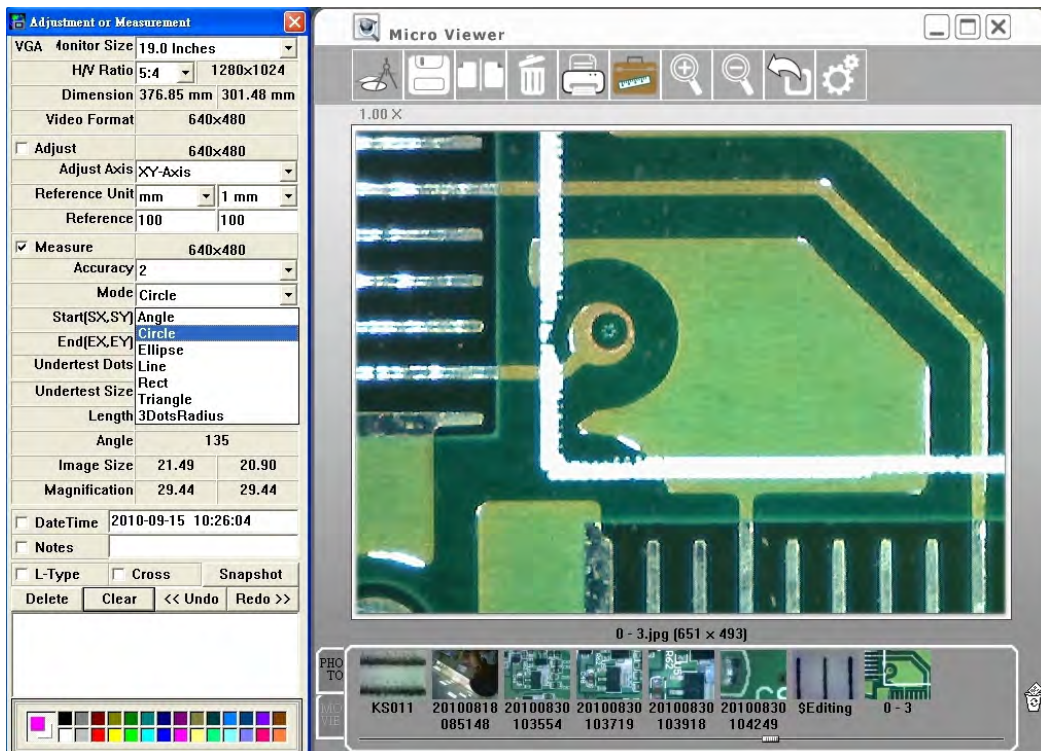


5. Release the right button, and the angle will show up.

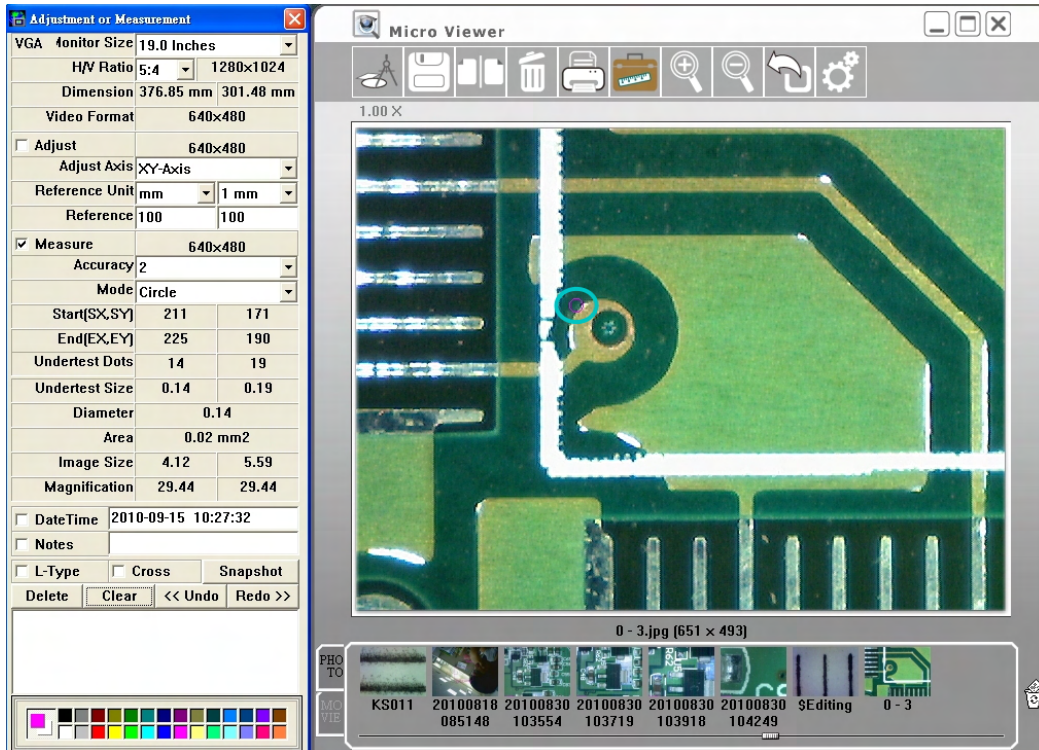


- Circle measurement :

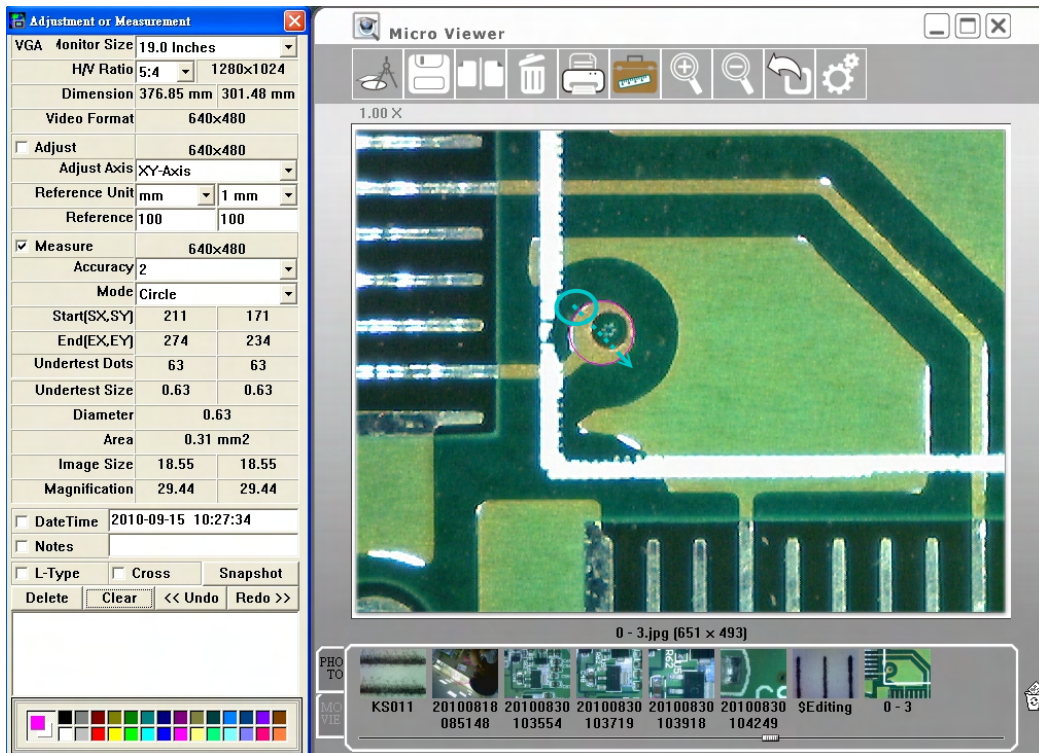
1. Mark the "Measure" box. Then select "Circle" accuracy mode.



