MAXCOPE
M12.5850, M16.5850

Research 3D Full Auto Super Depth of Field Biological/Fluorescent Microscope
Semi-APO, BF+DF+PL+PH+FL+DIC

M12.5850
A12.0910 + USB3.0 Camera + XYZ Stage
Will Upgrade To M12.5850
Optional BF+DF+PL+PH+FL+DIC

A59.2225 Cooling Digital Camera

A54.5801 XYZ Motorized Stage

M13.5850
A13.0910 + USB3.0 Camera + XYZ Stage
Will Upgrade To M13.5850
Optional BF+DF+PL+PH+FL+DIC

M16.5850
A16.0910 + USB3.0 Camera + XYZ Stage
Will Upgrade To M16.5850
Optional BF+DF+PL+PH+FL+DIC

M16.5850

MAXCOPE 3D Full Auto Fluorescent Microscope

The new M16.5850 Research-grade Fluorescent Microscope has upgraded to XYZ motorized working stage model, combined with the powerful Maxcope 2D/3D software, which integrates a number of firsts. From appearance to performance, it closely follows the international leading design trend. MAXCOPE will continue to provide customers with complete 3D industrial inspection solutions.

A12.0910 Biological, A16.0910 Fluorescent
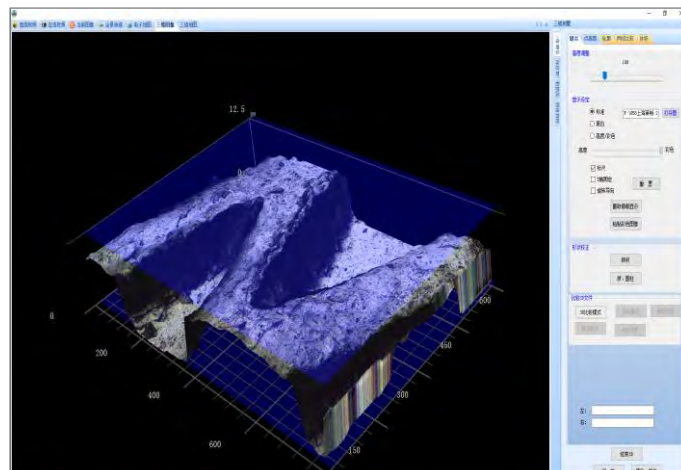
Modular Frame Improve System Compatibility

A12.0910 modularization design, separated cross arm and main body, improves the system compatibility of biological and fluorescence frame.

Multifunctional Reflection Fluorescent Illumination

In A16.0910 reflection fluorescent illumination, maximum 6 fluorescence filters can be assembled at the same time. Filters are placed in a rotary table for convenient switch. High precision and stable rotary table and high-performance imported filter ensures a drift-free image.

☆ There is a light shutter in front of the reflected illuminator. It is used to shut the fluorescent light to prevent fluorescence quenching of the slice.

☆ The light barrier can protect users from the harm of UV light.

☆ The use of ND attenuation filter, or aperture and field diaphragm rod can efficiently reduce the intensity of exciting light to protect the slide.

☆ After replacing the lamp, the centering objective helps users in adjusting the filament center to make sure a sufficient and uniform fluorescent illumination.

Power Control System for Mercury Lamp

New digital power control system with operating time and current value, clearly shows the working state of the mercury lamp.

Two Power Supply Systems Provide Multiple Choices of High Quality Illumination

New developed 100W EHV DC mercury lamp house with improved thermal cycle greatly reduces the surface temperature of the lamp house and avoids the scald risk during operation. The filament center is easily adjustable.75W xenon lamp for option.
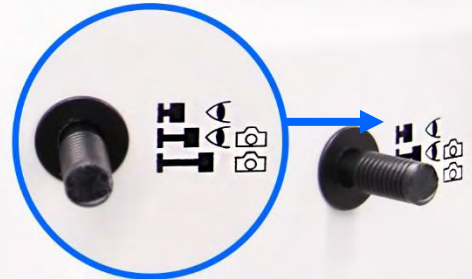
A12.0910 Biological Microscope

A16.0910 Fluorescent Microscope

Light Splitting Ratio Switch
R:T=100:0 or 20:80 or 0:100

Extra WF PL10x/25mm
Invert Image Infinity Gemel Trinocular Head, High
Eyepoint Plan PL10x/25mm, Diopter Adjustable

Plan Fluor 4x/0.13 ∞/0.17
Plan Fluor 10x/0.30 ∞/0.17
Plan Fluor 20x/0.50 ∞/0.17
Plan Fluor 40x/0.75 ∞/0.17
Plan Fluor 100x/1.28 OIL ∞/0.17

BF 6 Holes Nosepiece
For Bright Field, With Socket For DIC Slide &
Polarizing Analyzer Slide

Plan Fluor 100x/1.28 OIL ∞/0.17
Plan Fluor 40x/0.75 ∞/0.17
Plan Fluor 20x/0.50 ∞/0.17

Semi-APO Objective
Infinity Plan Semi-APO Fluorescent Objective
4x, 10x, 20x, 40x, 100x

Large Working Stage
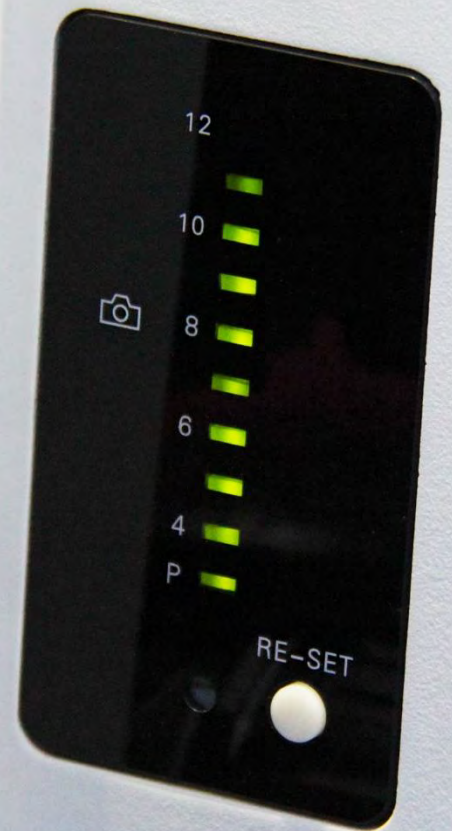Double Layer Mechanical Stage, 187*166mm, Tension of Torque Adjustable.

Swing-Out Condenser
Swing-out Type Achromatic Condenser, N.A.0.9/0.25

MAXCOPE

Digital Dimming Illumination
12V100W Halogen Illumination with Iris Diaphragm, With Light Indicator, Digital Dimming System Have Brightness Set & Reset Function

12
10
8
6
4
P

RE-SET

Transmit Filters
Built-In Transmit Filters LBD/ND6/ND25

OP   LBD   ND25   ND6

TENSION

Coaxial Focusing
Low-Position Coaxial Coarse & Fine Adjustment With Coarse Adjustment Stop And Tightness Adjustment.

Multifunctional Reflection Illumination

In A16.0910 reflection fluorescent illumination, maximum 6 fluorescence filters can be assembled into turret disc at the same time, to get multi view function!

Upgrade to Fluorescent Model

6 Holes Disc Fluorescent Illuminator, With Iris Diaphragm, Aperture Diaphragm, Socket For Filter Inserter & Polarizer, With Light Shutter and Light Barrier
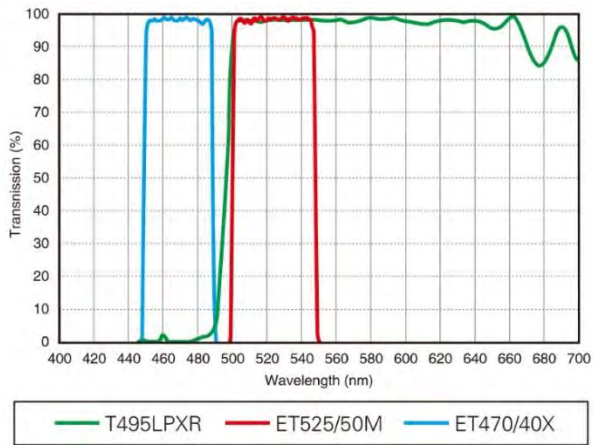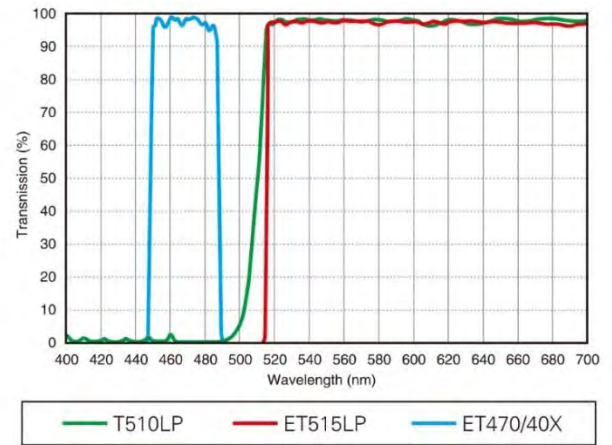

MAXCOPE

Work With A59.4972

8K 5G WIFI+HDMI+USB+WAN 12.0M, C-Mount, Digital Camera

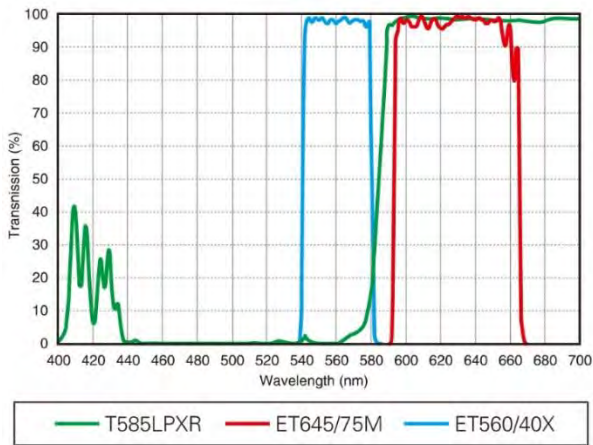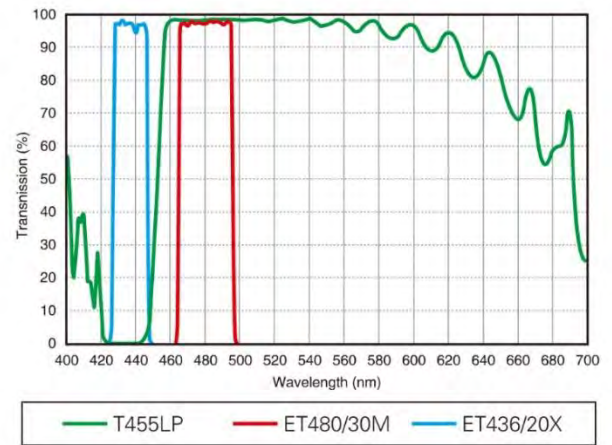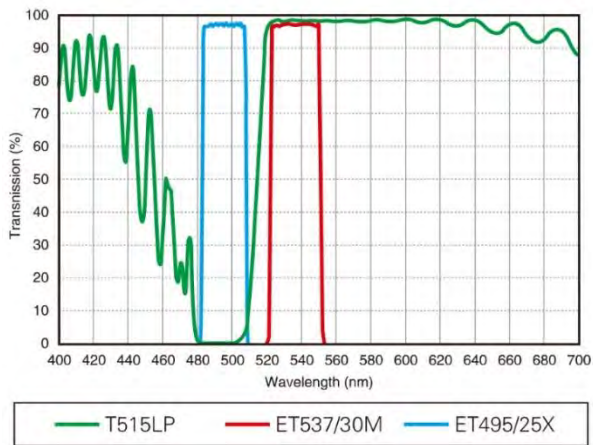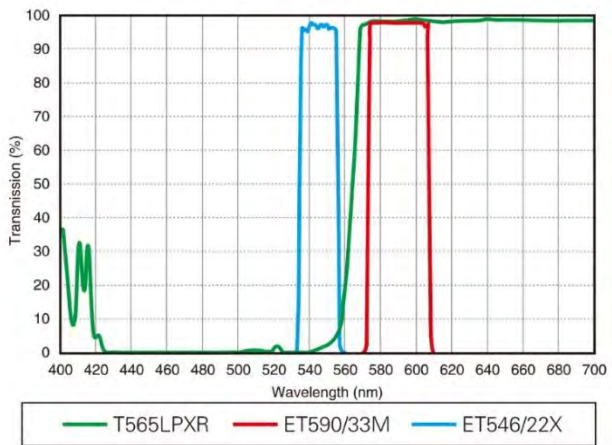|	
Output	USB,HDMI,5G WIFI, WAN
Sensor	12.0M, 1/2.3" Sony CMOS,
Resolution	8K (4000x3000) To HDMI Monitor
Record	Snapshot .JPG, Record MP4 1920x1080@60FPS
Spectral	380-650 For Fluorescent View

MAXCOPE

T495LPXR — ET525/50M — ET470/40X

B1

T510LP — ET515LP — ET470/40X

B2

T585LPXR — ET645/75M — ET560/40X

G1

T455LP — ET480/30M — ET436/20X

Spectrum Aqua

T515LP — ET537/30M — ET495/25X

Spectrum Green

T565LPXR — ET590/33M — ET546/22X

Spectrum Orange

T400LP — ET460/50M — ET365/50X

UV1

T400LP — ET420LP — ET365/50X
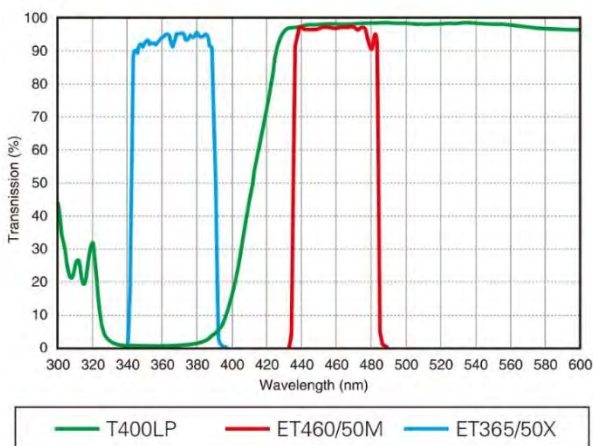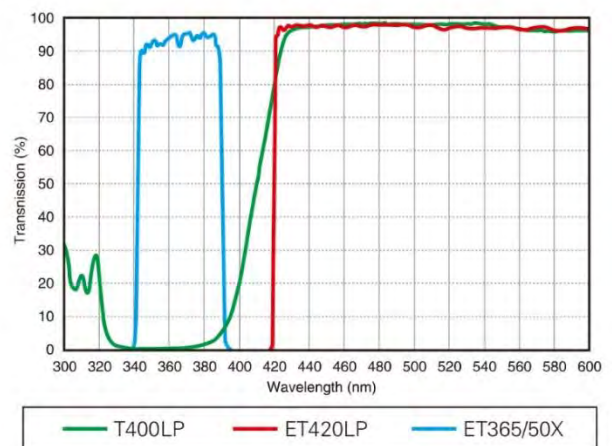
UV2

