



## A12.0933 Opto Edu Trinocular Biological Microscope Lcd LED Laboratory ECO

Our Product Introduction

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### Basic Information

- Place of Origin: China
- Brand Name: OPTO-EDU
- Certification: CE, Rohs
- Model Number: A12.0933
- Minimum Order Quantity: 1 pc
- Price: FOB \$1~1000, Depend on Order Quantity
- Packaging Details: Carton Packing, For Export Transportation
- Delivery Time: 5~20 Days
- Payment Terms: T/T, West Union, Paypal
- Supply Ability: 5000 pcs/ Month

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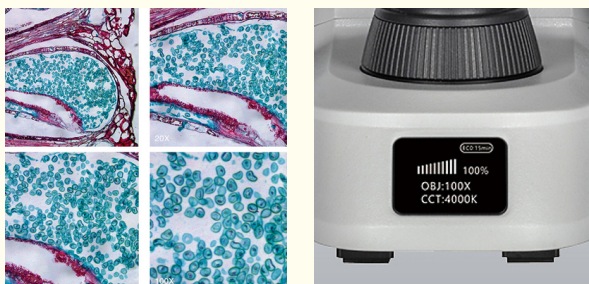


### Product Specification

- Head: Trinocular, 30° Inclined, Eyepiece Tube 360° Rotatable
- Eyepiece: High Eye Point PL10x/22mm,
- Nosepiece: Backward 5 Holes Coded Nosepiece
- Objective: Infinity Plan Achromatic Objective
- Working Stage: Double Layers Mechanical Stage, Size 210\*171mm
- Focusing: Low Position Coaxial Coarse & Fine Focusing Knob
- Condenser: Kohler Condenser NA1.25, PH/DF Slide Slot, Iris Diaphragm
- Illumination: High Brightness 3W LED
- Power Supply: Wide Range Power Supply 100-240V
- Main Body: LCD Screen, Magnification Display, Brightness Memory, ECO Function
- Highlight: **Lcd Trinocular Biological Microscope, LED Trinocular Biological Microscope,**



### More Images



## Product Description

### A12.0933 Opto Edu Trinocular Biological Microscope Lcd LED Laboratory ECO

A12.0933 Series Laboratory Microscope		A12.0 933	A12.0 933 -B	A12.0 933 -T	
Head	Binocular, 30° Inclined, Eyepiece Tube 360° Rotatable, Eyepoint Height Adjustable 375-428.5mm, IPD Adjustable 48-76mm		•		
	Trinocular, 30° Inclined, Eyepiece Tube 360° Rotatable, Eyepoint Height Adjustable 375-428.5mm, IPD Adjustable 48-76mm, Light Split E50:P50	•		•	
Eyepiece	High Eye Point PL10x/20mm, Diopter Adjustable, Dia.30mm	○	○	○	A51.0904-1020T
	High Eye Point PL10x/20mm, Diopter Adjustable, Dia.30mm, With Reticle	○	○	○	A51.0905-1020RT
	High Eye Point PL10x/22mm, Diopter Adjustable, Dia.30mm	•	•	•	A51.0904-1022T
	High Eye Point PL10x/22mm, Diopter Adjustable, Dia.30mm, With Reticle	○	○	○	A51.0905-1022RT
	High Eye Point PL10x/22mm, Diopter Adjustable, Dia.30mm, With Grid	○	○	○	A51.0905-1022GT
Nosepiece	Backward 5 Holes Nosepiece		•	•	
	Backward 5 Holes <b>Coded</b> Nosepiece	•			
Infinity Plan Achromatic Objective	OIPN 2X/NA0.06 WD=5.00mm, Including Field Complement Frosted Glass	○	○	○	A52.0906-2
	OIPN 4X/NA0.1 WD=15.00mm	•	•	•	A52.0906-4
	OIPN 10X/NA0.25 WD=10.8mm	•	•	•	A52.0906-10
	OIPN 20X/NA0.40 WD=1.50mm	○	○	○	A52.0906-20
	OIPN 40X/NA0.65 WD=0.80mm, Spring	•	•	•	A52.0906-40
	OIPN 60X/NA0.85 WD=0.30mm, Spring	○	○	○	A52.0906-60
	OIPN 100X/NA1.25 WD=0.21mm, Spring, Oil	•	•	•	A52.0906-100
Working Stage	Double Layers Mechanical Stage, Size 210*171mm, Moving Range 78*51mm, Scale 0.1mm, Rackless Safety Edge, Double Slide Holder	•	•	•	
Focusing	Low Position Coaxial Coarse & Fine Focusing Knob, With Tension Adjust Ring, With Safety Upper Stop Limit Ring, Coarse Focusing Range 27mm, Fine Focusing Scale 0.002mm	•	•	•	
Main Body	Wide Range Power Supply 100-240V, High Brightness 3W LED, Cold Light Color Temperature 4750-5500K, Brightness Adjustable, With Type-C Port Support Power Supply From USB Power Bank, With ECO Function		•	•	
	Wide Range Power Supply 100-240V, High Brightness 3W LED, <b>With LCD Screen</b> On Stand, Color Temperature Adjustable 3000-7000K, Magnification Display, Brightness Memory, ECO Function Time Setup	•			
Condenser	Kohler Condenser NA1.25, PH/DF Slide Slot, Iris Diaphragm, Pre-Centered.	•	•	•	
Dark Field	Dark Field Slide, For 4x-40x Objective	○	○	○	A5D.0933
Phase Contrast	Phase Contrast Slide, For 10x, 40x Objective	○	○	○	A5C.0913-1040
	Phase Contrast Slide, For 20x, 100x Objective	○	○	○	A5C.0913-20100
	Centering Telescope, Dia.30mm	○	○	○	A5C.0910-30
Phase Contrast	Infinity Plan Phase Contrast Objective 10X/NA0.25 WD=10.8mm	○	○	○	A5C.0937-10
	Infinity Plan Phase Contrast Objective 20X/NA0.40 WD=1.50mm	○	○	○	A5C.0937-20

