

**CS-IB2500 Series**

**CatScope**

## *Catalyst Biotech*

- » Specially designed for cell tissue culture, CatScope CS-IB2500 with high contrast and resolution, highlighting the outline and internal structure of cells, meets the needs of basic laboratory research.
- » Infinity color corrected optical system and with ergonomic designed frame, CS-IB2500 is available for clear micro-image and easy operation.
- » With ECO intelligent infrared sensing system, the core concept of energy conservation and environmental protection, CS-IB2500 is more intelligent and with long life.





## Ergonomic viewing head

360° rotatable viewing head with 50mm-75mm adjustable inter-pupillary distance. The eye-point can be raised 34mm directly by rotating the tube at 65mm IPD, more convenient and faster than traditional way.



## Wide field plan eyepiece

Plan 10X eyepiece with 22mm field of view, wide and bright, is easy for target searching. High eye-point, effectively relieve the visual fatigue.



## Objectives

LPLAN series long working distance plan infinity color corrected objectives, designed for living—cells culture in laboratory, clear image, good contrast, and also have a good performance under fluorescence observation.

LPLAN PH series long working distance infinity phase contrast objectives. In addition to the realization of the bright field observation, the phase contrast observation function has been developed to make the view showing a sense of relief and a substantial increase in image contrast and resolution.



## Phase contrast accessories

Dedicated phase contrast plate working with phase contrast objectives, ensures the best contrast image of living cell or other undyed samples. Select a matching phase contrast slide on the basis of the chosen illuminator. With the phase contrast objectives, phase contrast observation can be realized. Thus you can acquire a better image contrast than the bright field.

The cell image is with a strong sense of relief. You can use it to do a more detailed observation on those component parts of colorless transparent cells.



## Attachable mechanical stage

Moving range: 120x78mm. It can clamp all types of standard cell culture plates. With the help of related accessories, it could be used to move the dish, flask, slide and so on.

## Different holders for different samples

Compact framewith 215mm x 250mm big stage is available to be attached with various sample holders. such as culture dish/bottle, multi-orifice plate, as well as mechanical stage for option.



## Safe and efficient LED illumination

With CREE 5W LED illumination, CS-IB2500 provides bright white background for micro-image. LED with the characteristics of safety, stability and cold temperature, is suitable for long-time use.

## Intelligent ECO system

Based on the concept of energy conservation and environment protection, CS-IB2500 is designed with ECO infrared sensing system. The microscope will be auto shutdown when the user leaves for a certain time and can also auto restart when the user returns.



### Various options for cell culture

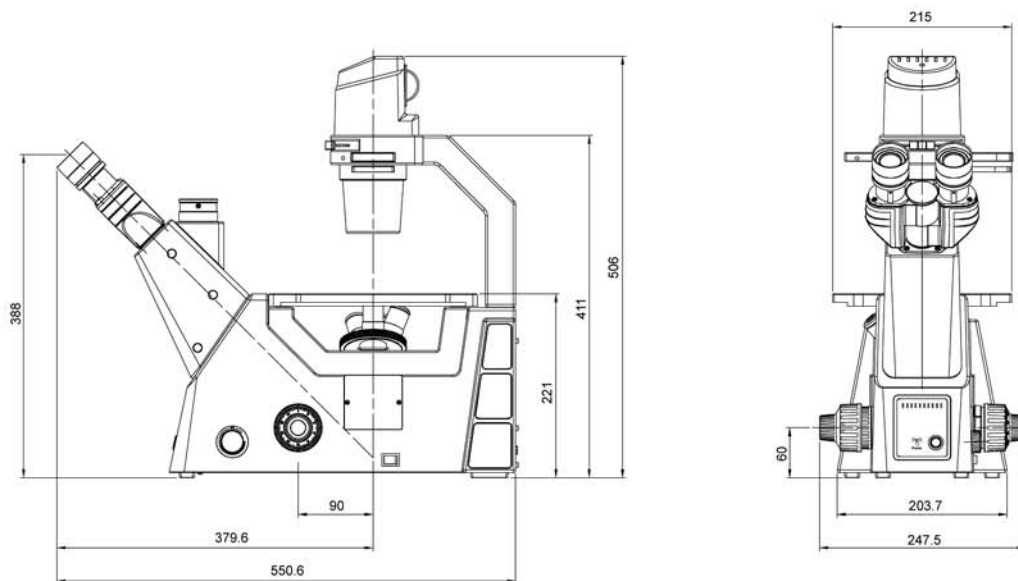
With simple and practical structure, more space is available for attaching different accessories, such as culture dish, culture bottle and perforated plate, etc. Mechanical stage with extension plate, is helpful for sample fixing and moving.