Universal Condenser For DF,PL,PH,DIC

For Dark Field, Polarizing, Phase Contrast, DIC View

Model Identification

Installation Position

Lock Screw

Small Condenser Lens

Aperture   Diaphragm

Adjusting Pole

Centering Knob

Optical Component   Switch Pole

Indicator Window

Polarizer

Group

Turntable

BF,DF,PH,PL,APO,DIC

Plan Fluor
4x/0.13
∞/0.17

Plan Fluor
10x/0.30
∞/0.17

Plan Fluor
20x/0.50
∞/0.17

Plan Fluor
40x/0.75
∞/0.17

Plan Fluor
100x/1.28 OIL
∞/0.17

①
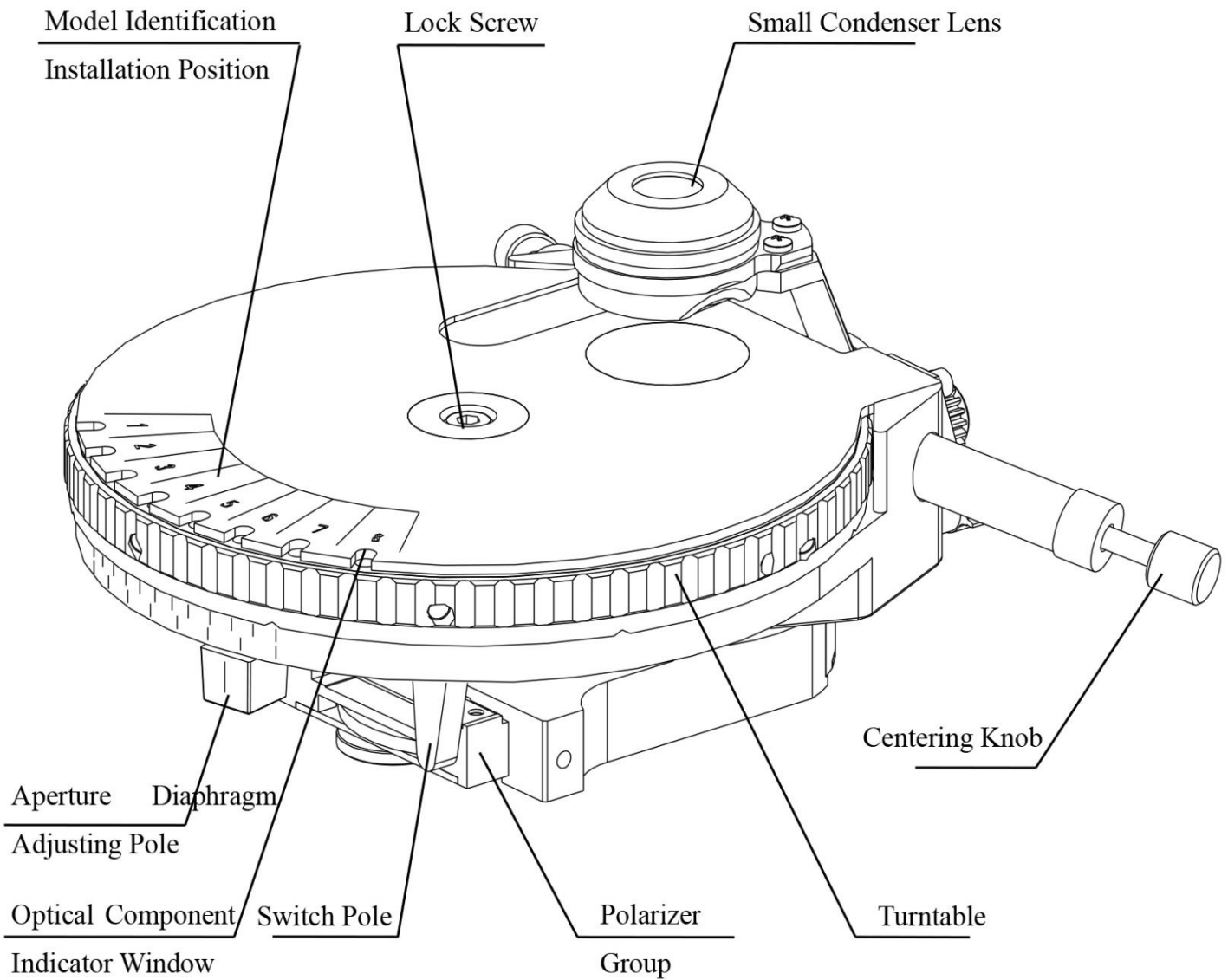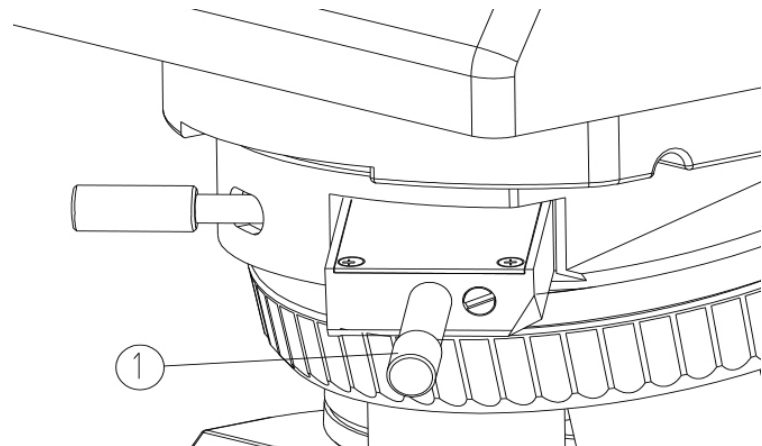
Semi-APO	DIC

①②③ Phase Contrast Aperture Ring or DIC Ring

⑤⑥⑦ DIC Ring

④⑧ Dark Field Ring or Phase Contrast Aperture Ring or DIC Ring

Analyzer Slide

Polarizer Lens

A56.0960 Universal Condenser

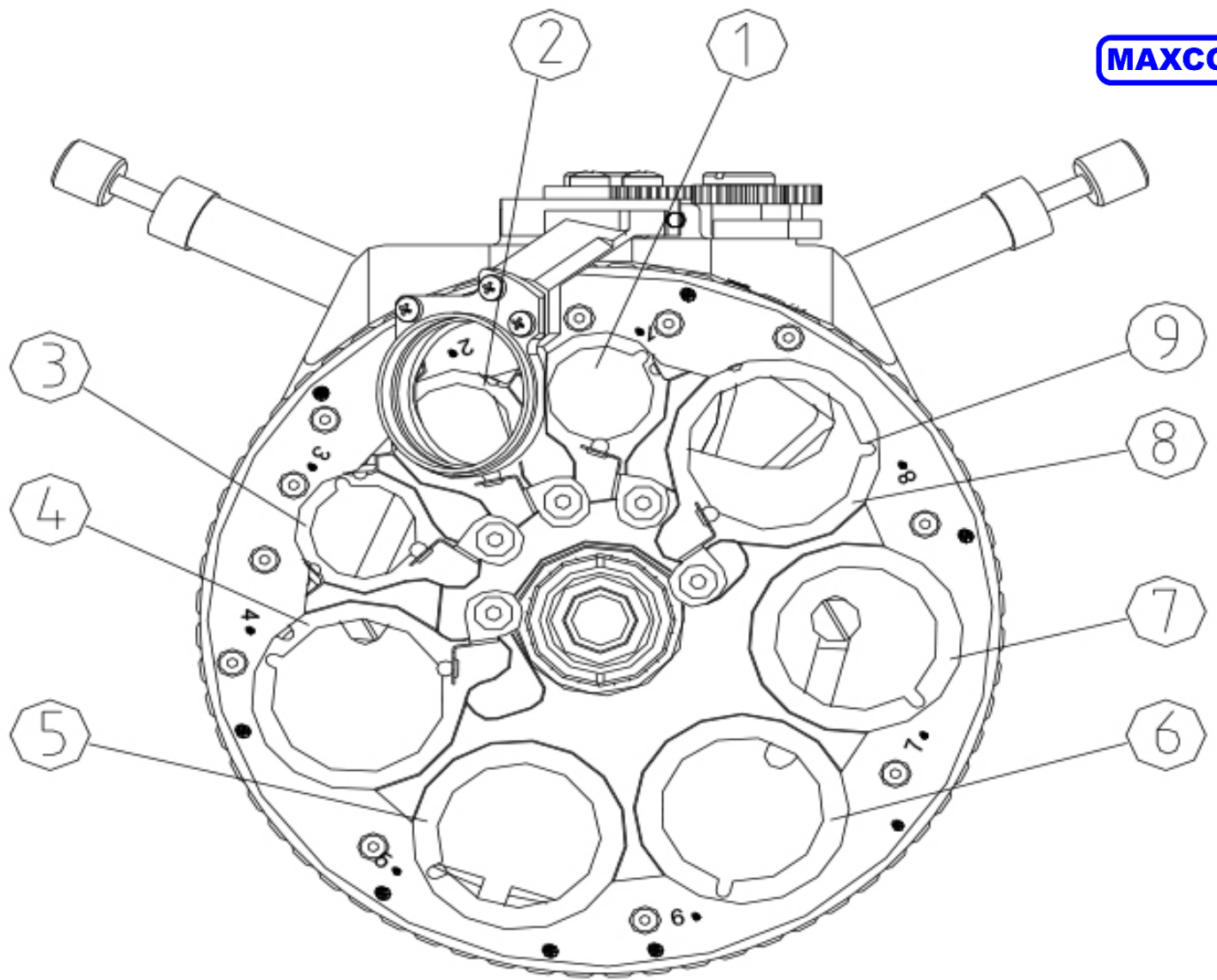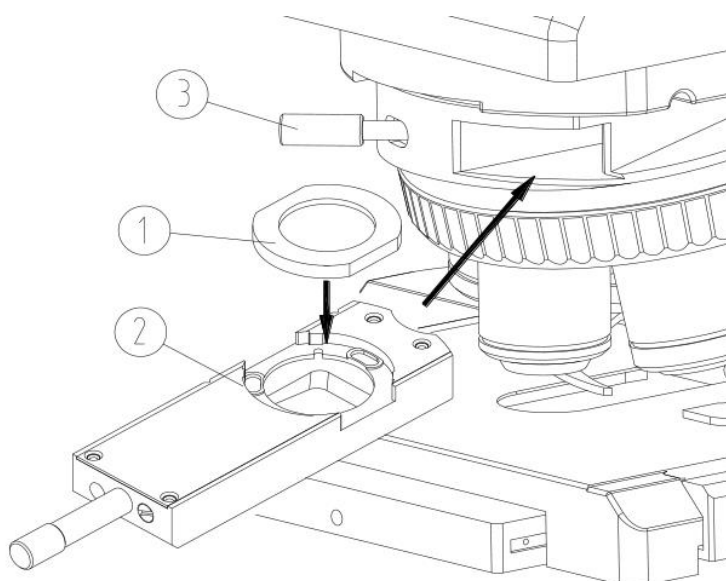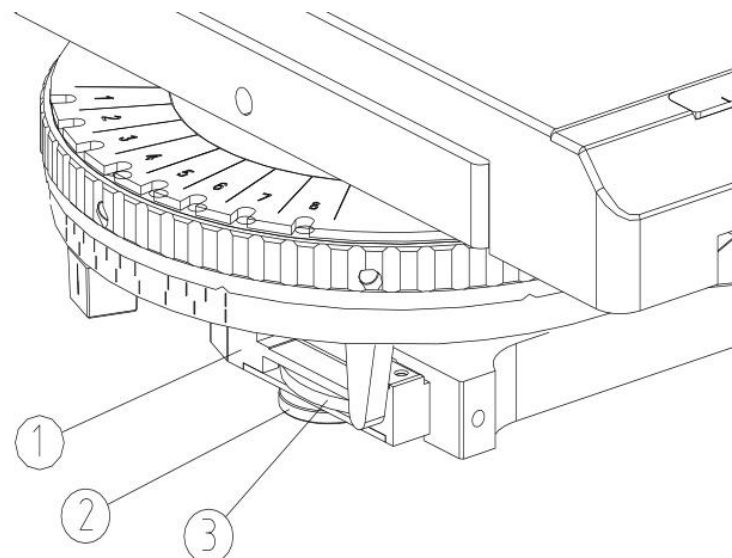Porous Site For Dark Field, Polarizing, Phase Contrast, DIC View

DIC Optical Component

输出 --- 12V/200

输入: --- 15V/2.67A

关

MAXCOPE

Accessories

A56.0934-R
Swing-out Condenser

A54.0930-R7
BF 7Holes

A54.0930-R5
BF 5Holes

A54.0930-R6
BF 6Holes

A5F.0930-1
Centering Objective

ND25

ND50

Built-In Transmit Filters ND6/ND25

A55.0930-65
0.65x C-Mount

A55.0930-05
0.5x C-Mount

A55.0930-10
1.0x C-Mount
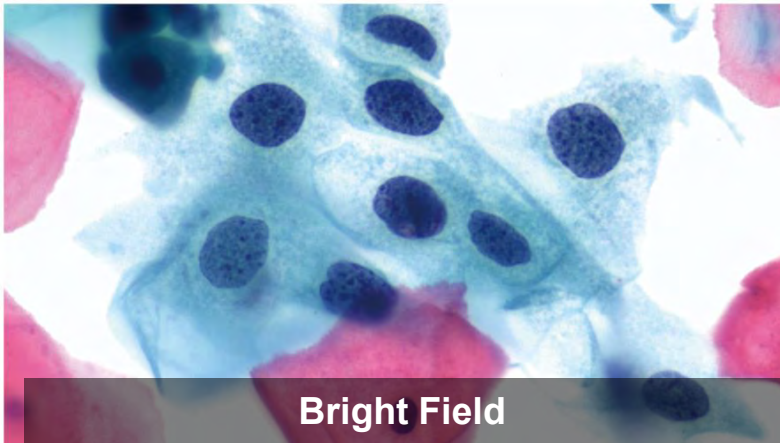
Bright Field

Bright Field
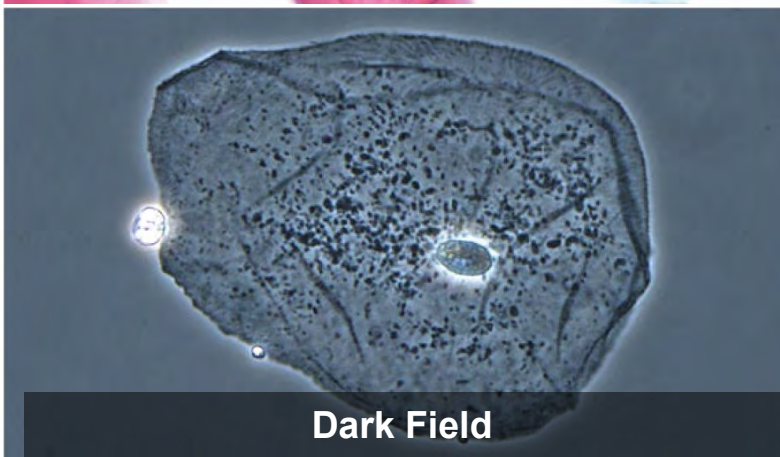
Dark Field

Polarizing
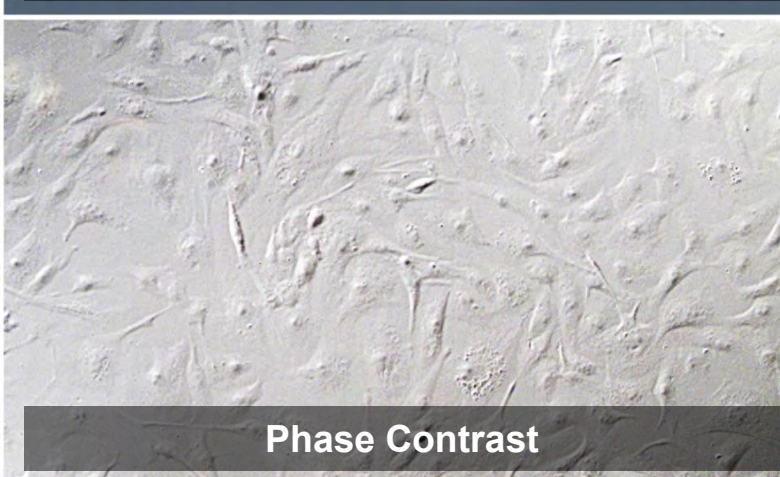
Phase Contrast
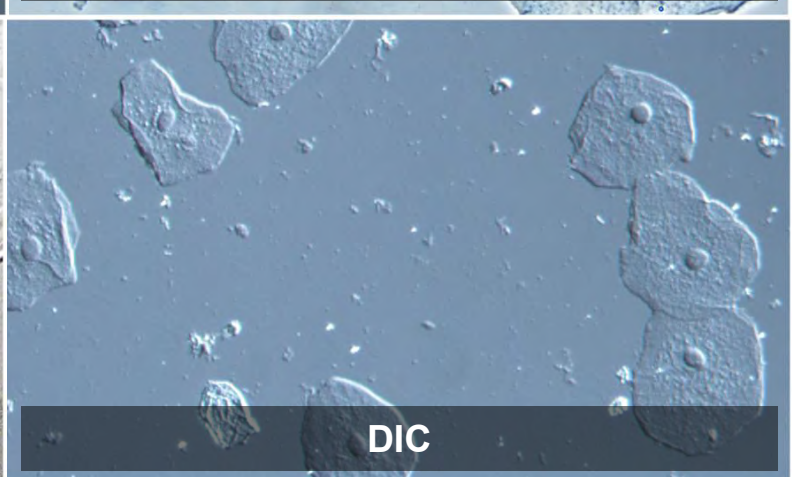
DIC

Size And Configuration

MAXCOPE

M12.5850 Size: mm

187

442

75

487

185

105

269
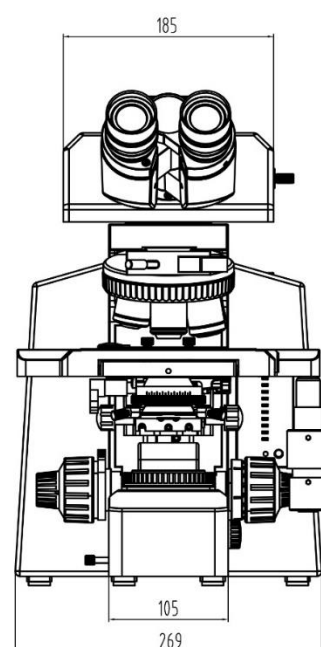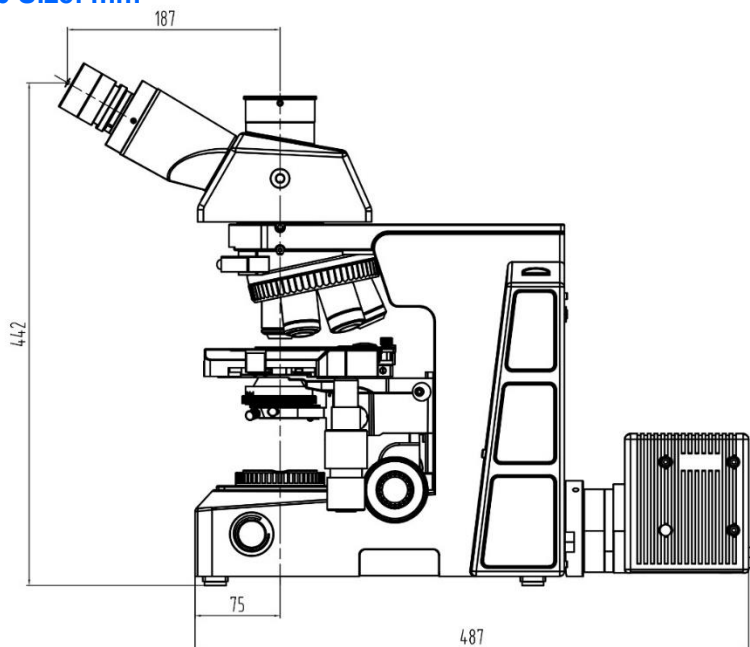
MAXCOPE