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Objective	Infinity Plan Phase Contrast Objective 40X/NA0.65 WD=0.80mm	○	○	○	A5C.0937-40
	Infinity Plan Phase Contrast Objective 100X/NA1.25 WD=0.18mm,Oil	○	○	○	A5C.0937-100
Polarizing	Polarizer & Analyzer	○	○	○	A5P.0915
Fluorescent	LED Fluorescent Module	○	○	○	A5F.0915
Adapter	1.0x C-Mount, Focus Adjustable	○	○	○	A5C.0931-10
	0.35x C-Mount, Focus Adjustable	○	○	○	A5C.0931-35
	0.5x C-Mount, Focus Adjustable	○	○	○	A5C.0931-05
	0.65x C-Mount, Focus Adjustable	○	○	○	A5C.0931-65
Package & Accessory	Inner Hexagon Spanner M4 (L Type)	•	•	•	
	Dust Cover	•	•	•	
	Cleaning Paper	•	•	•	
	Instruction Manual	•	•	•	
	Pearl Sponge Inside, Master Carton	•	•	•	



OPTO-EDU (BEIJING) CO., LTD.

OPTO-EDU

F-1501 Wanda Plaza, No.18 Shijingshan Road, Beijing 100043, China  
Tel:+8610 88696020 Fax:+8610 88696085

## A12.0933

Biological Laboratory Microscope, Coded Nosepiece,  
LCD Screen, ECO



## A12.0933 Biological Microscope

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- Brand New 2022 Laboratory Level Biological Microscope With Coded Nosepiece & LCD Screen On Stand
- LCD Screen Can Show Brightness, Magnification & Color Temperature 3000-7000K Adjustable
- Brightness Memory Function, Auto Power Off Function, ECO Time Adjustable From 15 to 60 Minutes
- WF10x/22mm Diopter Adjustable Eyepiece, Infinity Plan Achromatic Objective 2x4x10x20x40x60x100x Optional
- Large Size 210x171 Mechanical Working Stage, Support USB Power Bank Supply For Outdoor Use
- Upgradeable to All Observation as Bright Field, Dark Field and Phase Contrast, Polarizing, and Fluorescent View

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### A12.0933 Details

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#### Butterfly Rotatable Eyepiece Tube

A12.0933 viewing head has eyepiece tube which can rotate 360° to change eye point height and interpupillary distance, for different height of the operator to provide a more flexible and comfortable experience.