### Steady & Sturdy structure

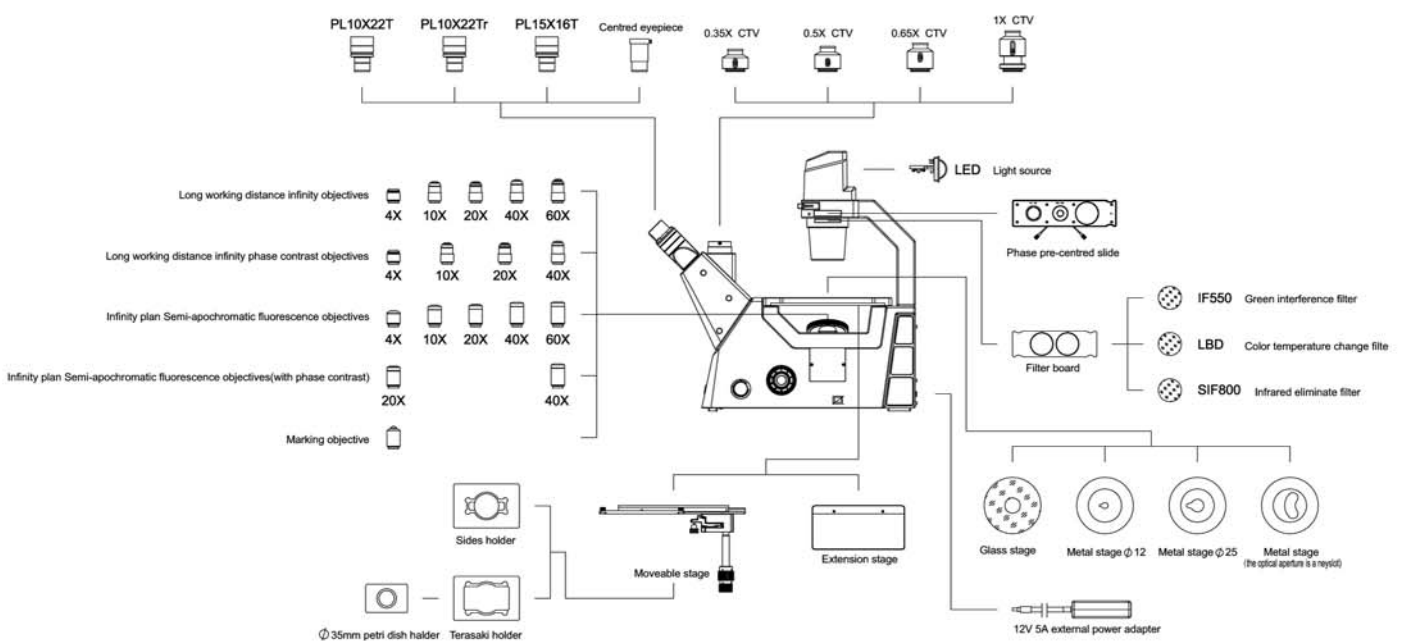
High rigid aluminum alloy with high-pressure die-casting technology, builds the steady frame of CS-IB2500. Powder spraying process on surface for anti-corrosion and wear-resistance, also elevates the metal temperature for comfortable operation and create beautiful look and smooth feel, ensuring comfortable long working hours even under hostile circumstance.



### Dimensions of CS-IB2500



### System Diagram of CS-IB2500 Series



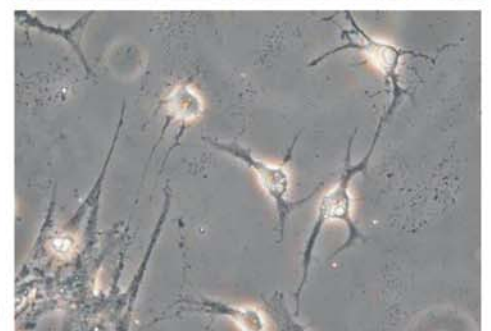
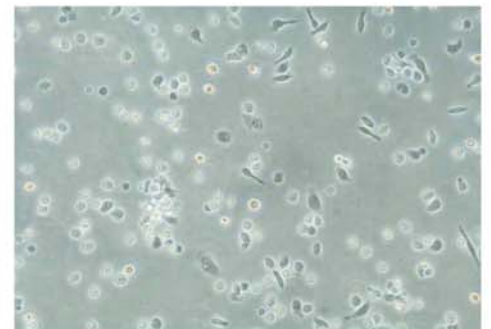
## Technical Specifications of CS-IB2500