M16.5850 Size: mm
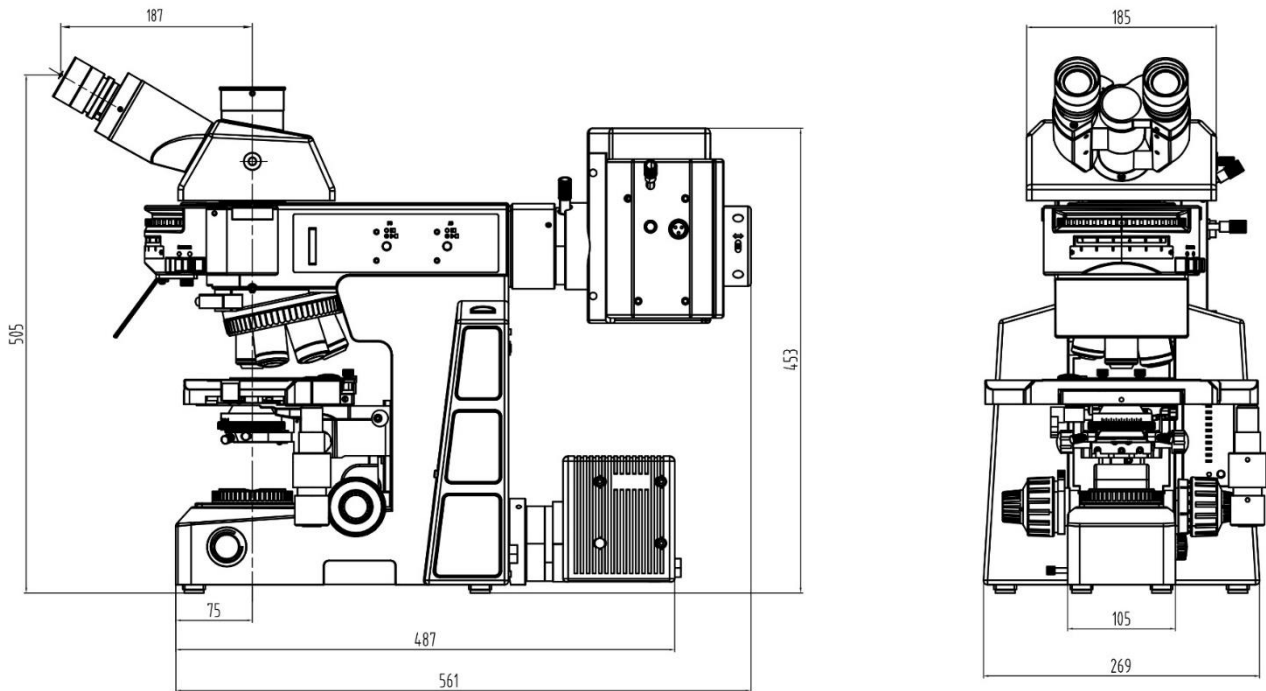
System Configuration Diagram

PL10x/25mm & PL10x/26.5mm

1.0x   0.65x   0.5x   0.35x

A55.0930 C-Mount

A53.0913-T30E

A53.0913-T30

A53.0913-T535

60X   100X

2X   4X   10X   20X   40X
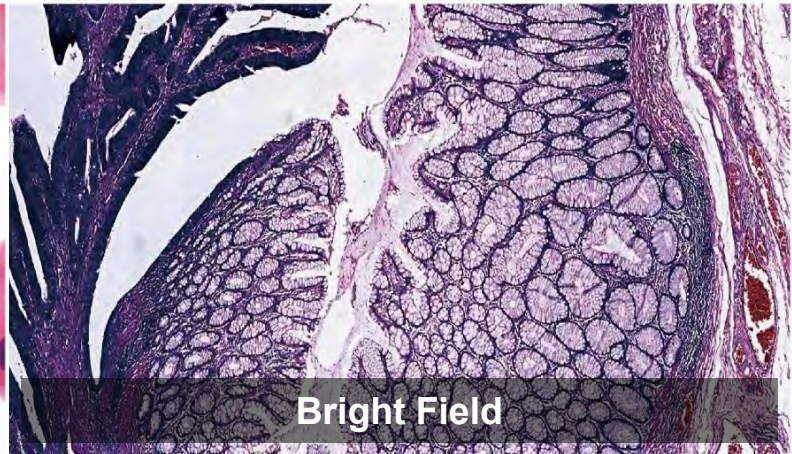
A5F.0951

4X   10X   20X   40X   100X

A5F.0950

4X   10X   20X

A5C.0950

A5F.0930-1

BF 7Holes

BF 6Holes

BF 5Holes

Fluorescence Filter

A54.0950-BF

100W Mercury Lamp House

A59.0960

A56.0934-R

A5D.0960 For DF

A5M.0960 For DIC

A56.0960

A5C.0950 For PH

A16.0910 Main Body

A12.0910 Main Body

A56.0915-LH

M16.5850

MAXCOPE
M12.5850,M16.5850
Research 3D Full Auto Super Depth of Field, Biological & Fluorescent Microscope

Cooperate with high-quality semi-apoptotic Semi-APO optical system, and translative lighting device, realize brightfield + darkfield + polarized light + DIC differential interference contrast full-featured observation method, XYZ motorized platform and Maxcope software also provide fully automatic super software It integrates advanced functions such as 2D/3D high-speed imaging, depth-of-field fusion, auto-focus, etc., and will be the most effective assistant in your work!

MAXCOPE

Full Auto Microscope Scanning Software

According to surface condition of the sample and the specific requirements of customers, Maxcope has 4 versions and more customized functions provided, which are suitable for the complex automatic microscopic scanning splicing work of the motorized microscope in medical, teaching, industrial, wafer processing and other fields.
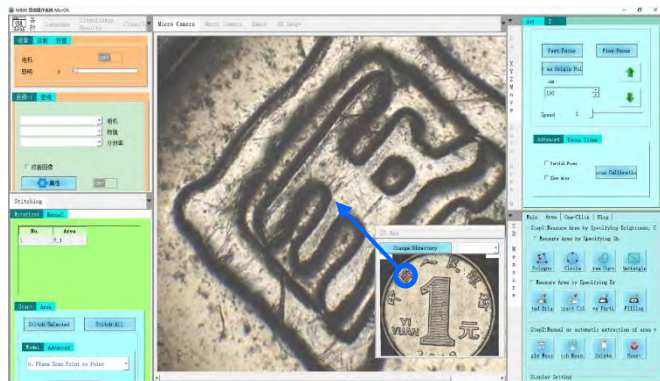
A30.5801-2D

2D Version, Maxcope Series Standard Software
--Plane PXP Scan, Plane Fly Scan
--For XY Stage Model + 2C Computer
--For Plane Smooth Surface Or Low Magnification Samples, No Autofocus Needed
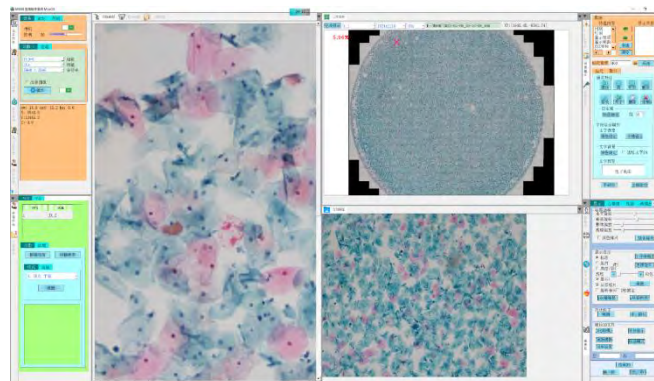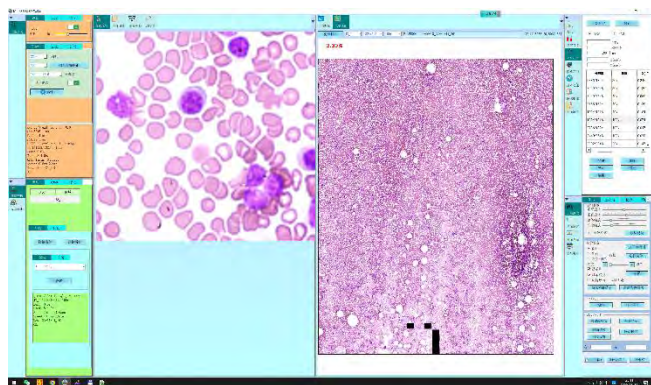--Single Focal Plane Scan, XY Stage Direct Scan And Stitch 2D Image

A30.5801-2DB

2DB Version, Maxcope Series Optional Software
--Including All 2D Function, Add:
--**Bevel** PXP Scan, Bevel Fly Scan
--For XYZ Stage Model +2C Computer
--For Bevel Smooth Surface Or High Magnification Observation Of Thick Samples
--Auto Acquisition Height Of Multi-focal Planes, After Modeling, Scan And Stitch 2D Image

A30.5801-2DF

2DF Version, Maxcope Series Optional Software
--Including All 2DB Function, Add:
--Up/Down Fast, Middle, Fine, **Fusion** Scan
--For XYZ Stage Model +3C Computer
--For Plane/Bevel/Uneven Surface
--Auto Focus On Multi-focal Planes, Scan And Stitch 2D Image
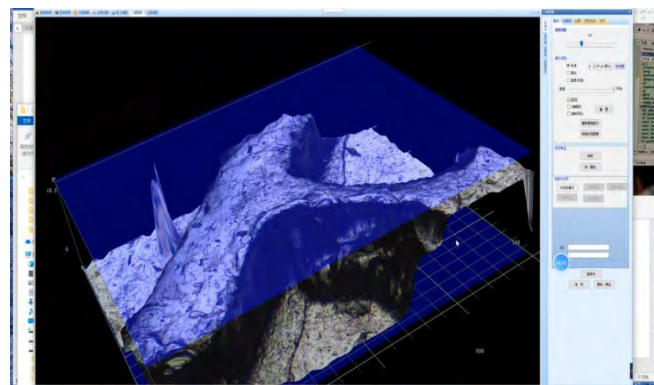
A30.5801-3D

3D Version, Maxcope Series Optional Software
--Including All 2DF Function, Add:
--3D Scan, 3D Measure
--For XYZ Stage Model +3C Computer
--For Plane/Bevel/Uneven Surface
--Auto Focus On Multi-focal Planes, 3D Scanning And Stitching After Depth Fusion

More Depth Customization Functions

HDR Observation Function, DIC Detection Analysis, Professional Metallographic Analysis, Grain Size Analysis, Cleanliness Analysis, Hardness Tester Analysis and other customized solutions for various industries, which can be deeply customized according to the specific needs of different customers to fully meet the complex work needs
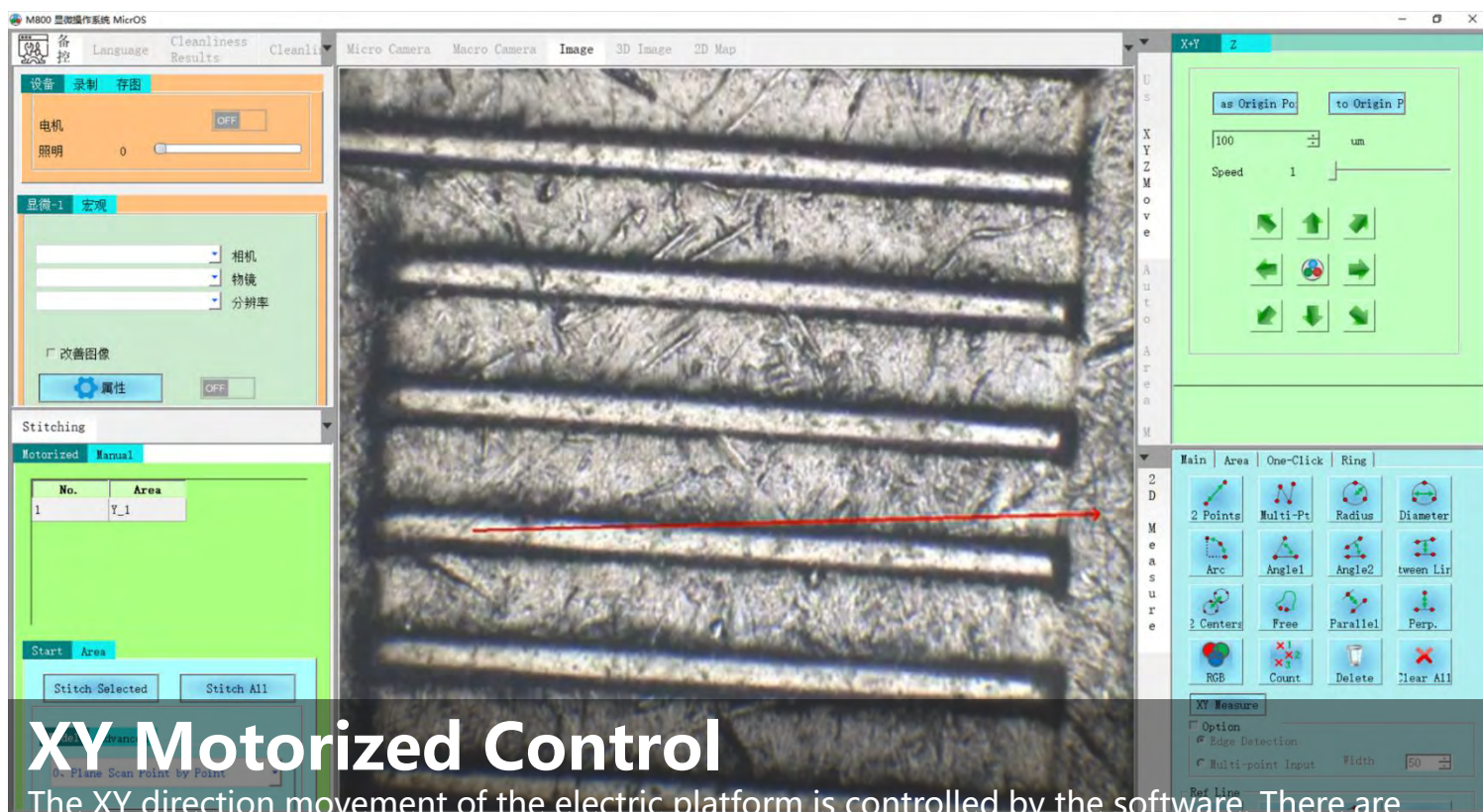
XY Motorized Control

The XY direction movement of the electric platform is controlled by the software. There are various control methods. You can directly drag the window to move the platform manually, or you can double-click any point of the image, to move stage to interesting point quickly.

Z Motorized Control

The software controls the Z-axis electric lift, to accomplish professional functions such as manual focus/auto focus/super depth of field fusion. One-button autofocus, focusing speed accuracy can be selected.
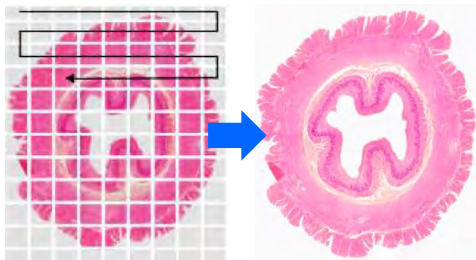
2D Stitching

Supports auto scanning and stitching of 2D images of any tilt plane or concave and convex surface. 2 Standard 2D Stitching Modes, 7 Advanced 2D Stitching Modes can scan & stitch at different scanning accuracy and speed as your need.