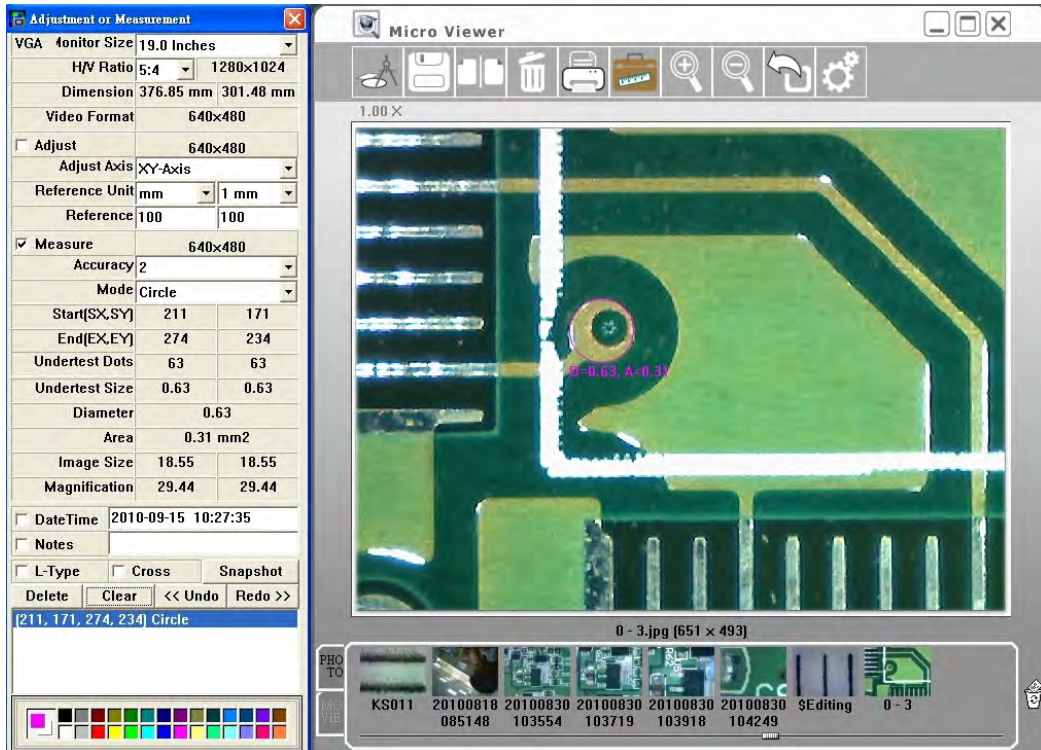
2. Hold the right button at the upper left of the object.



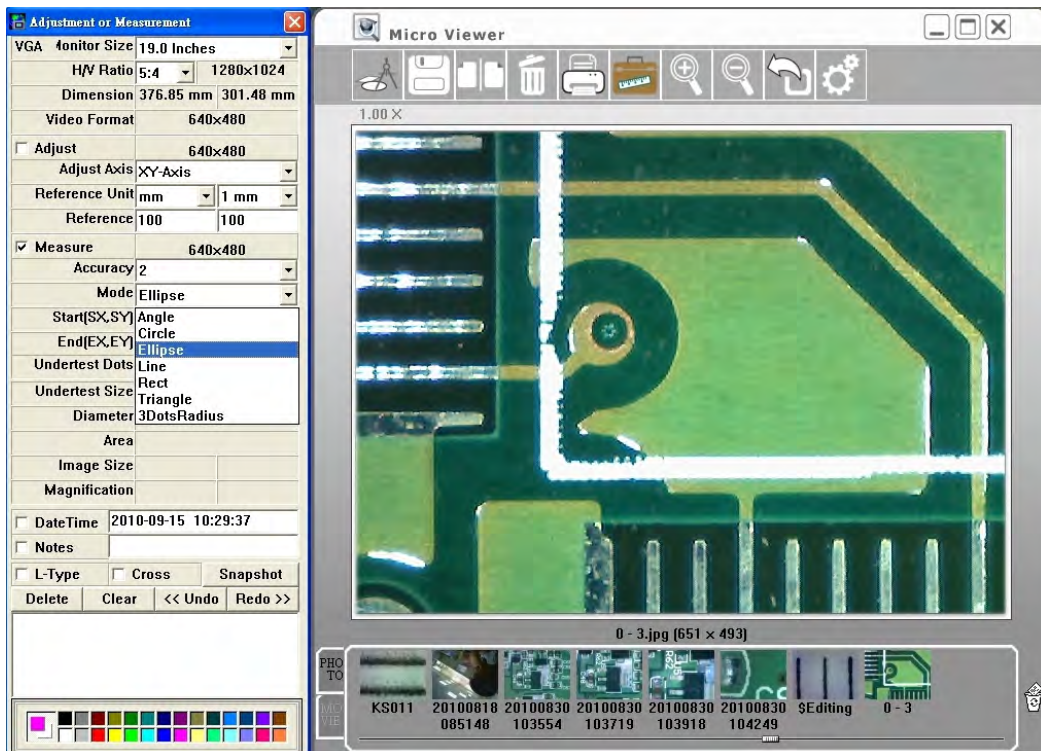
3. Drag to the lower right of the object.



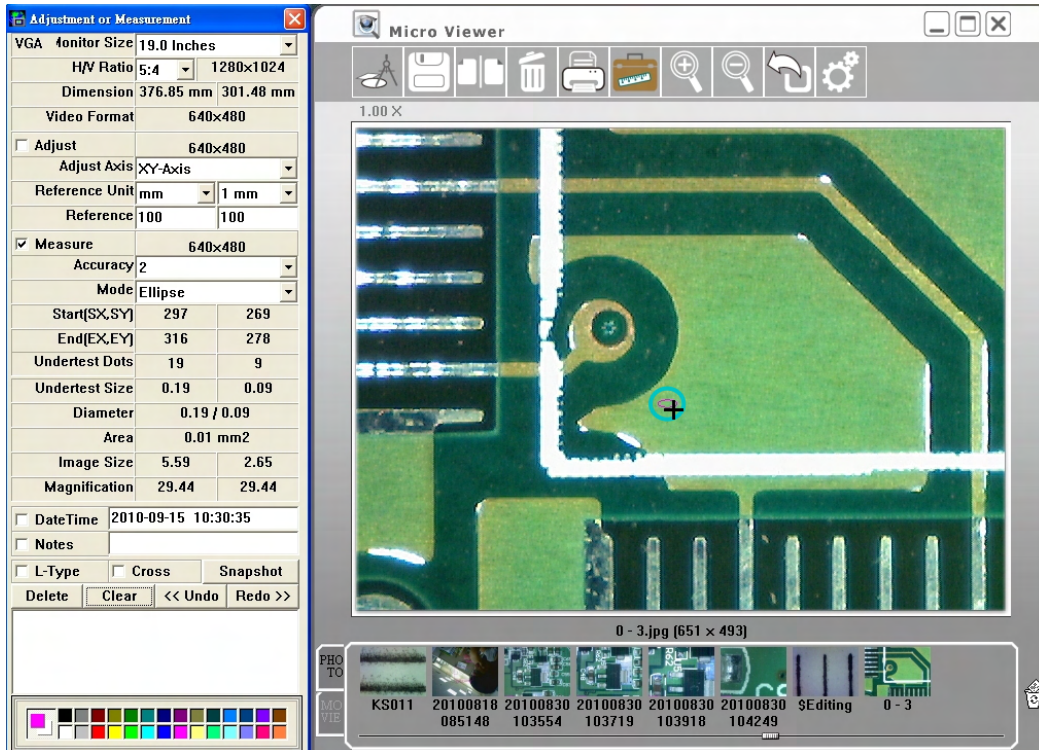
4. Release the right button, and the circle will show up. The "D" means diameter and the "A" means area.



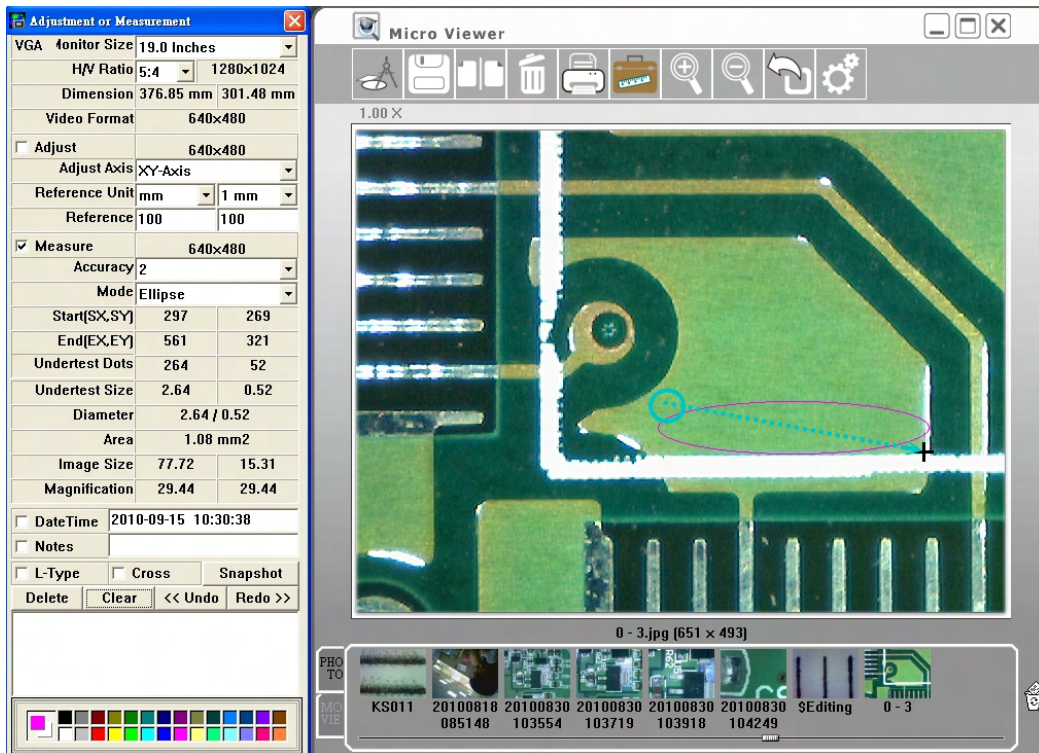
- Ellipse measurement :  
Mark the "Measure" box. Then select "Ellipse" accuracy mode.



