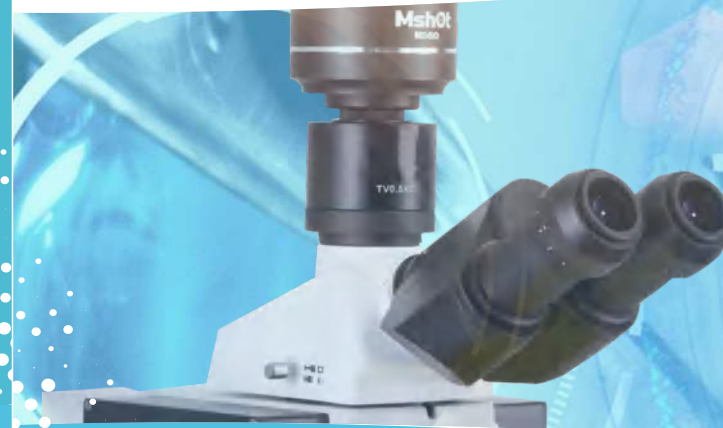
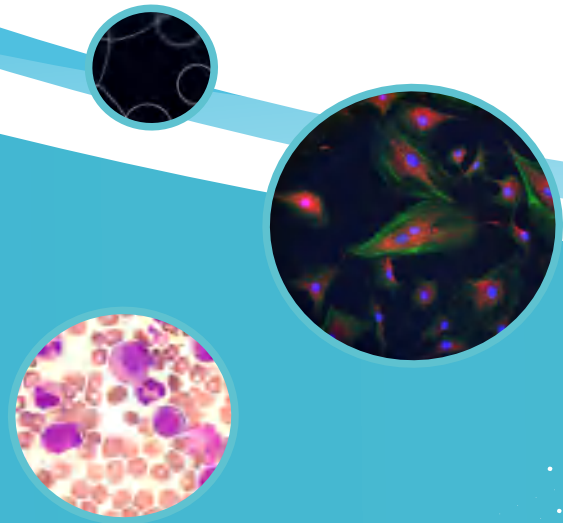


Mshot 明美



Guangzhou Micro-shot Technology Co., Ltd

Telephone: 0086-20-38262481 Fax:0086-20-38262491
Website: www.m-shot.com Email: sales@mshot.com
Add: Room 506, Lobby A, Vanke Cloud, No.1933 Huaguan Road, Tianhe District, Guangzhou City, China

Microscope Imaging System Solution Provider

Company Profile

Guangzhou Micro-shot Technology Co., Ltd researches and develops optical microscopes and microscopy imaging systems, self-owned Chinese brand MSHOT and Singapore brand MICROSHOT, and manufacture qualified optical microscopes and attachments.

Main products line

- Biological microscope, fluorescence microscope, polarizing microscope, metallurgical microscope, stereo microscope
- Microscope camera and adapter, microscope imaging software
- LED fluorescence illuminator
- Heating stage & thermal plate

Main customer groups

Institutes of bio-science and life science, university lab and school, scientific research center, hospital and clinical center, medical industry company, reagent manufacture, microscope distributor

Scientific research fluorescence microscope 01-02

Fluorescence microscope 03-05

Fluorescent light source 06

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CONTENTS

► Fluorescence microscope MF43-N



Specification

Item	MF43-N (Mercury)	MF43-N (LED)
Frame	Multi-function frame	
Eyepiece	wide field 10X, FN25, diopter is adjustable	
Head	Hinged trinocular observation tube, high eye point, 30° inclination, interpupillary distance 50-75mm	
Plan semi-apochromatic objectives	Standar	Optional
	M-UPLFLN 4X/0.13;WD:17.15mm	M-UPLFLN 20X/0.50
	M-UPLFLN 10X/0.3;WD:7.68mm	Plan Fluor 4X/10X
	M-UPLFLN 40X/0.75;WD:0.78mm	Plan Fluor 20X/40X
	M-UPLFLN 100XO/1.30;WD:0.15mm	Plan Fluor 100X Oil
Epi-fluorescence illumination system	100W HG mercury light box,center and focusing are adjustable	100W broad-spectrum LED light source
	Digital mercury light control box, AC 110V/220V	Digital LED light control box, AC110V/220V
	Osram HBO 100W DC mercury lamp	
	Turret accommodates maximum sextuple filter block cubes, standard with Blue, Green and UV filters, other filters are optional	
	Filter units	wavelength
FB-U-M	Ex: 375/30nm;DM: 415nm;EM: 460/50nm	
FB-B-M	EX: 475/30nm;DM: 505nm;EM: 530/40nm	
FB-G-M	EX: 540/25nm;DM: 565nm;EM: 605/55nm	
Nosepiece	Interchangeable reversed quintuple nosepiece	
Stage	Ceramic-coated coaxial stage with right hand low drive control, Travel distance 80mm×50mm, 1mm per scale, accuracy 0.1mm	
Transmitted illumination	Warm white LED lamp, brightness is continuously adjustable	
	Abbe condenser, N.A. 1.1	

► Fluorescence microscope MF53-N



Specification

Item	Specifications			
			Broad-spectrum high power LED light source MG100	
Eyepieces	WF10X/23 plan eyepiece, high eyepoint		Quintuple / Sextuple fluorescence illuminator	
	Centering telescope		Excitation filter units Filter wavelength	
Head	45°inclined, pupil distance 50-75mm, diopter is adjustable	Epi-illuminating fluorescence system	UV(U) EX:330-380nm;DM:400;EM:420nmLP	
	Plan achromatic: LWD Plan 4X/0.1,WD 11.98mm		Blue(B) EX:460-490nm;DM:500;EM:510nmLP	
	Plan achromatic: Plan10X/0.25, WD 4.1mm		Green(G) EX:510-550nm;DM:570;EM:590nmLP	
Long working distance objectives	Plan achromatic: Plan 40X/0.58, WD 2.5mm	Focus system	Coaxial coarse and fine focus with locker, minimum accuracy: 1 μm	
	Plan achromatic phase contrast: Plan10X/0.25 PH, WD 4.1mm		Nosepiece	Quintuple revolve with bearing inner location anti-fungus device
	Plan achromatic phase contrast: Plan20X/0.45 PH, WD 5.0mm	Stage		Fixed stage 240mmX260mm, travel distance 135mmX85mm
	Semi-apochromats: Plan Fluor 4X/0.13 WD:18.5mm(optional)			Water drop slide holder (Φ118mm)
	Semi-apochromats : Plan Fluor 10X/0.3 WD:7.1mm(optional)		Multi-function slide holder (76mmX26mm, Φ60mm)	
Semi-apochromats: Plan Fluor 20X/0.45 WD:5.9mm(optional)		Warm LED brightness contentiously adjustment		
Semi-apochromats: Plan Fluor 40X/0.65 WD:1.6mm(optional)		LED rotary brightness control knob		
Camera adapter	Built-in 0.75X C-mount adapter or 1X C-mount adapter	Transmitted illumination system	Condenser: long WD 72mm, NA 0.30 with triple phase contrast slider	

► Fluorescence microscope MF23 ◀ Fluorescence microscope MF31 ◀

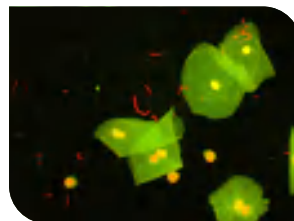
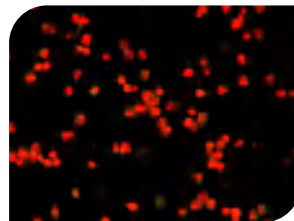


Feature

- ⊙ Infinity plan achromatic objectives and wide field eyepiece
- ⊙ Available observation of binocular & trinocular
- ⊙ LED fluorescence attachment
- ⊙ Applied to clinical laboratories with principle of micro-magnification
- ⊙ For observing small cells, tissues, bacteria and other samples

