

# Mshot 明美

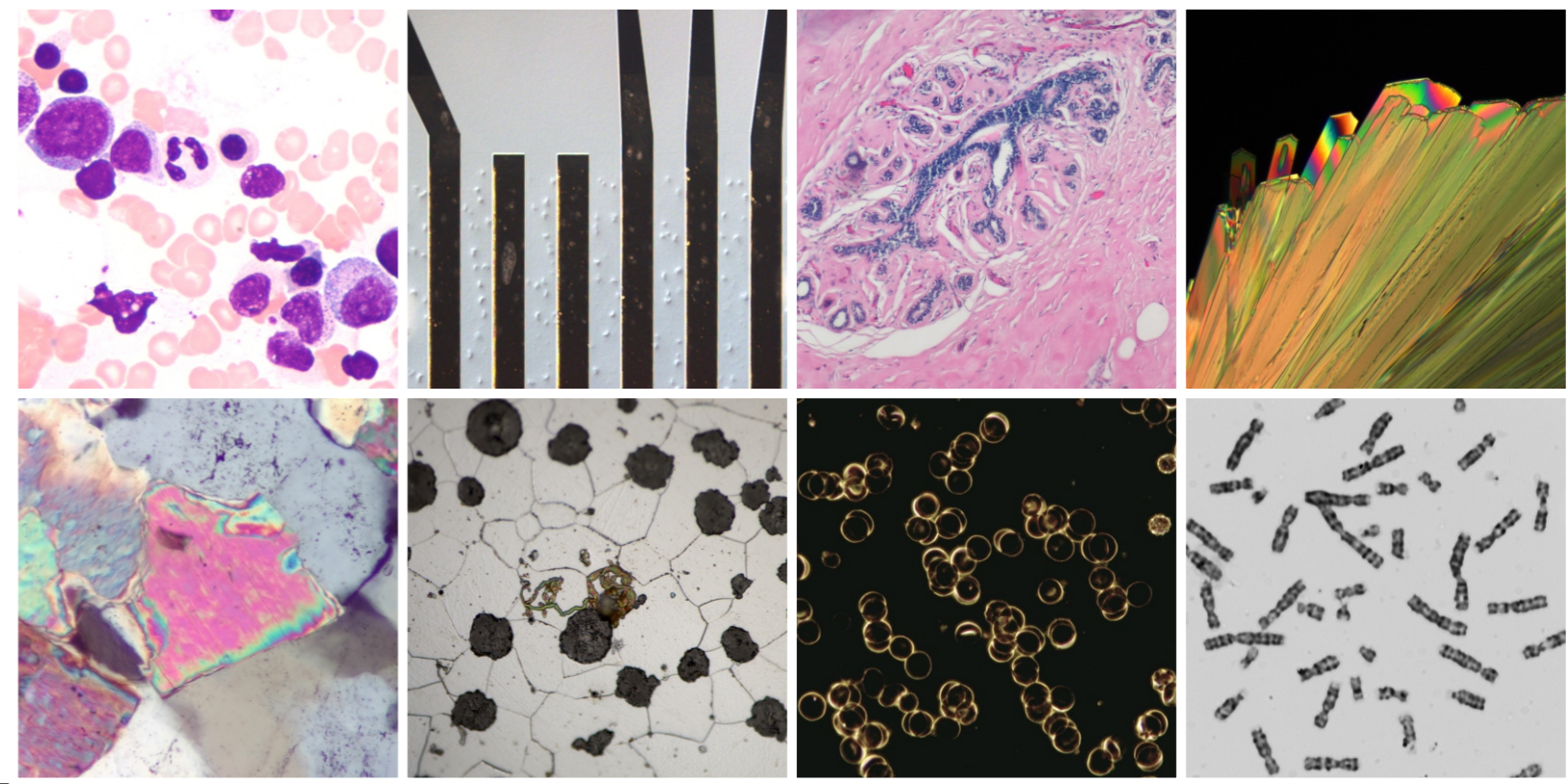
Microscope imaging system solution provider



**Mshot 明美**

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\* Any specifications and appearances are subject to change without prior notice, please refer to the actual product.



## GUANGZHOU MICRO-SHOT TECHNOLOGY CO., LTD

### Continuous innovation, only for better products and better services

MICRO-SHOT is a high-tech enterprise in China. It has been established for nearly 20 years. It focuses on the research and development, production and sales of microscopes and microscopic imaging system products, and is committed to automation, digitization and intelligence in the field of microscopic imaging. It has provided products and services to over 100 thousands users. Micro-shot has been repeatedly supported by the National Innovation Fund and has been recognized as a microscopic imaging engineering technology research center by the Provincial Department of Science and Technology.

The company seeks development with quality and takes service as its purpose. It has passed ISO9001 quality management system, ISO14001 environmental management system, ISO13485 medical device quality management system and intellectual property management system certification. Own medical device production qualification, and obtained nearly 100 patents and software copyrights.

Headquartered in Guangzhou, it has service station in more than 20 large and medium cities across the country, and export to Asia, America, Europe, Middle East and Africa, providing comprehensive professional services.



## Content

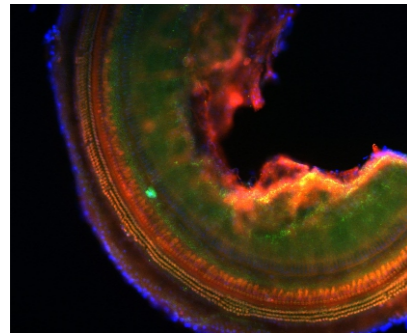
|                                    |       |                               |       |
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Microscope camera MSX11

Features : High resolution

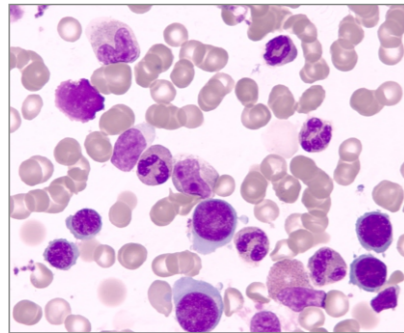
- Real 21 megapixels
- 4/3 inch big area sensor
- True color reproduction
- 21fps high frame rate



Microscope camera MSX2

Features : High sensitivity

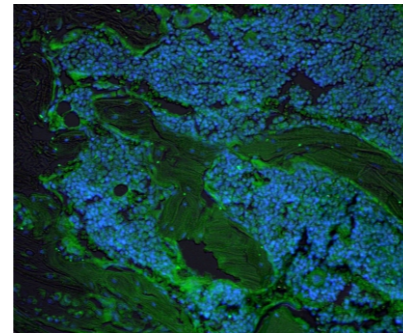
- 12.5 megapixels resolution
- 1 inch big area sensor
- True color reproduction
- 15fps at full resolution



Microscope camera MC50-S

Features : High sensitivity

- 2/3 inch sensor
- Compatible to FISH software
- Excellent noise control
- 60fps high frame rate



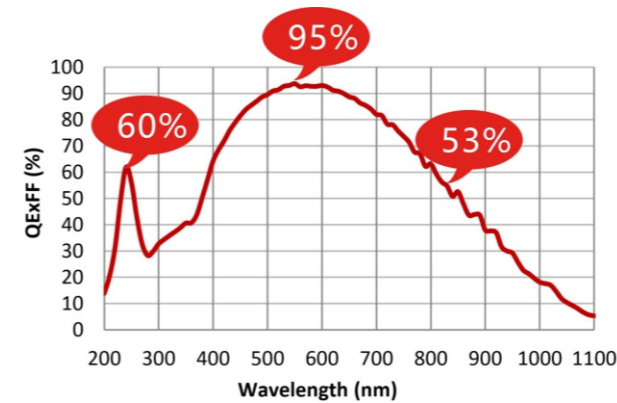
|                     | MSX11                                       | MSX2   | MC50-S                                       |
|---------------------|---|--|--|
| Resolution          | 21.0 megapixels                             | 12.5 megapixels                              | 5.0 megapixels                               |
| Sensor size         | 4/3 inch                                    | 1 inch                                       | 2/3 inch                                     |
| Pixel size          | 3.3 μm×3.3 μm                               | 3.1μm×3.1μm                                  | 3.45μm×3.45μm                                |
| Frame rate          | 5280×3956 @ 21fps<br>2640×1730(skip)@ 95fps | 4088×3072 @ 15fps<br>1920×1080 @ 57fps       | 2448×2048 @ 60fps<br>1920×1080 @ 60fps       |
| Exposure            | 12μs-30s                                    | 41μs-10s                                     | 20μs - 10s                                   |
| Work mode           | Progressive / Continuous                    | Progressive / Continuous                     | Progressive / Continuous                     |
| Shutter             | Electrical rolling shutter                  | Electrical rolling shutter                   | Global shutter                               |
| Gain                | 1X-16X                                      | 1X-32X                                       | 1X-16X                                       |
| AD convert          | 12bit                                       | 12bit  | 12bit  |
| Image cache         | 128MB                                       | 64MB   | 64MB   |
| Trigger mode        | Software trigger                            | Software trigger                             | Software trigger                             |
| Software port       | DirectShow/TWAIN/SDK                        | DirectX/TWAIN/SDK                            | DirectShow                                   |
| Data port           | USB3.0 5Gbps B-type                         | USB3.0 B-type, 5Gbps                         | USB3.0 B-type, 5Gbps                         |
| Working surrounding | Temperature: 0-40°C;<br>Humidity: 10%-90%RH | Temperature: 0-40°C ;<br>Humidity: 10%-90%RH | Temperature: 0-50°C ;<br>Humidity: 10%-90%RH |
| Shell size          | 108.5×106.5×62.5 mm                         | 108.5×106.5×62.5 mm                          | 76×76×62.5 mm                                |



Scientific camera MSH20/MSH12

Features :

- Back-illuminated sCMOS, Monochrome
- super high sensitivity, maximum QE 95%
- Semiconductor cooling, ultra-low read noise
- High frame rate over 20fps at full resolution