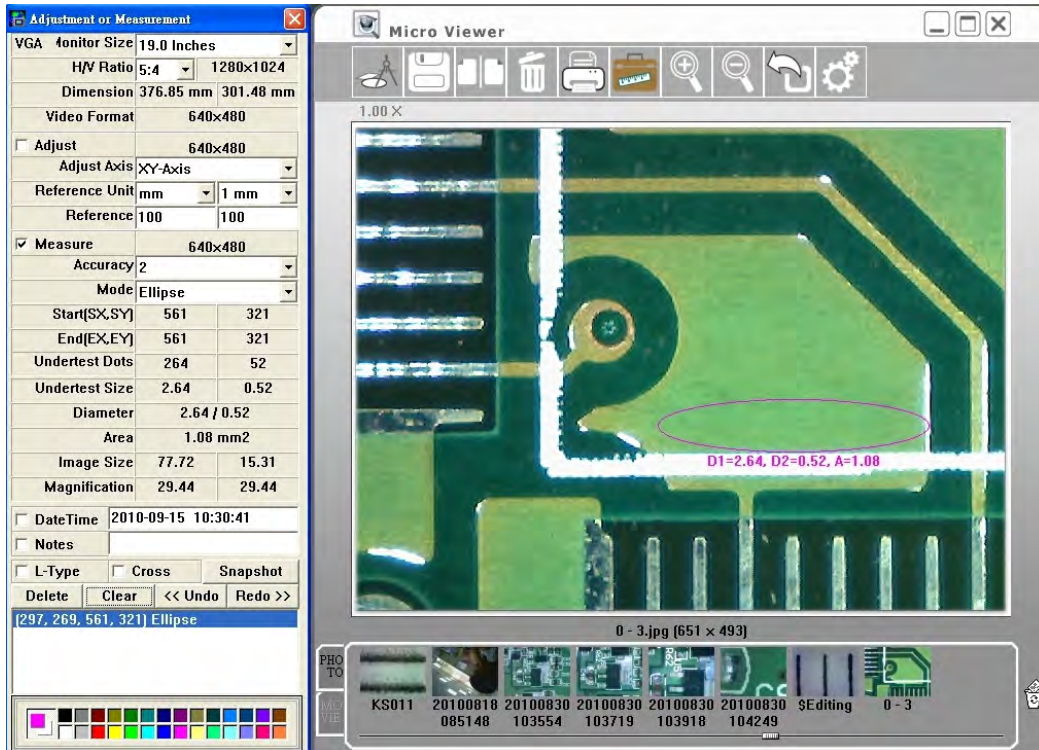
1. Hold the right button at the upper left of the object.



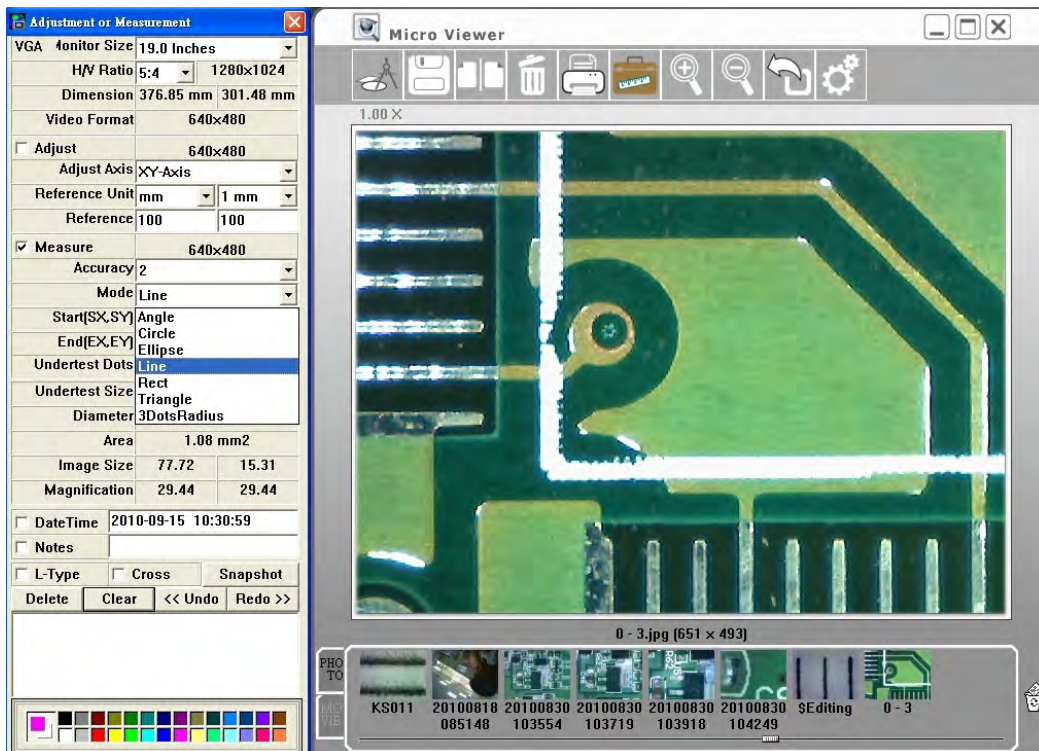
2. Drag to the lower right of the object.



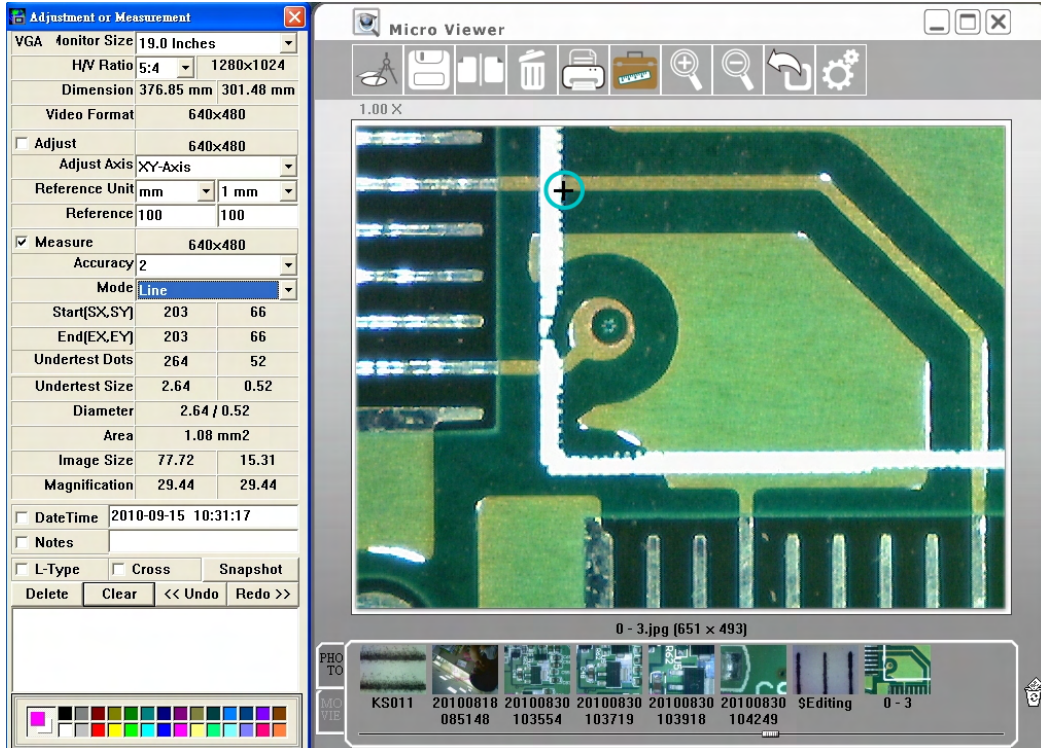
3. Release the right button, and the ellipse will show up. The "D1" means X axis diameter, "D2" means Y axis diameter, and "A" means area.