Specification

Item	MF23	MF31
Eyepiece	WF10X/FN20	WF10X/FN22
Objectives	Infinity plan achromatic objective 4X/0.1 Infinity plan achromatic objective 10X/0.25 Infinity plan achromatic objective 40X/0.65 Infinity plan achromatic objective 100X/1.25	
Head	30° inclined, pupil distance 48-75mm, triple split	30° inclined, pupil distance 53-75mm
Focusing system	Coarse and fine focus with locker, fine stroke per 2μm, lifting range 15mm	Coarse and fine focus with locker, fine stroke per rotation 2μm
Nosepiece	Backward quadruple nosepiece	
stage	Wire drive, size 120x132mm, travel range 76x30mm	Double layer mechanical movable stage (size 210x140mm, travel range 76x50mm)
Condenser	Abbe Condenser NA.1.25 Frosted glass, blue filter	
Fluorescence illumination system	12V2A constant voltage DC power adapter LED fluorescence module with light barrier Blue: EF450nm-490nm, EM>520nm Green: EF510nm-550nm, EM>590nm	



► Inverted fluorescence microscope MF52-N ◀



Feature

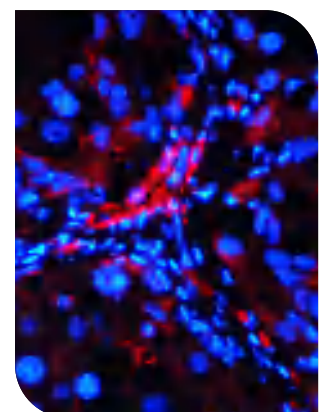
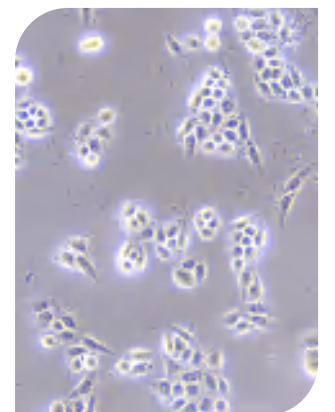
- ⊙ Compatible with cameras sensor under 1 inch
- ⊙ Objective imaging is clear without field curvature halo
- ⊙ High contrast
- ⊙ SWF10X/22 plan eyepiece
- ⊙ New optical path optimization design

Application

- ⊙ Cell culture
- ⊙ Biological pharmacy
- ⊙ Disease prevention
- ⊙ Medical testing

Specification

Item	Specification
Eyepiece	SWF10X/23 plan eyepiece, high eyepoint Centering telescope
Observation tube	45° inclined, interpupillary distance 50-75mm, diopter is adjustable M-UPLFLN4X/0.13 Work distance:17.15mm
Long working distance plan objective	Infinity achromatic plan10X/0.25 Work distance:4.1mm Infinity achromatic plan40X/0.58 Work distance:3.5mm Infinity achromatic phase contrast plan10X/0.25Ph WD:4.1mm Infinity achromatic phase contrast plan20X/0.45Ph WD:2.5 mm
Epi-fluorescence illumination system	Cold LED light source, brightness continuously adjustable Standard with three excitation filter groups, other filter groups are optional Excitation filter Excitation wavelength Ultraviolet (UV) 330-380nm Blue (B) 460- 490nm Green (G) 510- 550nm
Focus system	Coarse&fine focus with locker, minimum division of fine focusing is 2μm.
Nosepiece	Quintuple nosepiece, ball bearing with anti fungus device
Stage	Fixed stage overall size is 227mmX208mm Mechanical moving device, moving range135mmX77mm Glass rotundity stage overall size is Φ118mm, inner size is Φ68mm Culture dish holder 1 Inside locating slot size:86x129.5mm, circular culture dishΦ90mm Culture dish holder 2 Inside locating slot size:34x77.5mm, circular culture dishΦ68.5mm Culture dish holder 3 Inside locating slot size:57x82mm, circular culture dishΦ60mm Culture dish holder 4 Inside locating slot size:29x77.5mm, circular culture dishΦ35mm
Transmitted illumination system	White LED lamp with brightness adjustable Push-pull type condenser, working distance 55mm Green filter
Light baffle	110mm x 70mm
Camera adapter	Internal set 0.75X C-mount



► Stereo-fluorescence microscope MZX81



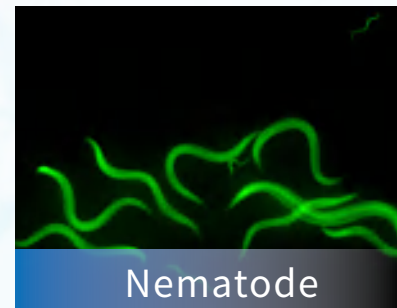
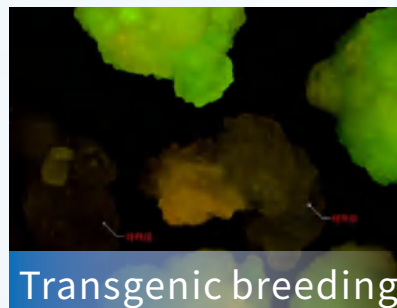
Feature

- ⊙ Infinity parallel optical system
- ⊙ Dual light path LED fluorescence lighting design
- ⊙ Large zoom ratio
- ⊙ Galileo optical system

Specification

Product model	MZX81	
Eyepiece	WF10X/22	
Head	Lead-free, 30°inclination, Light path: 100% for eyepiece or camera	
Objectives	Plan achromatic 1X, working distance 90mm (2x optional)	
Epi-fluorescence illumination attachment	Filter units	Excitation wavelength
	Blue(B)	460-490nm
	Green(G)	510-550nm
	Ultraviolet (UV)	330-380nm (可选)
Zoom body	Zoom ratio value 7:1 (0.8x to 5.6)	
Magnification	magnification scale 0.8,1,1.25,1.62,2.5,3.2,4,5,5.6	
Stand	8-56X	
	SZ2-ST standard stand Fluorescence special board M-FL	

Application



► Broad-spectrum high power LED Light Source



MG-100



MG-30

Feature

- ⊙ Ready to use
- ⊙ Different bands can be switched freely
- ⊙ Infrared induction, light off when nobody, environmental friendly
- ⊙ Real-time monitoring light box temperature and use time
- ⊙ Meet different users needs of scientific research, analysis and testing

Specification

Item	MG-100	MG-30
Host	350-390nm/410-760nm Output intensity is adjustable	410-760nm
Microscope adapter	Compatible for Olympus, Nikon, Leica, Zeiss and others	
Light source control box	Max out put power: 120W	Max out put power: 30W
Host connection line	8P aviation head (temperature control protect light source) ,1.5m	
Power line	Satisfy customers requirements	
Lamp house size	180mmx114mmx122mm	152mmx110mmx84.5mm
Control box size	196mmx137mmx65.5mm	110.5mmx110.5mmx68mm

► Four-channels LED fluorescence light source

Feature

- ⊙ Integrated 4 high-power monochromatic lamps
- ⊙ Optical fiber type to realize single-channel control
- ⊙ Superior brightness

Specification

Peak wavelength	365 / 385nm, 460nm, 520/ 560nm, 625nm
Electrical parameters	12V 70W
Coupler (optional)	Liquid light guide: 3mm, 5mm
Control method	4 independent controllers; dimming range: 0-100%;
Cooling method	dimming accuracy: 0.5%
Working temperature	Forced air cooling
Size	5°C - 45°C Light source: L 180x W 60x H 168mm Control box: L 104x W 84x H 34mm



▶ Digital display fluorescence attachment

Feature

- ⊙ Push-pull switch among different fluorescence
- ⊙ Match all major brand of microscopes
- ⊙ Digital display brightness and band, better quantitative analysis
- ⊙ Encoded knob continuously adjust brightness and remember light intensity

