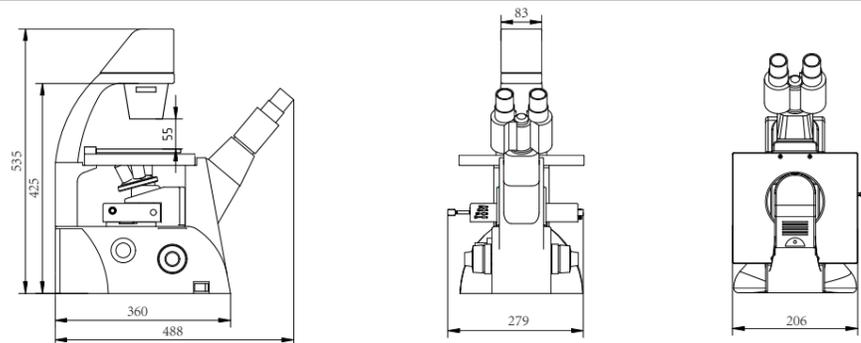


## Product Parameter

ITEM	SPECIFICATION	
Eyepiece	SWF10X/22S plan eyepiece, high eyepoint	
	Centering telescope	
Observation tube	45°inclined, Interpupillary distance 53-75mm, diopter is adjustable	
Objectives	Long working distance plan M-UPLFLN4X/0.13 Work distance:17.15mm	
	Infinity long working distance achromatic plan10X/0.25 Work distance:4.1mm	
	Infinity long working distance achromatic plan40X/0.58 Work distance:2.5mm	
	Infinity long working distance achromatic phase contrast plan10X/0.25Ph WD:4.1mm	
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)	360-390nm
	Blue (B)	460-495nm
Focus system	Coaxial coarse/fine focus, with tension adjustable and up stop, minimum division of fine focusing is 2μm.	
	Nosepiece	
Stage	Glass rotundity stage overall size is Φ118mm, inner size is Φ68mm	
	Culture dish holder 1	86mm×129.5mm, suitable for circular culture dish Φ90mm
	Culture dish holder 2	34mm×77.5mm, suitable for circular culture dish Φ68.5mm
	Culture dish holder 3	57mm×82mm, suitable for circular culture dish Φ60mm
	Culture dish holder 4	29mm×77.5mm, suitable for circular culture dish Φ35mm
Transmitted illumination system	White LED lamp with brightness adjustable	
	Push-pull type condenser, numerical aperture 0.3	
	Green filter	
Light baffle	110mm x 70mm	
Condenser	Push-pull type condenser, working distance 55mm	
Lighting system	9W LED, with brightness adjustable	
Camera adapter	Internal set 0.75X C-mount	

Diagram



**Mshot**  
Microscope imaging solution provider

Fluorescence microscope  
MF52-N



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# Fluorescence microscope MF52-N

MF52-N is composed of LED epi-fluorescence system and inverted biological microscope. It adopts excellent infinite optical path, long working distance plan achromatic objectives and wide field eyepiece. The compact and stable high rigid body satisfied the anti vibration requirements of microscope operation. Modular design provides safely and quickly lighting adjustment and switch of fluorescent filter groups. The microscope is used for microscope observation of cell tissue and transparent liquid tissue, as well as fluorescence observation in the fields of bio-pharmaceutical, medical detection, disease prevention, etc.



