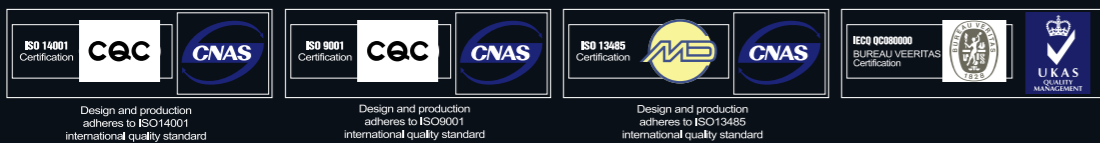
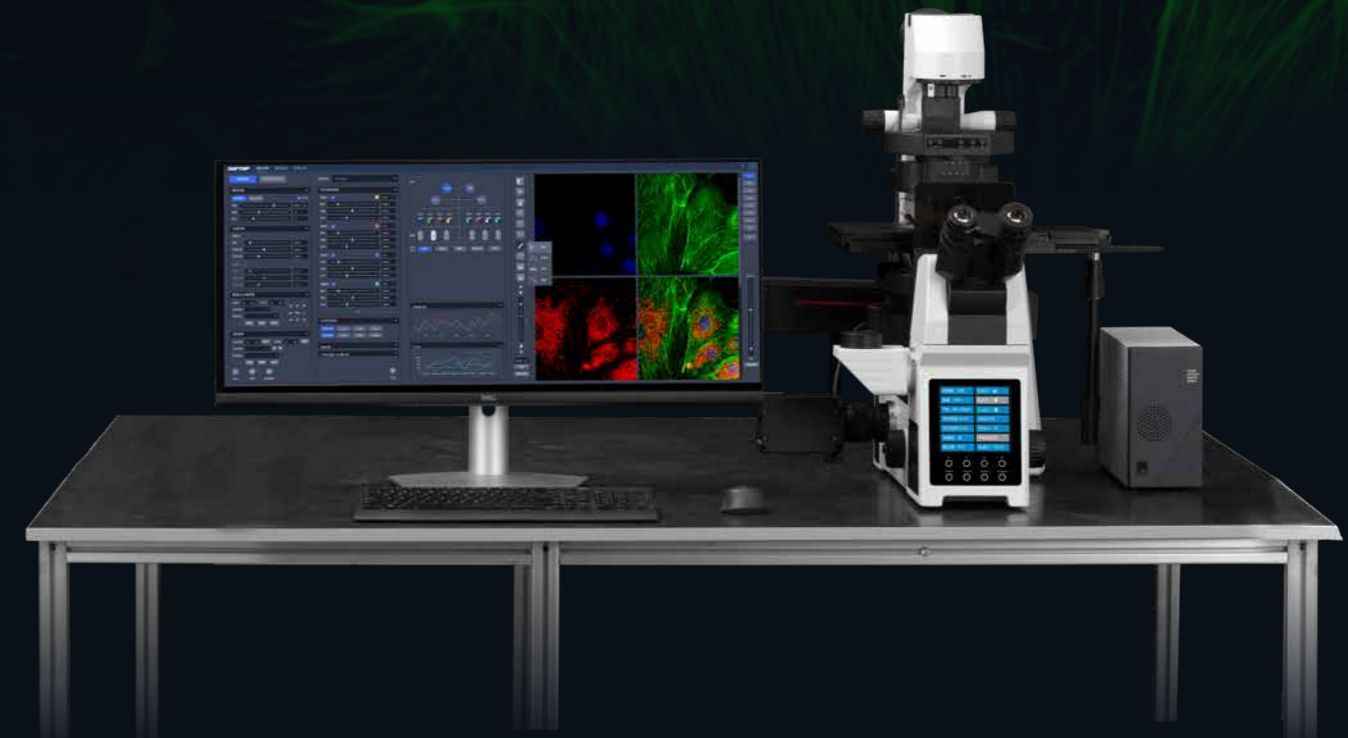