Specification

Filter groups	B	BP:EX:475/30nm;DM:505nm;EM:530/40nm LP:EX:475/30nm;DM:500nm;EM:510 nmLP
	G	BP:EX:530/40nm;DM:565nm;EM:605/55nm LP:EX:530/40nm;DM:570nm;EM:575 nmLP
	U	V BP:EX:375/30nm;DM:415nm;EM:460/50nm V LP:EX:355/50nm;DM:410nm;EM:420 nmLP
	Y	LP:EX:560/40nm;DM:600nm;EM:610 nmLP
Excitation light source	LED light source	
Observation method	Fluorescence, bright field switching	
Input power	DC 12V 2A	

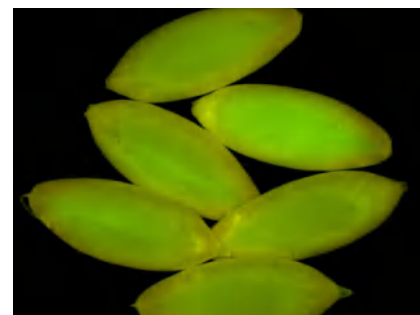
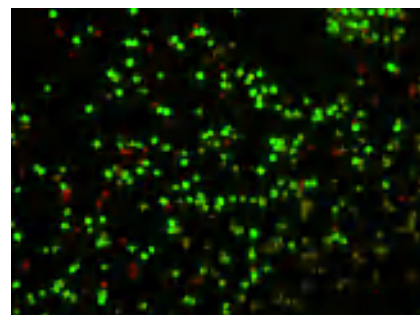
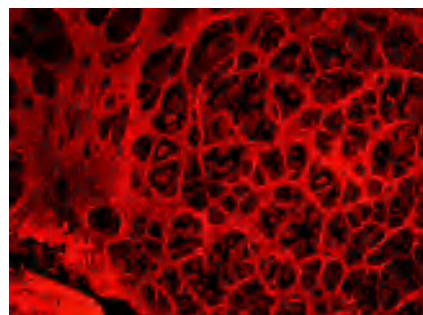
▶ Digital display fluorescence attachment



▶ Inverted digital display fluorescence attachment



▶ Stereo digital display fluorescence attachment



▶ Compatible with famous brands/Upright microscope



▶ Compatible with famous brands/Inverted microscope



▶ Compatible with famous brands/Stereo Microscope



► Biological microscope ML51

Feature

- ⊙ Provides nature, clear and sharp images
- ⊙ Rich flexibility to satisfy different needs
- ⊙ Remote power switch

Specification

Optical system	Infinite optical system
Eyepiece	WF10X / FN22mm,high eyepoint,diopter is adjustable
Observation tube	Hinged trinocular tube,fields of view 22mm,high eyepoint,30°inclined, interpupillary distance is adjustable
Objectives	M-UPLFLN series semi-apochromats objective 4X/0.13 M-UPLFLN series semi-apochromats objective 10X/0.3 M-UPLFLN series semi-apochromats objective 40X/0.75 M-UPLFLN series semi-apochromats objective 100X/1.3
Focusing system	Coaxial coarse and fine focus, fine scale value 1 μm, focusing range 35mm
Nosepiece	Sixtuple nosepiece with expansion slot
Stage	Double-layer steel wire structure stage (Corning glass table) size: 302mm x 152mm; 78(X)mm x 32(Y)mm, 1mm/div, accuracy 0.1mm
Condenser	Manual swing-out condenser Phase contrast condenser (optional)
Bright field lighting	3W White LED 12V/100W halogen lamp (optional)
Camera adapter	1X, 0.63X, 0.5X(optional)



► Biological microscope ML41

Feature

- ⊙ Dual color temperature light source
- ⊙ Swing-out condenser, clear imaging
- ⊙ 4x,10x,20x,40x and 100x high transmittance imaging objectives
- ⊙ Wide field high-eyepoint eyepieces, maximum field of view 25mm,diopter is adjustable
- ⊙ Detachable double-layer mechanical moveable stage, accuracy 0.1 mm

Specification

Eyepiece	Wide-field WF10X / Fn25mm,high eyepoint
Observation tube	Hinged trinocular,50%:50% light split,30°inclined,pupil distance 50-75mm
Objectives	High-contrast achromatic objective Plan 4x/0.1, working distance 11.6mm High-contrast achromatic objective Plan 10x/0.25, working distance 4.8mm High-contrast achromatic objective Plan 20x/0.40, working distance 2.9mm High-contrast achromatic objective Plan 40x/0.65, working distance 0.55mm High-contrast achromatic objective Plan 100x/1.25, working distance 0.17mm
Focus	Coaxial coarse and fine focus, focusing range 25mm,fine scale value 0.002mm
Nosepiece	Quintuple nosepiece with inward tilt
Stage	Detachable double-layer mechanical moveable stage,size: 185mm x 145mm; Moving range:75(X)mm x 50(Y)mm, accuracy 0.1mm
Transmitted lighting System	Swing-out condenser NA1.2/0.22,LED light source, brightness adjustable Free switching of cold/warm dual color temperature



► Biological microscope ML31

Feature

- ⊙ Infinite optical system
- ⊙ Wide-field high eyepoint eyepiece
- ⊙ Precision focusing mechanism

Specification

Eyepiece	Wide-field WF10X/FN22mm Wide-field WF16X/FN15mm(optional)
Observation tube	Hinged trinocular tube,30°inclined, pupil distance 50-75mm
Objective	Infinite plan achromatic objective 4x/0.1, working distance 21.5mm Infinite plan achromatic objective 10X/0.25, working distance 7.5mm Infinite plan achromatic objective 40X/0.65, working distance 0.65mm Infinite plan achromatic objective(oil) 100X/1.25, working distance 0.185mm
Focus adjustment	Coaxial coarse and fine focus with locker, fine scale value 2μm, coarse stroke per rotation 40mm, micro stroke 0.2mm,focusing range 35mm
Nosepiece	Quadruple nosepiece with inward tilt
Stage	Double-layer structure (size: 210mm x 140mm; moving range:78mm x 32mm)
Transmitted lighting	Abbe condenser NA1.25 White LED, brightness adjustable
Camera adapter	1XC 0.5XC(optional)



► Biological microscope ML11

Feature

- ⊙ Wide-field eyepiece and achromatic objective
- ⊙ Coaxial coarse and fine focus adjustment
- ⊙ 3W LED lighting, pre-set light center, brightness is adjustable

Specification

Eyepiece	WF10X/18mm
Hinged observation tube	30°inclination, trinocular,pupil distance 50-75mm, single diopter adjustable, fix R:T:80:20
Objective	Achromatic objective 4x/0.10, working distance 37.5mm Achromatic objective 10x/0.25, working distance 6.55mm Achromatic objective 40x/0.65, working distance 0.669mm Achromatic objective 100x/1.25, working distance 0.198mm
Nosepiece	Quadruple nosepiece with inward tilt
Stage	Double-layer mechanical mobile stage, moving range:76mmx 50mm,accuracy 0.1 mm
Focus adjustment	Coarse adjustment stroke 25mm, fine focusing accuracy 0.002μm Low position hand wheel coaxial coarse and fine with limit stopper and lock device
Transmitted lighting	3W LED, Pre-set light center, brightness continuously adjustable Abbey condenser,N.A.1.25, with changeable aperture diaphragm
Camera adapter	1XC



► Cell Factory MI52-CF



Feature

- ⊙ Excellent infinite optical system, can realize bright field and phase contrast observation
- ⊙ Rotating swing in and out condenser, can observe cultured cells without contamination in high petri dishes or cylindrical flasks

Specification

Eyeiece	SWF10X/22 plan eyepiece, high-eye point
Head	45°inclination, interpupillary distance 53-75mm
Long working distance	Plan M-UPLFLN4x/0.13, WD 17.15mm
objectives	Plan achromatic phase contrast Plan40x/0.58 , WD 2.5mm Plan achromatic phase contrast Plan10x/0.25 PH ,WD 4.1mm Plan achromatic phase contrast Plan20x/0.45 PH ,WD 5mm
Focus	Low position hand wheel coaxial coarse and fine adjustment with limit stopper and lock device, fine adjustment scale value 2μm
Nosepiece	Quintuple with inward tilt,ball bearing with anti-mildew device
Stage	Mechanical stage,size: 242mm x 200mm, moving range:30mmx 30mm Round rotatable plate, outer diameterφ130mm, light path <φ20mm
Condenser	Sliding type phase contrast condenser,working range:55mmx 400mm
Transmitted illumination	White LED, brightness continuously adjustable Green filter
Camera adapter	Internal built-in 0.75X C