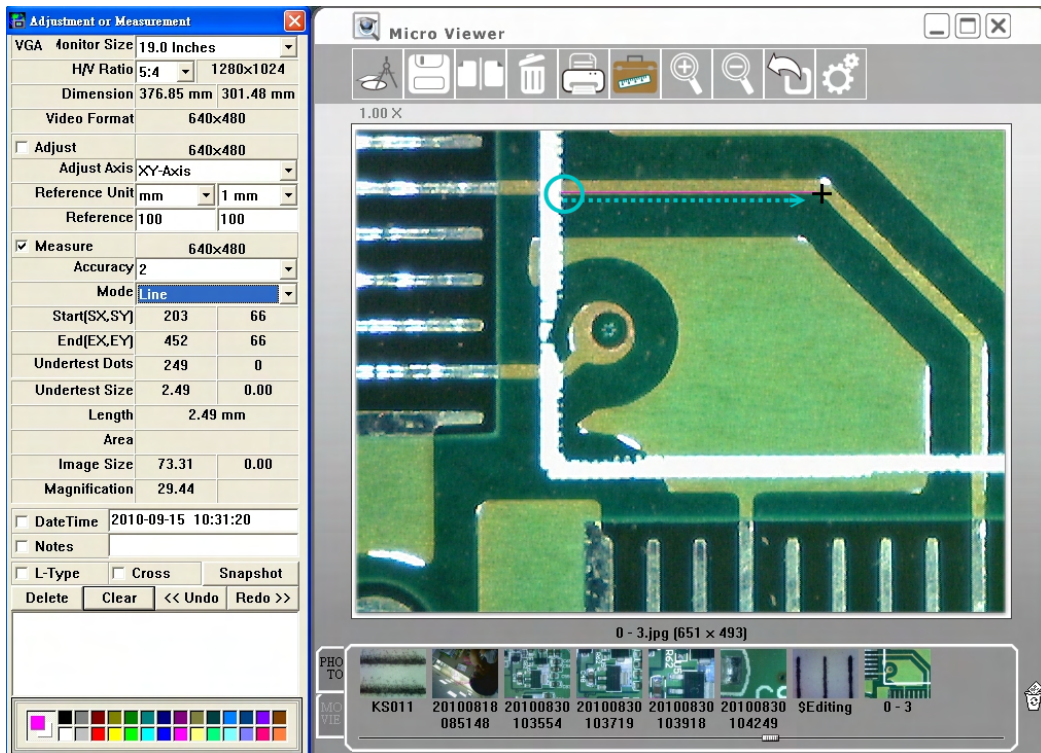
- Line Measurement :  
Mark the "Measure" box. Then select "Line" accuracy mode.



1. Hold the right button at the left side of the object.

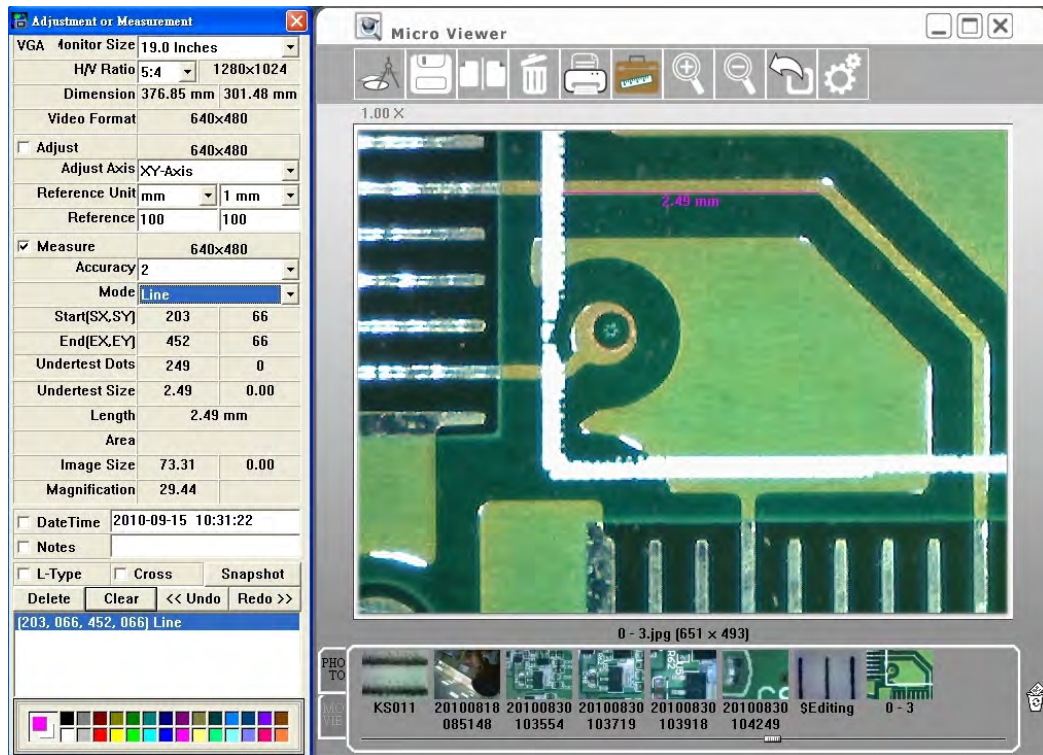


2. Drag to the right side of the object.



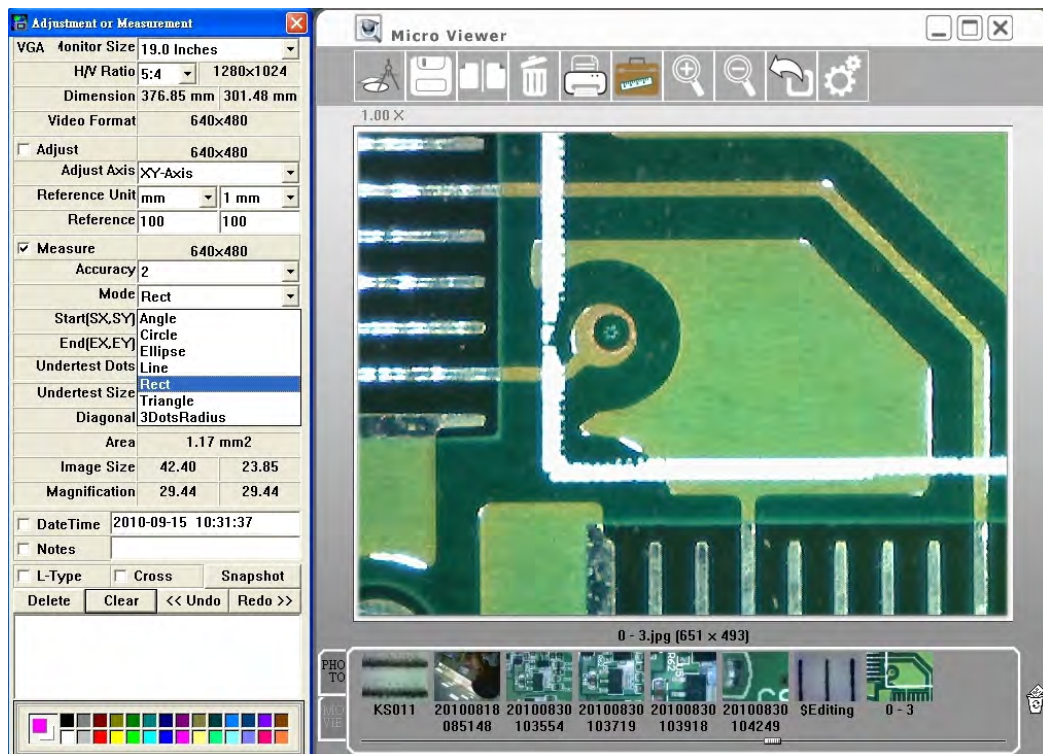


- Release the right button, and the line will show up. The number means the length.