Fluorescence microscope integrating observation and analysis

M-SIM6000 System parameter table

Optical system	Infinity chromatic aberration correction system	
Observation head	20°~45° adjustable infinity hinged binocular observation head, interpupillary distance adjustment : 50~76mm	
Eyepiece	High eye point, large field of view plan eyepiece PL10X/22mm, adjustable diopter	
Objective	Long working distance plan semi-apochromatic objectives (4X, 10X, 20X, 40X, 60X)	
	Infinity plan super apochromatic objectives, etc. (4X, 10X, 20X, 40X, 60XOIL, 100XOIL)	
nosepiece	Motorized brightfield 6-hole nosepiece with DIC slot	
Frame	low position coarse and micro coaxial electric drive focusing mechanism, stroke 10.5mm, accuracy 1um; built-in electric light port, 100:0, 0:100; built-in electric left light port, split ratio 0:100, 50:50, 100:0; double-layer optical path, including 6-hole electric nosepiece (with DIC slot) and coating port, CTV adapter set	
	Right optical port: split ratio 100:0/0:100, field of view 16mm, built-in 1xCTV, C-type interface	
stage	stage not less than 300mm (X) × 240mm (Y), movement range is 135mm (X) × 85mm (Y), platform thickness is 30mm; the universal movable handle in the lower hand position of the right hand; XY movement locking function, after locking, the movement Range 50mm (X) × 50mm (Y), with tablet clamp	
condenser	Motorized 7-hole condenser, NA0.55, WD27mm; 3 holes for φ30mm (phase contrast), 4 holes for φ38mm (DIC); supports brightfield, phase contrast, DIC observation (including polarizer set)***	
transmitted illumination system	Tiltable transmitted illumination bracket, Kolar illumination system, condenser bracket adjustable up and down, stroke 65mm, 4 sets of color filter installation positions, halogen lamp model includes LBD color filter/green color filter/frosted glass, LED Model contains frosted glass	
	12V100W halogen lamp lighting box, preset filament center, 12V/100W halogen lamp (PHILIPS 7724)	10W cool LED light box set
Fluorescent lighting system	8-hole fluorescence turntable system, fluorescence filter: B/G/UV/R1, electric shutter function, LED light source: 380/475/550/630 four wavelengths, four independent lamp beads, high power, long life LED light source,	
Structured light components	Grid size: 40um; light transmission range: 400-750nm; liquid core fiber: core diameter: 3mm; fiber material: liquid core fiber; numerical aperture: 0.5; transmission range: 240-740nm	
camera	sCMOS back-illuminated black and white camera: Global number of pixels: 2048x2048, 4 million effective physical pixels; Pixel size: 6.5 μm x 6.5 μm; Chip size: 13.3 mm x 13.3 mm; Quantum efficiency: 95% @ 600 nm; Frame rate: 100fps @ CameraLink, 40fps @ USB 3.0; Full well capacity: typical: 45 ke-; Dynamic range: 90dB; Readout noise: CMS: 1.1 e- (Median), 1.2 e- (RMS); Exposure time: 6.6 μs ~ 10 s; Refrigeration method: air cooling, water cooling; Dark current: air cooling: 0.15 e-/pixel/s @ -15 , water cooling: 0.10 e-/pixel/s @ -25 Bit depth: 11 bit, 12 bit, 16 bit	
Software	Hardware control: Automatically control the structured light lighting system. Image acquisition: exposure time control, gain control, threshold control, gamma value control, image pixel number control, x, y, z, λ, t five-dimensional acquisition, custom xyz, xyt, xyzt, xyl, xylt, xyzlt; Multiple collection modes. Start recording with one click. Supports real-time pseudo-color annotation and real-time optical density measurement. Image processing: 3D reconstruction and display, image flipping, mirroring, background removal, dynamic image generation, stack processing, ROI processing. Image analysis: perimeter, area, roundness, maximum gray level, minimum gray level and other parameter analysis, co-localization analysis, cell counting, point counting, protein tracking, subpopulation analysis.	
accessory	1XCTV, adjustable focus, transmission DIC board set, analyzer set, fluorescence dust box, electric control box, centering telescope (Φ30)	



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M-SIM6000

SOPTOP

M-SIM6000

- Optical resolution: xy resolution Rate 240nm, z-axis resolution 600nm;
- 4-wavelength LED light source, long life, high brightness, low light toxicity, high uniformity lighting solutions;



- Highly sensitive back-illuminated sCMOS camera, with 2048x2048 pixels, the frame rate can reach 100 frames/s, and the quantum efficiency is as high as 95%. 6.5um pixel size;

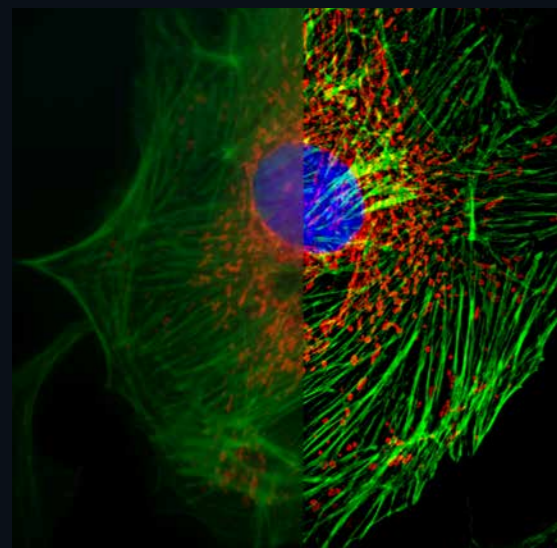
- Automated control process, ideal for live cell imaging.

Sunny research-grade software platform—SRF



- ① Seven-dimensional sequence acquisition of x, y, z, λ, t realizes automatic acquisition control
- ② Graphical interaction: switch optical port, filter block, objective lens and observation mode with one click
- ③ Electric focusing, electric stage, electric fluorescence filter block, electric condenser, electric light source control, electric light path switching, realizing fully electric 12-axis control

- Real-time optical density measurement, real-time global histogram display
- ⑤ Graphical focus control, memory focus position, automatic focus control
- ⑥ Customize 1-8 channel acquisition, real-time pseudo-color display, arbitrary multi-channel overlay, and real-time display of multi-channel overlay map



SAPO series	Spec	NA	WD (mm)	FOV (mm)	thickness (mm)	liquid
	UPLSAPO10X	0.40	3.10	25	0.17	
UPLSAPO20X	0.80	0.60	0.17			
UPLSAPO40X	0.95	0.18	0.17			
UPLSAPO60X	1.42	0.17	0.17		Oil	
UPLSAPO100X	1.45	0.14	0.17		Oil	



- Real-time display of comparison before and after image processing
- Real-time image preview

- Record image information in detail, including detailed parameters such as acquisition channel, objective lens, exposure time, etc.
- ④ 3D image reconstruction

- Hardware control: Sunny inverted electric microscope – IRX60's 12-axis fully electric control, camera control, supports third-party light source, electric stage and other peripheral control
- Image acquisition: x, y, z, λ, t, n, I seven-dimensional acquisition, multi-dimensional, full process, automated control
- Image processing: 3D reconstruction and display, co-localization processing, co-localization linkage, image brightness, contrast, threshold processing, image flipping, mirroring, background removal, dynamic image generation,
- Image analysis: distance, perimeter, area, roundness, maximum gray scale, minimum gray scale and other parameter analysis, co-localization analysis, cell counting, particle counting, protein tracking, subpopulation analysis, cell cycle analysis