Fluorescence illuminator



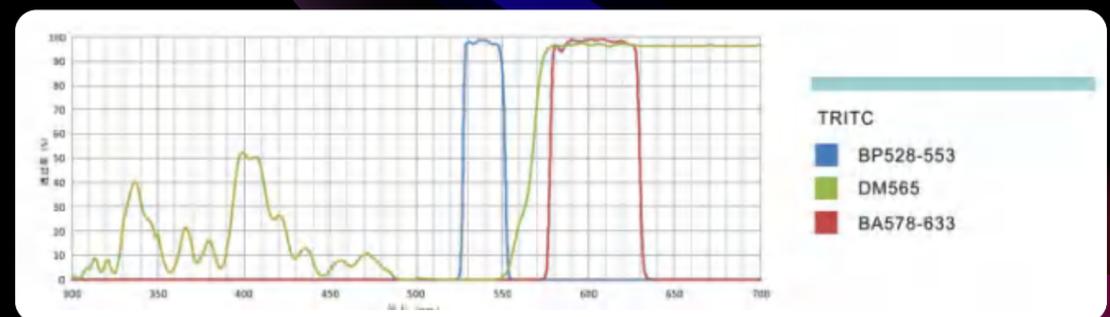
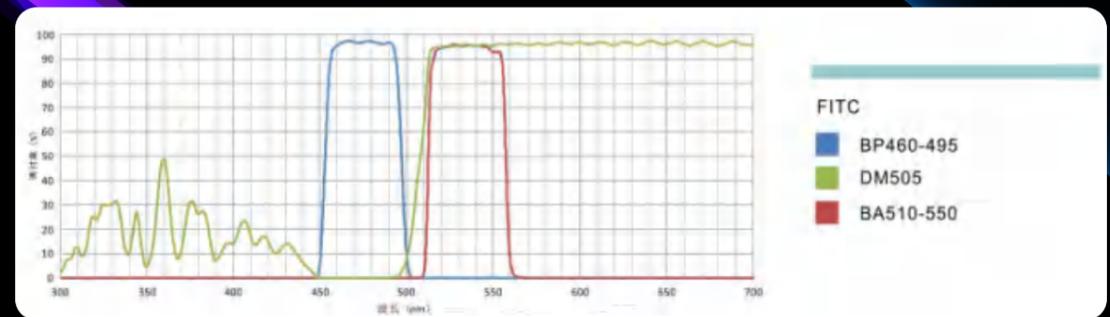
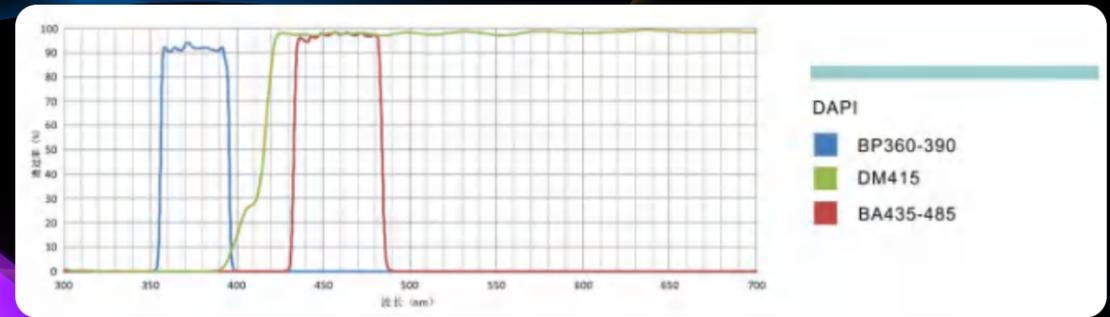
Inverted biological microscope



Fluorescence microscope

## Product advantages

- Long lifetime, stable output to ensure effective excitation
- Digital screen show and remember light intensity
- Strong light intensity of short light path, reliable and safety
- Easy to use, no need debugging, instant ON/OFF
- Varies of fluorescence filter groups
- Compatible to microscopes in world famous brand
- Professional customize solution for different users
- Fluorescence module is removable, upgrading to 5 channels with 3/4 color fluorescent band optional



## Product features

### Compatible with all below 1.2 inches cameras

Built-in 0.75X C-mount, It has a great influence on light compensation, transmittance, dispersion, balance, strength, etc., and has a great effect on image correction.