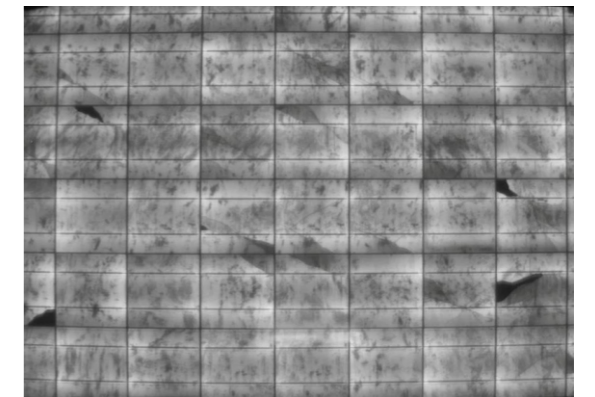
|                     | MSH20                                      | MSH12                                      |
|---------------------|--|--|
| Resolution          | 4.2 megapixels                             | 4.2 megapixels                             |
| Sensor size         | 2 inch                                     | 1.2 inch                                   |
| Pixel size          | 6.5 μm×6.5μm                               | 6.5 μm×6.5μm                               |
| Frame rate          | 2048×2048 @ 24fps                          | 2048×2048 @ 22fps                          |
| Exposure            | 21μs - 20s                                 | 22μs - 120s                                |
| Spectral response   | 200nm~1100nm                               | 200nm~1100nm                               |
| Read-out noise      | 1.6e-                                      | 2.0e-                                      |
| Gain                | 1X-16X                                     | 1X-16X                                     |
| AD convert          | 12bit                                      | 12bit                                      |
| Image cache         | 128MB                                      | 128MB                                      |
| Trigger mode        | Software trigger                           | Software trigger                           |
| Software port       | DirectShow/TWAIN                           | DirectShow/TWAIN/SDK                       |
| Data port           | USB3.0 B-type, 5Gbps                       | USB3.0 B-type, 5Gbps                       |
| Working surrounding | Temperature: 0-50°C<br>Humidity: 10%-85%RH | Temperature: 0-50°C<br>Humidity: 10%-90%RH |
| Shell size          | 113.2×105×92.6 mm                          | 113.2×105×92.6 mm                          |



NIR Shortwave Camera / UV Camera

Features :

- Optimized for UV or NIR imaging to further enhance results
- Ideal for applications such as in vivo imaging, chip or solar panel perspective, etc.

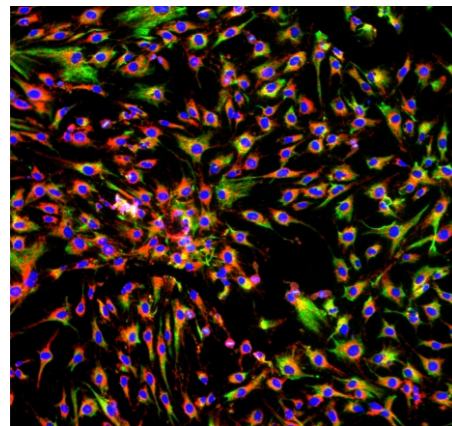




Microscope camera MS90

Feature: High sensitivity

- High sensitivity to dark field and fluorescence
- Nearly 10 million high pixels, richer details
- High frame rate up to 20fps at full resolution



High speed camera MS16-H

Feature: High speed

- Frame rate up to 660fps to capture dynamic details
- Connect to a 10G network card computer using a 10G Ethernet copper cable
- Better sensitivity, improve imaging under low light illumination



HDMI WIFI camera MS80-W

Feature:

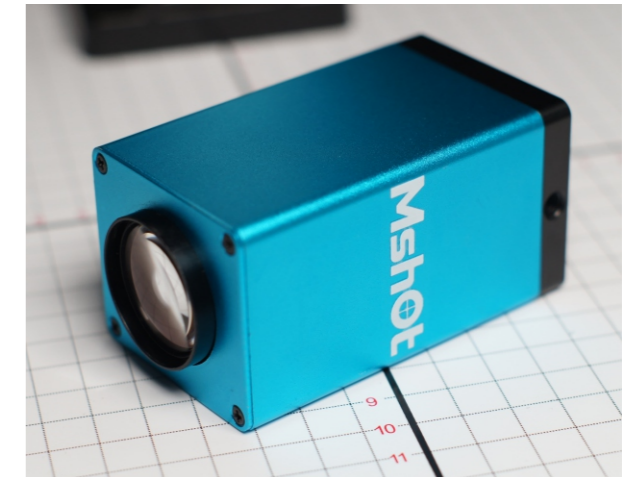
- 5G high-speed WiFi, take photos with mobile phone/tablet
- Smooth picture, up to 60fps in HD resolution
- Support HDMI, the resolution can reach 4K standard
- Body with a camera button, which can be saved to the U disk



Auto focusing camera ME40

Feature:

- Auto focusing and works for gross object
- 8 megapixels, 10Z optical zoom, large depth of field
- Standard 1/4 interface, can be equipped with a universal bracket, flexible installation
- Three-button foot switch, zoom in / zoom out / take pictures, free hands



Microscope camera MD50/MD30

Feature: Cost-effective

- Cost-effective, low-cost upgrade for digital imaging
- Optimized for microscopic imaging, up to 5MP/3MP
- Frame rate up to 15fps at full HD resolution



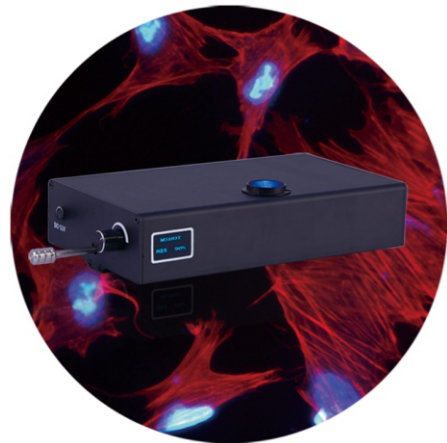
Microscope camera MS60

Feature: Excellent image quality

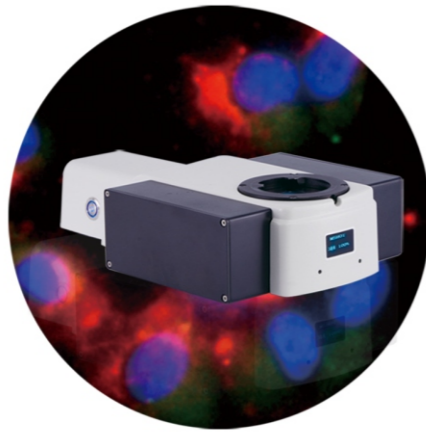
- 6.3 megapixels, excellent detail performance
- New ISP processing chip, true color reproduction
- Smooth picture, full pixel frame rate up to 71fps



|                     | MS90   | MS16-H   |
|---------------------|--|--|
| Resolution          | 9.0 megapixels   | 1.6 megapixels   |
| Sensor size         | 1 inch   | 1.1 inch   |
| Pixel size          | 3.76 μm×3.76 μm  | 9.0 μm×9.0 μm  |
| Frame rate          | 3008x3008 @ 42fps  | 1500×1100 @ 660fps   |
| Exposure            | 41μs-60s   | 1μs-1153ms   |
| Work mode           | Progressive/continuous                                       | Progressive/continuous                                       |
| Shutter             | Electronic shutter   | Electronic shutter   |
| Effective gain      | 1X-32X   | 1X-125X  |
| AD convert          | 12bit  | 12bit  |
| Image cache         | 128MB  | 256MB  |
| Trigger mode        | Software trigger   | Continuous/software/hardware                                 |
| Software port       | DirectShow / TWAIN   | DirectShow/TWAIN/SDK   |
| Data port           | USB3.0 B-type, 5Gbps   | 10 Gigabit copper cable, 10Gbps                              |
| Working surrounding | Temperature: 0-40°C<br>Humidity: 10%-90%RH (no condensation) | Temperature: 0-50°C<br>Humidity: 10%-90%RH (no condensation) |
| Shell size          | 108.5×106.5×62.5 mm  | 64×64×61.7mm   |



Digital inverted fluorescence attachment



Digital upright fluorescence attachment



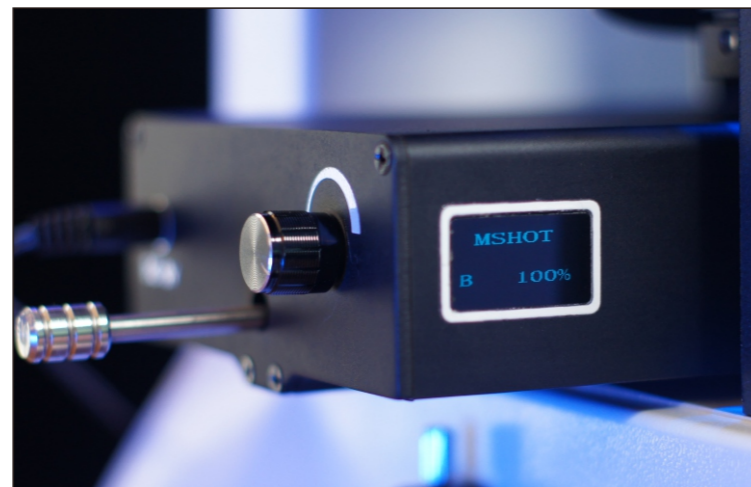
Digital stereo fluorescence attachment

Four channels can be customized

Digital LED fluorescence attachment

Features:

- Digital screen to visualize brightness and bands for quantitative analysis
- High adaptability, matching all major brands of infinity microscopes
- Coding knob with memory function of dimming
- Light source / display / fluorescence cube are integrated
- A variety of fluorescence bands and excitation groups are available



|                    |   |   |
|--------------------|---|---|
| Excitation groups  | B   | B BP : EX:475/30nm ; DM:505nm ; EM:530/40nm   |
|                    |   | B LP : EX:475/30nm ; DM:500nm ; EM:510 nmLP   |
|                    | G   | G BP : EX:530/40nm ; DM:565nm ; EM:605/55nm   |
|                    |   | G LP : EX:530/40nm ; DM:570nm ; EM:575 nmLP   |
|                    | U   | UV BP : EX: 375/30nm ; DM:415nm ; EM:460/50nm |
|                    |   | UV LP : EX: 355/50nm ; DM:410nm ; EM:420 nmLP |
| Y                  | Y LP : EX: 560/40nm ; DM:600nm ; EM:610 nmLP                          |   |
| Light source       | 3W LED light source, brightness is adjustable, visual digital display |   |
| Observation method | Fluorescence, bright field  |   |
| Input power        | DC 12V2A  |   |



Upright fluorescence attachment

| Brand  | Model                   |
|--|-------------------------|
| Chinese  | Infinite optical system |
| Worldwide  |                         |
| Motorized sextuple fluorescence module is optional |                         |



Inverted fluorescence attachment

| Brand   | Model                          |
|---------|--------------------------------|
| Olympus | IX70, IX71, IX73, CKX41, CKX53 |
| Nikon   | TS100                          |
| Leica   | DMIL                           |



Stereo fluorescence attachment

| Brand   | Model                       |
|---------|-----------------------------|
| Olympus | SZX7, SZX10, SZX16          |
| Nikon   | SMZ800, SMZ1270, SMZ25      |
| Zeiss   | SteREO Discovery.V8/V12/V16 |
| Leica   | M125, M165, M205C           |