Inverted microscope MI52-N◀



Feature

- ⊙ Infinite optical system
- ⊙ Long WD plan objectives and wide field eyepiece
- ⊙ Rotating swing in-out condenser system

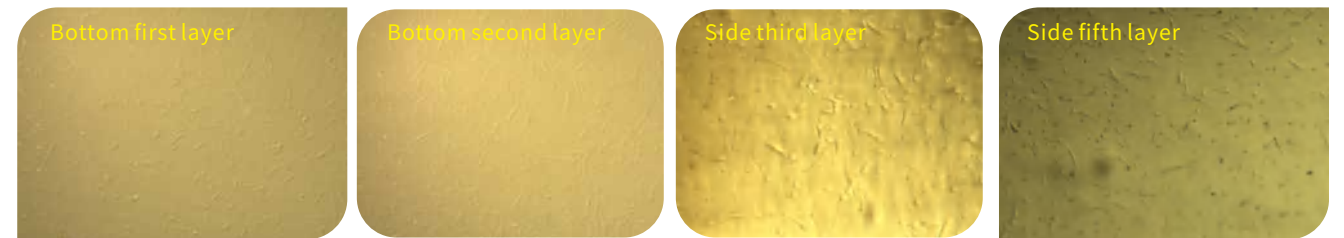
Specification

Eyeiece	SWF10X/22 high-eyepoint plan ,1 diopter is adjustable, centering telescope
Head	45°inclination, interpupillary distance 53-75mm, diopter is adjustable
Long working distance	Plan M-UPLFLN4x/0.13,WD 17.15mm
objectives	Infinite plan achromatic phase contrast Plan40x/0.58, WD 2.5mm Infinite plan achromatic phase contrast Plan10x/0.25 PH, WD 4.1mm Infinite plan achromatic phase contrast Plan20x/0.45 PH, WD 5mm
Focus	Coaxial coarse and fine focus with locker, fine adjustment scale value 2μm
Phase contrast	Phase contras ring plate 10x , 20x/40x share one ring
Stage	Fixed stage :227 x 208mm, Mechanical moveable,moving range:135x 77mm Round transparent plate:Outer ringφ118mm, inner ringφ68mm Petri dish plate 1: groove size 86 x 129.5mm,φ90mm petri dish is suitable Petri dish plate 2: groove size 34 x 77.5mm,φ68.5mm petri dish is suitable Petri dish plate 3: groove size 57 x 82mm, petri dishφ60mm is suitable Petri dish plate 4: groove size 29 x 77.5mm, petri dishφ35mm is suitable
Camera adapter	Internal built-in 0.75X C

► Multilayer Cell Factory Imaging Equipment

Feature

- Real time observation of in-suit cell factory 1-40 layers
- Remote monitoring and traceable
- The bottom 1-3 layers are fully observed, the side layers can be observed 10mm area
- Fiber light source lighting of cold LED lamp
- Human-machine exchange, embedded operation
- Automatic control, 1-40 layers automatic detection only takes 2min
- Realize qualified evaluation of cell culture passage, virus infection and harvest process
- All-in-one machine structure of food-grade 304 stainless steel to satisfy GMP workshop
- Observation magnification can be customized according to user needs



Specification

Optical system	Total magnification: 50-400X
	Working distance: 45mm
	Field of view: 1-8mm
Image acquisition system	The highest resolution ratio: 1μm
	Optical sensor size: 2/3"
	The highest resolution: 2456X2058
Control System	Frame rate: 15FPS
	Repeat positioning accuracy: 5μm (vertical), 20μm (horizontal)
Processing system	RAM: 4G
	Processor: Intel Corei5
Size & weight	Screen: 17-inch TELLCD touch screen
	Net size: 1.1X0.7X15m
	Net weight: 230kg

► Live cell imaging system



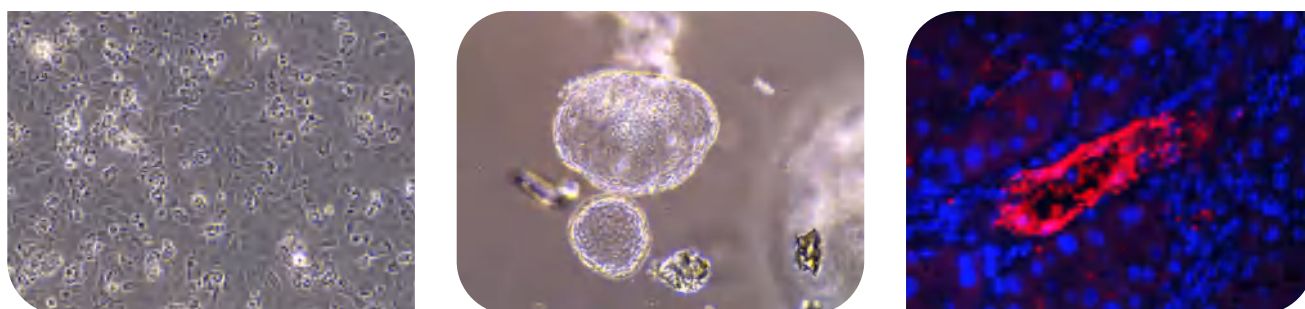
Feature

- Compact and lightweight, workable with clean bench
- Support WIFI connecting to realize remote control
- Can match multi-channels fluorescence, realize electric switching and XYZ control
- Observation method of bright field and phase contrast clearly observe the cell culture morphology
- Match 3 objectives synchronously to obtain cell observation of various magnification

Specification

Specification	Basic version	Standard version
Objectives	1 piece	3 pieces
Magnification	10X	4X/10X/20X
Observation	Bright field, phase contrast	Bright field, phase contrast/fluorescence
Fluorescence	None	3-channels LED fluorescence
Imaging	WIFI camera 2592x1944/30FPS	High sensitivity WIFI camera 1920x1080/30FPS
Dimension (MM)	Integrated platform XY moving mechanism	Integrated platform/auto focus XY moving mechanism
Stage	195X174X151	296X260X220

Application



► Stereo Microscope MZ62



Feature

- Excellent optical system
- Ultra-thin transmitted and reflected LED light source
- Standard 1X objective

Specification

Eyeiece	WF10X/22mm high eye-point, large field of view, both eyepiece diopter adjusting range ±5°	CCD adapter	0.5XC
Observation tube	Hinged trinocular, light split: 50%/50%, 45° inclined, Base pupil distance 54-75mm, Zoom ratio: 6.7:1, Zoom range: 0.67X~4.5X, WD: 105mm	Focus frame & wheel	Adjustable tension, lifting 50mm
		Work plate	φ95mm frosted glass work plate
		Illuminated System	Up & down LED light source

► Stereo Microscope MZ101

Feature

- Continuous zoom objective
- 45° inclined observation tube
- Lifting zoom body

Specification

Eyeiece	Wide field WF10X, FN: 22mm	Total magnification	7X - 63X
	Continuous zoom	Effective moving range	220mm
Objectives	Zoom range: 0.7~6.3 (Zoom ratio: 1:9) Working distance: 110mm	Basement size	310mm X 280mm
Field of view	φ33.8-φ3.49	Illumination	Up: 3W high brightness LED Down: 5W high brightness LED



► Polarizing Microscope MP41

Feature

- Long working distance plan objectives
- Stage vertical effective lifting range 30mm
- Field of view φ22mm