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## Super Wide Field 22mm

- A12.0933 biological microscope can achieve a wide field of view range of 22mm under 10X eyepiece, which is more efficient and perfect for observation.
- Professional high eyepoint and wide field plan eyepiece can effectively correct edge distortion and chromatic aberration.



## Coded Nosepiece

A12.0933 can be equipped with coded nosepiece, is able to remember the illumination brightness of each objective. Users can freely adjust the light source brightness of each objective and the system automatically remembers, not only to improve efficiency, but also to reduce visual fatigue.



## Infinity Plan Optical System

A12.0933 adopts an infinitely far chromatic aberration correction system and a professional flat field achromatic objective lens, which can present microscopic images with high resolution, high definition and high contrast.



### Super Large Ceramic Rackless Stage

Double-layer mechanical stage, large 210\*171mm arc shape, no angular design; the stage surface adopts ceramic paint process, high hardness, corrosion resistance; Damping-type double clips can be placed two slices at the same time, for inspection and comparative analysis.

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### LCD Screen

A12.0933 has a front LCD display, which displays the current lighting brightness, color temperature and magnification, so that the user can intuitively judge the working status and improve working efficiency. At the same time, the A12.0933 has ECO function which gives a prompt whether to hibernate. Users can manually cancel, saving energy and improving user experience. The hibernation waiting time is 5- 60 minutes.



ECO time, brightness, objective magnification, color temperature are displayed on the working screen



Long Press the dimming hand wheel to adjust the color temperature interface 3000K- -7000K



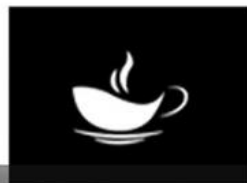
Short Press the dimmer hand wheel to enter ECO mode. You can set the ECO duration



In standby mode, "Coffee Cup" will appear one minute ahead of time to remind you of standby state

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### ECO Mode- Saving Energy

Build-in ECO function, no operation for 30 minutes, the system will automatically turn off and into the standby mode. User can wake up the light source by touching the dimming knob.



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### Type-C & USB Power Supply

The body is equipped with a Type-c interface, which allows the microscope to use a portable battery as a power source. The microscope thus frees itself from dependence on power outlets, enabling easily use outdoors or in power outages. The body comes with a standard USB port, that also allows the microscope to charge a phone or tablet.

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### Online Guide

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### User-friendly Design Increase Comfort And Safety

- A12.0933 is equipped with a secure handle for moving;
- Fully concealed locking design eliminates all sharp edges;
- Low hand coarse and fine coaxial focus system is ergonomically designed to give the user maximum comfort;
- There is a storage device at the back of the body to ensure the cleanliness,, saving storage space and improving portability.

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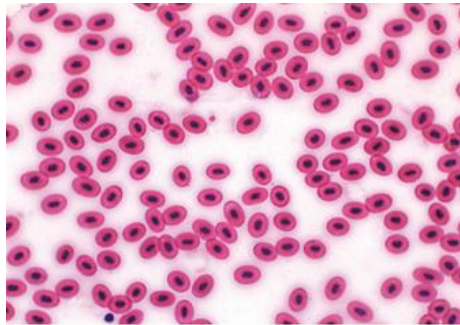
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### A12.0933 Specification

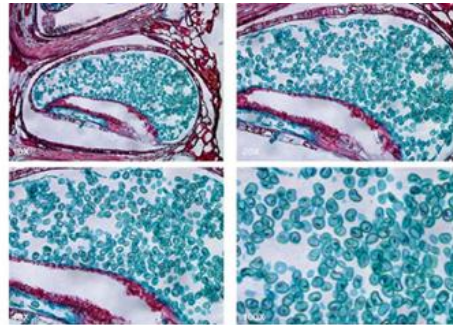


**Bright Field Observation**

The professional plan achromatic objective, with the use of the Kohler illumination system, adjusts the image to the best condition by adjusting the aperture diaphragm and the field diaphragm. High- resolution, high-contrast microscopic images can be obtained whether at low or high magnification.