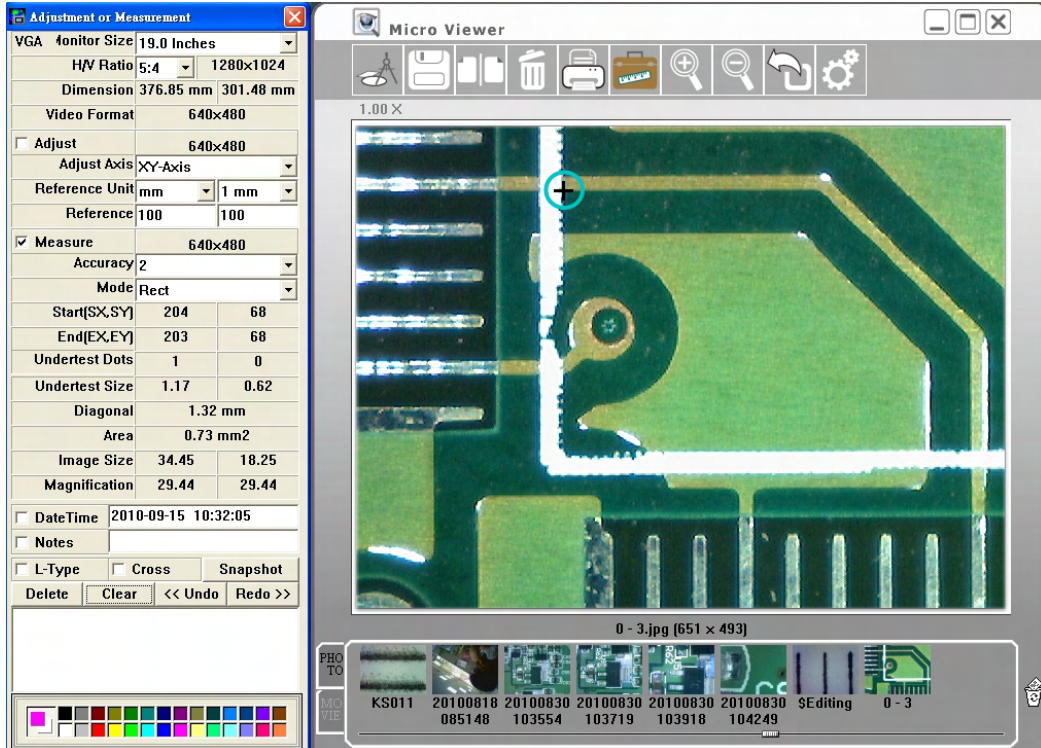


- Rectangle Measurement :

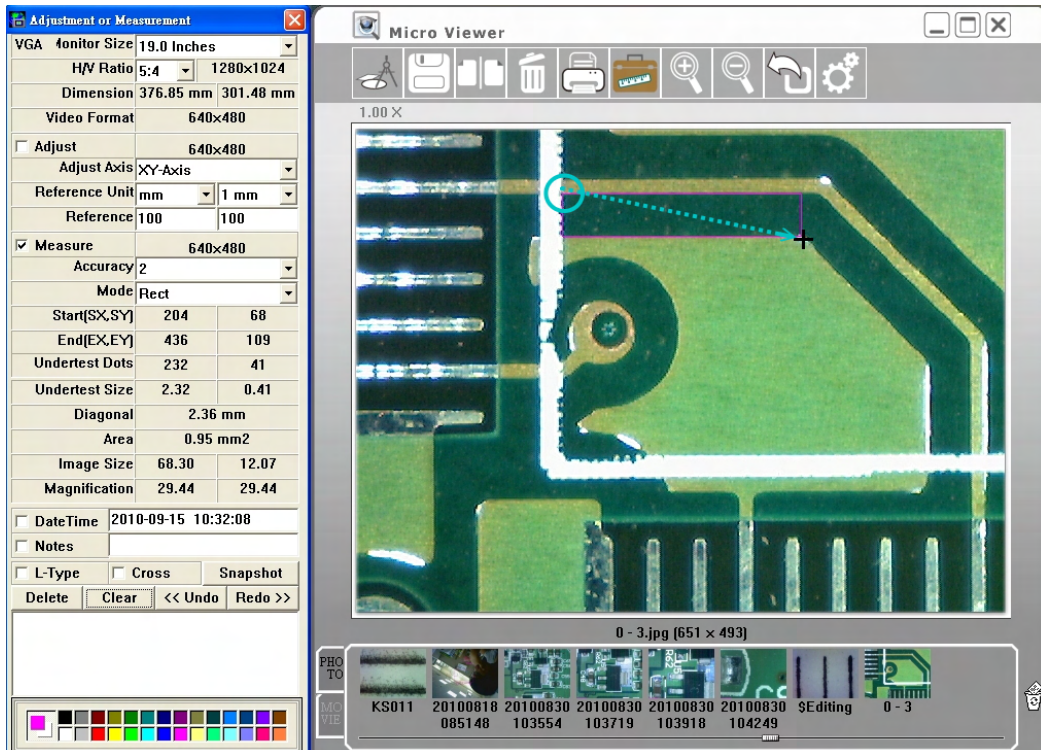
- Mark the "Measure" box. Then select "Rectangle" accuracy mode.



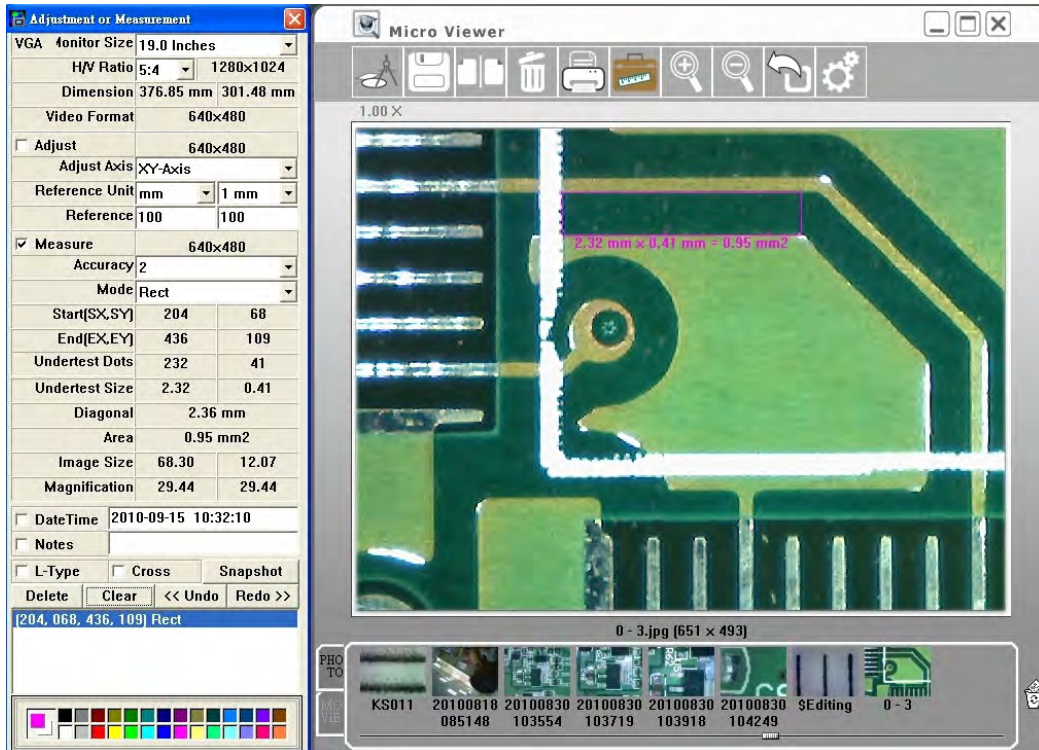
- Hold the right button at the upper left of the object.