Specification



Item	Specifications	Camera adapter	1XC
Eyeiece	WF 10X/22 Graduated WF10X(φ22mm) 0.10mm/Div	6V30W halogen, brightness adjustable	
Head	Trinocular, inclined 30°, 100% light pass for photography capable	Integrated field and aperture diaphragm	
Long WD	PL L5X/0.12 (Work distance): 26.1 mm	Reflected	Rotated analyze 360° with scale & minimum
achromatic	PL L10X/0.25 (Work distance): 20.2 mm	illumination	vernier, Polarizer can be rotated 360°.
objectives	PL L40X/0.60 (spring) (Work distance): 3.98 mm		Quadruple (center adjustable)
Nosepiece	PL L60X/0.70 (spring) (Work distance): 3.18 mm	Intermediate	Pull type Bertrand lens and center adjustable
Stage	Quadruple internal positioning rotating ball	attachments	λ, λ/4 and quartz wedge compensator
	Rotary stage, φ150mm, 360 equal scale, vernier scale value 6', adjustable center, with locking device		6V30W halogen, brightness adjustable
Focus	Coaxial coarse/fine focus, with tension adjustable and locker, minimum graduation in fine movement: 2μm	Transmitted	Abbe condenser, liftable, NA 1.25
		illuminating	Blue filter, Frosted glass
		system	Polarizer (360° rotatable with 0°, 90°, 180°, 270°)

▶ Metallurgical microscope MJ43



Feature

- Wide and clear view
- Long life and high power LED
- Various solutions
- Flexible and wide application

Specification

Item	Specifications	Stage	Coaxial stage with right hand low drive control
Frame	Original import		30W board-spectrum LED light source Mg30
Eyeiece	Wide field eyepiece 10X/22mm,diopter adjustable		Connector of broad-spectrum LED light source
Hinged observation	Trinocular,30°incline,high-eyepoint, interpupillary 53-75mm	Reflected	Turret accommodates maximum
Semi-apochromatic	PlanFluor EPI 5X/0.15, working distance:20mm	fluorescence	sextuple filter block cubes
metallurgical	PlanFluor EPI 10X/0.3, working distance:11mm	illumination	Mirror units of bright field
bright field	PlanFluor EPI 20X/0.45, working distance:3mm	system	Simple analyzer
objectives	PlanFluor EPI 50X/0.8, working distance:1mm		Simple polarizer

Nosepiece Quintuple nosepiece Fixing clamp Glass stage sample clamp

▶ Metallurgical Microscope MJ33

Feature

- Infinite optical system modular
- Coarse and fine focusing mechanism
- Built in switchable polarizing device

Specification

Item	Specifications	12V 50W halogen lamp,
Eyeiece	WF10X/22	brightness lamp position adjustable
Eyeiece tube	Trinocular, 30°inclined,built-in switchable analyzer	illumination
Long work	PL L5X/0.12 B. D,wroking distance: 9.7 mm	system
distance plan	PL L10X/0.25 B. D, wroking distance: 9.3 mm	
achromatic	PL L20X/0.40 B. D, wroking distance: 7.2 mm	
objectives	PL L40X/0.60 B. D ,wroking distance: 3.0 mm	Transmitted
Nosepiece	Quintuple (Fixed nosepiece with backward inclined)	illumination
Stage	Double layer mechanical movable stage (size: 210mmX140mm, moving range: 75mmX50mm), glass plate 97x76mm	system
Focus system	Coaxial coarse/fine,with tension adjustable and limit stopper, minimum division of fine focusing: 2μm.	Adapter



▶ Metallurgical Microscope MJ31



Feature

- High definition and high contrast imaging
- Large field eyepiece 22mm view, more comfortable observation
- Polarized observation
- Long WD plan field objectives

Specification

Item	Specifications	Focus system	Coaxial coarse/fine with limit stopper and lock device.
Observation	30°inclined trinocular, interpupillary53-75mm, 0%/100%		Coarse per 40mm, microstroke per 0.2mm, focusing stroke 24mm
Eyeiece	Wide field WF10X/F.N.22	Epi-illumination	Kohler illumination Filters: Green, yellow, blue and gross glass
Long	L Plan 5X, NA 0.15, working distance 23.6mm	Condenser	Lifting type Abbe condenser NA1.25 with aperture diaphragm
working	L Plan 10X, NA 0.30, working distance 17.7mm	Nosepiece	Quadruple backward
distance	L Plan 20X, NA 0.40, working distance 10.4mm		Quintuple backward(optional)
plan	L Plan 50X, NA 0.55, working distance 7.0mm	Stage	Double-deck mechanical, size 210x140mm, travel 75x50mm
objectives	L Plan 100X, NA 0.80, working distance 3.2mm(optional)	Transmitted	Abbe condenser NA. 1.25
		illumination	White LED lamp, brightness adjustable

▶ Scientific camera MSH20

Feature

- High quantum efficiency 95% at 560nm
- Broad spectral response 200nm-1300nm
- 2" large sensor, wider field of view
- Back-illuminated sensor, higher sensitivity
- High dynamic range>93dB
- Full well capacity up to 90000e-
- Ultra-low read noise 1.47e-



Specification

Type	Monochrome	Shutter	Electronic rolling shutter
Effective resolution	4.2 Megapixels	Exposure time	0.021ms-20s
Sensor size	2 inch	Dynamic range	>93dB
Pixels Size	11μm × 11μm	Full order capacity	93Ke-
Resolution	2048 × 2048 24FPS	Read noise	1.47e-
Frame rate	Any size ROI	A/D conversion	12Bit
Spectral Response	200-1300nm	External dimension	105.0 × 105.0 × 92.0 mm

▶ Scientific camera MSH12

Feature

- High quantum efficiency 95% at 560nm
- Broad spectral response 200nm-1100nm
- 1.2" large sensor, larger field of view
- Back-illuminated, higher sensitivity
- High dynamic range>90.5dB
- Full well capacity reaches 55000e-
- Read noise as low as 1.6e-
- High value



Specification

Effective resolution	420万	Shutter	Electronic rolling shutter
Sensor size	1.2 inch	Cooling	Peltier cooling, lower than surrounding 15°C
Type	6.5μm × 6.5μm	Scanning Mode	Progressive scanning / continuous output
Spectral Response	Mono / Color	A/D conversion	12Bit
	200-1100nm	Dynamic range	90.5dB
Resolution	2048 × 2048 22FPS	Full order capacity	55Ke-
&	2048 × 1500 29FPS	Read noise	1.6e-
Frame rate	Any size ROI	External dimension	113.2 × 105 × 92.6 mm
Exposure time	22μs -120s		

▶ Microscope camera MSX11

Feature

- ◎ 21.0 Megapixels high resolution
- ◎ 4/3 inch large sensor
- ◎ Built-in hardware ISP image processing sensor
- ◎ Excellent sensitivity for fluorescence imaging



Specification

Effective resolution	2100万	Trigger mode	Software trigger
Sensor size	4/3英寸	Shutter	Electronic rolling shutter
Pixel Size	3.3μm × 3.3μm	A/D conversion	12Bit
Resolution	5280 × 3956	Image Cache	128Mb
Frame rate	21FPS	Software Interface	DirectShow/TWAIN/SDK
Exposure time	12μs-30s	Operating OS	Windows XP 32Bit; Windows 7/8/10 32/64Bit
Effective gain	1-16X	Power supply	USB 5V
Spectral Response	380nm-650nm	Working environment	Temperature:0-40°C, humidity:10-90%RH (No condensation)
Scanning Mode	Progressive scanning / continuous output	External dimension	108.5mm × 106.5mm × 62.5mm

▶ Microscope camera MSX2

Feature

- ◎ 12.5 Megapixels high resolution
- ◎ 1 inch large sensor
- ◎ Accurate color reproduction, high sensitivity