Blood cell 20X bright field



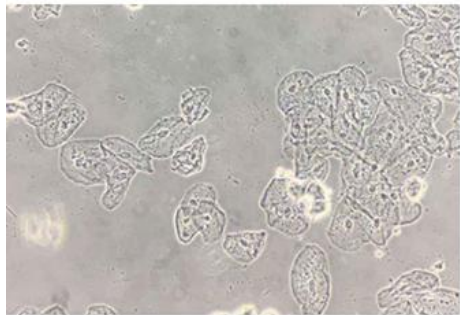
Male tapeworm transverse cleavage bright field

**Phase Contrast Observation**

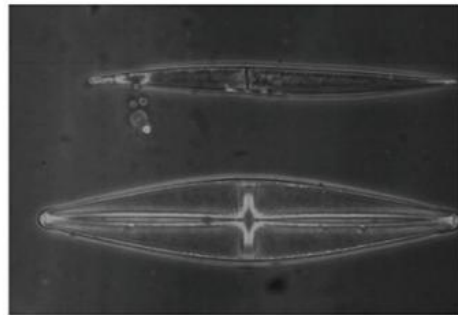
It is suitable for observing samples with high transparency, such as cells, bacteria and other tiny, transparent objects in biological specimens.

**Optional:**

- Phase Contrast Slide For 10x/40x
- Phase Contrast Slide For 20x/100x
- Phase Contrast Objective 10x20x40x100x
- Centering Telescope



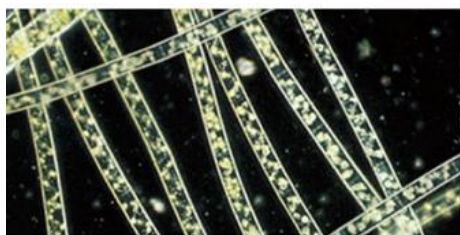
Oral epithelial cells 40X phase contrast



Diatom 20X phase contrast

**Dark Field Observation**

Insert the dark field kit into the socket of the condenser and push the dark field diaphragm into the optical path to achieve simple dark field observation. Without replacing the special dark field condenser, dark field observation can be performed on any magnification objective in the range of 4X- 40X, which can be used to observe protozoa, bacterial flagella, spirochetes and other substances.



Watermill 20X dark field

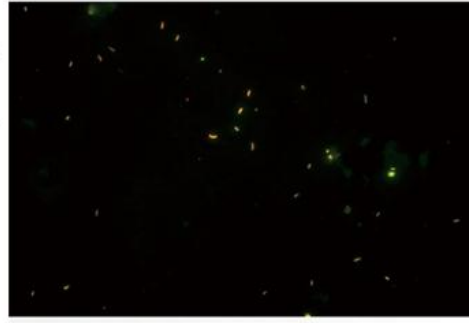


Optional Dark Field Slide For 4x-40x



## LED Fluorescent Module

The innovative reflected LED fluorescence device greatly simplifies the operation process of the fluorescence microscope, making the microscopy experiment more simple, safe and efficient. With light source brightness adjustment knob, according to the characteristics of different specimens to set the appropriate illumination brightness; Rotating bright field 1 fluorescence switch knob, convenient for users to achieve easy conversion between transmitted light illumination and reflected fluorescence illumination.



Other types of intermediate LED modules can be selected according to customer requirements.



Name	Central Wavelength	Application
UV4 long pass type LED fluorescent	385nm	module for DAPI/Hoechst 33342
B4 TB- specific module LED fluorescent	455nm	module for AuramineO/wtGFP
B1 band pass type LED fluorescent intermediate	470nm	module for GFP/FITC
G1 band pass type LED fluorescent intermediate	560nm	module for TexasRED/Cy3.5

### Brightness Adjustment Knob

By adjusting the knob, you can adjust the intensity of LED fluorescent lighting to get the required light.

### Switch Bright Field/Fluorescent

According to the application needs, rotate the bright field / fluorescent switch knob, you can instantly achieve two kinds of observation switchover.

Switch to the fluorescence channel and use the LED fluorescence intermediate module to perform fluorescence observation for TB detection or immunofluorescence analysis and in vivo cell observation.

Switching to the bright field channel allows the use of transmitted light for routine pathological testing or laboratory observation.

### Power Supply From Body

Built in 12V1A transformer can directly charges the fluorescent illumination, easy to connect and safe to use.