3. Drag to the lower right of the object.

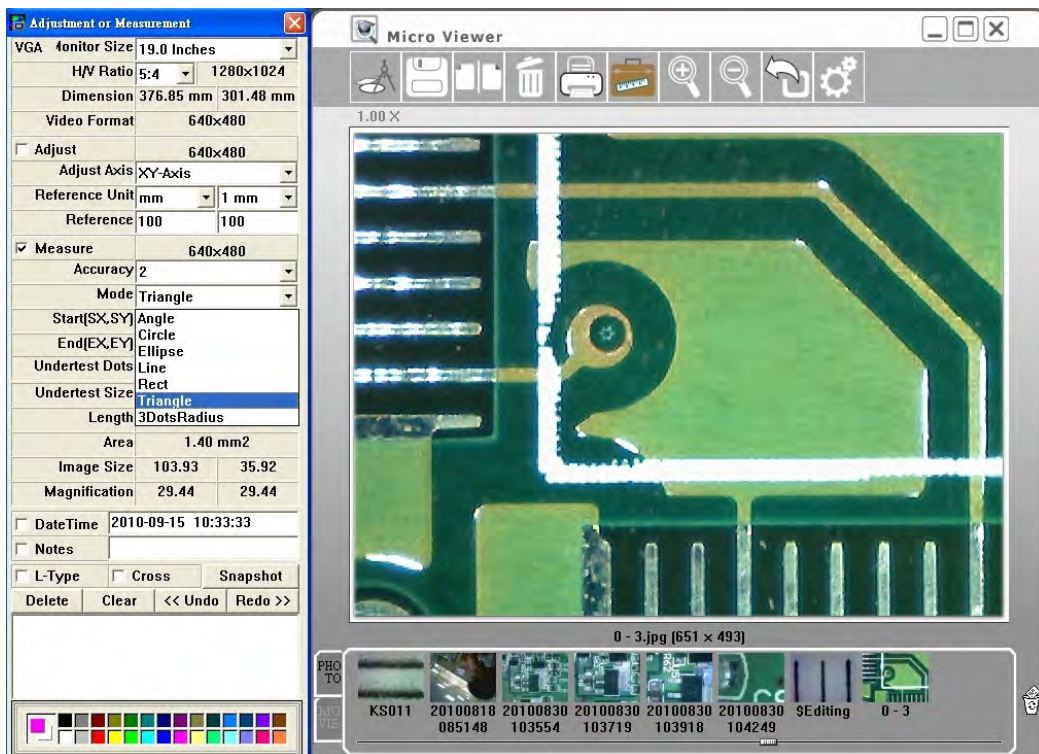


4. Release the right button, and the rectangle will show up. The number means the length x width = area.

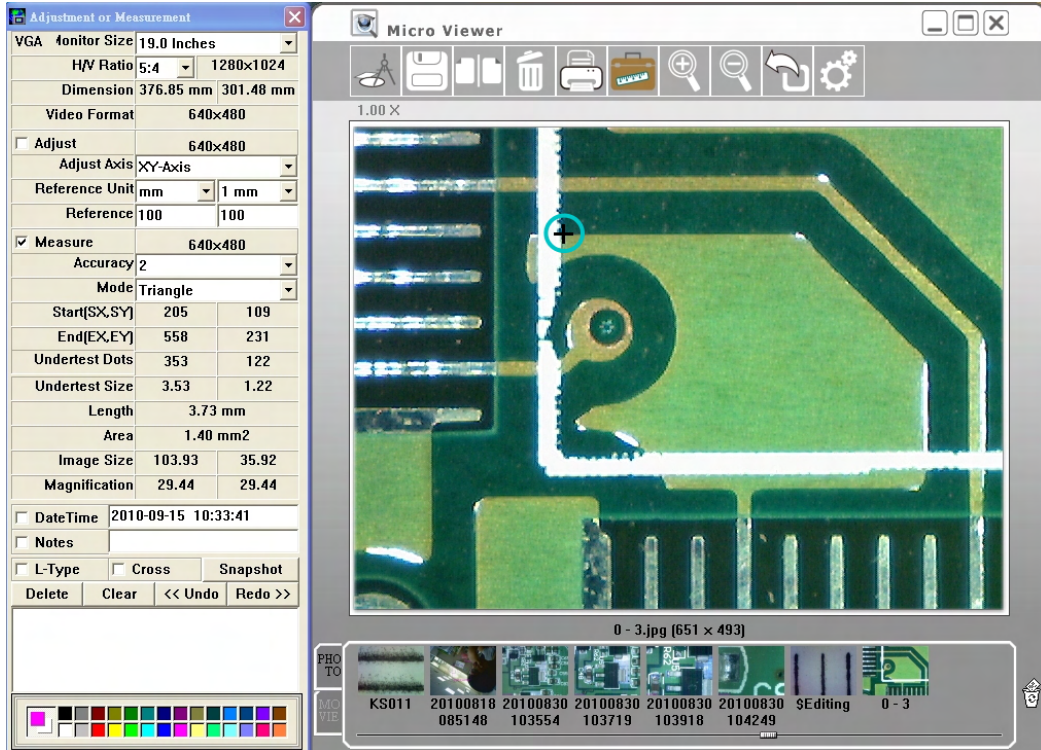


- Triangle Measurement :

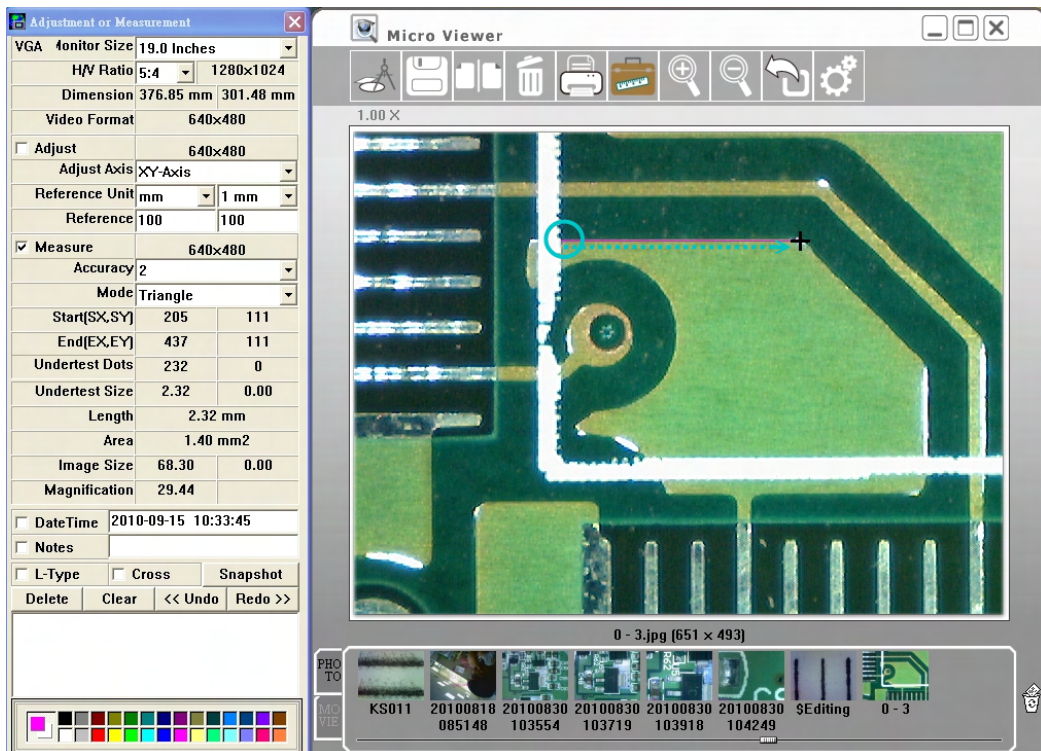
1. Mark the "Measure" box. Then select "Triangle" accuracy mode ◦



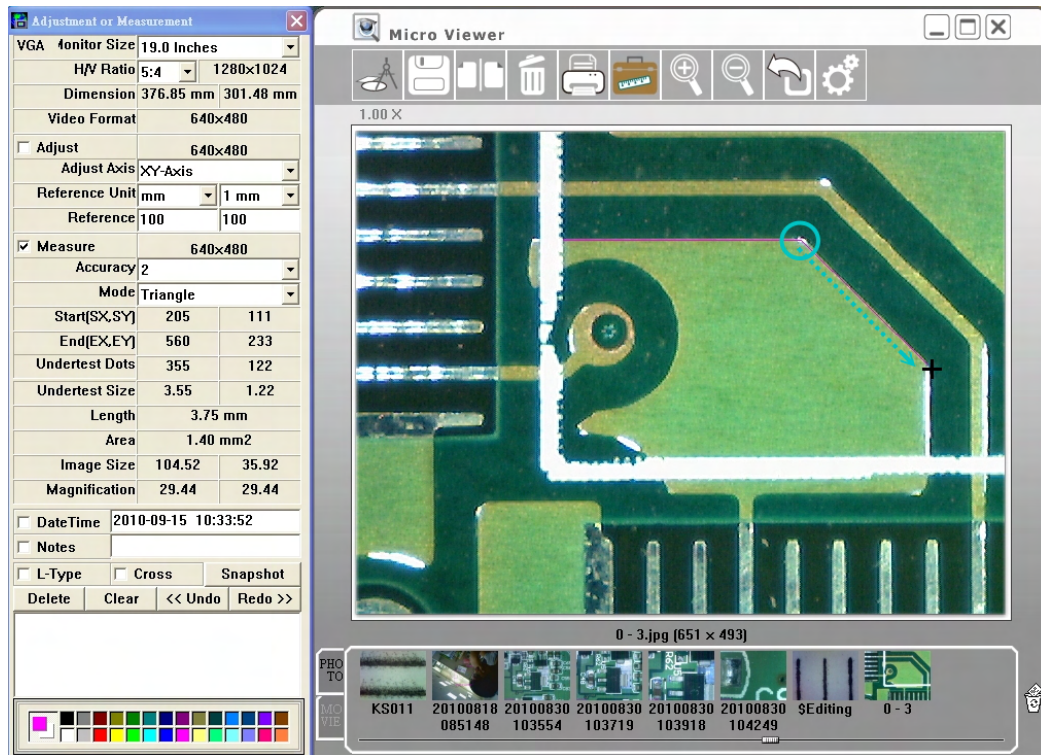
2. Hold the right button at the first point of the object.