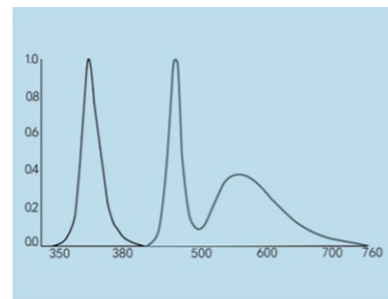
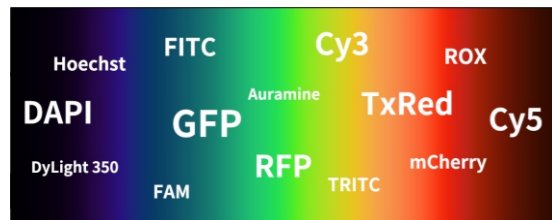
|                       |                    |                       |              |                       |                       |
|-----------------------|--------------------|-----------------------|--------------|-----------------------|-----------------------|
| <b>U</b>              | <b>V</b>           | <b>B</b>              | <b>G</b>     | <b>Y</b>              | <b>R</b>              |
| <b>DAPI</b>           | <b>PacificBlue</b> | <b>FITC</b>           | <b>Cy3</b>   | <b>Texas Red</b>      | <b>Cy5</b>            |
| <b>Hoechst</b>        | <b>Coumarin</b>    | <b>GFP/EGFP</b>       | <b>TRITC</b> | <b>mCherry</b>        | <b>Draq5</b>          |
| <b>AlexaFluor 350</b> | <b>BFP/EBFP</b>    | <b>AlexaFluor 488</b> | <b>RFP</b>   | <b>AlexaFluor 594</b> | <b>AlexaFluor 647</b> |
| <b>DyLight 350</b>    | <b>DyLight 405</b> | <b>FAM</b>            | <b>DsRed</b> | <b>ROX</b>            | <b>DyLight 649</b>    |



Broad-spectrum LED light source MG-100

Features :

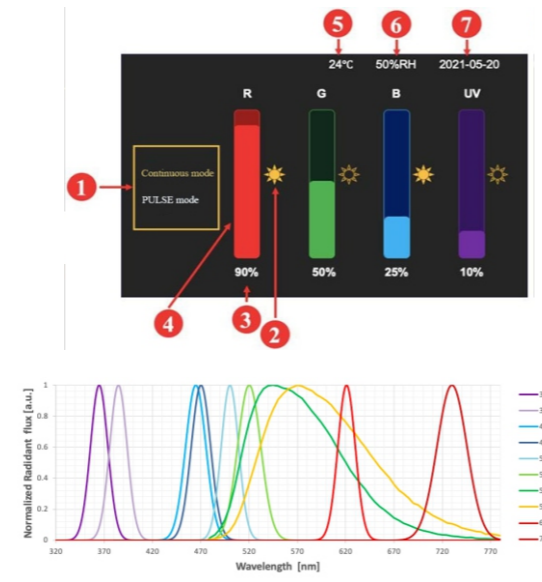
- Broad spectrum, suitable for replacing mercury lamps and halogen lamps
- Fluorescence excitation is stable without decay
- Compatible with most type fluorescence microscopes
- Open to use, the working life can reach 50 times of mercury lamps
- The light intensity is controllable, and the ultraviolet band is individually controlled



Four individual channels LED light source MG-120

Features :

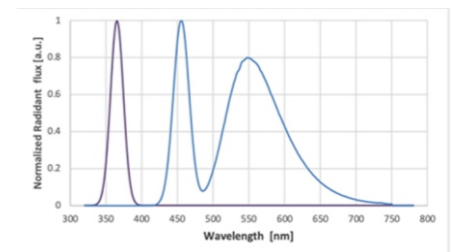
- 50,000 hours of long life, equivalent to 250 mercury lamps
- Intelligent automation, support software / camera triggering
- Four channels are individually controlled, and can be output at the same time
- High brightness LED array, uniform light spot without shadow
- Strong adaptability, suitable for major brands of fluorescence microscopes



Liquid-cooled light source MG-200

Features :

- Liquid cooling to avoid fan vibration
- High brightness, the light intensity is closer to the mercury
- Broad spectrum to meet various fluorescence excitation needs
- Long life, single life is more than 70 times of mercury lamp
- Open to use, suitable for major brands of fluorescence microscopes



Fluorescence filter for four major brands microscopes

Features :

- Cost-effective, the cost is more advantageous than original ones
- Various excitation wavelengths can be customized for different dye needs
- Optional special filter sets such as UV U, blue-green BG double-pass
- Optional imported Chroma filter, the effect is even better



| Brand   | Compatible models  |
|---------|--|
| Olympus | BX2 series: BX40, BX51, BX61, IX51, IX71, IX81<br>BX3 series: BX43, BX53, BX63, IX73, IX83 |
| Nikon   | Eclipse TE/Ti 50i, 80i, 90i<br>TS100   |
| Leica   | DM 2500, 3000, 4000, 5000, 6000<br>DMIL  |
| Zeiss   | Axio Imager  |

Simple Stereo-fluorescence Light Source

Features :

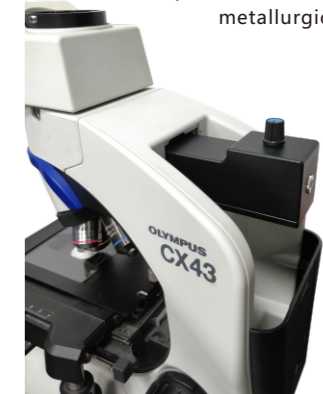
- Easy installation, suitable for most stereo microscopes
- BGU and other multi-color options, 65mm bandpass emission filter
- Dual universal gooseneck, single or double color optional



CX33/CX43 insert-in illuminator

Features :

- Specially customized for CX33/CX43, highly adaptable
- LED fluorescence light source, optional BGU single color or BG double pass
- Optional warm color temperature reflected lighting for metallurgical observation



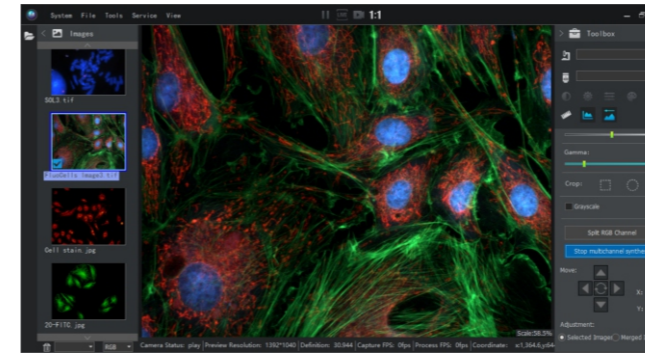
| Product specification |  |  |
|-----------------------|--|--|
| Model                 | MG-100   | MG-120   |
| Output spectrum       | 350-390nm/410-760nm two continuous outputs             | Four customizable narrowband outputs, standard 365/460/550/625nm |
| Light box interface   | Support four major brands of fluorescence microscopes  | Support four major brands of fluorescence microscopes            |
| Power                 | 120W   | 70W  |
| Control method        | 2 independent control, 0-100% dimming, 0.5% accuracy   | 4 independent controls, 0-100% dimming, 0.5% accuracy            |
| Intensity memory      | 2 light paths  | 4 light paths  |
| Controller            | Touch screen controller                                | Touch screen controller, software trigger / camera trigger       |
| Host interface        | 8P aviation head, with temperature control protection  | 8P aviation head, with temperature control protection            |
| Cooling method        | Forced air cooling                                     | Forced air cooling   |
| Beam angle            | -  | 7°   |
| Fiber Coupler         | -  | Liquid Optical Waveguide 3mm/5mm                                 |
| Size                  | Light source: length 180 x width 114 x height 122 (mm) | Light source: length 180 x width 70 x height 168 (unit mm)       |
|                       | Control box: length 196 x width 137 x height 65.5 (mm) | Control box: length 143 x width 110 x height 50 (unit mm)        |



Triple light split trinocular tube

Features:

- Compatible with Olympus Infinity System, F=180mm
- Three beam splitters, support simultaneous imaging of eyepiece and camera
- Wide field of view, support 10X/25mm super large field of view eyepiece
- Optimized optical path for camera imaging



MSHOT Digital imaging analysis system

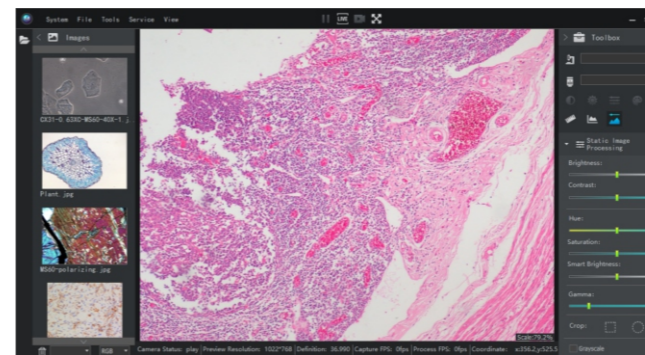
Features:

- Professional in-depth optimization for microscopy imaging
- Integrated hardware and software system
- Real-time preview, software control
- Support Directshow device
- Imaging adjustment functions such as white balance and exposure control
- Providing large image stitching and extend depth of field functions, large images can reach 13.8 billion pixels

Microscope C-mount adapter

Features:

- Compatible with four major brands of microscopes, connected to trinocular head and C-mount camera
- There are various specifications of 0.5X/0.63X/1X, suitable for sensors of different sizes
- Optional dual light splitting interface, simultaneous access to dual cameras or camera + spectrometer



MSHOT Digital imaging analysis system

Features:

- User management & Audit trail is optional
- Outstanding in fluorescence imaging and processing
- Multi-channel synthesis operation, real-time shooting and merge channels in maximum 5 channels of fluorescence
- Support run two cameras at one time in the software
- Advanced settings of color matrix settings, CPU, GPU device acceleration, flat field correction and color point correction

Transparent heating stage

Features:

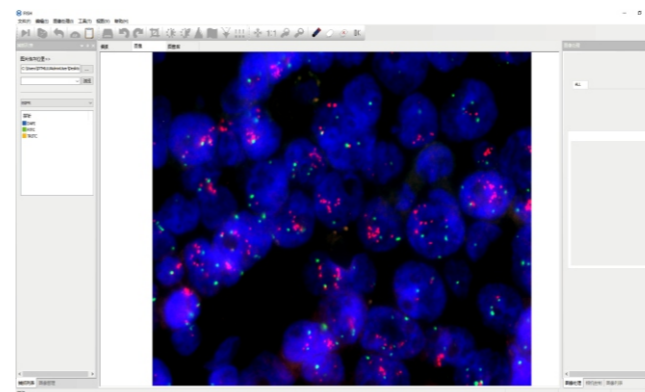
- Provide the temperature conditions required for the survival of samples such as cells, sperm and eggs
- 0.3°C high-precision temperature control capability, room temperature -50°C heating speed adjustable
- Stainless steel frame, ITO coated tempered glass is strong and durable
- There are round / square shape options, suitable for inverted / upright / stereo microscope