### Objectives imaging is clear and no field curvature halo, high contrast

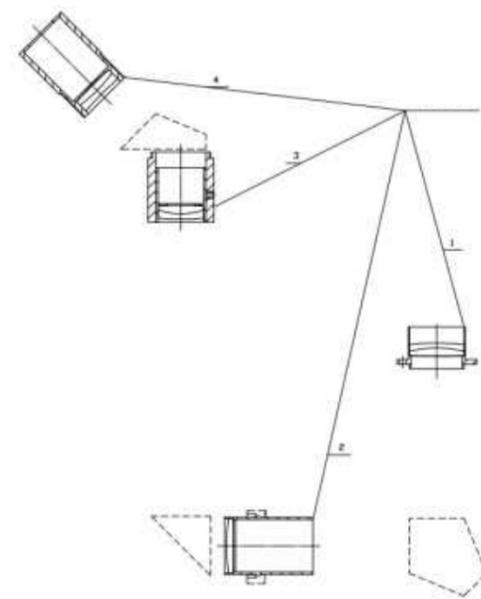
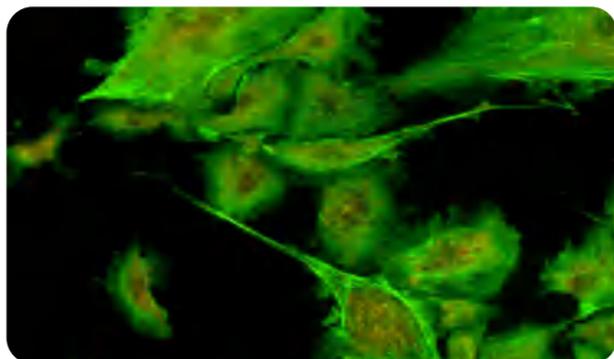
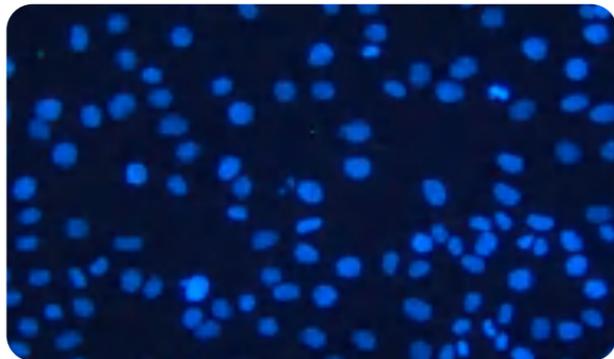
The objective lens is the main component that determines the resolution and image clarity of the microscope, the quality of the objective lens directly affects the quality of the microscope image.

### SWF10X/22 Eyepiece

SWF10X/22 eyepiece provides a wide and bright field of vision, higher overall clarity of the image, enabling users to quickly capture the target area, high eye point design effectively alleviate visual fatigue.

### New optical path design

Ensuring the imaging quality and reduce the optical signal transmission occupied space through the optimization optical path design.



Light path design image

## Phase contrast

### Phase Contrast Observation

- The introduction of phase contrast has made human vision a new expansion.
- Phase contrast observation with an inverted microscope can clearly observe transparent living samples, which are mostly used for cell culture.
- Principle: The retention degree of light passing through substances of different densities is different (the higher the density, the longer the residence time)



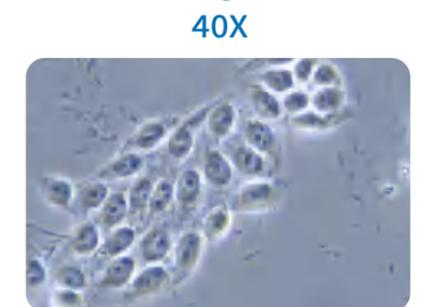
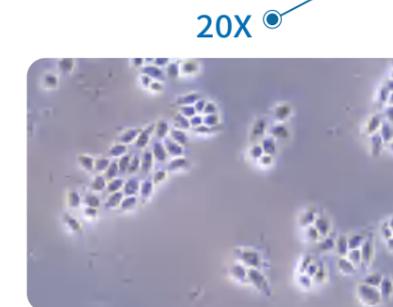
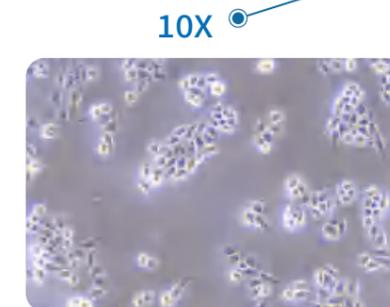
No phase contrast effect