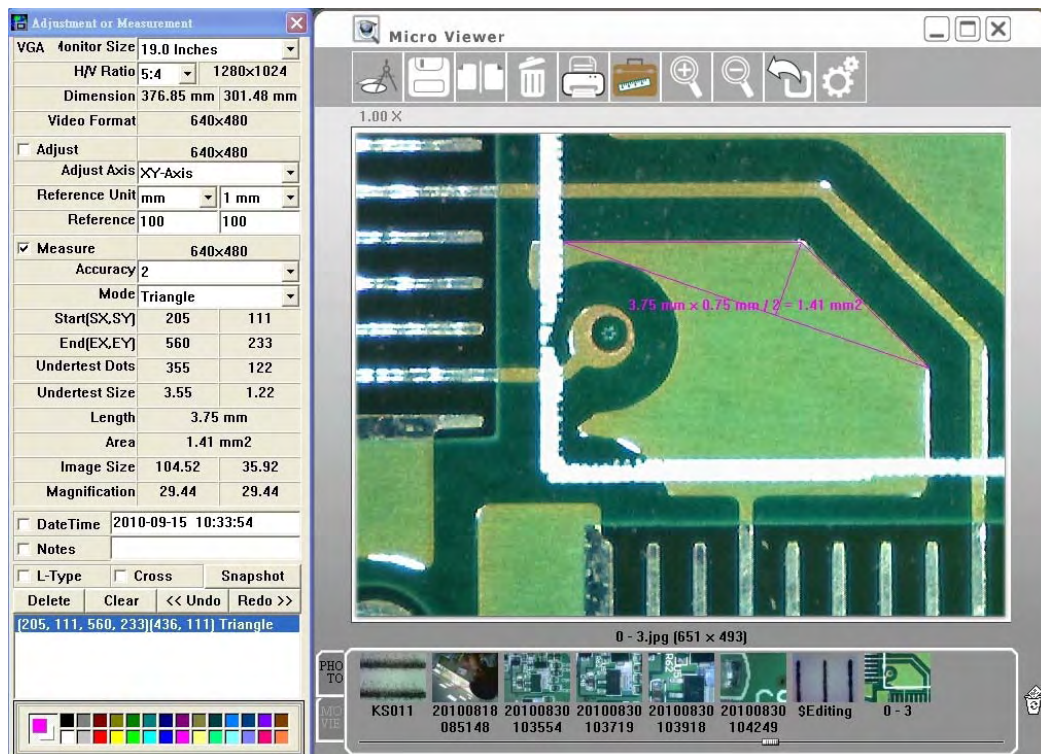
3. Drag to the second point and release.



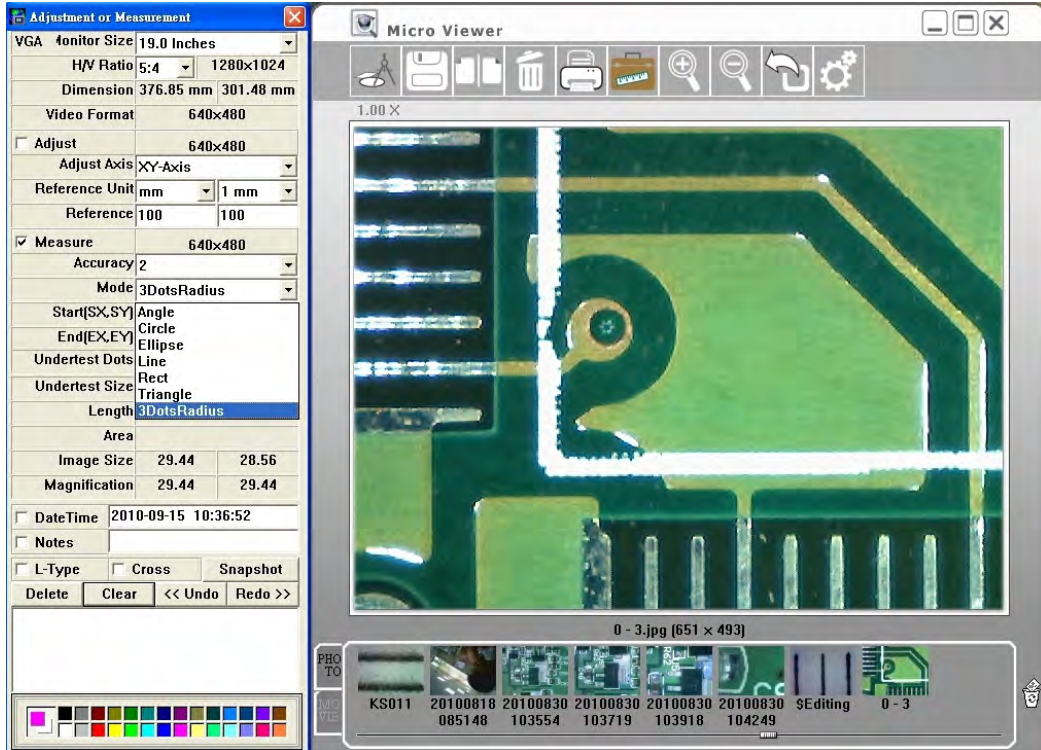
- Hold the right button again at the second point of the object instantly. Then drag to the third point of the object.



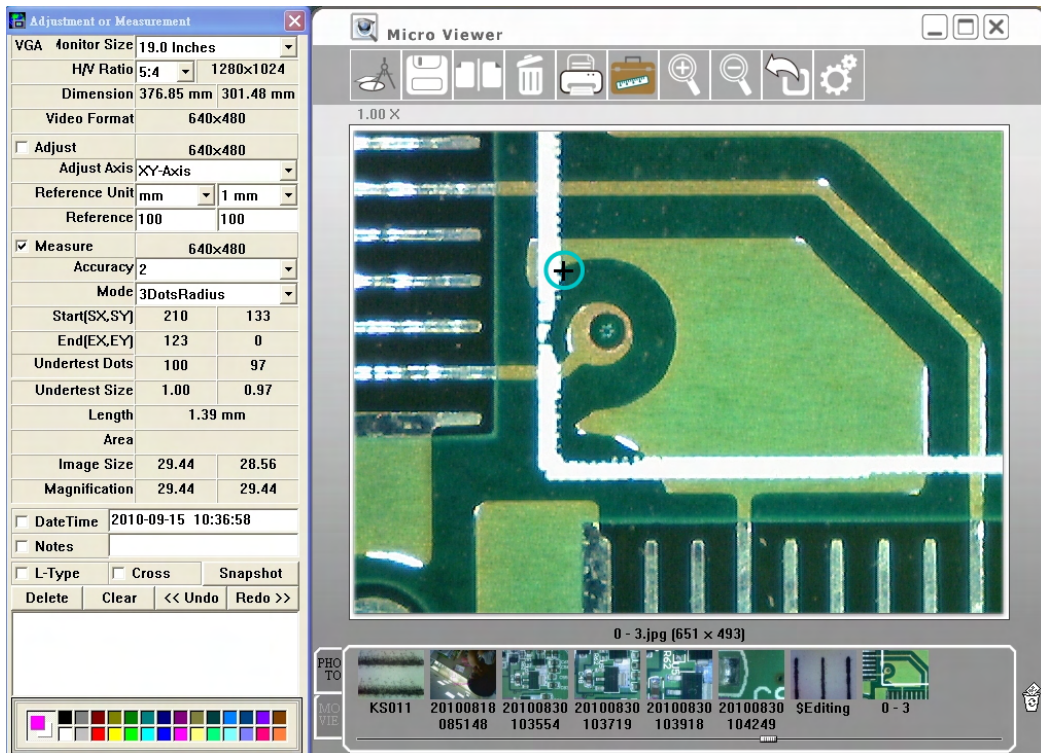
- Release the right button, and the Rectangle will show up. The number means the base x length / 2 = area.