Objectives



| Type | Series                  |
|------|-------------------------|
| 生物系列 | 正置平场消色差Plan系列           |
|      | 正置平场半复消色差A-Plan系列       |
|      | 正置平场半复消色差Plan Fluor系列   |
|      | 正置万用平场半复消色差M-UPLFLN系列   |
|      | 倒置平场消色差Plan系列           |
|      | 倒置平场消色差相衬Plan PH系列      |
| 金相系列 | 倒置平场半复消色差Plan Fluor系列   |
|      | 倒置平场半复消色差相衬PLFL PH系列    |
|      | 半复消色差金相明场 PLFL EPI系列    |
| 偏光系列 | 长工作距离平场消色差明暗场PL L B.D系列 |
|      | 无应力长工作距离平场消色差PL L系列     |



FISH fluorescence in situ hybridization

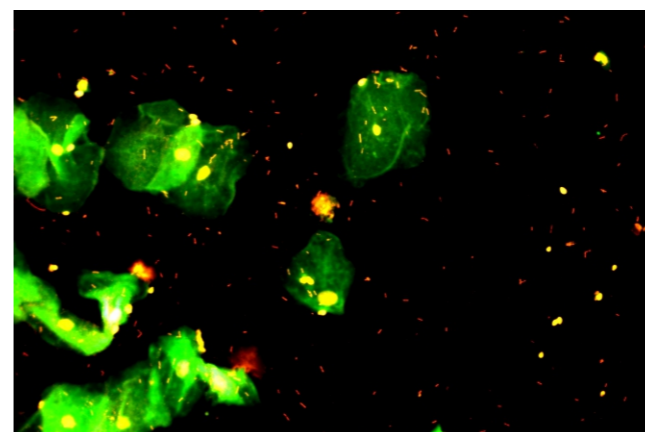
Features:

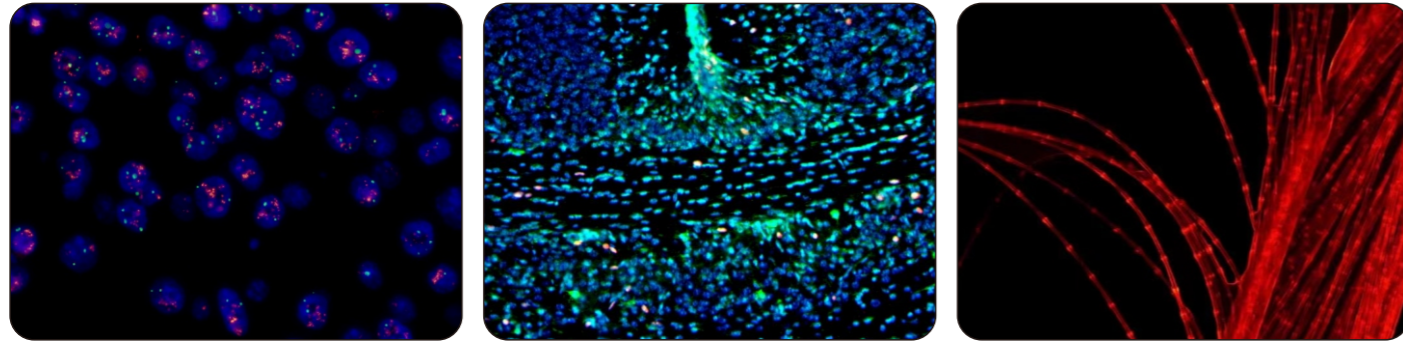
- Optimized design for fluorescence in situ hybridization
- Fast area auto exposure, fast imaging
- Automatic coloring, one-click synthesis of multi-color
- Multi-color fluorescence image acquisition, suitable for probes of various colors
- Intelligent gain enhancement for weak fluorescent signals, automatic removal of background noise
- Advise to use with MSHOT high sensitivity cameras

Immunofluorescence workability

Features:

- Fungal fluorescence, reproductive tract disease fluorescence, liquid-based cell TCT and other commonly used pathological graphic report systems required photos are all applied
- Real-time preview, simple and convenient operation
- Offer SDK for secondary development with MSHOT cameras





### Upright fluorescence microscope MF43-N

The research-grade upright fluorescence microscope MF43-N is equipped with sextuple epi-fluorescence module and an ultra-long-life LED light source, which can be expanded and upgraded to achieve various observation methods. The high numerical aperture semi-apochromatic objective lens has clear imaging, especially suitable for FISH fluorescence in situ hybridization and other applications.



High Numerical Aperture Semi-Apochromat Objectives  
 10X/25mm super wide field of view eyepiece  
 Light intensity management  
 Expansion capabilities of professional fluorescence  
 LED fluorescent light source with a lifetime of over 10,000 hours  
 Low hand position high wear resistance stage



| MF43-N                        |   |   |
|-------------------------------|---|---|
| Eyepiece                      | Wide field 10X/25, diopter is adjustable  |   |
| Eyepiece tube                 | Hinged type trinocular observation tube, high eyepoint, 30° inclination, Pupillary distance adjustment 50-75mm  |   |
| Plan semi-achromat objectives | Standard:<br>M-UPLFLN 4X/0.13 ; WD : 17.15mm<br>M-UPLFLN 10X/0.3 ; WD : 7.68mm<br>M-UPLFLN 40X/0.75 ; WD : 0.78mm<br>M-UPLFLN 100X/1.30 Oil ; WD : 0.15mm | Optional:<br>M-UPLFLN 20X<br>Plan Fluor 4X / 10X / 20X / 40X / 100X<br>UPLFLN 4X / 10X / 20X / 40X / 100X   |
|                               | Broad-spectrum LED light source MG100(standard)<br>MG100 touch screen controller  | 4 individual channels LED illuminator MG120(optional)<br>MG120 touch screen controller(external trigger optional)   |
|                               | Epi-illuminating fluorescence system  | Empty Epi-fluorescence Illuminator FL-43 (6-hole turntable, standard BGU three-channels, optional YRV, etc.)<br>Excitation tube<br>Excitation wavelength<br>FB-U-M EX : 375/30nm; DM : 415nm; EM : 460/50nm<br>FB-B-M EX : 475/30nm; DM : 505nm; EM : 530/40nm<br>FB-G-M EX : 540/25nm; DM : 565nm; EM : 605/55nm |
|                               | Nosepiece   | Quintuple objective converter   |
| Stage                         | High wear resistance ceramic overlay stage with right hand coaxial low drive control knob<br>Traveling range: 80mm×50mm, 1mm/unit, accuracy 0.1mm         |   |
|                               | Transmitted lighting  | Warm white LED, brightness continuously adjustable<br>Abbe Condenser, N.A. 1.1  |

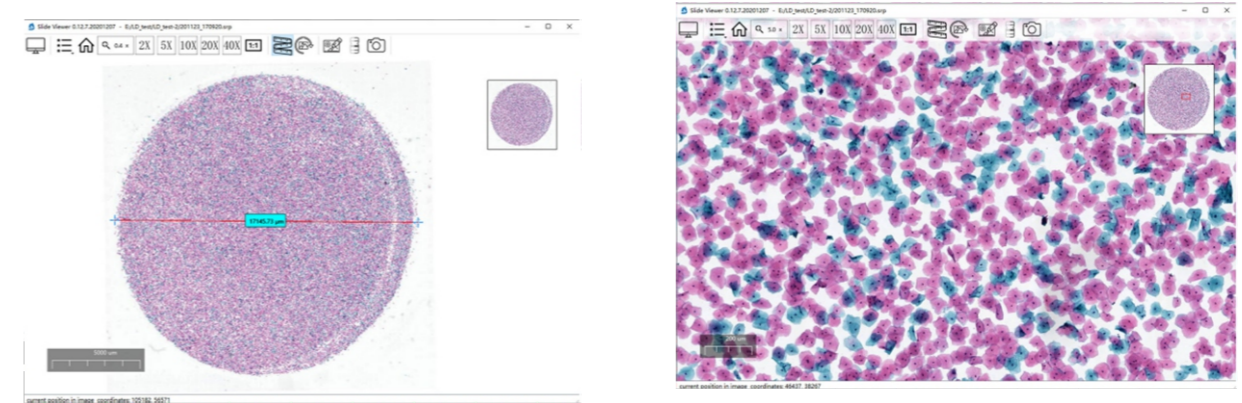
### Digital Slide Scanner MDS4

#### Features:

- Dual cameras, taking into account slice scanning and high resolution ROI imaging
- Independent autofocus module, retaining the manual focus function of the microscope
- High-precision three-dimensional motion translation stage, which can be controlled by electronic handwheel
- Accurate and fast full-closed-loop autofocus, automatically identify the scanning range
- Fast scanning with high frame rate, 10X scanning can be completed in as little as 40S
- Smooth image reading software, open SRP image data



· Can be upgraded to fluorescence function



### ML51-N

#### Features:

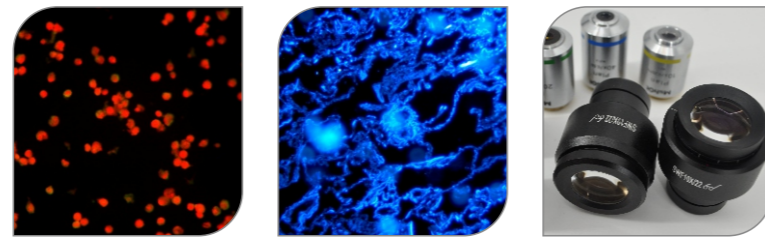
- 10X/25mm super large field of view eyepiece and trinocular tube
- High numerical aperture semi-apochromat objectives
- Convenient light intensity manager function
- Low hand position high wear resistance stage