1.3x1.1mm 50x Objective 2D Stitching & Measurement
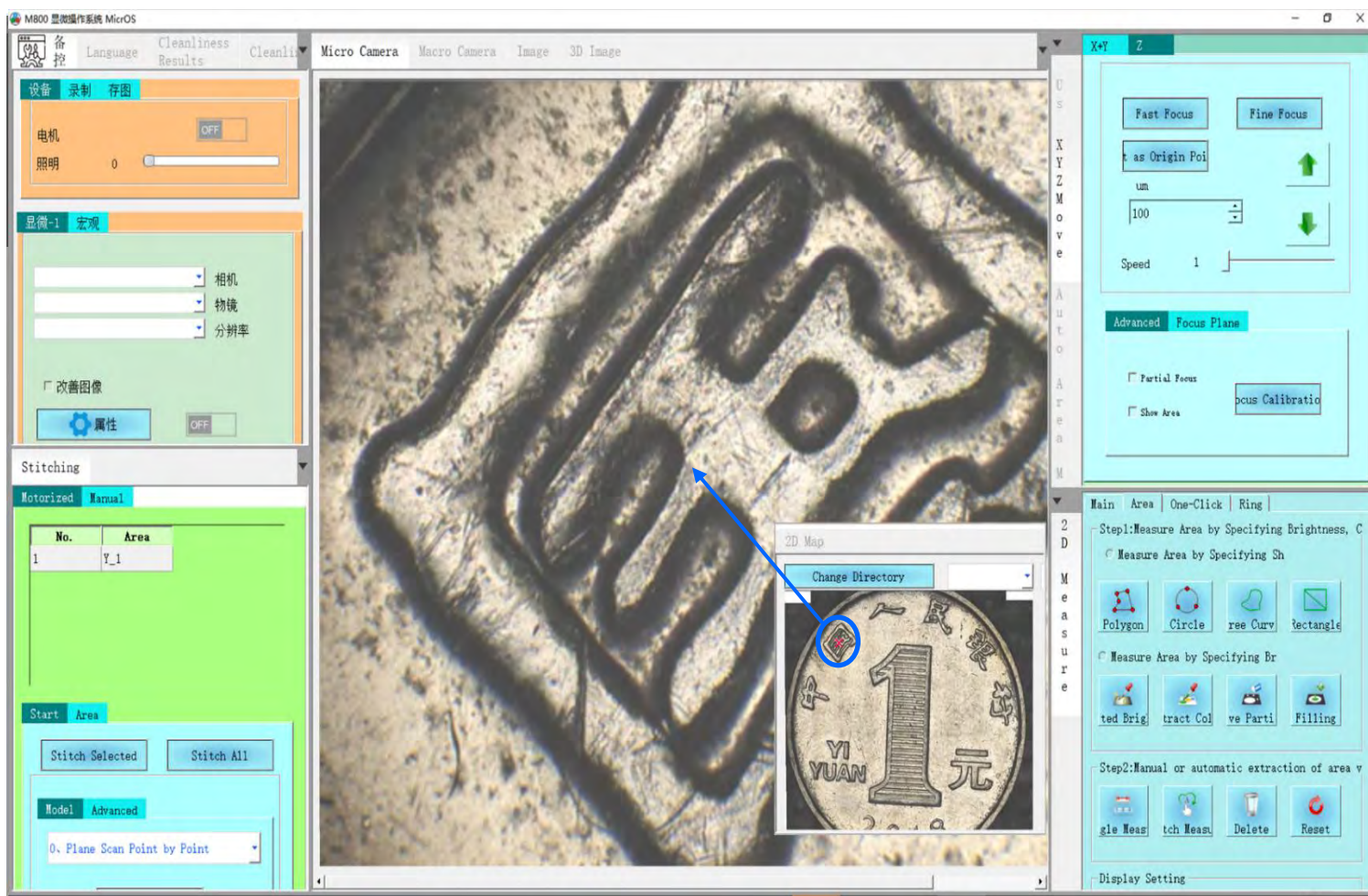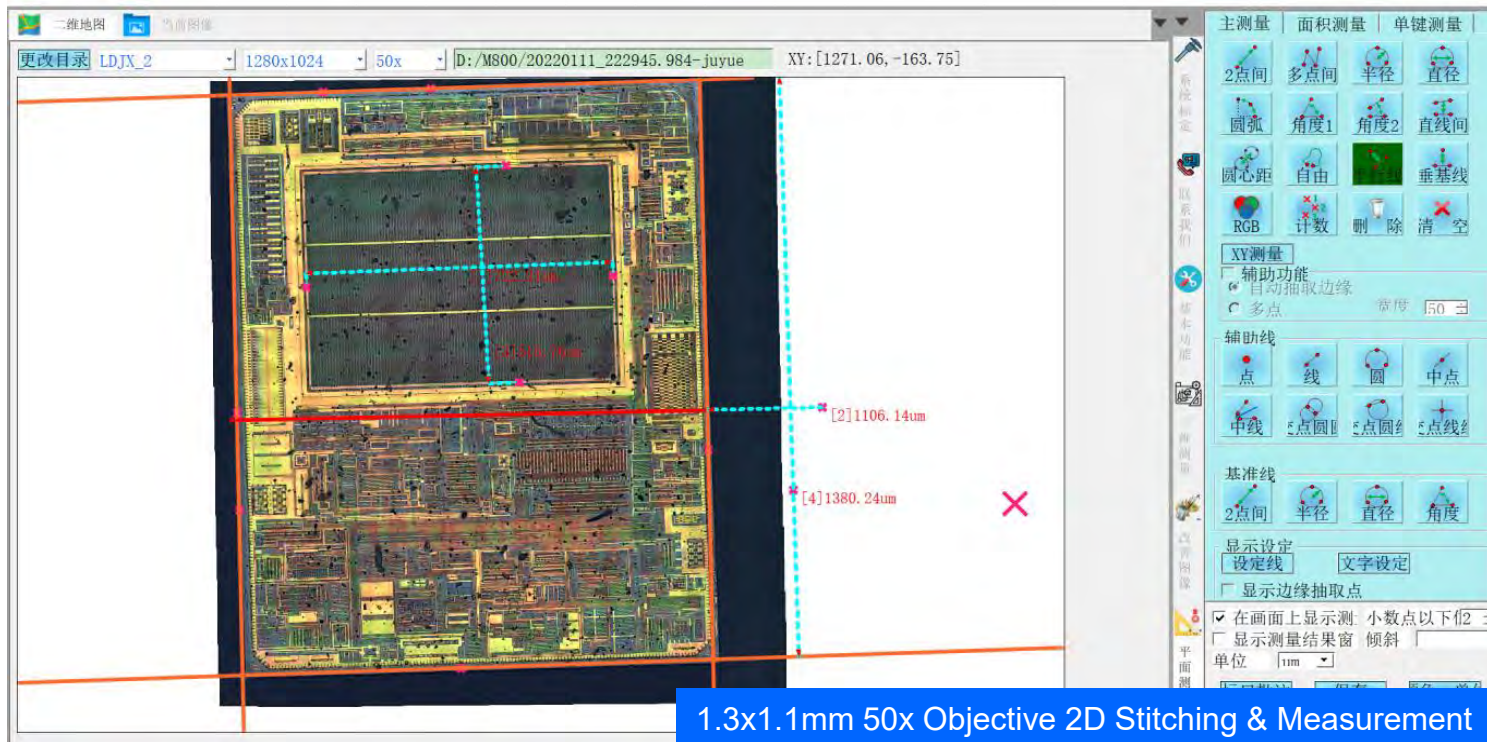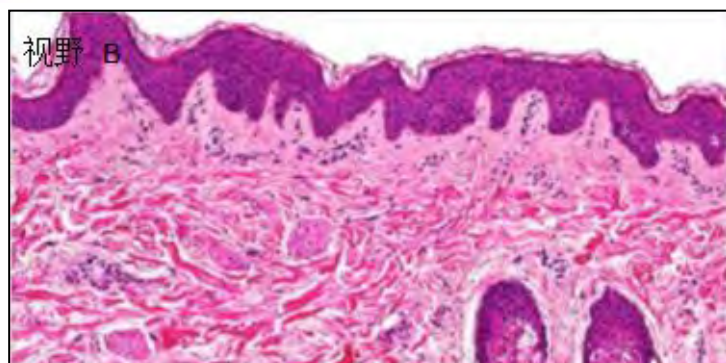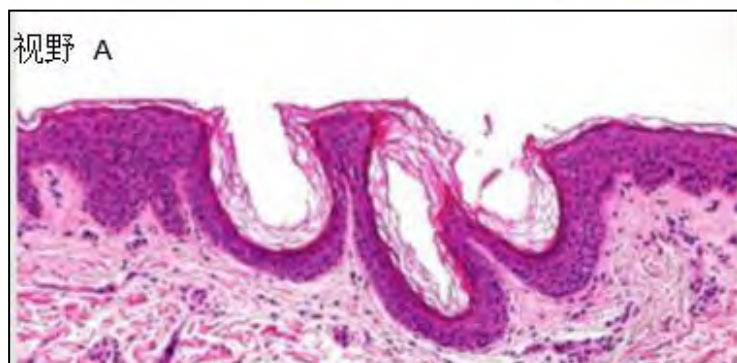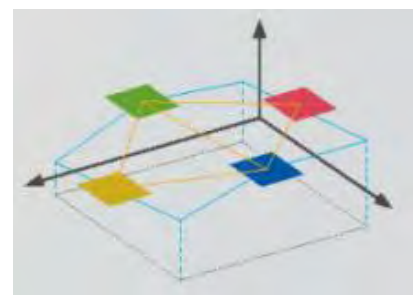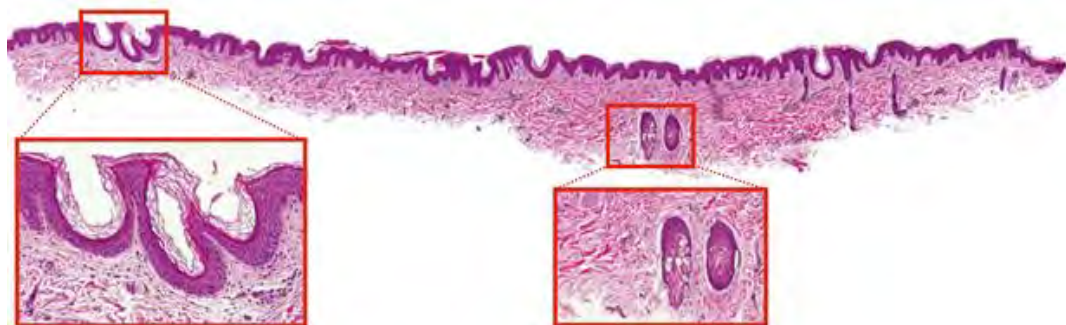
High Speed – Fly Scan Mode

After setting the scanning range of bevel or uneven surface, the software will automatically select 9 acquisition points, automatically focus and record the height respectively, and establish a height model. Then fly scan can move Z axis according to height model and take photos quickly and stitch 2D panoramic scan images at high speed.
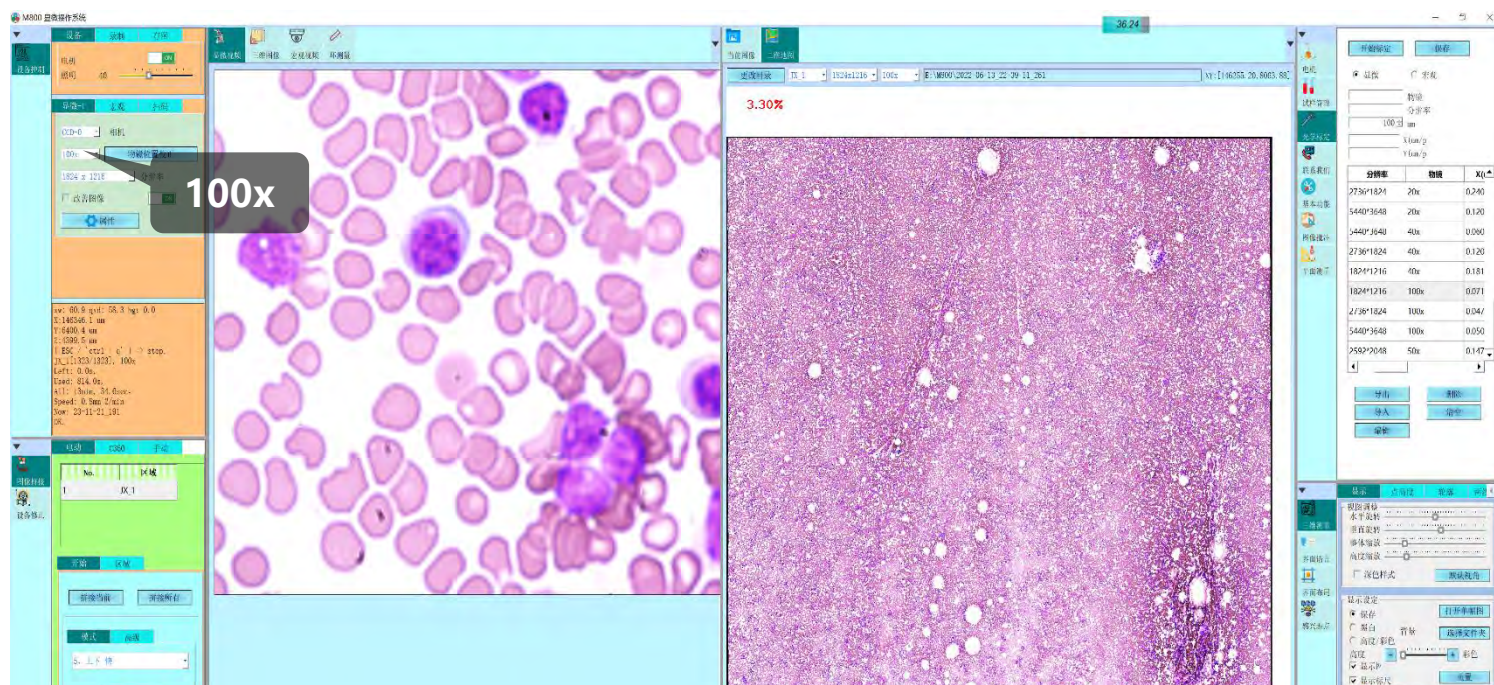
High Resolution – Scan Under 40x,100x

In addition to the basic XY motorized scanning and stitching, the advanced 2D scanning mode can simultaneously perform continuous scanning along the Z axis until the focus is found or depth of field fusion is made, and then panoramic stitching is performed. Even for industrial samples with uneven surfaces, or biological slices with uneven thickness under high magnification 40x or 100x, high-resolution 2D or 3D scan images with clear focus in all areas can be obtained

多边形	二点矩形	三点圆形	四点环形
扇形	三点环形	直径圆形	半径圆形
边缘轮廓	自由曲线		

确认添加　　　剔除区域　　　清除画痕

Free Stitching Area

The scan area can be automatically recognized by the software (the contour line mode automatically detects the edge contour of the object). Software also provides a variety of manual selection scan area modes, free curve mode can draw any shape as splicing area
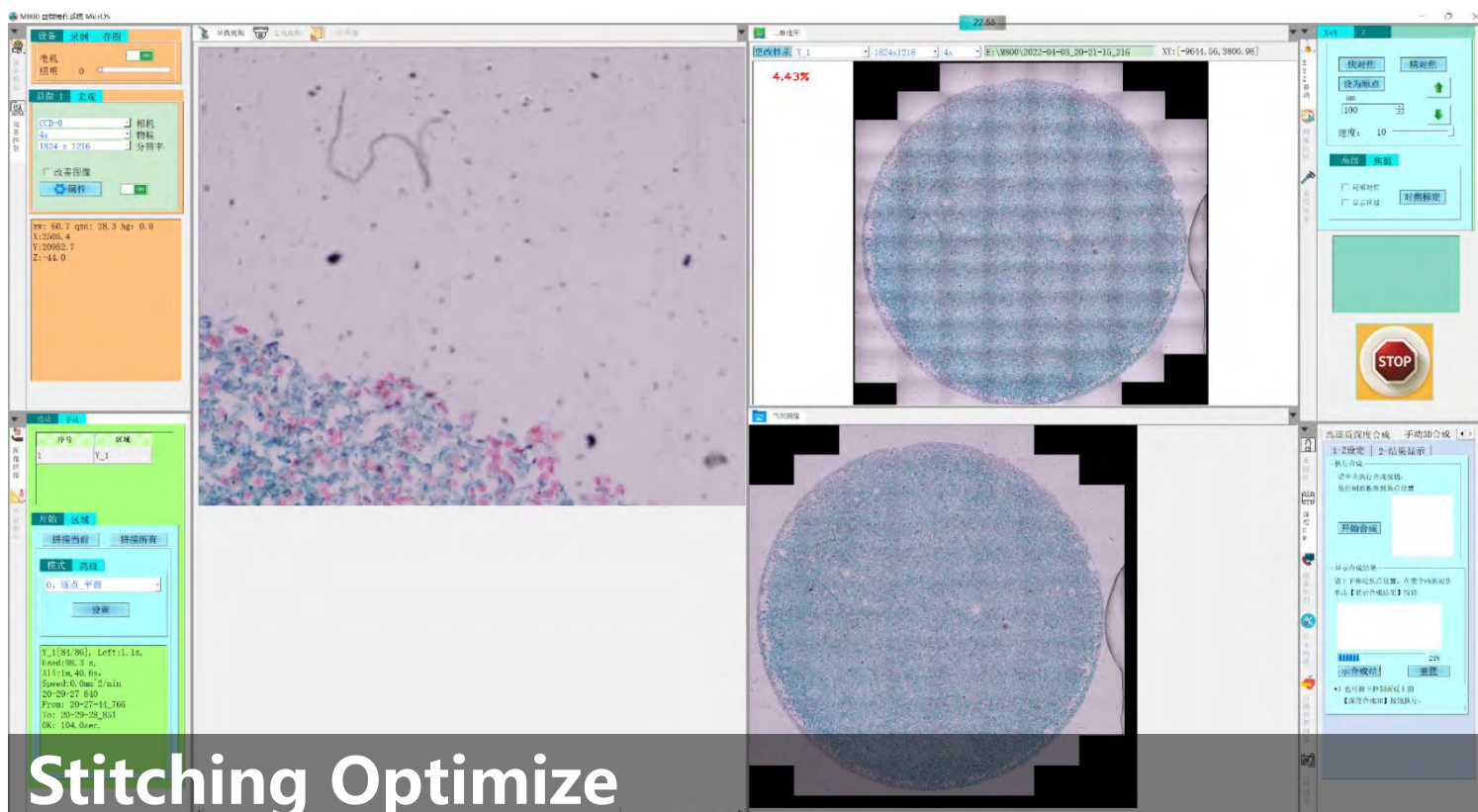
Stitching Optimize