Specification

Effective resolution	1250万	Shutter	Electronic shutter
Sensor size	1英寸	Effective gain	1-32x
Pixel Size	3.1μm × 3.1μm	A/D conversion	12bit
Resolution	Resolution	Image Cache	64Mb
Frame rate	4088 × 3072	Frame rate	15FPS
Spectral response	380-1100nm	Trigger mode	Software trigger
Exposure time	41μs-10s	Software Interface	DirectShow/TWAIN/SDK
Scanning mode	Progressive scanning / continuous output	Operating OS	Windows XP 32bit; Windows 7/8/10/32/64bit; Linux
External dimension	108.5mm × 106.5mm × 62.5mm	Data interface	USB3.0 ,5Gb/s
		Working environment	0~40°C; humidity:10%~90%RH (No condensation)

▶ Microscope camera MSX1

Feature

- ◎ 10 Megapixels high resolution microscope camera
- ◎ Built-in hardware ISP image processing sensor
- ◎ Excellent detail processing and color reproduction
- ◎ Super fast running speed



Specification

Effective resolution	10 Megapixels	Trigger	Software trigger
Sensor size	1/1.7 inch	Shutter type	Electronic rolling shutter
Pixel size	1.85μm X 1.85μm	A/D Convention	12Bit
Resolution	3816 X 2832	Image format	TIF, BMP, JPG, RAW
Frame rate	36FPS	Image Cache	64Mb
Exposure time	8us-30s	Software data	DirectShow/TWAIN/SDK
Effective gain	1-16X	Operating OS	Windows XP 32Bit; Windows 7/8/1032/64Bit
Spectral response	380nm-650nm	Working surrounding	0 -40°C, working humidity : 10%~90%RH (No condensation)
Scanning mode	Progressive scan/continuous output	Size	Φ76mm X 62mm

▶ Microscope camera MS60

Feature

- ◎ 6.3 megapixels , excellent color reproduction
- ◎ High sensitivity and low noise fluorescence imaging
- ◎ Used in pathological diagnosis
- ◎ Super fast running speed, smooth and fast data transmission



Specification

Effective resolution	6.3 Megapixels	Shutter type	Electronic rolling shutter
Sensor size	1/1.8 inch	Exposure time	6us-7s
Pixel size	2.4umx2.4um	Effective gain	1-16X
Resolution	3072 x 2048,	Frame rate	71FPS
and Frame rate	Any size ROI	Spectral response	380-650nm
rate	71FPS	A/D Convention	12bit
Scanning mode	Progressive scan/continuous output	Image Cache	128Mb

► Microscope camera MS23

Feature

- ◎ Up to 85% quantum efficiency
- ◎ Weak fluorescence imaging
- ◎ Rich and vivid image display
- ◎ High-speed image preview



Specification

Effective resolution	2.3 Megapixels	Spectral response	380 - 1100nm
Sensor size	1/1.2 inch	A/D Convention	12bit
Pixel size	5.86umx586um	Image Cache	64Mb
Resolution	1920x1200	Software data	DirectShow/TWAIN/SDK
Frame rate	40FPS	Operating OS	Windows XP 32bit; Windows 7/8/10 32/64bit; Linux
Scanning mode	Progressive scan/continuous output	Data interface	USB3.0 Type B interface, 5Gb/s
Shutter type	Global shutter	Working surrounding	Temperature: 0-50; humidity: 10%-90%RH(No condensation)
Exposure time	20us-42s	Size	Φ76mm x 65.6mm

► Microscope camera MS50-S

Feature

- ◎ Good clarity and accurate color reproduction
- ◎ Suitable for imaging in low light
- ◎ Support USB3.0, built-in 64Mb cache, image transmission of high-speed and stable



Specification

Effective resolution	0.5 Megapixels	Exposure time	46μs - 10s
Sensor size	2/3英寸	Effective gain	1x - 16x
Pixel size	3.45μm × 3.45μm	Spectral response	380 - 650nm
Resolution and Frame rate	分辨率	Frame rate	A/D Convention
	2448 × 2048	37.5FPS	12bit
	1920 × 1080	56FPS	Image Cache
	1224 × 1024 (BIN2)	37.5FPS	64Mb
rate	1224 × 1024 (SUM2)	37.5FPS	Software data
	1224 × 1024 (SKIP)	37.5FPS	DirectShow / TWAIN/ SDK
	Any size ROI	37.5FPS	Operating OS
		Windows XP 32bit; Windows 7/8/10 32/64bit	Data interface
Scanning mode	Progressive scan/continuous output	USB3.0 Type B interface, 5Gbps	Power supply
Shutter type	Global shutter	USB 5V power supply	Working surrounding
		0-50°C; humidity: 10%-90%RH (non-condensing)	Size
		108.5 X 106.5 X 62.5 mm	

► Microscope camera MD50/MD30

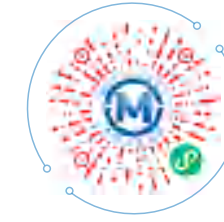
MD50 feature

- ◎ 5.0 Megapixels cost-effective camera
- ◎ Built-in 32M cache
- ◎ Accurate color reproduction



MD30 feature

- ◎ 3.0 Megapixels cost-effective camera
- ◎ Built-in 32M cache
- ◎ Strong stability, compatible with various systems and software platforms



Specification

Item	MD50	Scanning mode	Progressive/continuous output	Item	MD30	Exposure time	47μs-3s
Effective resolution	0.5Megapixels	Shutter type	Electronic rolling shutter	Effective resolution	0.3Megapixels	Effective gain	1-8X
Sensor size	1/2.5 inch	Exposure time	59us- 3s	Sensor size	1/2 inch	Spectral response	380nm-650nm
Pixel size	2.2μm×2.2μm	Effective gain	1x- 8x	Pixel size	3.2μm×3.2μm	A/D Convention	8bit
Resolution	Resolution	Frame rate	Size	Ø76 × 48.7mm	Resolution	Resolution	Frame rate
&	2592×1944	7FPS			&	2048x1536	12FPS
Frame rate	Any size ROI				Frame rate	Any size ROI	Image Cache
							32Mb
							Software data
							DirectShow/TWAIN/SDK
							Size
							Ø76mm × 48.7mm
							Working
							Temperature: 0-50; humidity:
							10-90%RH(No condensation)
							surrounding

► Macro camera ME40/ME30/ME20

Feature

- ◎ Auto focus, optical zoom, convenient for image shooting
- ◎ High frame rate high resolution, perfect color reproduction
- ◎ Fast image, images can be previewed, stored, and measured
- ◎ Three-button foot switch, zoom in and out, take photos with one button



ME30

ME20



ME40

Specification

Item	ME40	ME30	ME20
Effective resolution	0.8 megapixels	1.3 megapixels	0.5 megapixels
Sensor size	1/3.2 inch	1/3英寸	1/4 inch
Pixel size	1.4μm × 1.4μm	1.12μm × 1.12μm	1.4μm × 1.4μm
Resolution&Frame rate	3264 × 2448@15FPS	4139 × 3104@8FPS (1300万)	2592 × 1944@15FPS
Focus	10X optical zoom/Auto	Auto focus	Auto focus
White balance	Auto /manual	Auto/manual	Auto/one button
Exposure control	Auto/manual	Auto/manual	Auto/manual
Working temperature	0-70°C	0-50°C	0-50°C
Size	58.5mm X 64mm X 120mm	114mm X 69mm X 53mm	60mm X 112mm

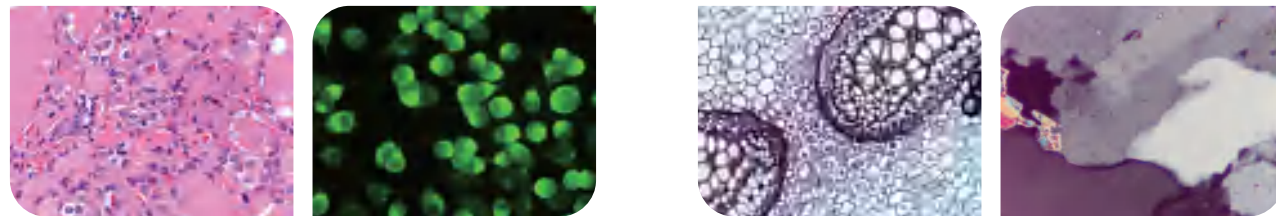
WIFI Camera MD80-W

Feature

- ⊙ WIFI/USB camera, convenient switching mode
- ⊙ High resolution, fast transmission speed
- ⊙ The imaging effect is better than traditional cameras