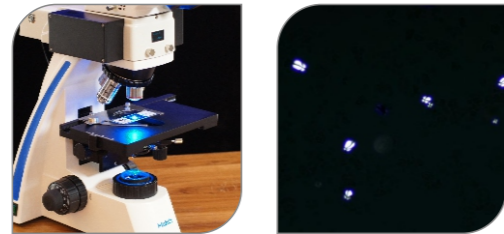
| Model            | ML51-N   |
|------------------|--|
| Observation tube | Triple light split hinged trinocular head, high eyepoint, 30° inclination, PD50-75mm   |
| Eyepiece         | Ultra-wide field of view 10X/25, adjustable diopter  |
|                  | Plan semi-apochromatic objective M-UPLFLN 4X/0.13; WD:17.15mm<br>Plan semi-apochromatic objective M-UPLFLN 10X/0.3; WD:7.68mm<br>Plan semi-apochromatic objective M-UPLFLN 40X/0.75; WD:0.78mm<br>Plan semi-apochromatic objective M-UPLFLN 100X/1.35 Oil; WD:0.15mm<br>Plan semi-apochromatic objective M-UPLFLN 20X/0.50; WD:1.96mm (optional)<br>Plan semi-apochromatic objective Plan Fluor 4X/10X/20X/40X/100X (optional) |
| Focusing system  | Coarse and fine adjustment knob, 25 mm one coarse stage stroke, gradations: 1 μm   |
| Nosepiece        | Backward quintuple nosepiece   |
| Stage            | High wear resistance ceramic overlay with right hand coaxial low drive control knob<br>Moving range: 80(X)mm×50(Y)mm, accuracy: 0.1mm  |
|                  | Transmitted lighting   |



### Fluorescence microscope MF31

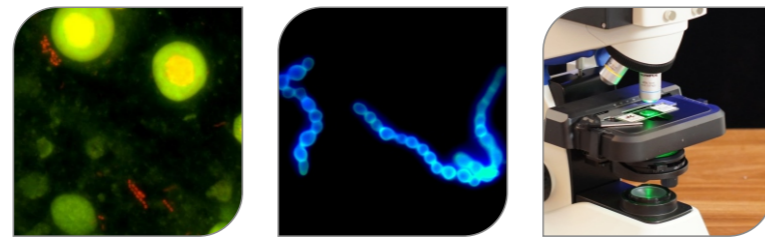


Long life LED fluorescence illuminator Supports brightfield and fluorescence FN22 wide field eyepiece



High transmittance plan achromat objectives Expandable dark field, polarized light and other functions

### Fluorescence microscope MF23



Long life LED fluorescence illuminator Supports brightfield and fluorescence Infinity plan achromat objectives



Comfortable Ergonomic Design Optional binocular/trinocular head

| Model                   | MF31   | MF23  |   |
|-------------------------|--|---|---|
| Eyeiece                 | Wide field WF10X/22  | Wide field 10X/20   |   |
| Head                    | Hinged type 30° inclined trinocular, pupil distance 53-75mm                                | Hinged type 30° inclined trinocular, pupil distance 44-75mm   |   |
| Objectives              | Infinity plan achromat objectives 4X/0.1   | Infinity plan achromat objectives 4X/0.10   |   |
|                         | Infinity plan achromat objectives 10X/0.25   | Infinity plan achromat objectives 10X/0.25  |   |
|                         | Infinity plan achromat objectives 40X/0.65   | Infinity plan achromat objectives 40X/0.65  |   |
|                         | Infinity plan achromat objectives 100X/1.25  | Infinity plan achromat objectives 100X/1.25   |   |
| Fluorescence attachment | Excitation cube excitation wavelength<br>UV 330-380nm<br>Blue 460-490nm<br>Green 510-550nm | Excitation cube excitation wavelength<br>UV 330-380nm<br>Blue 460-490nm<br>Green 510-550nm                              |   |
|                         | Focusing   | Fine and coarse adjustment with tension and limited stopper<br>Coarse stroke 40mm/rotation, accuracy 2µm, vertical 24mm | Fine and coarse adjustment with tension and limited stopper<br>Fine adjustment gradations:2.5um,coarse stroke 15mm/rotation |
|                         | Nosepiece  | Backward quadruple nosepiece  | Backward quadruple nosepiece  |
| Stage                   | Double deck stage 210mmX140mm, Move range 76mmX50mm  | Double deck stage 210mmX140mm, Move range 75mmX50mm   |   |
| Transmitted light       | Abbe condenser N.A. 1.25   | Abbe condenser N.A. 1.25 can lifted up and down   |   |
| Camera port             | 0.5XC  |   |   |

### Biological microscope ML41

#### Features:

- Dual color temperature LED Kohler lighting, swing-out condenser
- Infinity optical system with great expansion potential
- High Numerical Aperture Plan Semi-Apochromat Objectives
- 10X/23mm large field of view high eye point eyepiece
- Quintuple nosepiece, high-precision mobile stage

|                      |  |
|----------------------|--|
| Head                 | Hinged trinocular 30° inclined, PD 50-75mm, 100/0 light splitting  |
| Eyeiece              | Wide field WF10X /23   |
| Objectives           | Plan semi-achromat A-Plan 4X/0.12; WD:11.6mm   |
|                      | Plan semi-achromat A-Plan 10X/0.25; WD:10mm  |
|                      | Plan semi-achromat A-Plan 40X/0.65; WD:0.55mm  |
|                      | Plan semi-achromat A-Plan 100X/1.25; WD:0.17mm   |
|                      | Plan semi-achromat A-Plan 20X/0.45; WD: 2.9mm (optional)   |
|                      | Plan semi-achromat fluorite M-UPLFLN 100X/1.30 (optional)  |
| Focusing             | Coaxial coarse and fine focusing, accuracy 2µm, lifting 25mm   |
| Nosepiece            | Inward quintuple nosepiece wheel   |
| Stage                | Detachable double-deck mechanical moving stage 185mm×145mm<br>Movement range: 75(X)mm×50(Y)mm, accuracy: 0.1mm |
| Transmitted lighting | Swing out condenser NA1.2/0.22   |
|                      | Dual color temperature LED, warm light/cold light free change  |



### Biological microscope MI31

#### Features:

- Infinity optical system with great expansion potential
- 10X/22mm big field of view high eye point eyepiece
- High transmittance plan achromat objective lens
- Expandable dark field, polarized light and other functions
- Long-life LED Kohler lighting system

|            |   |
|------------|---|
| Eyeiece    | Wide field WF10X/22   |
| Head       | Hinged Trinocular tube, 30° inclined, pupil distance 53mm-75mm<br>Infinity plan achromat objectives 4X/0.1, WD: 12.98mm |
| Objectives | Infinity plan achromat objectives 10X/0.25, WD: 10mm  |
|            | Infinity plan achromat objectives 40X/0.65, WD: 1.47mm  |
|            | Infinity plan achromat objectives (oil) 100X/1.25, WD: 0.18mm   |
| Focusing   | Coaxial coarse and fine adjustment with limit stopper<br>Coarse stroke 40mm, fine stroke 0.2mm, lifting range 24mm      |
| 物镜转换器      | Quadruple nosepiece with inward tilt  |
| 载物台        | Double-deck mechanical 210mm×140mm, moving 76mm×50mm  |
| 聚光镜        | Abbe condenser NA1.25   |
| 照明系统       | White LED, brightness adjustable  |



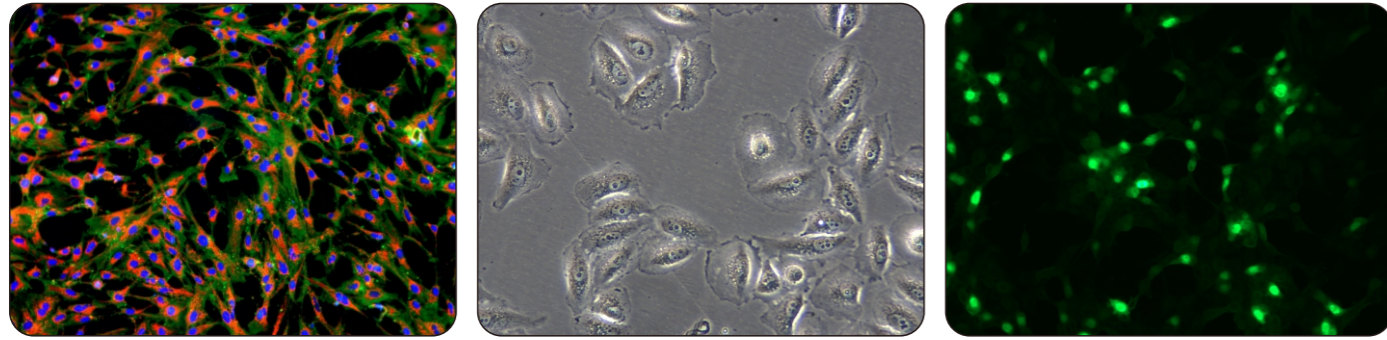
### Biological microscope ML11

#### Features:

- Compact appearance with comfortable handle design
- 10X/18mm wide field eyepiece, binocular / trinocular head
- Long-life LED transmitted light source with Abbe condenser
- Coaxial design of coarse and fine adjustment with limit device
- Achromatic objective lens that meets the needs of teaching observation

|                      |  |
|----------------------|--|
| Eyeiece              | WF10X/18   |
| Head                 | 30°inclination,hinged trinocular, PD 50mm-75mm,one diopter is adjustable<br>30°inclination,hinged trinocular, PD 50mm-75mm,one diopter is adjustable,R.T:80:20                               |
| Objectives           | Achromat 4X/0.10, working distance: 37.5mm   |
|                      | Achromat 10X/0.25, working distance: 6.55mm  |
|                      | Achromat 40X/0.65, working distance: 0.669mm   |
|                      | Achromat 100X/1.25, working distance: 0.198mm  |
| Nosepiece            | Quadruple nosepiece with inward tilt   |
| Focusing             | 155mmx142mm double layer, moving range76mmX50mm, accuracy 0.1mm  |
| Stage                | Low position hand wheel coaxial coarse and fine adjustment with limit stopper, coarse movement stroke: 25mm,accuracy 0.002mm<br>3W LED, pre-set lamp center, brightness continues adjustable |
| Transmitted lighting | Abbe condenser,N.A.1.25, with changeable aperture diaphragm<br>Filters: blue, yellow and green   |





## Inverted fluorescence microscope MF53-N

Research-grade inverted fluorescence microscope MF53-N is equipped with sextuple turret fluorescence module and long working life LED light source, high numerical aperture semi-achromat objectives are clarity. And it is flexible expand to different observation methods, also with XYZ motorized stage.