The built-in advanced algorithm can intelligently optimize and correct the grid phenomenon and shadow phenomenon caused by lens aberration, uneven lighting and other factors when scanning and stitching, so that the stitched image will be one high-definition, no offset, no grid, no shadow.
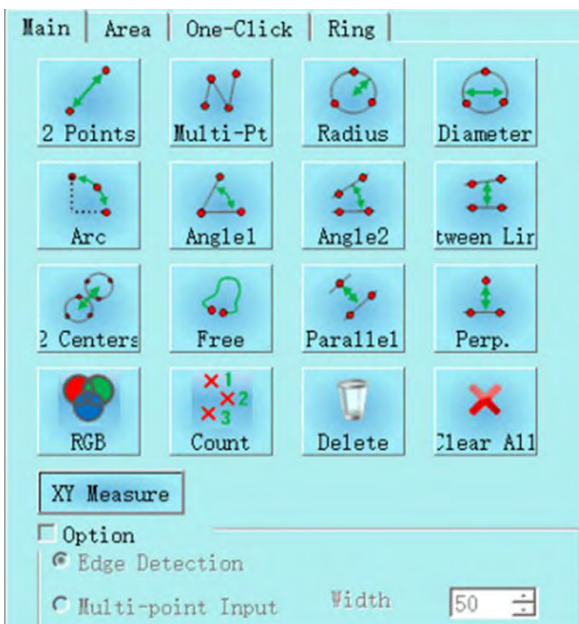
All Kind 2D Measurement

2D plane measurement function, length, angle, radius, diameter, free-form curve length, parallel line distance, point-line distance, 2-point distance, multi-point distance, radius, diameter, arc length, RGB measurement, counting and other 10 kinds of measurements mode, and provides a variety of auxiliary lines, reference line tools, free coordination can achieve various complex measurements

Auto match & count cells according to templates

使用分离功能分别对相邻细胞进行计数

One Key Auto Measurement

Multiple measurement items can be saved as templates, the software intelligently matches similar shapes, removes redundant targets or separates overlapping targets, and automatically performs unified measurement, counting and analysis for multiple targets with one key.
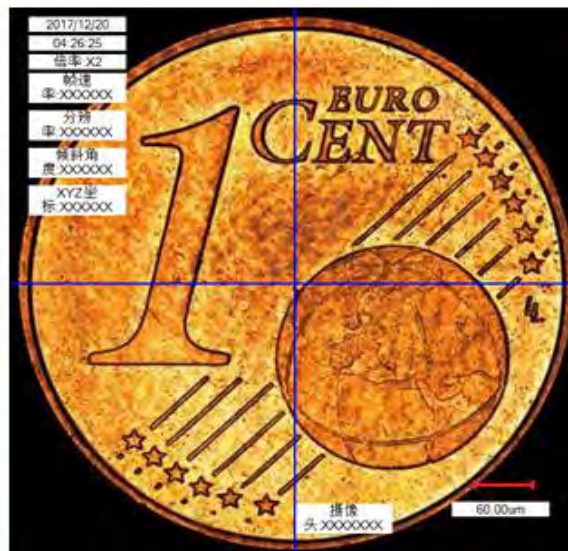
Freely Remark And Output Reports

Remark information can be freely inserted and displayed in the microscope video window and 2D map window. The annotation content, ruler, color, line, etc. can be freely set, and output to the experimental report along with the image

Max/Min Diameter

Circumscribed Rectangle (Minimum Area)
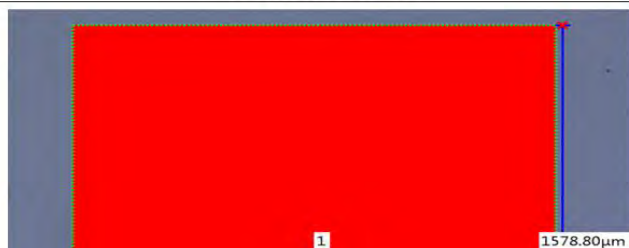
Circumscribed Rectangle (Ferret's Diameter)
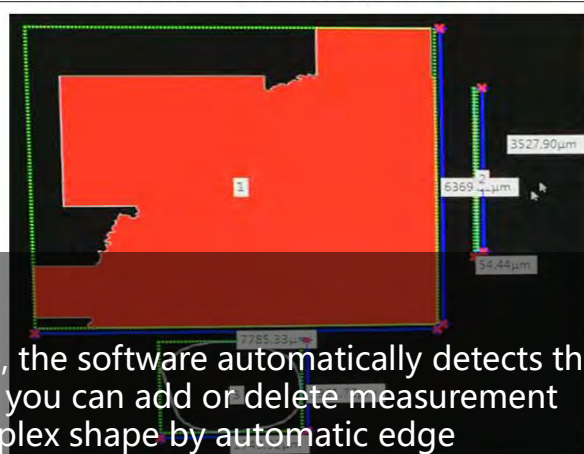
Circumscribed Rectangle (Arbitrarily Specified)

Max Area Measurement

Just use the mouse to specify the measurement range, the software automatically detects the edge of the object and selects the measurement area, you can add or delete measurement areas at will, and measure the largest area of any complex shape by automatic edge recognition instead of manual precise positioning
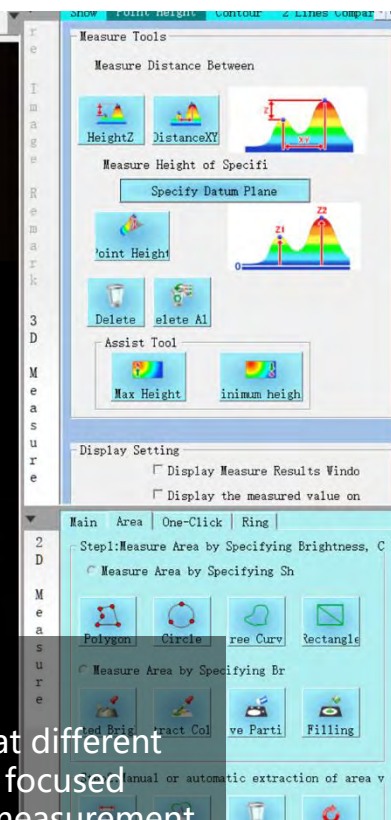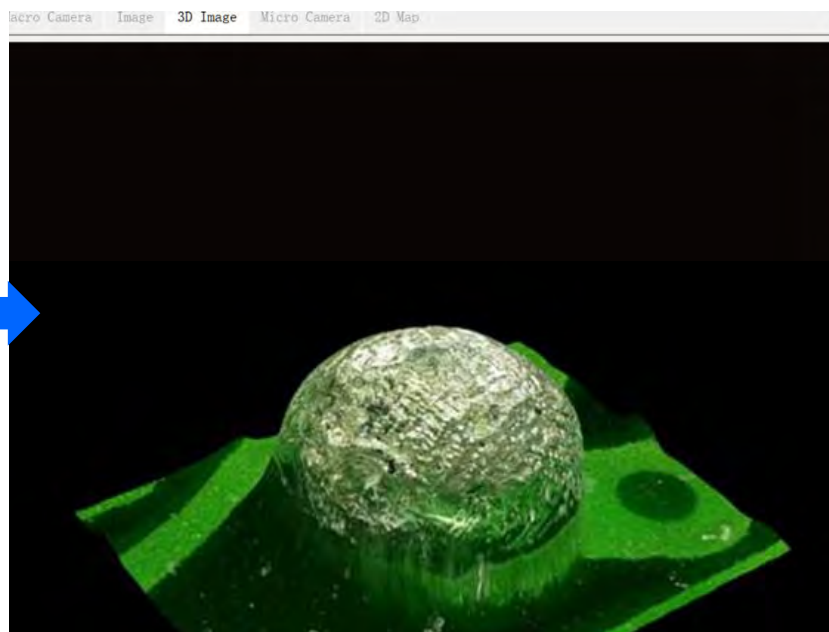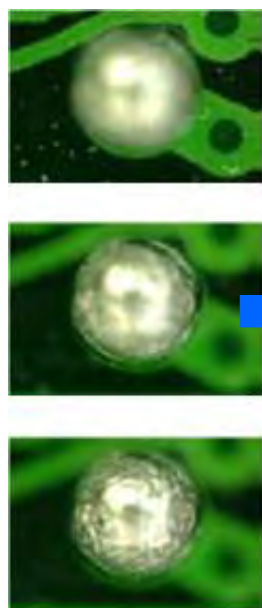
3D Stitching

It can take pictures of uneven observation objects after auto-focusing at different heights, obtain a full-frame clear 2D image synthesized from all clearly focused images, and stitch together to form a 3D image, and retain all the 3D measurement data of the observed object for later observation and analysis. Measurement. Super powerful algorithm can achieve 200-500 layers of fusion.
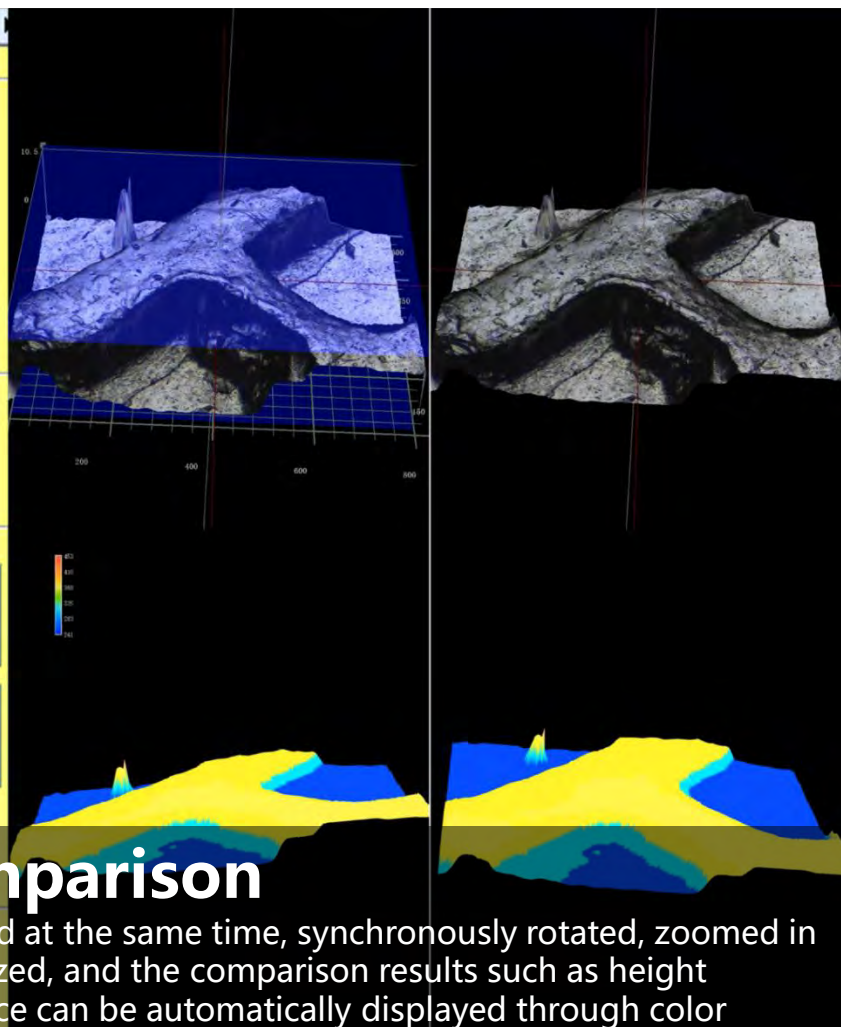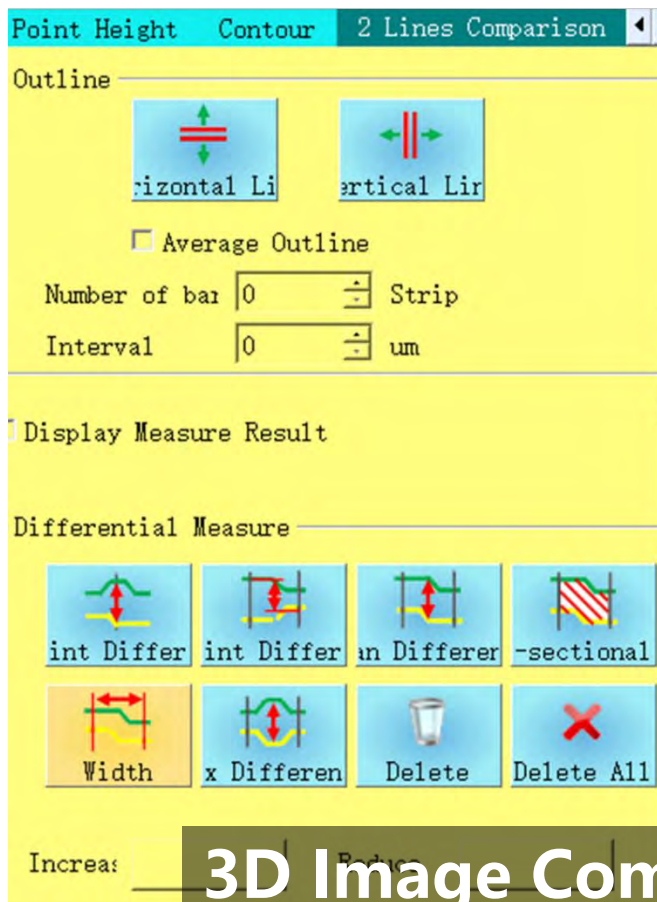
3D Image Comparison

Two 3D images can be opened at the same time, synchronously rotated, zoomed in and out, compared and analyzed, and the comparison results such as height difference and shape difference can be automatically displayed through color identification

3D Image View

The saved 3D image can be opened at any time, controlled by the mouse to rotate freely, zoom in and out, open the ruler, color identification and other auxiliary tools, which is convenient to visually observe the two-dimensional surface shape and three-dimensional structure of the object from any angle, and thoroughly and clearly understand the observed object. object

3D Measurement

3D image also saves all the three-dimensional measurement data of the observed object, and supports any measurement of the observed object later, including the height, depth, length, roughness, convex area, concave area, convex volume, concave volume, etc.

Maxcope Sample Pictures

MAXCOPE

50x Objective Chip 1.3x1.1mm 2D Stitch & Measure

10x Objective Cervical Cancer Section 2D Stitch, 2D Map

Magnified View Of Chondrocytes

Fluorescent Effect

Phase Contrast Effect

Full Image Quick Focus By Few Frames

Multiple virtual planes are created according to the height of each registered coordinate when the range is set, and the Z position is slightly adjusted along the shape of the plane to shoot. Full-focus, wide-field images can be quickly captured with a small number of frames.