<b>Optical System</b>	Universal Infinity Corrected Optical System (UIS)
<b>Head</b>	Seidentopf Trinocular Head, Inclined at 45° and 360° rotatable Interpupillary Distance adjustment range: 50 - 75mm Diopter Adjustment: ±5°
<b>Eyepiece</b>	High-Point, Extra Wide Field EWF 10X/22mm
<b>Nosepiece</b>	Click-stop Revolving Quintuple Nosepiece with multiple ball bearing mechanism, Elastic nosepiece grip-ring
<b>Objectives</b>	<u>LWD Infinite Plan Objectives</u> - 4x/0.1, WD 22mm, 10x/0.25, WD 7.94mm, 40x/0.6, WD 3.71mm (Spring) <u>LWD Infinite Plan Phase Objectives</u> - PH10X/0.25, WD 7.94mm, PH 20X/0.4, WD 7.66mm (Spring), Anti-fungal, Parfocal, Parcentric, color-coded
<b>Stage</b>	Fixed stage with Circular Glass Plate (round slot) / Circular Metal Plate (kidney slot), Stage size: 250 x 215mm
<b>Condenser</b>	ELWD Condenser 0.3 N.A. with LWD of 72mm with Aperture Iris diaphragm LBD color-change filter and IF550 green contrast filter (Ø45mm)
<b>Phase Annulus</b>	10x-40x, Phase Annulus Slider Plate
<b>Focusing</b>	Coaxial Coarse and Fine Focusing Adjustment Knob for Vertical Objective Movement by Rack & Pinion Mechanism. Coarse adjustment range 9mm Fine Adjustment Precision 0.002mm
<b>Illumination</b>	Transmitted illumination system with external wide voltage transformer, 100V - 240V input, 12V5A output; 5W LED (color temperature 2850-3250K) with light indicator, intensity adjustable, and infrared sensor..
<b>ECO Illumination System</b>	With ECO infrared function - microscope will be auto shutdown when the user leaves for a certain time, also can auto restart when the user returns
<b>Warranty</b>	Two years against any manufacturing defects. One year on electronic components. No warranty on consumables

### CS-IB2500 can be upgraded with / for the following application:

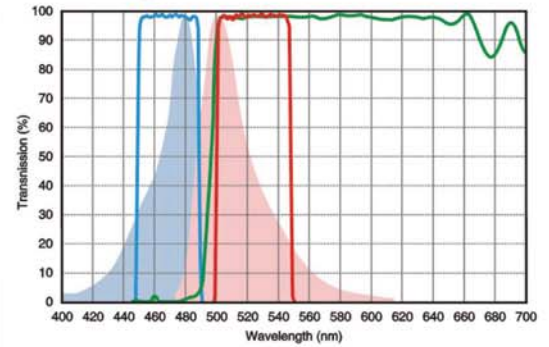
- » Attachable Mechanical Stage, X-Y Coaxial Control  
Moving Range 120x78mm with a long right hand stage handle
- » LWD Infinite Plan Objective- 20X/0.4, WD 7.66mm  
60X/0.7, WD 2.5mm
- » Infinite Plan Phase Objective- 40X/0.60, WD 3.71mm
- » Centering Telescope (Ø30mm)
- » Ø65mm Terasaki Holder (size : 56mm x 81.5mm)
- » Ø35mm Petri Dish Holder
- » Ø54mm Slide Glass Holder (size : 26.5mm x 76.5mm)
- » Auxiliary Plates for Plain Fixed Stage
- » Fluorescence Application
- » Microphotography

The standard configuration is supplied with a fixed plain stage. The stage can be widened on both sides to accommodate large specimens with the optional paired auxiliary stage plates. A hard coating protects the stage from scratches and wear.



## High-performance fluorescence filters

Our selected high-performance fluorescence filters not only have a high transmittance of the spectrum, but also have good depth and steepness of the cutoff line. Without a cross color but a high *S/N* ratio, fluorescence imaging contrast was promoted dramatically. We choose stray light elimination of the background to the filter blocks. Thus, the background of the image becomes darker, and the fluorescence brighter.



**CS-IB2500F Series**

**CatScope**



## Objectives

LPLAN-FLUOR series, a new generation of professional infinity plan semi-apochromatic fluorescence objectives, adopts crystal optics materials, various types of chromatic aberration corrected perfectly, large numerical aperture design, which is **25%** higher than ordinary plan objective lens, provides high-resolution, high-contrast microscopic images. During Fluorescence observation, it excites the sample with brighter light and hence the images are clear and bright and the background is pure black. The system uses the high quality environmental protection materials, no auto-fluorescence, high UV through rate. Compared to ordinary bright-field achromatic lens in bandwidth and UV transmittance, the objectives are with wideband multi-coating technology have obvious advantages.

LPLAN-FLPH series infinity plan semi-apochromatic phase contrast fluorescence objectives, has bright field, phase contrast and fluorescence observation in one set objectives, thus, eliminating the inconvenience of replacing different kinds of objectives to improve the observation efficiency and comfort.