High NA semi-achromat objectives 10X/23mm wide view eyepiece Sextuple turret fluorescence attachment



Flexible expand to Hoffman LED light source working life over 10,000 hours Can upgrade with high precision motorized XYZ stage



|                                      |   |   |
|--------------------------------------|---|---|
| Eyepiece                             | WF10X/23 wide eyepiece, high eye-point  |   |
| Observation tube                     | Centering telescope<br>45° inclined, diopter is adjustable  |   |
| Objectives                           | Plan-achromatic objective LWDPan 4X/0.1; WD: 11.98mm  | Semi-achromatic fluorite objective Plan Fluor 4X/0.13 (optional)  |
|                                      | Semi-achromatic fluorite objective Plan Fluor 10X/0.3; WD: 7.1mm  | Plan-achromatic objective Plan 10X/0.25 (optional)                |
|                                      | Semi-achromatic fluorite objective Plan Fluor 40X/0.65; WD: 1.6mm   | Semi-achromatic fluorite objective Plan Fluor 20X/0.45 (optional) |
|                                      | Semi-achromatic phase contrast objective Plan 10X/0.25 PH; WD: 9.3mm  | Plan achromatic objective Plan 40X/0.58 (optional)                |
|                                      | Semi-achromatic phase contrast objective Plan 20X/0.45 PH; WD: 5mm  |   |
| Nosepiece                            | Sextuple revolving nosepiece with bearing inner location and anti-fungus device   |   |
| Stage                                | Fixed stage 240mm×260mm; moving range: 135mm×85mm   |   |
|                                      | Water drop slide glass holder (Φ118mm)<br>Multi-function slide glass holder (76mm×26mm, Φ60)                                    |   |
| Epi-illuminating fluorescence system | Broad-spectrum LED light source MG-100; four individual channels MG-120<br>6 filter cube positions fluorescence wheel           |   |
|                                      | Excitation filter   | Fluorescence wavelength   |
|                                      | Ultra-violet (U)  | EX:375/30nm; DM:415nm; EM:460/50nm                                |
|                                      | Blue (B)  | EX:475/30nm; DM:505nm; EM:530/40nm                                |
| Focusing system                      | Coaxial coarse and fine with limit and locking devices, low coaxial focus adjusting handle, Minimum adjustment gradations: 1 μm |   |
|                                      | Warm LED brightness contentiously adjustment  |   |
| Transmitted illuminating             | LED rotary brightness control knob  |   |
|                                      | Long working distance condenser 72mm, NA 0.30 with triple phase contrast slider 10X/20X/40X                                     |   |
| Camera port                          | Internal set 1X and 0.63X for choice  |   |

\*Depends on different light source, stage and optional accessories, the product appearance might be different from the product phot in catalogue.



### MF53-N Motorized XYZ stage

The XYZ high precision motorized stage is workable to MF53-N microscope to control high accuracy focusing under big zoom times objectives, applied with SDK, more automatic functions are workable. That is the basement of high resolution imaging.

#### Features:

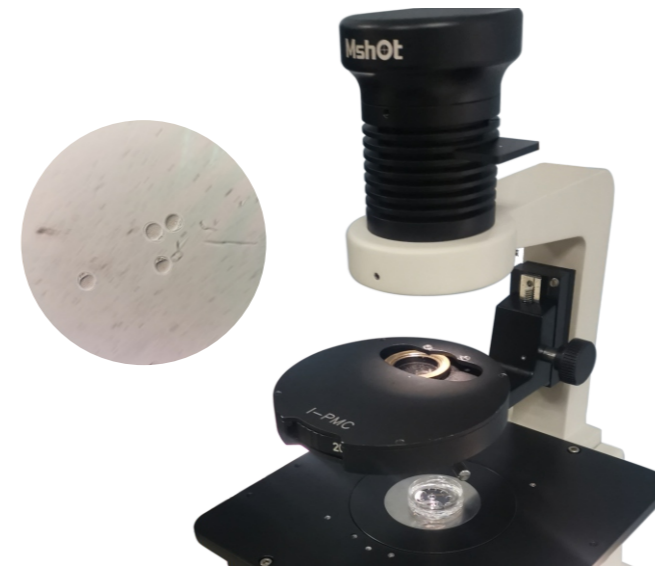
- High precision, XYZ re-positioning accuracy gets to 0.1 μm
- Moving speed is controllable for different zoom times objectives
- Ultrasonic motor is quite and stable running

### MF53-HMC Hoffman Modulation Phase Contrast

On the basis of MF53, the slit condenser and other accessories are upgraded to realize Hoffman modulation phase contrast observation, so as to realize clear observation of unstained samples such as oocytes with a three-dimensional sense, which is suitable for IVF reproductive assistance applications.

#### Features:

- Imaging has a three-dimensional effect similar to DIC, suitable for transparent samples such as oocytes.
- The cost is more advantageous than DIC, suitable for large-scale use such as IVF.
- Satisfy thicker transparent samples that cannot be observed by phase contrast.

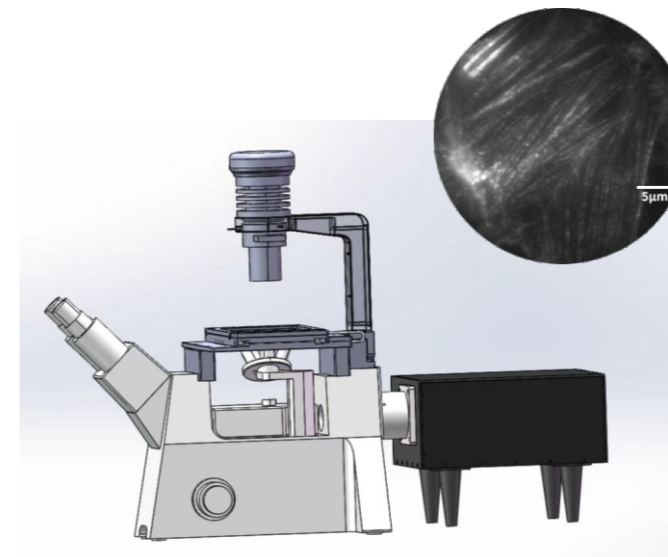


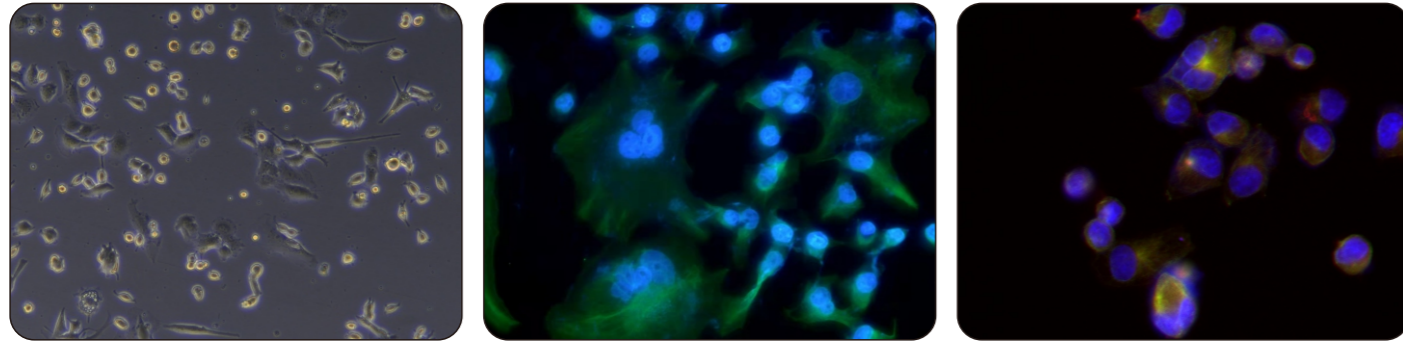
### MF53-TIRF Total Internal Reflection Fluorescence

On the basis of MF53, the three-axis high-precision motorized platform and TIRF total internal reflection fluorescence module are expanded to achieve higher Z-axis resolution and clearer and sharper fluorescence imaging.

#### Features:

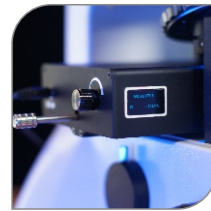
- Fluorescence imaging with high resolution and high signal-to-noise ratio.
- Meet the dynamic observation of cell surface substances, such as actin research.
- Configurable laser light source with 5 sets of single-mode fiber output.





### Inverted fluorescence microscope MF52-N

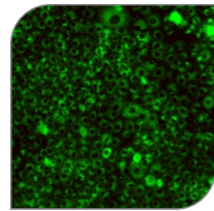
Inverted fluorescence microscope MF52-N adopts high-quality infinity optical design and digital display LED fluorescence module. The optical path has been deeply optimized to provide easy-to-use fluorescence excitation and high-quality phase contrast, fluorescence and bright field imaging. It is widely used in cells cultivation, bio-pharmaceutical, medical testing and other fields.



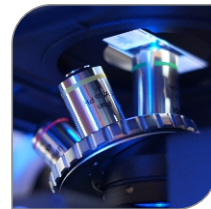
Long-life digital display LED fluorescence module



10X/22mm wide field of view eyepiece



Support phase contrast, fluorescence and bright field observation



Infinite plan achromatic objectives



Compatible with camera sensors below 1.2 inches



Built-in shading plate to reduce background fluorescence



| Item                                 | Specification  |
|--------------------------------------|--|
| Eyeiece                              | SWF10X/22 flat field eyepiece, high eye point  |
| Observation tube                     | Centering telescope<br>45° inclined, interpupillary distance adjustment 53-75mm, adjustable diopter  |
| Objectives                           | Long working distance plan objectives M-UPLFLN 4X/0.13, WD: 17.15mm<br>Infinity long working distance plan achromat objectives Plan 10X/0.25, WD: 9.3mm<br>Infinity long working distance plan achromat objectives Plan 40X/0.58, WD 2.5mm<br>Infinity long working distance plan achromat phase contrast objectives Plan 10X/0.25 PH, WD: 9.3mm<br>Infinity long working distance plan achromat phase contrast objectives Plan 20X/0.45 PH, WD: 5mm |
| Epi Fluorescence illuminating system | LED cold light source, brightness continuously adjustable<br>Standard three sets of excitation cubes, other types are optional   |
| Focusing system                      | Coaxial coarse and fine adjustment with limit and lock, low hand operating, fine adjustment hand wheel scale value 2μm   |
| Nosepiece                            | Quintuple internal positioning converter, ball bearing internal positioning, with anti-mildew device   |
| Stage                                | Round transparent stage: Outer ring φ118mm, Inner circle φ68mm<br>Petri dish holder 1 Inner size: 86mm×129.5mm, for round Petri dishes φ90mm<br>Petri dish holder 2 Inner size: 34mm×77.5mm, for round Petri dishes φ68.5mm<br>Petri dish holder 3 Inner size: 57mm×82mm, for round Petri dishes φ60mm<br>Petri dish holder 4 Inner size: 29mm×77.5mm, for round Petri dishes φ35mm  |
| Transmitted illuminating             | White LED, brightness continuously adjustable<br>Push-pull plate type phase contrast condenser, working distance 55mm  |
| Fluorescence shield                  | Green filter   |
| Condenser                            | 110mm x 70mm   |
| Lighting system                      | Push-pull plate phase contrast condenser, WD: 55mm, numerical aperture: 0.3  |
| Camera port                          | 9W LED, brightness is adjustable<br>Built-in 0.75XC  |