Lung Fleshy Change (Lobar Lung Change)

Ovarian Yolk Sac Tumor

Thickening Of Lung Markings

Apocrine Gland Lesions
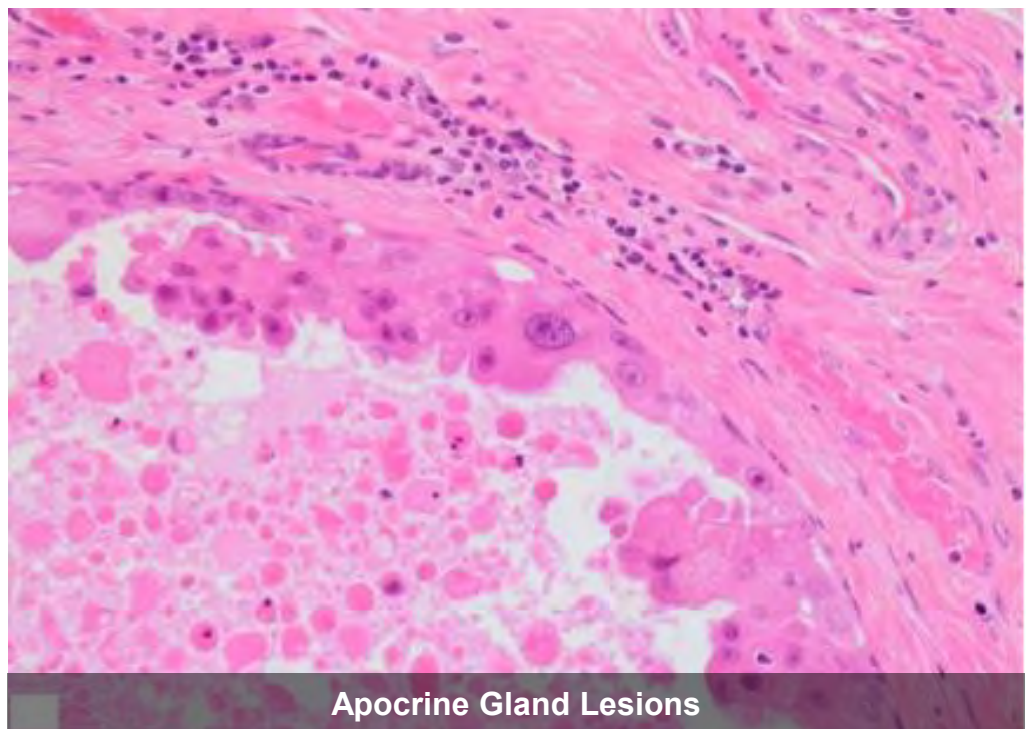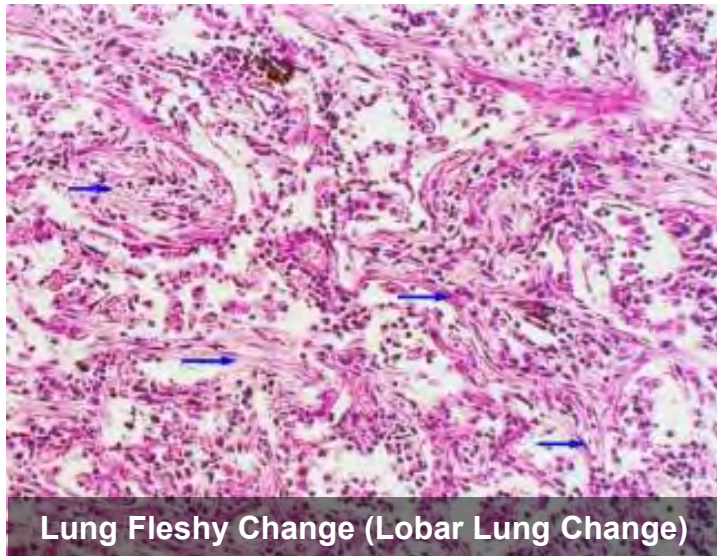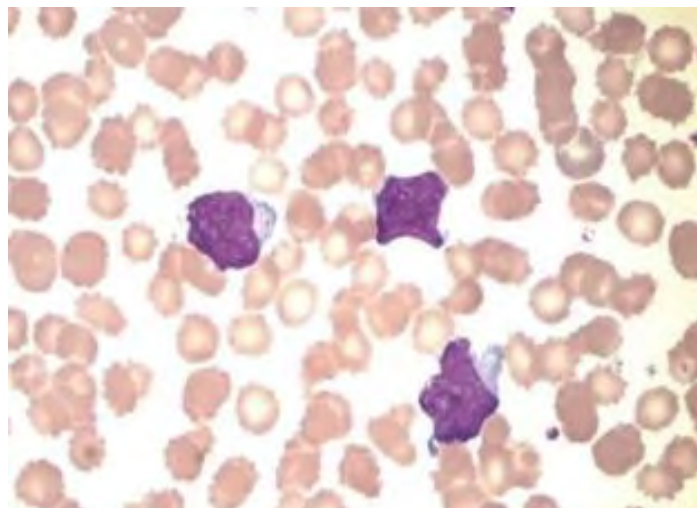
Peripheral Blood Smear - Wright's Stain (1000x)

吞噬细胞（吞噬血小板）

一群异常细胞（聚集出现）

吞噬细胞（吞噬血小板）

两个异常细胞
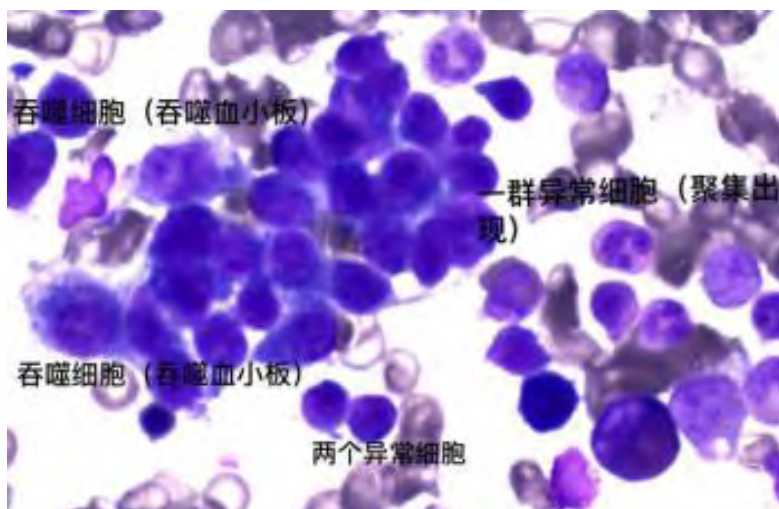
Lymphocyte Detection
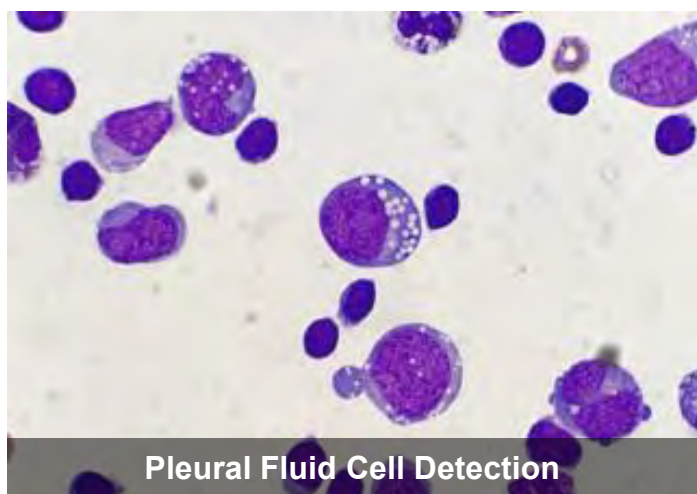
Pleural Fluid Cell Detection

瑞吉染色，100倍
纤维丝状物

图3胸水

Fiber Filaments (100x)
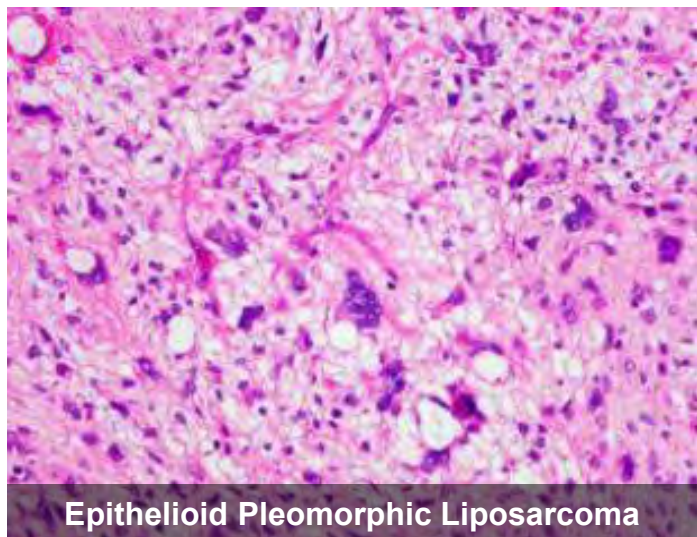
Epithelioid Pleomorphic Liposarcoma
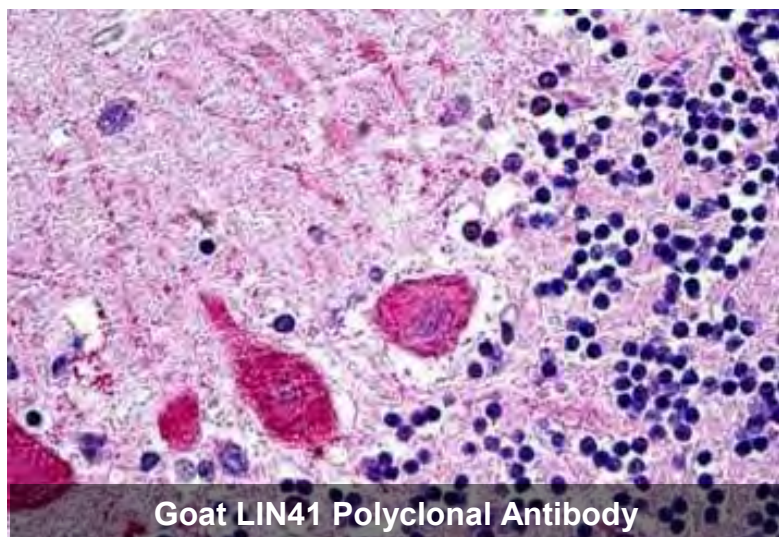
Goat LIN41 Polyclonal Antibody
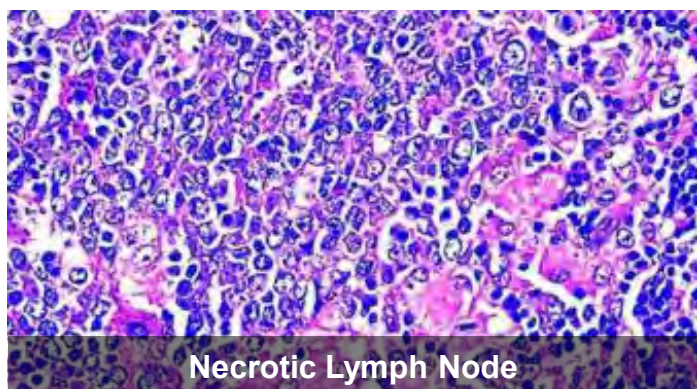
Necrotic Lymph Node
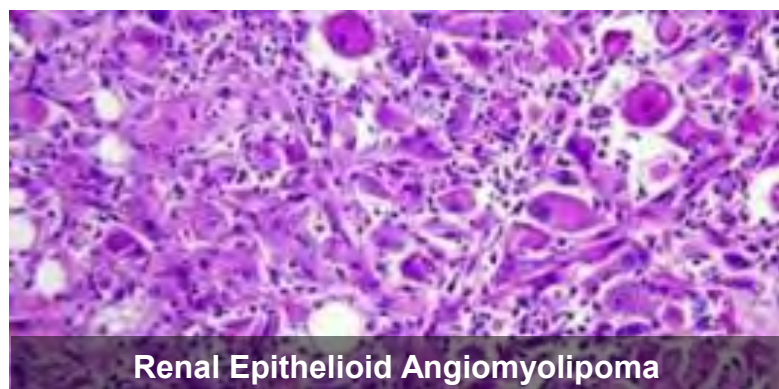
Renal Epithelioid Angiomyolipoma
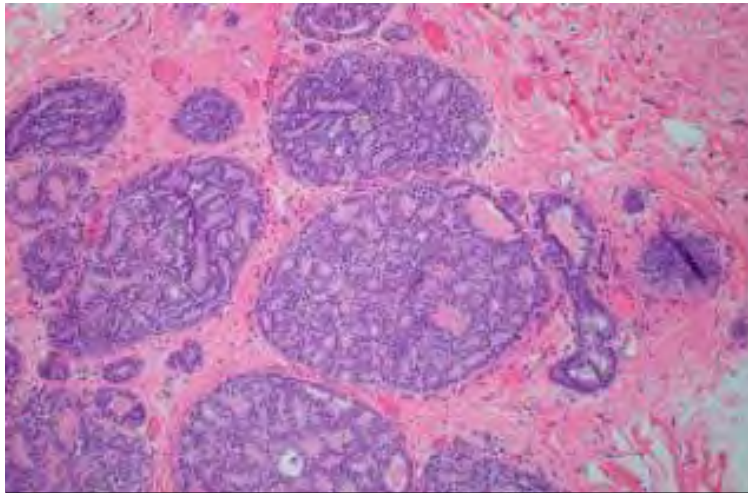
Ductal Carcinoma In Situ Of Breast
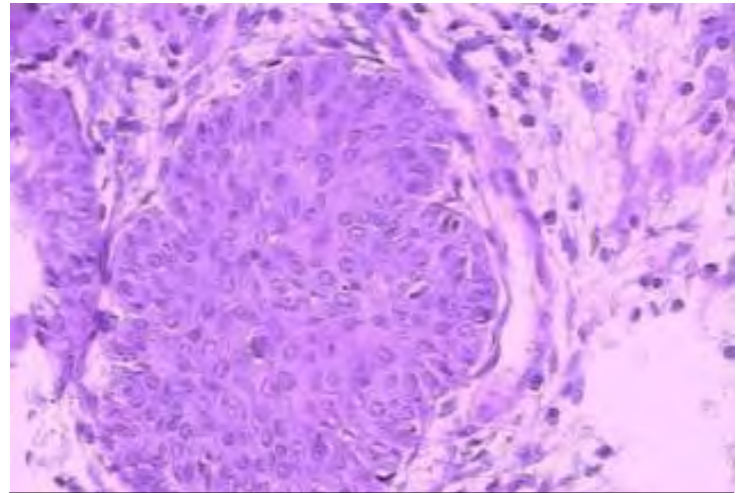
Intestinal Polyp Pathology
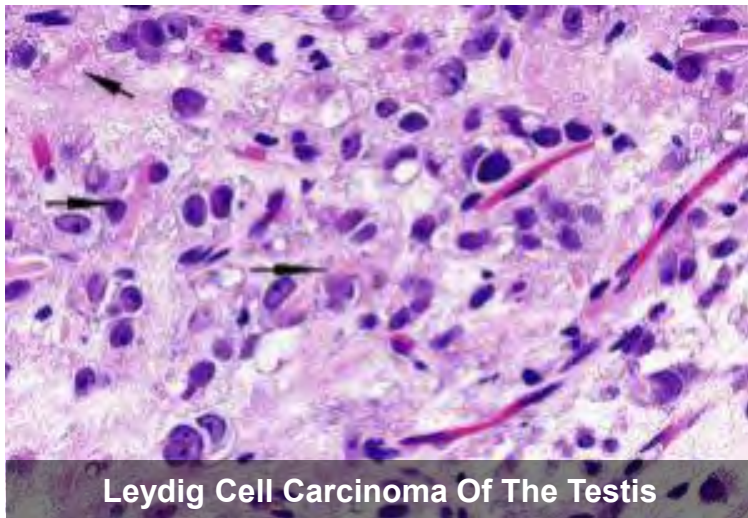
Leydig Cell Carcinoma Of The Testis
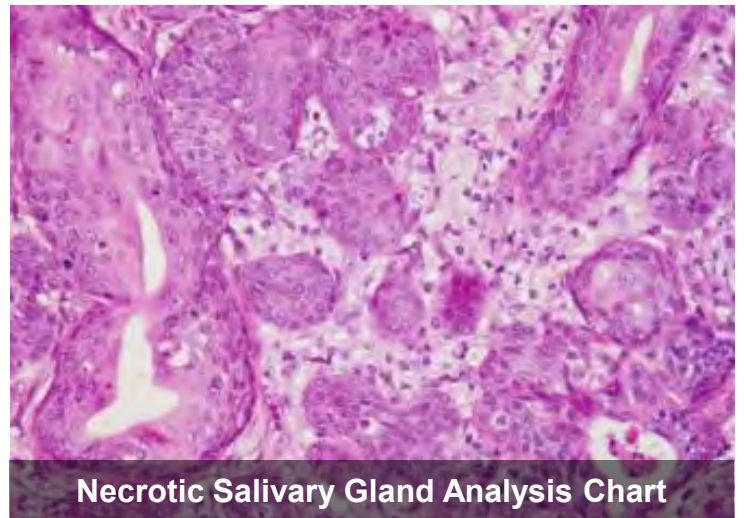
Necrotic Salivary Gland Analysis Chart
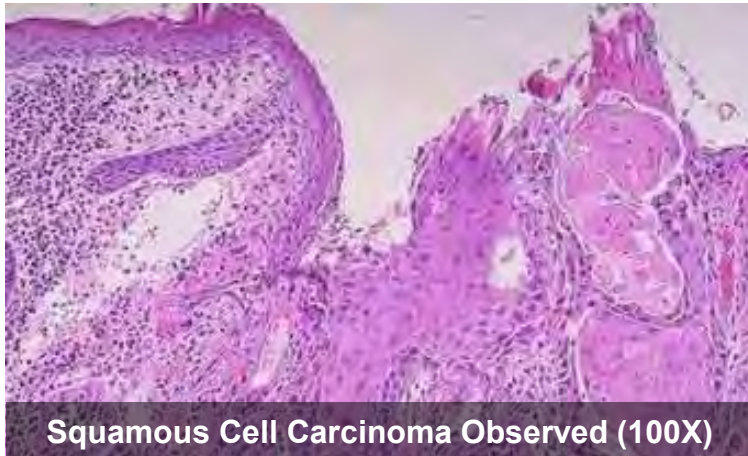
Squamous Cell Carcinoma Observed (100X)