Has phase contrast effect

### Phase contrast plate

Phase contrast plate converts optical path difference or phase difference into amplitude difference to enhance contrast. Light absorbing substances in the plate to enlarge the potential difference of deviated light, two light groups converge into a beam through the lens, the interference phenomenon of superposition or cancellation occurs and show the visible light and dark difference.



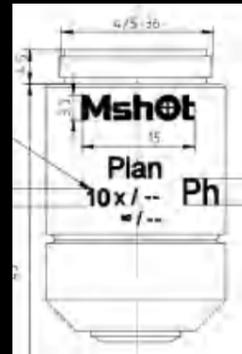
## Objectives and eyepieces

### ⊕ Objectives

- High numerical aperture objectives  
High transparent glass and advanced coating technology are used to halo.
- Upgraded plan phase contrast objectives  
Positive phase contrast the reasonability of phase difference light and shade distribution objectives in long working distance increase contrast and resolution of imaging are greatly improved.
- Semi-apochromatic fluorescence objectives  
High-quality fluorescence objectives are optional by needs, image performance is improved, better UV transmission than conventional objectives, and comparable to international famous brands quality.

### ⊕ Eyepiece

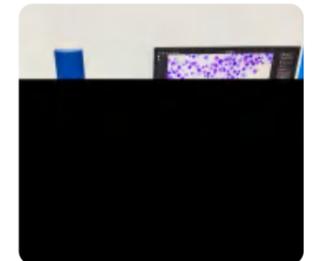
- Observation tube  
45°/45° inclined, interpupillary distance 50-75mm, diopter is adjustable. You can stand or sit to observe the cells, and the operation is simple and convenient, reducing fatigue at work.
- Eyepiece  
SWF10X/22 eyepiece provides a wide and bright field of vision, higher overall clarity of the image, enabling users to quickly capture the target area, high eye point design effectively alleviates visual fatigue.



## Application

### ⊕ Living tissue observation

Generally, small pieces of diseased tissues, body fluids, and cells of animals are obtained by surgical cutting, clamping, or scraping and aspiration. After pathological tissue or cytological methods are made into thin sections, the pathological diagnosis can be made by observing under a microscope.



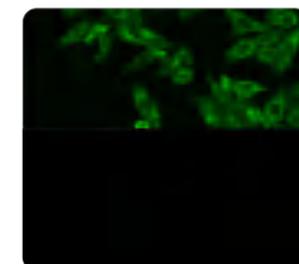
### ⊕ Bio-pharmacy

Biopharmaceuticals are the research results of microbiology, biology, medicine, and biochemistry. A class of products used for prevention, treatment and diagnosis made from organisms, biological tissues, cells, organs, and body fluids using scientific principles and methods.



### ⊕ Medical diagnosis

Medical diagnosis is the examination of materials taken from the human body. Through microbiology, immunology, biochemistry, genetics, hematology, biophysics, cytology, etc., provide information for the prevention, diagnosis, treatment of human diseases and assessment of human health.



### ⊕ Prevent disease

Conduct epidemiological monitoring of the occurrence, development and distribution of major diseases, and propose prevention and control countermeasures. Such as infectious diseases, parasitic diseases, chronic non-communicable diseases, public hazards, food-borne diseases, poisoning, etc.