Specification

Item	MD80-W	
Effective resolution	800万	
Sensor size	1/1.8 inch	
Pixel size	2μm × 2μm	
Resolution	Resolution	Frame rate
&	3840 × 2160 (WIFI mode)	5-10FPS
Frame rate	1920 × 1080 (WIFI mode)	30FPS
	3840 × 2160 (USB mode)	24FPS
Image settings	Brightness,contrast,saturation,flicker suppression,Gamma, photo, video	



Microscope camera MD28-W

Feature

- ⊙ Windows 10 operating system
- ⊙ Hard disk capacity: 64GB, memory capacity: 2GB
- ⊙ Scientific CMOS sensor
- ⊙ Sensor size 1/2.3 inches, effective resolution 16 Megapixels

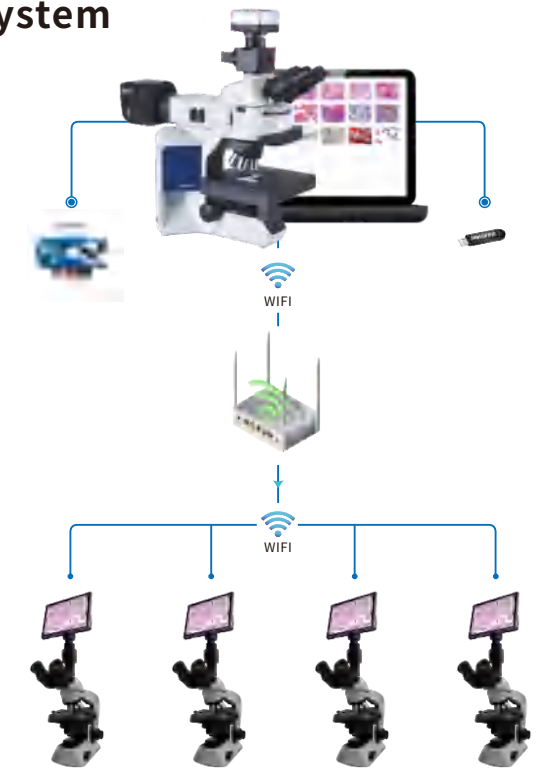
Specification

Windows tablet screen camera	Screen size	11.6 inch
	Sensor size	1/2.3 inch
	Effective resolution	16 Megapixels
	Frame rate	30fps@1080P
	Output data	USB2.0,HDMI,TF (integrated WIFI)
	Pixel size	1.335μm × 1.335μm
Image analysis function	Power line	DC-12V/2A
	UI interface	Digitization, Mouse controllable, Friendly design
	Marking	Point coordinates, cross lines,coordinate systems,text annotations
	Measurement	Line length, fold line length, curve length, parallel line distance, point line distance
	2 points circle	Radius set circle, 2-point set circle, 3-point set circle
	Geometric measurement	Line length, radius, 2 points circle, 3 points circle, concentric circle
	Geometric area	Polygon, Square



Microscope Interactive Teaching System

It's a network teaching software design for microscope interactive teaching. It has wired version and wireless version. The wireless one is optimized for the wireless network response speed and image quality. The system builds smart classroom with digital microscopes and network, providing screen sharing, teaching examinations, centralized control management and other functions.



Application



Function list

Divide/Merge class	Remote desktop	Grouping	Send job	Sinternet access control	Student presentation
Screen broadcast	Remote control	Group discussion	Collection job	U disk restrictions	Demonstration teaching
Voice broadcast	Remote setting	Group teaching	Class model	CD drive restriction	Teacher-student intercom
Network cinema	Student restrictions	Exam	Rollin-class call	Application restrictions	Exit student login
Live video	No talking	In-class test	Internet record	Synchronize student computers	Clear unlogged users
Whiteboard	Black screen	File transfer	Asset	Modify student channel	Lock the student icon position change
Screen recording	Remove black screen	Send messages	Management	Lock screen	Students actively submit homework
Student answer	Remote uninstall	Send notification	Telematics	Process defence	Teacher log

Feature

Compatibility



Cloud storage



Team management

- ⊙ Sign-in and roll call: help teacher manage students login and attendance
- ⊙ Group management: Participate in teaching activities as a group

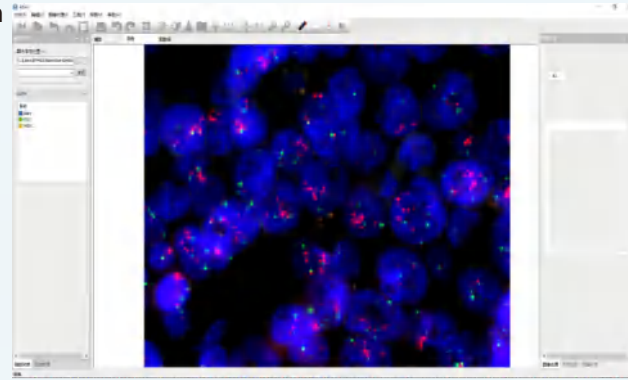
Exam system

- ⊙ In-class survey and answer contest provide teacher real-time and intuitive study data for accurate teaching strategies
- ⊙ Variety activities for interesting learning

► FISH (Fluorescent In Situ Hybridization)Image Analysis System

Feature:

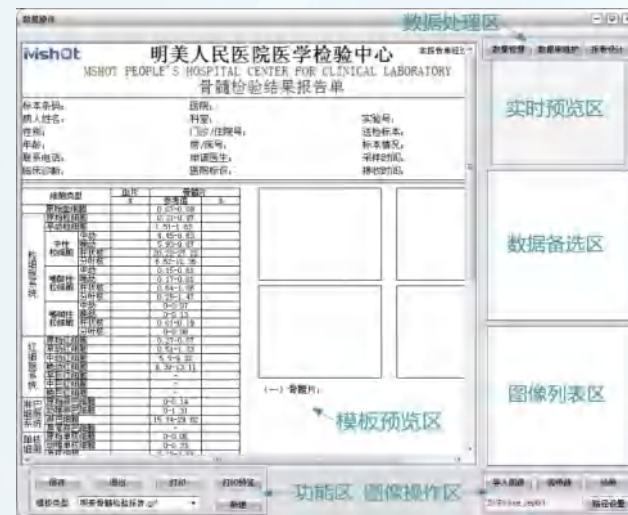
- Fast auto zone exposure, rapid prototype, auto dye, one-key merged color fluorescence
- Capture various colors fluorescence, satisfy all probes
- Smart enhance weak fluorescence signal, remove background impurity



► Graphic Report Analysis Management Software

Feature:

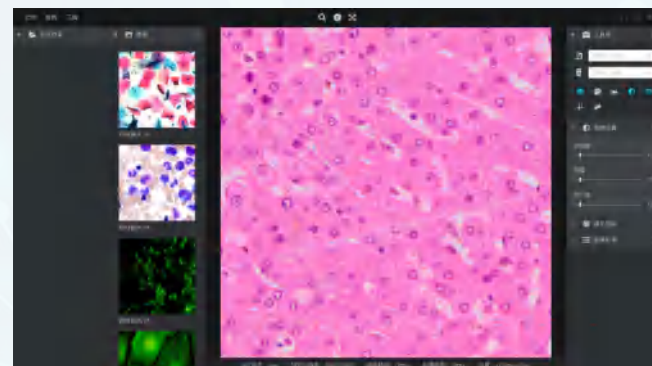
- Free design according to customer needs
- All control elements are adjusted by actual needs
- Equipped with MSHOT microscope camera