Liver Tissue Section
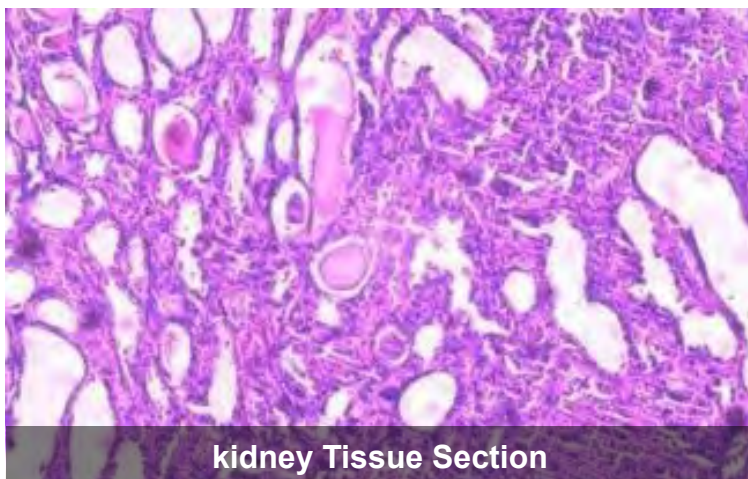
kidney Tissue Section
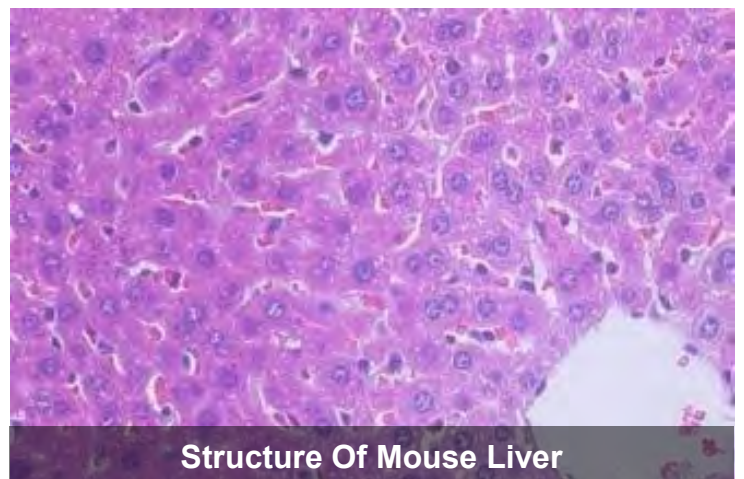
Structure Of Mouse Liver

Item	M12.5850 3D Full Auto SDF Biological Microscope M16.5850 3D Full Auto SDF Fluorescent Microscope	M12.5850	M16.5850	Cata. No.
Optical System	Infinity Optical System, BF Bright Field	●	●	
	Semi-APO, Semi Apochromatic	●	●	
	APO, Apochromatic	○	○	
	DF, Dark Field	○	○	
	PL, Polarizing	○	○	
	PH, Phase Contrast	○	○	
	DIC, Different Interference Contrast	○	○	
	FL, Fluorescent	○	○	
Head	30° Inclined Erect Image Infinity Gemel Trinocular Head, Interpupillary Distance 50~76mm, Light Splitting Ratio Switch E100:P0/E0:P100,	○	○	A53.0913-T30E
	30° Inclined, Invert Image Infinity Gemel Trinocular Head, Interpupillary Distance 50~76mm; Light Splitting Ratio Switch R:T=100:0 or 20:80 or 0:100	●	●	A53.0913-T30
	5-35° Tiltable, Inverted Image, Infinity Gemel Trinocular Head, Interpupillary Distance 50~76mm; Light Splitting Ratio 50:50 or 100:0 or 0:100	○	○	A53.0913-T535
Adapter	0.5x C-Mount, For 1/2"CCD, Focus Adjustable	●	●	A55.0930-05
	0.35x C-Mount, For 1/2"CCD, Focus Adjustable	○	○	A55.0930-35
	0.65x C-Mount, For 1/2"CCD, Focus Adjustable	○	○	A55.0930-65
	1.0x C-Mount, For 1"CCD, Focus Adjustable	○	○	A55.0930-10
Digital Camera	7.0M USB3.0 CMOS Cooling GS Shutter Digital Camera, For Fluorescent Imaging,, 1.1" CMOS, FPS 12@3200x2200, 33@1600x1100, Semi-Conductor Cooling Range -42°C, Anti-Frog, One Hour Exposure, G Sensitivity Dark Signal 2058mv with 1/30s	●	●	A59.2225-7MPA
Eyepiece	High Eyepoint Plan PL10x/25mm, Diopter Adjustable	●●	●●	A51.0904-1025T
	High Eyepoint Plan PL10x/26.5mm, Diopter Adjustable	○	○	A51.0904-10265T
	High Eyepoint Plan PL10x/25mm, Diopter Adjustable, With Reticle	○	○	A51.0905-1025T
	High Eyepoint Plan PL10x/26.5mm, Diopter Adjustable, With Reticle	○	○	A51.0905-10265T
Nosepiece	BF 6 Holes, With Socket For DIC Slide & Polarizing Analyzer Slide, **Coded & Motorized Control by Software**	●	●	A54.0930-R6
Objective	**Infinity Plan Semi-APO Fluorescent Objective**			
	Semi-APO Fluorescent 4x/0.13, W.D.=16.43mm	●	●	A5F.0950-4
	Semi-APO Fluorescent 10x/0.3, W.D.=8.13mm	●	●	A5F.0950-10
	Semi-APO Fluorescent 20x/0.5, W.D.=2.03mm	●	●	A5F.0950-20
	Semi-APO Fluorescent 40x/0.75, W.D.=0.74mm	●	●	A5F.095040
	Semi-APO Fluorescent 100x/1.3, W.D.=0.18mm	●	●	A5F.0950-100
	Infinity Plan APO Fluorscent Objective			
	APO Fluorescent 2x/0.08, WD=6.2mm	○	○	A5F.0951-2
	APO Fluorescent 4x/0.13, WD=16.6mm	○	○	A5F.0951-4
	APO Fluorescent 10x/0.40, WD=2.1mm	○	○	A5F.0951-10
	APO Fluorescent 20x/0.75, WD=0.6mm	○	○	A5F.0951-20
	APO Fluorescent 40x/0.95, WD=0.15mm	○	○	A5F.0951-40
	APO Fluorescent 60x/0.90, WD=0.26mm	○	○	A5F.0951-60
	APO Fluorescent 100x/1.35, WD=0.13mm	○	○	A5F.0951-100
	Centering Objective For Fluorescent	○	●	A5F.0930-1
Focusing	Low-Position Coaxial Coarse & Fine Adjustment, Coarse Adjustment Distance: 25mm; Fine Precision: 0.001Mm. With Coarse Adjustment Stop And Tightness Adjustment.	●	●	
Main Body	Transmitted Biological Main Body, Digital Dimming System With Light Indicator, Brightness Set & Reset Function, With ECO Function	●		
	Reflected &Transmitted Fluorescent Main Body, Digital Dimming System With Light Indicator, Brightness Set & Reset Function, With ECO Function		●	

Item	M12.5850 3D Full Auto SDF Biological Microscope M16.5850 3D Full Auto SDF Fluorescent Microscope	M12.5850	M16.5850	Cata. No.
Transmit Light	12V100W Halogen Lamp House, Pre-Centered	●	●	A56.0915-LH
	12V100W Halogen Bulb (Philps 7724)	●	●	A56.0923-12100
	Swing-out Type Achromatic Condenser, N.A.0.9/0.25	●	●	A56.0934-R
	Built-In Transmit Filters LBD/ND6/ND25	●	●	
Reflect Epi Fluorescent Light	Full Set, 6 Holes Reflect Epi-Fluorescent Illumination, With Iris Diaphragm, With Aperture Diaphragm, With Filter Slot, With Polarizing Analyzer Slot, With Protect Barrier, With Fluorescent Shutter --100W Mercury Light Box, Center Adjustable --Digital Power Supply 90~240V --HBO 100W Mercury Bulb OSRAM --Attenuation Filter ND50 --Fluorescent Filter B,G,UV		●	A5F.0906
	--Fluorescent Filter V			A5F.0906-V
Power	Built-In 100-240V Wide Voltage Transformer	●	●	
Other	Allen Key M4	●	●	
Universal Condenser For Dark Field, Polarizing, Phase Contrast, DIC View				
Universal Condenser	Universal Condenser, Disc With 8 Holes For Function DF, PL, PH, DIC --3 Small Holes For Phase Contrast Rings A5C.0960, PH Objectives A5C.0961 --3 Big Holes Only For DIC Rings A5M.0960 --2 Big Holes Center Adjustable, For Dark Field Ring A5D.0960 or DIC Ring A5M.0960 --Polarizer Lens Included In Socket Under Universal Condenser --Need to Select N.A.0.9 Condenser Lens As Standard	○	○	A56.0960
	N.A.0.9 Condenser Lens, **Standard Selection**, For Objective 10x20x40x60x100x Screw On Universal Condenser Disc	○	○	A56.0960-09
	N.A.0.2 Condenser Lens, Optional Selection, For Objective 4x Screw On Universal Condenser Disc	○	○	A56.0960-02
	N.A.1.4 Condenser Lens, Optional Selection, For Objective 20x40x60x100x Screw On Universal Condenser Disc	○	○	A56.0960-14
Dark Field	Dark Field Ring, Dry Type N.A.0.9, For Objective 10x,20x	○	○	A5D.0960-D
	Dark Field Ring, Immersion Oil Type N.A.1.4, For Objective 40x,60x	○	○	A5D.0960-I
DIC	Transmission DIC Slide, Insert To DIC Socket On Nosepiece	○	○	A5M.0960
	Transmission DIC Ring 10x	○	○	A5M.0960-10
	Transmission DIC Ring 20x	○	○	A5M.0960-20
	Transmission DIC Ring 40x/60x	○	○	A5M.0960-4060
Phase Contrast APO Objective	Infinity Plan Apochromatic Positive Phase Contrast Objective	○	○	
	APO PH 4x/0.16, WD=12.8m	○	○	A5C.0950-4
	APO PH 10x/0.40, WD=2.5mm	○	○	A5C.0950-10
	APO PH 20x/0.75, WD=0.6mm	○	○	A5C.0950-20
	APO PH 40x/0.95, WD=0.15m	○	○	A5C.0950-40
	APO PH 60x/0.90, WD=0.26mm	○	○	A5C.0950-60
	APO PH 100x/1.35, WD=0.13mm	○	○	A5C.0950-100
Polarizing	Polarizer Lens Included In Plug-in Socket Under Universal Condenser	○	○	
	Analyzer Slide, Insert To Analyzer Socket On Nosepiece	○	○	A5P.0960
Upgrade Series Model				
Metallurgical	Upgrade to M13.5850 3D Full Auto SDF DIC Metallurgical Microscope, APO			M13.5850

Remark: '●' Means Standard Outfit, '○' Means Optional

Maxcope Software Versions

Motorized Working Stage, Computer & Software

Motorized Working Stage	XYZ Motorized Working Stage, 2-Phase Stepping Motor, High Precision Module, Aluminum Alloy Material, Surface Anodized, Anti-Corrosion And Scratch-Resistant --For Biological Transmit Light Source, With 6 Slides Holder --For Metallurgical Reflect Light Source, With Metal Plate	●	A54.5806
Size	255x210mm		
XYZ Moving	85x70x42mm		
Resolution	<0.05um		
Repeatability	≤20um		
Maxcope Software	2D, Plane Scan, For XY or XYZ Stage+2C Computer	●	A30.5801-2D
	2DB, Add Bevel Scan, For XYZ Stage+2C Computer	○	A30.5801-2DB
	2DF, Add Up/Down Fusion Scan, For XYZ Stage+3C Computer	○	A30.5801-2DF
	3D, Add 3D Scan, For XYZ Stage+3C Computer	○	A30.5801-3D
	Customized Function, Detail See Maxcope Software Version Table	○	A30.5801-CF
Computer	Dell i5 64G 256G+1T, 2G Graphic, 27" 4K, Pre-Installed Maxcope Software. Standard Computer For 2D, 2DB Version Software	●	A30.5801-2C
	Dell Xeon W-2265 12 Core 3.5GHz, 128G+1T NVMe 4T, RTX4000-8G, 27" 4K, Pre-Installed Maxcope Software. Standard Computer For 2DF, 3D Version Software	○	A30.5801-3C

Maxcope Software Version Table

2D Version
(Standard Version, For XY or XYZ Stage + 2C Computer)

XY Motorized Control	Control the motorized stage through software, support one-click set/return to origin point, three ways control methods: • Click the 8-direction arrow with the mouse to manually control the stage movement, and the step distance and move speed can be freely adjusted • Long press the mouse and drag in the camera preview window, to move the working stage to the corresponding direction • Double-click the mouse at any point in the preview window, the point will be set as center of the window, the stage will move accordingly
2D Plane Scan	2 kinds plane scan modes, no need auto or manual focus during stitching, for plane smooth surface or low magnification view, XY stage will direct scan single focal plane and stitch the 2D image • Plane PXP Scan, point by point, high precision, slow speed • Plane Fly Scan, line by line, low precision, high speed Supports automatic scanning and stitching of 2D images at any magnification, with optional scanning accuracy and speed.
Free Stitching Area	Provides 6 stitching area modes, which can quickly set stitching areas of any shape: Polygon, 2-point rectangle, 3-point circle, 4-point ring, outline, free curve. • Outline mode can automatically detect the edge contour of the object as the stitching area. • Free curve mode can freely draw any shape as the stitching area.
2D Stitching Optimize	The built-in advanced algorithm can intelligently optimize and correct the grid phenomenon and shadow phenomenon caused by lens aberration, uneven lighting and other factors when scanning and stitching, so that the stitched image will be one high-definition, no offset, no grid, no shadow.
Calibration	It can do the necessary calibration before measurement, for different camera & objective lenses, user can add, delete, and manage the calibration list at any time
2D Measurement	2D plane measurement 10+ functions, including length, angle, radius, diameter, free curve length, parallel line distance, point-line distance, 2-point distance, multi-point distance, radius, diameter, arc length, RGB measurement, counting, etc. and a variety of auxiliary lines and reference line tools are provided. Combined with these tools, various complex measurements can be achieved, and various measurable information of planar images can be obtained more efficiently.
2D Map Guide	After scanning and stitching to generate a panoramic image, it can be used as an electronic 2D map for navigation. Click the 2D map to control the motorized stage to quickly locate the specified position for high-magnification observation, avoiding the confusion of difficult positioning in traditional high-magnification observation.
Point of Interest	Click the mouse to freely set and save multiple points of interest on the image, you can select and quickly return to the point of interest at any time for repeated focus observation
Marco Camera Guide	The model with optional macro camera, the panoramic image previewed in real time can be used as an electronic 2D map for navigation function, one click can reach the point of interest for high-power observation
Motorized Nosepiece	Optional motorized nose wheel models, you can select different objective lenses in the software, and switch the magnification with one click

Maxcope Software Versions

Full Parameter Record	While taking pictures and videos, software can automatically records comprehensive information such as shooting date, objective lens, magnification, stage position, etc., which is convenient for outputting to experimental reports or for reproducing observation results later.
Extra Long Video Record	The longest 1 hour, the fastest 50PFS video recording, can comprehensively record the experimental detection process, or the long-term change process of the observed object, subtle movements and other information. The video results can be fast-forwarded or played frame by frame, and still images can be extracted and saved.
Customized Report	Freely set Word and Excel report templates, including images and comprehensive shooting parameters, which is convenient for quickly outputting a complete inspection report in the later stage
Free Interface	The software interface and each submenu can be freely settled by dragging and dropping with the mouse, and can be saved, exported, and imported into the customized interface layout, and the default simple interface can also be restored easily by hot key Ctrl + G.
Multi Language	The software supports Simplify Chinese, Traditional Chinese, English, Russian, Korean, Japanese, Iranian, Dutch, French, German, Italian, and other language versions can be customrized.
2DB Version **(2D + Below Functions, For XYZ Stage + 2C Computer)**	
Z Motorized Control	The software controls the Z-axis motorized lift, support professional functions such as manual focus/auto focus/super depth of field fusion • Click the up and down arrows with the mouse to manually control the Z-axis lift and focus • One-click autofocus, focusing speed & accuracy can be selected
2D Bevel Scan	3 kinds Bevel Scan modes, can auto acquisition height of multi-focal planes, after modeling, scan and stitch 2d image, especially suitable for bevel smooth surface, • Bevel PXP Scan, Point by Point • Bevel Fly Scan. Manual Focus • Bevel Fly Scan Auto Focus
Auto Focus	One click autofocus, as quick as 0.3-2 seconds for each focus, focusing accuracy and speed are optional
2DF Version **(2DB + Below Functions, For XYZ Stage + 3C Computer)**	
2D Fusion Scan	4 kinds of auto focus stitching modes up and down, with Z-axis motorized, you can focus on the inclined plane and the concave-convex surface layer by layer along the Z axis to find the correct focal plane, or after the depth of field fusion of multi-layer images, then scan and stitch into a clear full frame 2D images, especially suitable for complex industrial inspection, special slice observation and other fields • Up/Down Scan, Fast • Up/Down Scan, Middle • Up/Down Scan, Fine • Up/Down Scan, Fusion
Depth Fusion	The innovative design of high-quality depth synthesis can easily do 200~500 layers of super depth of field superposition and fusion in a short period of time. The software makes intelligent judgment on abnormal high and low points, scans with full coverage, and obtains full-frame clear focus pictures
Auto Edge Selection	When the measurement point manually selected by the mouse is deviated on the screen, the software can automatically detect the edge of the target and automatically correct the measurement point to the edge to eliminate human error and improve the efficiency of measurement range selection
3D Version **(2DF + Below Functions, For XYZ Stage + 3C Computer)**	
3D Scan	3D stitching mode, which can automatically focus on uneven objects, take pictures at different heights, obtain a full-frame clear 2D image composed of all clearly focused images, and stitch all focused image together to form a 3D image, and retain all the 3D measurement data of the observed object. • 3D Stitching
3D Image View	The saved 3D image can be opened at any time, controlled by the mouse to rotate freely, zoom in and out, open the ruler, color identification and other auxiliary tools, which is convenient to visually observe the 2D surface shape and 3D structure of the object from any angle, and thoroughly and clearly understand the observed object
3D Measurement	The 3D image also saves all the three-dimensional measurement data of the observed object, and supports any measurement of the observed object later, including the height, depth, length, roughness, convex area, concave area, convex volume, concave volume, etc.