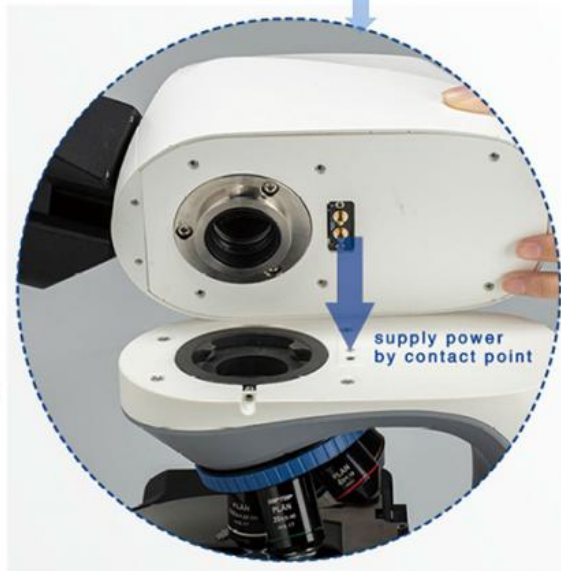
## Powerful, Practical And Convenient Digital Microscope



### Multifunctional Digital Camera Module

A12.0933 digital module contains USB3.0 output and WIFI output two modes which can realize progressive scanning and high quality microscopic images output.

The WIFI camera module supports remote full-resolution photography and multiple terminal connections for multi-viewing; it also provides a contact-type digital power supply device for convenient use and enhanced user experience.



### A12.0933 Accessories

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#### Trinocular Head

It can work with digital camera to output image to monitor or computer for measure, analysis.



#### Digital Viewing Head

Digital viewing tube, can be built-in camera module or external camera module, providing Wi-Fi or image output interface, can support remote full resolution photography and multi-viewer.





### Camera Adapter

Using the standard C-Mount and Photo tube, it can be connected to a digital camera to quickly take pictures and acquire images.



### Infinity Plan Fluor Objective

Designed for fluorescence observation, the image is vivid and clear, the background is pure black, which is the best choice for professional fluorescence observation of various cells and pathological sections.



### Infinity Plan Achromatic Objectives

Improve the plan and contrast, perfect correction of all kinds of chromatic aberration. Large numerical aperture design provides high definition and high contrast microscopic images.