### Inverted biological microscope MI52-N

- Features:
- Standard 4X/10X/20X/40X objectives, support bright field and phase contrast observation
  - Built-in interface, compatible with cameras within 1 inch
  - Upgrade to fluorescence function with digital display LED fluorescence attachment

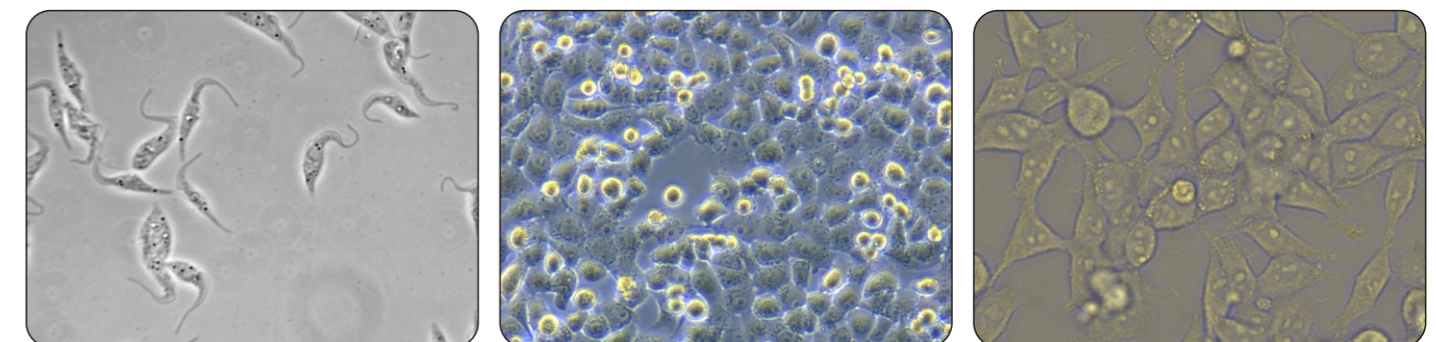
|                |   |
|----------------|---|
| Eyeiece        | SWF10X/22 plan eyepiece, high eye point   |
| Head           | Centering telescope<br>45° tilt, interpupillary distance adjustment 53-75mm, diopter adjustable   |
| Objectives     | Long working distance plan objectives M-UPLFLN 4X/0.13, WD: 17.15mm<br>Long working distance plan achromatic objective Plan 40X/0.58, WD: 2.5mm<br>Long working distance plan achromatic phase contrast objective Plan 10X/0.25 PH, WD: 9.3mm<br>Long working distance plan achromatic phase contrast objective Plan 20X/0.45 PH, WD: 5mm |
| Focusing       | Coaxial coarse and fine with stopper, minimum division of fine focusing is 2μm  |
| Nosepiece      | Quintuple nosepiece   |
| Stage          | Fixed stage size: 227mm×208mm; Mechanical moving range: 135mm×77mm<br>Transparent round stage: Overall size is φ118mm, Inner size is φ68mm<br>Four sizes of petri dish holders, suitable for round petri dishes of different sizes  |
| Phase contrast | 10X, 20X, 40X (20x and 40x in one unit)   |
| Condenser      | Push-pull plate phase contrast condenser, working distance: 55mm, numerical aperture: 0.3   |
| Illuminating   | 9W LED, brightness is adjustable  |
| Camera port    | Built-in 0.75XC   |

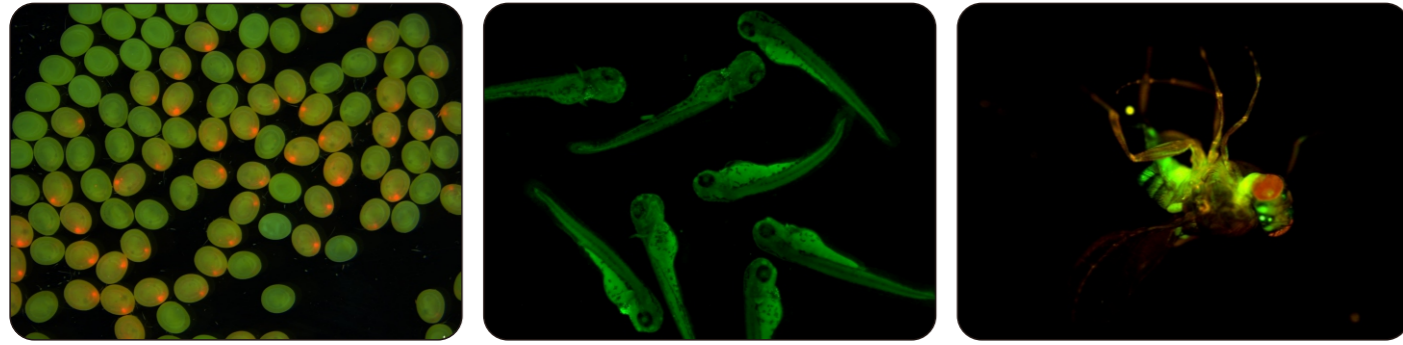
### Cell factory microscope MI40

- Features:
- The height of the transmitted light source is adjustable, and to place 10 floors cell factory
  - Long working distance condenser for phase contrast and bright field
  - Long working distance plan achromatic objectives is high clarity
  - Standard interface, compatible with camera sensors within 1 inch



|                          |  |
|--------------------------|--|
| Eyeiece                  | SWF10X/22 plan eyepiece, high eye point  |
| Head                     | 45° tilt, interpupillary distance adjustment 53-75mm   |
| Objectives               | Long working distance plan M-UPLFLN 4X/0.13, WD: 17.15mm<br>Long working distance plan achromat Plan 40X/0.58, WD: 2.5mm<br>Long working distance plan achromat phase contrast Plan 10X/0.25 PH, WD: 9.3mm<br>Long working distance plan achromat phase contrast Plan 20X/0.45 PH, WD: 5mm |
| Focusing                 | Coaxial coarse and fine with limit and locking, fine adjustment hand wheel scale value 2μm   |
| Nosepiece                | Quintuple internal positioning converter with anti-mildew device   |
| Stage                    | Mechanical stage, size: 242mm×200mm, moving range: 30mm×30mm<br>Round rotatable plate, outer diameter: φ130mm, light port diameter < φ20mm   |
| Transmitted illuminating | Push-pull plate type phase contrast condenser, working stroke 55mm-400mm<br>White LED, brightness continuously adjustable<br>Green filter  |
| Camera port              | Built-in 0.75XC  |





## Stereo-fluorescence microscope MZX81

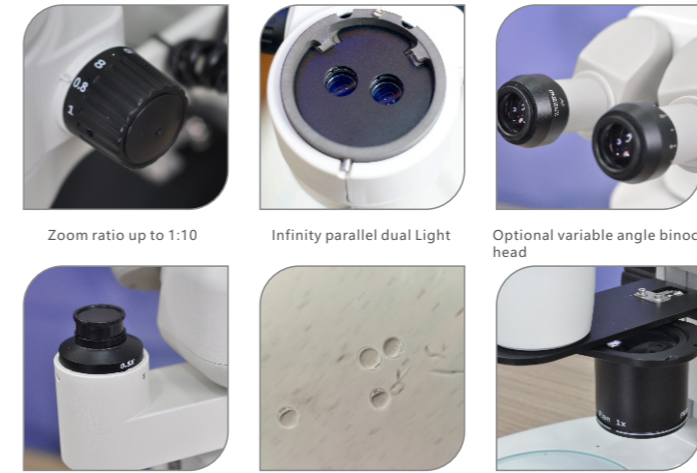
Stereo fluorescence microscope MZX81 adopts high-quality infinity parallel dual optical path Galilean optical system, which can provide clear and sharp bright field and fluorescence imaging, standard 1X apochromatic differential objective, the zoom ratio reaches 1:7, which can meet the application of model organism research, transgenic breeding, ink time series identification and so on.



|                               |   |                       |
|-------------------------------|---|-----------------------|
| Model                         | MZX81   |                       |
| Eyepiece                      | WF10X/22  |                       |
| Head                          | Lead-free tube, 30° tilt, 100%/0 light path selection         |                       |
| Objective                     | 1X plan apochromatic objective, WD: 81mm (2X is optional)     |                       |
| Epi-illuminating fluorescence | Excitation cube   | Excitation wavelength |
|                               | Blue (B)  | 460-490nm             |
|                               | Green (G)   | 510-550nm             |
|                               | Ultra-violet (UV)   | 330-380nm             |
| Zoom body                     | Zoom ratio: 7:1 (0.8x ~ 5.6x)                                 |                       |
|                               | Magnification scale 0.8, 1, 1.25, 1.6, 2, 2.5, 3.2, 4, 5, 5.6 |                       |
| Zoom times                    | 8-56X   |                       |
| Basement                      | SZ2-ST standard base  |                       |
|                               | Fluorescence special board M-FL                               |                       |
| Dust cover                    | MSHOT dust cover  |                       |



## Stereo microscope MZX100

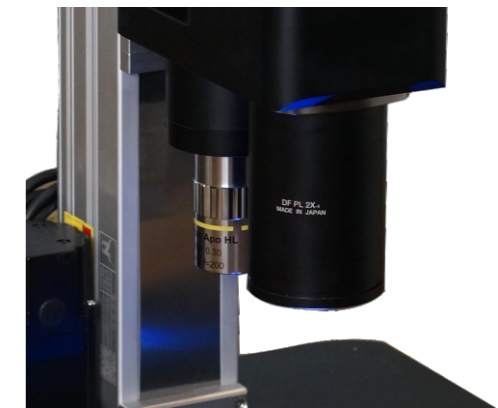


A beam splitter can be installed to connect to the camera    Optional adjustable angle transmission base    Optional dual objective switching system

|             |  |
|-------------|--|
| Eyepiece    | High eye point and large field of view WF10X/22                |
|             | WF15X/16 (optional)  |
|             | WF20X/12.5 (optional)  |
| Binocular   | Reticle eyepieces (different magnifications) (optional)        |
|             | Binocular inclination 20°, interpupillary distance 48-75mm     |
|             | Variable angle binocular head, 0-30° (optional)                |
| Splitter    | L type, switchable beam splitter, eyepiece: camera 100:0/50:50 |
| Fluorescent | MZX-BG-BD/MZX-BY-BD fluorescence attachment (optional)         |
| CCD adapter | 0.5XC / 1XC  |
| Objective   | 1X big plan objective, WD:78mm                                 |
| Zoom range  | 0.8X-8X  |
| Actual view | 27.5-2.8mm   |
| Focusing    | Focusing lens frame, lifting range 100mm                       |
| Basement    | Column type transmission plate base, vertical arm adjustment   |
| Work board  | Φ140mm clear glass work board                                  |
| Lighting    | Up/down LED light source lighting                              |



MZX100 is a research-grade stereo microscope, which adopts infinity parallel dual optical path, the zoom ratio is as high as 1:10, and the characteristic dual objective lens switching system can be equipped with an adjustable angle transmission base to realize the three-dimensional observation of transparent samples such as cells, can be equipped with a digital display LED fluorescence module to achieve fluorescence observation.