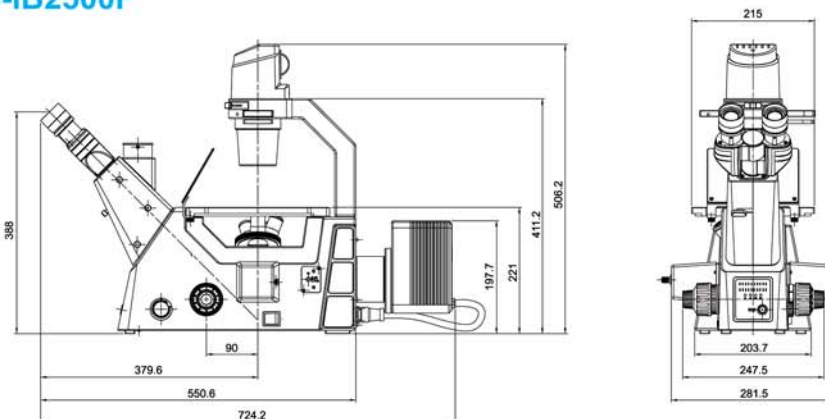
Series	Magnification	N.A.	W.D. (mm)	F.N. (mm)	Cover Glass Thickness (mm)	Immersion	Spring
Lplan Semi-Apochromatic Series	Lplan FL4X	0.13	18.52	25	1.2	-	-
	Lplan FL10X	0.30	7.11	25	1.2	-	-
	Lplan FL20X	0.45	5.91	25	1.2	-	-
	Lplan FLPH20X	0.45	5.91	25	1.2	-	-
	Lplan FL40X	0.65	1.61	25	1.2	-	-
	Lplan FLPH40X	0.65	1.61	25	1.2	-	-
	Lplan FL60X	0.75	1.04	25	1.2	-	-

## Filter block switching mechanism

Two-band or three-band can be chosen. In two-band mechanism, each filter block is equipped with a draw bar to move handle more easily. In three-band mechanism, filter blocks are integrated into one group. There are three fluorescence channels and a bright field channel.



## Dimensions of CS-IB2500F

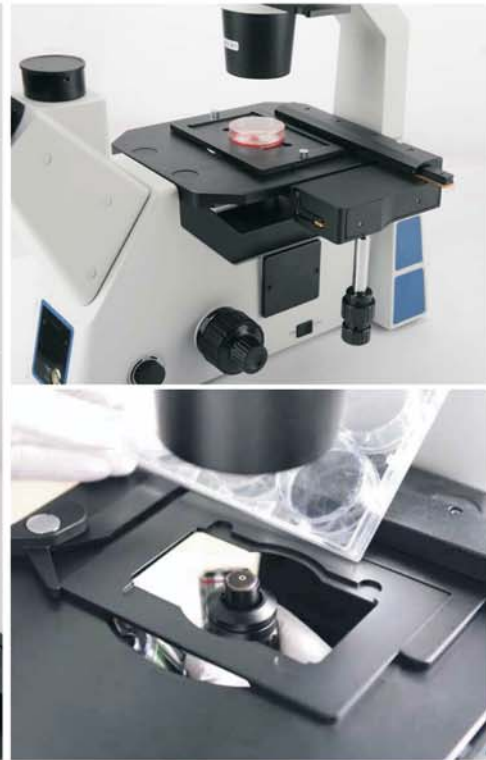


## Technical Specifications of CS-IB2500F

<b>Objectives</b>	<p><u>LWD Infinite Plan Fluorescence Objectives</u> - 4x/0.13, WD 18.52mm, 10x/0.3, WD 7.11mm</p> <p><u>LWD Infinite Plan Phase Objectives</u> - PH10X/0.25, WD 7.94mm</p> <p><u>LWD Infinite Semi-Apochromatic Fluorescence Phase Objectives</u> - 20x/0.45, WD 5.91mm, 40x/0.65, WD 1.61mm</p> <p>Anti-fungal, Parfocal, Parcentric, color-coded</p>
<b>Reflected Fluorescence Illumination System</b>	<p>Reflected Illuminator - with iris field diaphragm (centering adjustable).</p> <p>LED lamp house - with adjustable - Filament center and Focal distance.</p> <p>with 3 LED of 385nm/470nm/560nm</p> <p>Band-pass Fluorescent Filters : Blue / Green / UV.</p> <p>30ND25 Attenuation plate.</p>
<b>Rest other specifications are same as CS-IB2500</b>	

**CS-IB2000F can be upgraded with / for the following application:**

- » LWD Infinite Plan Fluorescence Objective-  
20X/0.45, WD 5.91mm
- 40X/0.65, WD 1.61mm
- 60X/0.75, WD 1.04mm



Specifications and equipment are subject to change without any notice or obligation on the part of the manufacturer.  
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