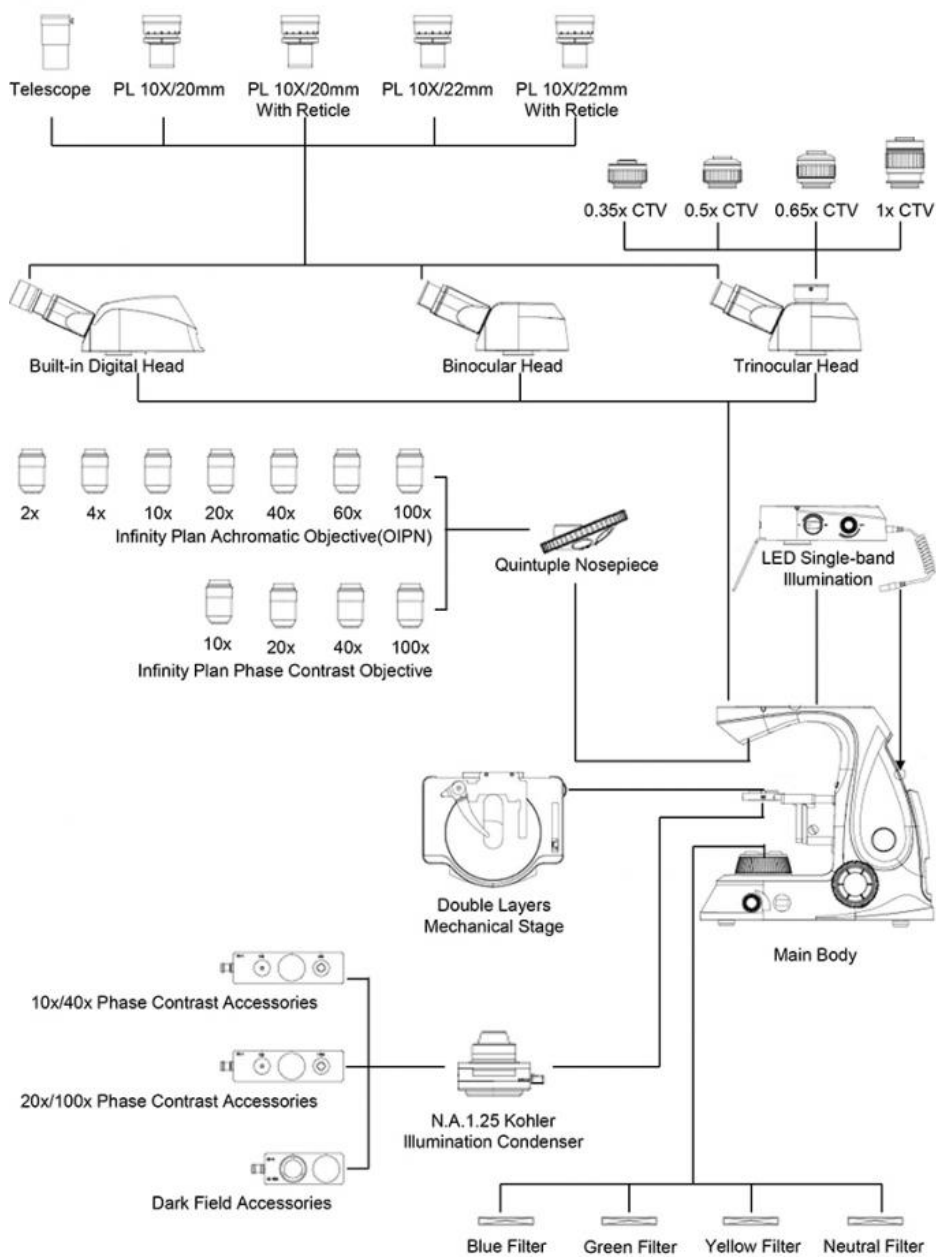


### Infinity Plan Phase Contrast Objective

Add phase contrast observation function on the basis of bright field observation, providing high definition, high contrast microscopic images

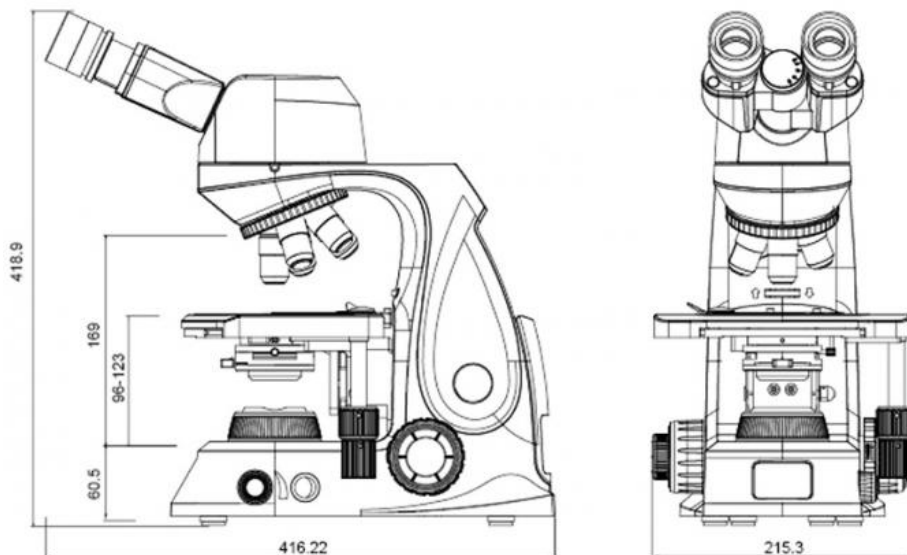
## A12.0933 System Configuration Chart

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## A12.0933 Dimension Chart: mm

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**Opto-Edu (Beijing) Co., Ltd.**

☎ 0086 13911110627

✉ [sale@optoedu.com](mailto:sale@optoedu.com)

🌐 [cnoec.com](http://cnoec.com)

F-1501 Wanda Plaza, No. 18 Shijingshan Road, Beijing 100043, China