Maxcope Software Versions

3D Image Comparision	Two 3D images can be opened at the same time, synchronously rotated, zoomed in and out, compared and analyzed, and the comparison results such as height difference and shape difference can be automatically displayed through color identification
3D Manual Stitching	Support manual stage models, only need to manually lift the stage, the software automatically scans and takes pictures and stitches to form 3D images, upgrade manual stage model to do semi-automatic 3D scanning and stitching work.
Multi Files Comparison	Multiple files can be opened at once for cross-section, volume, area, flatness, roughness measurements, and more. Even if there are multiple evaluation samples, analysis can be performed instantaneously under the same conditions. It is possible to see at a glance where and what differences exist, such as changes in shape due to prototypes with different manufacturing conditions or wear. Not only can measurement work be significantly reduced, but evaluation errors caused by deviations in measurement conditions can also be prevented.。
CF Version **Customized Function Module For Special Observation**	
HDR	Acquires multiple ultra-clear images using a single wavelength of light and images with different shutter speeds, and turns them into 1 image with high grayscale data. Achieved unprecedented high-definition, high-contrast observation
DIC	The automatic turret of the six-hole objective lens, combined with the adjustment of the DIC prism, can make the height difference of the objective lens surface produce obvious relief effect, greatly improve the contrast of the image, and facilitate the user to analyze efficiently and accurately. Combined with polarized light observation, DIC can reflect the smallest surface morphology differences as brightness differences, and can display perfect images even for low-contrast, multi-phase samples and reflective materials.
Cell Count & Analysis	Through the automatic focusing acquisition method, high-definition scanning and splicing images of multiple areas are simultaneously obtained, and the number, concentration, diameter, and area of cells are statistically analyzed. The speed is fast and the identification is accurate.
Metallurgical Analysis	Using automatic image stitching, the image is analyzed through image enhancement, contrast adjustment, scratch processing, image correction, multi-region image segmentation, morphological processing, image annotation, and layer merging processing methods. It is easy to use and concise, and the measurement is accurate and reliable.
Cleanliness Analysis	Cleanliness analysis can be performed according to standards such as ISO Standard 16232, VDA 19.1-2015, ISO 16232, ISO4406 and ISO 4407. At the same time, it supports user-defined rating standard rules. Divide a large area into multiple areas to shoot and analyze them individually, and you can deal with a wide range of cleanliness analysis. The number of particles extracted and the cleanliness class can be displayed for each largest diameter class (B to K). Also provides height information for selected particles.
Vickers/Knoo Hardness Test Auto Analysis	Efficient and fast panorama scanning, diversified path planning, automatic continuous loading, focusing, and measurement are convenient for users to obtain accurate measurement results and greatly improve work efficiency.
Brinell Hardness Tester Analysis	One-Click automatic identification function is significantly ahead of the existing mainstream Brinell hardness tester software products.
Porosity Measurement	The system complies with VW50097, VW50093, VDG_P202 standards, and the whole image is obtained by panoramic stitching for analysis, so that the porosity measurement can obtain more reliable results in the entire analysis area.
Grain Size Analysis	According to JIS standard G0551 or ASTM standard E1382, the measurement line can select [vertical line], [horizontal line], [diagonal line], [multiple circles] to measure the crystals on test line.
One Click Auto Measurement	Multiple measurement items can be saved as templates, the software intelligently matches similar shapes, removes redundant targets or separates overlapping targets, and automatically performs unified measurement, counting and analysis for multiple targets with one click
Max Area Measurement	Just use the mouse to specify the measurement range, the software automatically detects the edge of the object and selects the measurement area, you can add or delete measurement areas at will, and measure the largest area of any complex shape by automatic edge recognition instead of manual precise positioning

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Repeatability	≤20um		
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	2DB, Add Bevel Scan, For XYZ Stage+2C Computer	○	A30.5801-2DB
	2DF, Add Up/Down Fusion Scan, For XYZ Stage+3C Computer	○	A30.5801-2DF
	3D, Add 3D Scan, For XYZ Stage+3C Computer	○	A30.5801-3D
	Customized Function, Detail See Maxcope Software Version Table	○	A30.5801-CF
Computer	Dell i5 64G 256G+1T, 2G Graphic, 27" 4K, Pre-Installed Maxcope Software. Standard Computer For 2D, 2DB Version Software	●	A30.5801-2C
	Dell Xeon W-2265 12 Core 3.5GHz, 128G+1T NVMe 4T, RTX4000-8G, 27" 4K, Pre-Installed Maxcope Software. Standard Computer For 2DF, 3D Version Software	○	A30.5801-3C

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2D Plane Scan	2 kinds plane scan modes, no need auto or manual focus during stitching, for plane smooth surface or low magnification view, XY stage will direct scan single focal plane and stitch the 2D image • Plane PXP Scan, point by point, high precision, slow speed • Plane Fly Scan, line by line, low precision, high speed Supports automatic scanning and stitching of 2D images at any magnification, with optional scanning accuracy and speed.
Free Stitching Area	Provides 6 stitching area modes, which can quickly set stitching areas of any shape: Polygon, 2-point rectangle, 3-point circle, 4-point ring, outline, free curve. • Outline mode can automatically detect the edge contour of the object as the stitching area. • Free curve mode can freely draw any shape as the stitching area.
2D Stitching Optimize	The built-in advanced algorithm can intelligently optimize and correct the grid phenomenon and shadow phenomenon caused by lens aberration, uneven lighting and other factors when scanning and stitching, so that the stitched image will be one high-definition, no offset, no grid, no shadow.
Calibration	It can do the necessary calibration before measurement, for different camera & objective lenses, user can add, delete, and manage the calibration list at any time
2D Measurement	2D plane measurement 10+ functions, including length, angle, radius, diameter, free curve length, parallel line distance, point-line distance, 2-point distance, multi-point distance, radius, diameter, arc length, RGB measurement, counting, etc. and a variety of auxiliary lines and reference line tools are provided. Combined with these tools, various complex measurements can be achieved, and various measurable information of planar images can be obtained more efficiently.
2D Map Guide	After scanning and stitching to generate a panoramic image, it can be used as an electronic 2D map for navigation. Click the 2D map to control the motorized stage to quickly locate the specified position for high-magnification observation, avoiding the confusion of difficult positioning in traditional high-magnification observation.
Point of Interest	Click the mouse to freely set and save multiple points of interest on the image, you can select and quickly return to the point of interest at any time for repeated focus observation
Marco Camera Guide	The model with optional macro camera, the panoramic image previewed in real time can be used as an electronic 2D map for navigation function, one click can reach the point of interest for high-power observation
Motorized Nosepiece	Optional motorized nose wheel models, you can select different objective lenses in the software, and switch the magnification with one click

Maxcope Software Versions

MAXCOPE

Full Parameter Record	While taking pictures and videos, software can automatically records comprehensive information such as shooting date, objective lens, magnification, stage position, etc., which is convenient for outputting to experimental reports or for reproducing observation results later.
Extra Long Video Record	The longest 1 hour, the fastest 50PFS video recording, can comprehensively record the experimental detection process, or the long-term change process of the observed object, subtle movements and other information. The video results can be fast-forwarded or played frame by frame, and still images can be extracted and saved.
Customized Report	Freely set Word and Excel report templates, including images and comprehensive shooting parameters, which is convenient for quickly outputting a complete inspection report in the later stage
Free Interface	The software interface and each submenu can be freely settled by dragging and dropping with the mouse, and can be saved, exported, and imported into the customized interface layout, and the default simple interface can also be restored easily by hot key Ctrl + G.
Multi Language	The software supports Simplify Chinese, Traditional Chinese, English, Russian, Korean, Japanese, Iranian, Dutch, French, German, Italian, and other language versions can be customrized.
2DB Version **(2D + Below Functions, For XYZ Stage + 2C Computer)**	
Z Motorized Control	The software controls the Z-axis motorized lift, support professional functions such as manual focus/auto focus/super depth of field fusion • Click the up and down arrows with the mouse to manually control the Z-axis lift and focus • One-click autofocus, focusing speed & accuracy can be selected
2D Bevel Scan	3 kinds Bevel Scan modes, can auto acquisition height of multi-focal planes, after modeling, scan and stitch 2d image, especially suitable for bevel smooth surface, • Bevel PXP Scan, Point by Point • Bevel Fly Scan. Manual Focus • Bevel Fly Scan Auto Focus
Auto Focus	One click autofocus, as quick as 0.3-2 seconds for each focus, focusing accuracy and speed are optional
2DF Version **(2DB + Below Functions, For XYZ Stage + 3C Computer)**	
2D Fusion Scan	4 kinds of auto focus stitching modes up and down, with Z-axis motorized, you can focus on the inclined plane and the concave-convex surface layer by layer along the Z axis to find the correct focal plane, or after the depth of field fusion of multi-layer images, then scan and stitch into a clear full frame 2D images, especially suitable for complex industrial inspection, special slice observation and other fields • Up/Down Scan, Fast • Up/Down Scan, Middle • Up/Down Scan, Fine • Up/Down Scan, Fusion
Depth Fusion	The innovative design of high-quality depth synthesis can easily do 200~500 layers of super depth of field superposition and fusion in a short period of time. The software makes intelligent judgment on abnormal high and low points, scans with full coverage, and obtains full-frame clear focus pictures
Auto Edge Selection	When the measurement point manually selected by the mouse is deviated on the screen, the software can automatically detect the edge of the target and automatically correct the measurement point to the edge to eliminate human error and improve the efficiency of measurement range selection
3D Version **(2DF + Below Functions, For XYZ Stage + 3C Computer)**	
3D Scan	3D stitching mode, which can automatically focus on uneven objects, take pictures at different heights, obtain a full-frame clear 2D image composed of all clearly focused images, and stitch all focused image together to form a 3D image, and retain all the 3D measurement data of the observed object. • 3D Stitching
3D Image View	The saved 3D image can be opened at any time, controlled by the mouse to rotate freely, zoom in and out, open the ruler, color identification and other auxiliary tools, which is convenient to visually observe the 2D surface shape and 3D structure of the object from any angle, and thoroughly and clearly understand the observed object
3D Measurement	The 3D image also saves all the three-dimensional measurement data of the observed object, and supports any measurement of the observed object later, including the height, depth, length, roughness, convex area, concave area, convex volume, concave volume, etc.

Maxcope Software Versions

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3D Image Comparision	Two 3D images can be opened at the same time, synchronously rotated, zoomed in and out, compared and analyzed, and the comparison results such as height difference and shape difference can be automatically displayed through color identification
3D Manual Stitching	Support manual stage models, only need to manually lift the stage, the software automatically scans and takes pictures and stitches to form 3D images, upgrade manual stage model to do semi-automatic 3D scanning and stitching work.
Multi Files Comparison	Multiple files can be opened at once for cross-section, volume, area, flatness, roughness measurements, and more. Even if there are multiple evaluation samples, analysis can be performed instantaneously under the same conditions. It is possible to see at a glance where and what differences exist, such as changes in shape due to prototypes with different manufacturing conditions or wear. Not only can measurement work be significantly reduced, but evaluation errors caused by deviations in measurement conditions can also be prevented.。
CF Version **Customized Function Module For Special Observation**	
HDR	Acquires multiple ultra-clear images using a single wavelength of light and images with different shutter speeds, and turns them into 1 image with high grayscale data. Achieved unprecedented high-definition, high-contrast observation
DIC	The automatic turret of the six-hole objective lens, combined with the adjustment of the DIC prism, can make the height difference of the objective lens surface produce obvious relief effect, greatly improve the contrast of the image, and facilitate the user to analyze efficiently and accurately. Combined with polarized light observation, DIC can reflect the smallest surface morphology differences as brightness differences, and can display perfect images even for low-contrast, multi-phase samples and reflective materials.
Cell Count & Analysis	Through the automatic focusing acquisition method, high-definition scanning and splicing images of multiple areas are simultaneously obtained, and the number, concentration, diameter, and area of cells are statistically analyzed. The speed is fast and the identification is accurate.
Metallurgical Analysis	Using automatic image stitching, the image is analyzed through image enhancement, contrast adjustment, scratch processing, image correction, multi-region image segmentation, morphological processing, image annotation, and layer merging processing methods. It is easy to use and concise, and the measurement is accurate and reliable.
Cleanliness Analysis	Cleanliness analysis can be performed according to standards such as ISO Standard 16232, VDA 19.1-2015, ISO 16232, ISO4406 and ISO 4407. At the same time, it supports user-defined rating standard rules. Divide a large area into multiple areas to shoot and analyze them individually, and you can deal with a wide range of cleanliness analysis. The number of particles extracted and the cleanliness class can be displayed for each largest diameter class (B to K). Also provides height information for selected particles.
Vickers/Knoo Hardness Test Auto Analysis	Efficient and fast panorama scanning, diversified path planning, automatic continuous loading, focusing, and measurement are convenient for users to obtain accurate measurement results and greatly improve work efficiency.
Brinell Hardness Tester Analysis	One-Click automatic identification function is significantly ahead of the existing mainstream Brinell hardness tester software products.
Porosity Measurement	The system complies with VW50097, VW50093, VDG_P202 standards, and the whole image is obtained by panoramic stitching for analysis, so that the porosity measurement can obtain more reliable results in the entire analysis area.
Grain Size Analysis	According to JIS standard G0551 or ASTM standard E1382, the measurement line can select [vertical line], [horizontal line], [diagonal line], [multiple circles] to measure the crystals on test line.
One Click Auto Measurement	Multiple measurement items can be saved as templates, the software intelligently matches similar shapes, removes redundant targets or separates overlapping targets, and automatically performs unified measurement, counting and analysis for multiple targets with one click
Max Area Measurement	Just use the mouse to specify the measurement range, the software automatically detects the edge of the object and selects the measurement area, you can add or delete measurement areas at will, and measure the largest area of any complex shape by automatic edge recognition instead of manual precise positioning

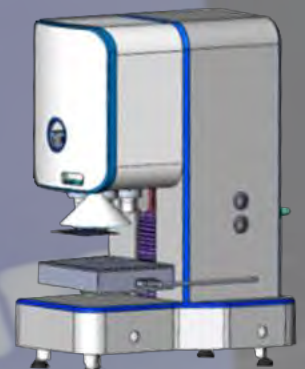# Maxcope Series Model

M12.5850

M12.5810

M11.5805

M16.5850

M16.5810

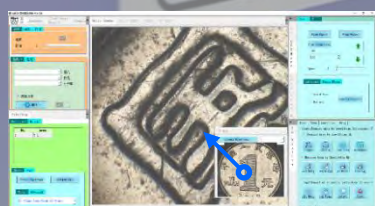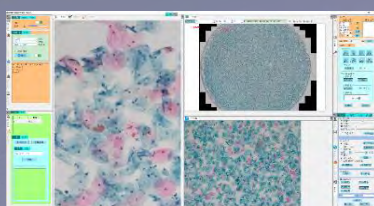**M11.5810**

M13.5850

M30.5810

M20.5850

Maxcope Software Versions

2D
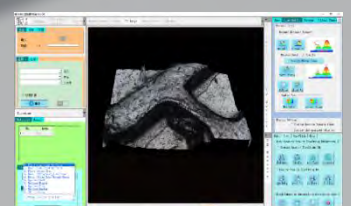X/Y Motorized
2D Plane Scan

2DB
X/Y/Z Motorized
2D Bevel Scan

2DF
X/Y/Z Motorized
2D Fusion Scan

3D
X/Y/Z Motorized
3D Scan

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25+ Year professional experience we know Microscopes the best!
150+ Microscope & accessory manufacturers supply all models from China
200+ Hot sale microscopes & Newest Models Updated Every Month
750+ Customer from all over the world & keep rising every day
1500+ Microscope products create your one-stop purchase platform
3000+ Educational Instruments For School, College And University Teaching
The Most Professional Microscope Manufacturer in China!

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