## High Power Stereo Microscope MZX200

### Features:

- Featured double objective switching, optional stereo objective lens 10X/20X high magnification objective lens
- Magnification times from several to hundreds, low magnification screening and high magnification observation in one
- Four-channel fluorescence excitation LED attachment can be added
- The height of the center of field of view during switching is consistent





### Stereo microscope MZ101

**Features:**

- 10X/22 large field of view eyepiece, more comfortable observation
- 1:9 large zoom ratio, sample adaptation is more flexible
- 110mm ultra-long working distance, large operating space
- Reflective and transmitted lighting, ring lights is optional

|                      |  |
|----------------------|--|
| Eyeiece              | Wide-field eyepiece WF10X/22, both independent adjustment ±5 diopters  |
| Observation head     | Hinged trinocular, light splitting ratio 50%/50%<br>45° tilt, interpupillary distance 54-75mm; ultra-long working distance 105mm |
| Zoom body            | Magnification time 0.7X-6.3X, zoom ratio 1:9   |
| Objectives           | 1X large flat-field objective lens, ultra-long working distance 110mm  |
| Actual filed of view | 31.4-3.49mm  |
| Basement             | Size: 310mm×280mm, effective vertical travel: 220mm  |
| Focus bracket        | Adjustable focus handwheel   |
| Light source         | Up/down LED light source lighting, 30W halogen lamp (optional)   |
| Work board           | Frosted glass work board   |
| CCD adapter          | 1XC, 0.5XC (optional)  |



### Stereo microscope MZ62

**Features:**

- 10X/22 large field of view eyepiece, more comfortable observation
- Excellent plan achromatic processing, clear image
- Ultra-thin reflective and transmitted LED light source
- Standard 1X objective lens working distance up to 105mm

|                      |   |
|----------------------|---|
| Eyeiece              | Wide-field eyepiece WF10X/22, both independent adjustment ±5 diopters   |
| Observation head     | Hinged trinocular, splitting ratio 50/50; 45° tilt, pupil distance 54-75mm<br>Hinged binoculars; 45° tilt, 360° rotation (column base plate) (optional) |
| Zoom body            | Magnification 0.67X-4.5X, zoom ratio 1:6.7  |
| Objective            | 1X, long working distance 105mm   |
| Actual field of view | 32.8-4.88mm   |
| Basement             | Slope-type column base, stroke 106mm  |
| Focus bracket        | Adjustable focus handwheel, lifting range 50mm  |
| Light source         | Up/down LED light source lighting, LED ring light and cold fiber (optional)   |
| Work board           | φ95mm frosted glass; white transparent / black and white board (optional)   |
| Camera adapter       | 0.5XC, 1XC (optional)   |

### Polarizing



### Polarizing microscope MP41

**Features:**

- Infinity optical system, halogen Kohler lighting
- Rotating stage, 360° equal division scale, satisfying extinction observation
- With Bertrand lens and swing-in condenser lens for conoscopic observation
- With compensator slot, three kinds of compensators are standard

|                      |   |
|----------------------|---|
| Item                 | Specification   |
| Eyeiece              | Wide field WF10X/22   |
| Head                 | Reticle eyepiece 10X/22, grid value 0.1mm/grid<br>30° tilt, trinocular, two beam splitters  |
| Objectives           | Infinite objective PLL5X/0.12 working distance: 26.1mm<br>Infinite objective PLL10X/0.25 working distance: 20.2mm<br>Infinite objective PLL40X/0.60(spring) working distance: 3.98mm<br>Infinite objective PLL60X/0.70(spring) working distance: 3.18mm |
| Nosepiece            | Quintuple inward-facing ball positioning nosepiece  |
| Stage                | Rotary stage, diameter φ150mm, 360° equal scale, vernier grid value 6', lockable<br>6V30W halogen lamp, brightness adjustable   |
| Epi-lighting system  | Built-in field diaphragm, aperture diaphragm<br>(yellow, blue, green, frosted glass) color filter conversion device<br>Analyzer (rotatable 360°, with scale and micro-mover); polarizer (rotatable 360°)<br>Push-in Bertrand lens, center adjustable    |
| Intermediate         | λ compensator (gypsum); λ/4 compensator (mica); quartz wedge compensator<br>Coarse and fine adjustment coaxial, fine adjustment handwheel scale value 2μm   |
| Transmitted lighting | 6V30W halogen lamp, adjustable brightness, adjustable bulb center<br>Abbe condenser, can be lifted up and down, NA1.25, blue color filter; frosted glass<br>Polarizer (rotatable 360°, with four readings of 0°, 90°, 180°, 270°)                       |

### Metallurgical



### Metallurgical microscope MJ43

**Features:**

- Semi-apochromatic metallurgical objective, the bright and dark field objective is optional
- Long-life LED epi-illumination, halogen light box is optional
- Light intensity manager, which can automatically adjust the matching light intensity according to the objective lens
- Strong scalability, can realize DIC and infrared transmission imaging

|           |  |
|-----------|--|
| Item      | Specification  |
| Eyeiece   | Large field of view WF10X/22, adjustable diopter   |
| Head      | Hinged trinocular viewing tube, high eye point, 30° tilt, interpupillary distance adjustment 50-75mm   |
| Objective | Semi-apochromatic metallurgical PlanFluor EPI 5X/0.15<br>Semi-apochromatic metallurgical PlanFluor EPI 10X/0.3<br>Semi-apochromatic metallurgical PlanFluor EPI 20X/0.45<br>Semi-apochromatic metallurgical PlanFluor EPI 50X/0.8<br>Semi-apochromatic metallurgical PlanFluor EPI 100X/0.9 (optional) |
| Lighting  | Warm White LED illuminators<br>Broad-spectrum high-power LED light source MG-30, MG-30 power control box   |
| EpiKohler | Epi-illuminator RE-43 (6-hole turntable)   |
| Lighting  | Bright field excitation block I (no brightness attenuation)<br>Simple Polarizer Attachment   |
| Nosepiece | Quintuple nosepiece  |
| Condenser | Abbe condenser, NA 1.1   |



### Inverted metallurgical microscope MJ42-N

**Features:**

- Infinity optical system, modular design
- LED epi-illumination, long life and low heat generation
- Compact and stable, suitable for large-sized metal samples
- Kohler illumination, expandable polarized light and dark field

|                 |   |
|-----------------|---|
| Item            | Specification   |
| Eyeiece         | Wide field of view WF10X/22   |
| Objective       | Long working distance plan achromatic PL L 10X/0.25 WD: 5.00mm<br>Long working distance plan achromatic PL L 20X/0.40 WD: 8.80mm<br>Long working distance plan achromatic PL L 50X/0.70 WD: 3.68mm<br>Long working distance plan achromatic PL L 100X/0.85 (dry) WD: 0.40mm |
| Head            | Trinoculars, tilted 45°, two beam splitters, interpupillary distance 53~75mm  |
| Focusing        | Coarse and fine coaxial with stopper and lock device, fine value: 2μm   |
| Nosepiece       | Quintuple (inward ball bearing)   |
| Stage           | Dimension of mechanical stage: 242mmX200mm, moving range 30mmX30mm<br>Round rotatable stage: overall size φ130mm, minimum aperture < φ20mm<br>LED light, adjustable brightness  |
| Lighting system | Built-in field diaphragm, aperture diaphragm and pull plate polarizer<br>With frosted glass, yellow, green, blue color filters  |

### Metallurgical microscope MJ31

**Features:**

- LED epi-illumination, long life and low heat generation
- 10X/22 large field of view eyepiece, comfortable observation
- Infinity optical system, long working distance metallurgical objective
- Push-Pull Polarizers and Analyzers



|                      |   |
|----------------------|---|
| Item                 | Specification   |
| Eyeiece              | Wide field of view WF10X/22   |
| Head                 | Hinged trinocular, 0/100% light splitting, 30° tilt, pupil distance 55-75mm<br>Long working distance plan objective L Plan5X/0.15 WD: 23.6mm<br>Long working distance plan objective L Plan 10X/0.30 WD: 17.7mm<br>Long working distance plan objective L Plan 20X/0.40 WD: 10.4mm<br>Long working distance plan objective L Plan 50X/0.55 WD: 7mm<br>Long working distance plan objective L Plan 100X/0.8 WD: 3.2mm (optional) |
| Objective            | Coarse and fine coaxial with locking and limit device, fine grid value 2μm<br>The micro-motion stroke is 0.2mm per circle, and the focus range is 24mm  |
| Focusing             | Kohler lighting with color filters: green, blue, yellow, frosted  |
| Epi-illuminating     | Abbe Condenser NA.1.25, lifting up and down with variable aperture diaphragm  |
| Condenser            | Inward-type quadruple nosepiece (inward-type quintuple nosepiece is optional)   |
| Nosepiece            | Double deck platform (size: 210mm×140mm, moving range: 75mm×50mm)   |
| Stage                | Abbe Condenser NA1.25   |
| Transmitted lighting | White LED, brightness adjustable  |

Optical customization



Optical ight path

Features:

- Can import laser light source, fiber light source
- Can realize dual optical path, precise optical path adjustment
- Motorized objective turntable, repeat positioning accuracy  $\leq 3\mu\text{m}$
- Motorized fluorescence filter turntable, fast and accurate switching
- Field of view imaging high uniformity, brightness difference  $\leq 5\%$

Fluorescent slide scanner

Features:

- Based on MSHOT rich experience in fluorescence imaging research and development
- A variety of LED fluorescent light source solutions are optional, and the excitation effect is stable
- High sensitivity imaging camera, more suitable for fluorescence imaging
- High-precision piezoelectric electric stage with autofocus

Monocular fluorescence imaging

Features:

- The structure is simplified and the volume is small, which can be used as an imaging component of a large system
- Standard RMS objective lens interface, high quality imaging, flexible magnification,
- Single-channel or multi-channel LED fluorescence excitation scheme is optional, and can be switched electrically



Pre-sale

• Program Consulting • Demo

On sale

• Timely supply • Training

After sale

• Quick response • In time answer

QC

• System management • Life time