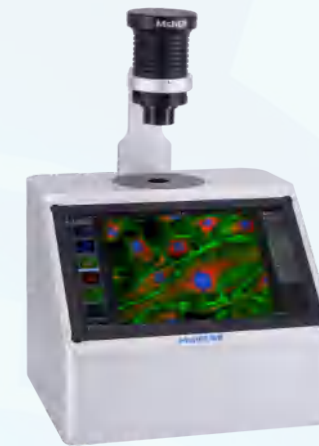
► Digital Microscope Imaging Analysis System

Features:

- Professional applied to microscope digital imaging
- Integrated software and hardware system
- Live view, image capture, video, analysis, etc.
- Support Directshow interface camera



► All-in-one microscopy



Feature

- 10 megapixels autofocus imaging system
- With transparent thermal plate
- Control analysis system with touch screen

Dual light path customization ◀



Feature

- For fluorescence imaging comparison
- Simultaneous imaging of two light paths
- Imaging overlap rate is over 90%, high efficiency

► Cell scanning platform

- Precisely control motorized stage XY movement to adjust sample position
- Scan slides quickly and stably by rectangular area back and forth, free choose scan area
- Support auto focus to ensure that every frame image is recorded clearly
- Real-time image display and save image information in time



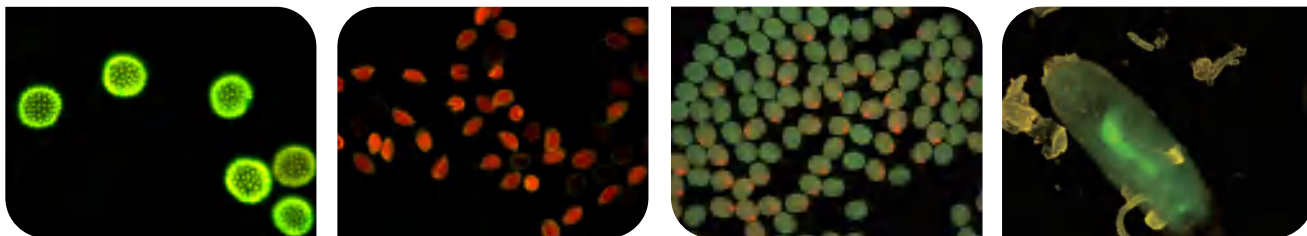
Number	Product name	Performance
1	Microscope XY stage	X, Y axis movement resolution 0.5um One-way accuracy: <10um Repetition accuracy: <3um X, Y axis with zero limit XY axis accuracy: XY axis is 6400 pulses / circle = 1mm stroke
2	Digital microscope focusing device	Rotation resolution 1/3200° Focus accuracy 0.0625um Z axis 25600 pulses/circle=0.2mm stroke
3	Stepping motor and motor driver	XY axis with PKP223D15B2-L two-phase stepper motor, 1.8°basic step angle Z-axis with PKP233D23A-L two-phase stepper motor, 1.8° step angle Contains 3 stepper motor drivers XYZ axis with hybrid stepping motor DM442, voltage input range: 18-36VDC Maximum current: 4.2A, resolution 0.1A Subdivision range: 200-512000pr

► **Monocular fluorescence**



Feature

- ⊙ Various magnification objectives and fluorescence bands
- ⊙ Simplified and compact design, not take up space
- ⊙ Convenient to carry and use, integrated to machine



► **High magnification stereo fluorescence microscope**



Feature

- ⊙ Long life fiber light source, stable brightness and long life
- ⊙ Quintuple double light path nosepiece, work for more fluorescent reagent
- ⊙ 10X/20X special objectives, extremely high magnification, up to 800-2000X (depends on objectives and eyepiece), low magnification screening and high magnification observation are realized on the same machine
- ⊙ Frame linkage, field of view center remains with exchange objective, fixed-point observation

► **Simple stereo fluorescence**



Feature

- ⊙ Simple and easy-to-install for single fluorescence
- ⊙ Mainly used for 3D samples of strong fluorescence, such as Drosophila

► **Digital slide scanning system**



Feature

- ⊙ Traditional microscope is quickly converted into a slide scanner
- ⊙ Highly digitized sample scan imaging
- ⊙ Accurate and fast full closed-loop autofocus
- ⊙ High-precision three-dimensional motion platform
- ⊙ High frame rate data collection, peak frame rate>100Fps
- ⊙ Fast seamless splicing, global picture can be output in seconds
- ⊙ Smooth slide reading software and open imaging data

Specification

Product name	Microscope digital slide scanner
Scanning speed: 10×(15 mm × 15 mm)	<40 s
Scanning speed: 20×(15 mm × 15 mm)	<90 s
Applicable slides	26 mm × 76 mm (厚度: 0.9 mm - 1.2 mm)
Slide clamp	Monolithic
Image splicing	Seamless splicing (out put image immediately)
Interactive	Electronic hand wheel + microscope adjustable illuminator
Data Format	.srp (Open Data Interface)

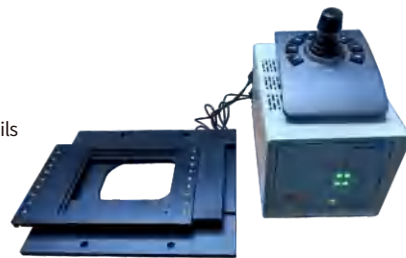
Slide Scan Software combines with motor stage displacement accuracy of 0.1μm, control with real-time feedback closed-loop Z-axis to ensure the best scanning and focusing.

Slide Viewer Software is a professional image viewer independently developed by MSHOT. Free to zoom image adjust color, ensure the best image browsing experience and data.

► XY Piezoelectric displacement platform system MU-110

Feature

- ⊙ Ultra-high precision: repositioning $\leq 0.1\mu\text{m}$, step resolution up to 50nm
- ⊙ Mute and smooth: piezoelectric ceramic motor drive with high-precision and low-noise imported slide rails
- ⊙ Strong adaptability: workable for most models of famous brand upright and inverted microscopes
- ⊙ Strong expansibility: can offer complete SDK used for secondary development



Specification

Minimum step	0.05 μm (optical grating display)
Repositioning accuracy	$\pm 0.1\mu\text{m}$
Highest speed	X axis: 30mm/s Y axis: 30mm/s
Stage size	295mm \times 240mm \times 31mm
Effective travel distance	X axis ± 55 ; Y axis ± 37.5
Axial thrust	X axis: 14N Y axis: 7N
Maximum load capacity	1KG
Motion parallelism	$< 10\mu\text{m}$
Recommended running speed	$< 30\text{mm/s}$

► Motorized Z axis

Feature

- ⊙ International standard stepper motor to realize auto control of focusing
- ⊙ Cross ball rail to ensure stable movement, large load capacity and long life
- ⊙ Coupling connect stepping motor with ball screw, greatly reduce eccentric disturbance and noise
- ⊙ Cooperate with XY stage to form a multi-dimensional electric platform
- ⊙ Can be customized, exchange to servo motors, add rotary encoders, etc.



► Motorized nosepiece

Feature

- ⊙ Accurate positioning: precision gear transmission and mechanical positioning
- ⊙ Strong adaptability: universal bayonet, suitable for most famous brand microscopes, easy to install
- ⊙ Ergonomics: ergonomic design, friendly to use



► Motorized fluorescence switch

Feature

- ⊙ Accurate positioning: high-precision motor drive switching + photoelectric switch positioning, strong repeatability
- ⊙ Simple structure: modular design of internal structure and good stability
- ⊙ Various choices: offer different fluorescence excitation according to requirements to meet the customer needs



After-sales service

MSHOT products provide 1 year free warranty and lifetime support. Promise to respond within 24 hours of working day, providing remote online support, operation instructions and video guidance. Headquartered in Guangzhou, the company has distributors and cooperators covering all continents and continues to expand. Relying on professional technology and high-quality service, the company has established a good cooperative relationship with customers. In terms of market expansion, the company will improve and strengthen the construction of customer service network, strengthen the long-term cooperative relationship with existing customers, and continue to establish branches across the country, so as to achieve solid business accumulation and deep market network coverage.