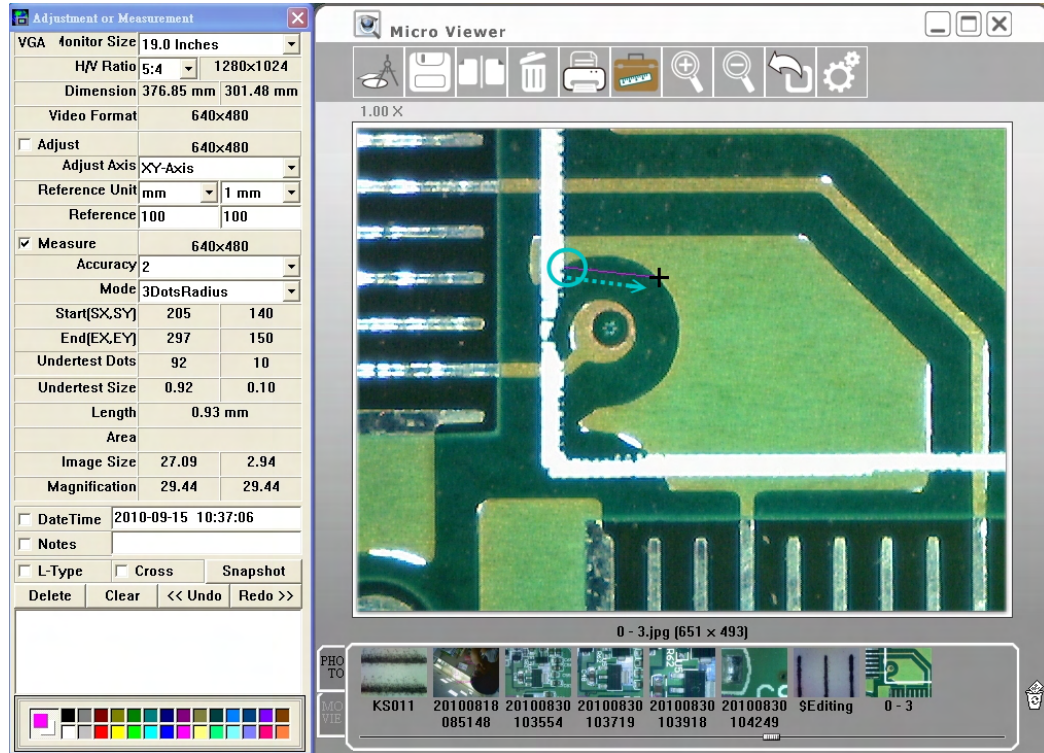
- 3DotRadius/Arc Measurement :
  - Mark the "Measure" box. Then select "3DotRadius" accuracy mode



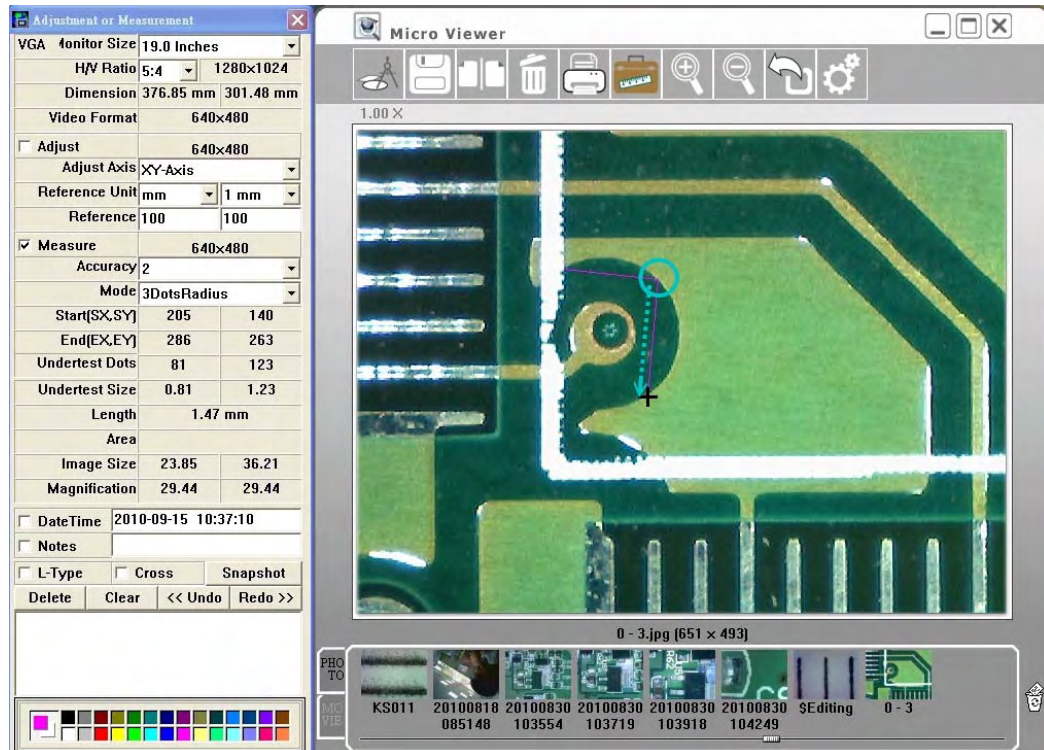
2. Hold the right button at the first point of the arc.



3. Drag to the second point of the arc and release.



4. Hold the right button again at the second point of the arc instantly. Then drag to the third point of the arc.



5. Release the right button, and the arc will show up. The "R" means radius, "A" means angle, and the "L" means arc.

**Adjustment or Measurement**

VGA Monitor Size	19.0 Inches	
H/V Ratio	5:4	1280x1024
Dimension	376.85 mm	301.48 mm
Video Format	640x480	
<input type="checkbox"/> Adjust	640x480	
Adjust Axis	XY-Axis	
Reference Unit	mm	1 mm
Reference	100	100
<input checked="" type="checkbox"/> Measure	640x480	
Accuracy	2	
Mode	3DotsRadius	
Start[SX,SY]	205	140
End[EX,EY]	286	263
Undertest Dots	81	123
Undertest Size	0.81	1.23
Length	1.47 mm	
Area		
Image Size	23.85	36.21
Magnification	29.44	29.44
<input type="checkbox"/> DateTime	2010-09-15 10:37:14	
<input type="checkbox"/> Notes		
<input type="checkbox"/> L-Type	<input type="checkbox"/> Cross	Snapshot
Delete	Clear	<< Undo Redo >>
[205, 140, 286, 263][296, 150] 3DotsRadius		

Color calibration chart with various color patches.

**Micro Viewer**

1.00 X

R=0.74 mm, A=177, L=2.29 mm

0 - 3.jpg (651 x 493)

PHOTO

KS011 20100818 20100830 20100830 20100830 20100830 \$Editing 0 - 3

085148 103554 103719 103918 104249



## ● Q&A :

1. After inserting the software installation CD into CD-ROM drive, why the installation doesn't install automatically?

ANS : Due to the operation system security, many software disable the CD-R / USB Autorun function. Please double click the CD-ROM drive on your computer, and click the AUTORUN.EXE.

2. Why the image lags after I check the Use AVIDecompressor box on the Video Setup window?

ANS : The Use AVIDecompressor function doesn't support Windows XP SP3 or above.

3. Why the measurement number is wrong?

ANS : Please adjust before measurement.

Please adjust again if you change the focal distance or height of the object.

4. Why the monitor twinkles under the measurement mode?

ANS: Please set the system by the following steps: Start→Control Panel Home →System→Advanced→Performance→Setting

Then release the "Show shadows under windows" and "Show window contents while dragging."

5. Why the recording file show error message when I open the time-lapse function?

ANS: If you open time-lapse function, please make sure the recording time is longer than the ratio time.

EX: Choose 60s:1s, the real cording time must be longer than 60 seconds.

6. Why the LED lights will go out automatically while recording?

ANS: Under Windows 7, the "power saving" function will cease the LED lights automatically, please set the system by the following steps: Start→Control Panel→System and Security→Power Options→Select a power plan

Click the "Show additional Plans" arrow, and choose the "High performance."