

DESCRIPTION

Stereozoom microscopes are optical microscopes that give a three-dimensional (3-D) view of a sample and generally operate at low magnification. The 3-D image allows solid surfaces to be examined with greater clarity and permits the precise manipulation of samples during magnification.



ACUPSZM is a research level Stereo Zoom Microscope with infinite Parallel Galileo optical system. Based on Galileo optical system and Apochromatic objective, it can provide real and perfect microscopic images on details. The excellent ergonomics and user-friendly operating system can truly allow users to experience a simple and comfortable work. ACUPSZM can meet the research demands of life sciences, biomedicine, microelectronics, semiconductors, materials science and other fields of research needs.

TECHNICAL SPECIFICATION**Optical System & Design Principle**

- Common Main Objective (CMO) & two Parallel Zoom Optical Path telescope system based Stereoscope with **Galilean optical system having Infinity Corrected, Multiple coated & Lead Free Optics for Research.**
- Bright Field Observation mode with high resolution and depth of field together for ideal optical 3-D impression.
- Upgradable to Dark Field, Fluorescence, Polarization, Teaching Head & Drawing Intermediate Tube Attachment.

Observation Head : Trinocular

- Observation head, viewing angle 0°- 45°, rotatable at 360°.
- Vertical phototube for micro photography, binocular: trinocular=100: 0, 0:100
- Inter-pupillary distance adjustment from 50mm to 120mm.

Eyepiece

• Diopter adjustment facility in both eyepieces suitable for both eyeglass and non eyeglass wearers.
• Focusable Compensating Lead Free, Rubber Eye shields/Guards, Distortion- free & adjustable with exchangeable eyecup & ESD Compatible.
• Having proper pupil aberration control & appropriate positioning in the eye point for comfortable observation.
• Builtin Reticule Holder with 0.1mm least count (Optional)
ACUPSZMPEP10X23 • Focusable Extra Wide field 10X (paired) F.O.V.23mm, Field Number 23
ACUPSZMPEP10X24 • Focusable Super Extra Wide field 10X (paired) F.O.V.24mm, Field Number 24 (Optional)
ACUPSZMPEP15X16 • Focusable Extra Wide field 15X (paired) F.O.V.16mm, Field Number 16 (Optional)
ACUPSZMPEP20X12 • Focusable Extra Wide field 20X (paired) F.O.V.12mm, Field Number 12 (Optional)
ACUPSZMPEP30X8 • Focusable Extra Wide field 30X (paired) F.O.V.8mm, Field Number 8 (Optional)

Objective (Mounting Screw Type) & Working Distance

ACUPSZMOBJ1X	• Infinity-corrected, lead-free, Distortion- free Plan Apochromatic Objective 1X, Working Distance 60mm , Numerical Aperture N.A.0.15
ACUPSZMOBJ2X	• Infinity-corrected, lead-free, Distortion- free Plan Apochromatic Objective 2X, Working Distance 20mm, Numerical Aperture N.A.0.3 (Optional)

Zooming Range & Ratio

ACUPSZMZR1	• Horizontal Handle Knob system Zoom Drive with Click stop for repeatable task & Manually adjustable Zoom 0.7/0.75 X to 13.5X with magnification ratio of 18:1, with built-in aperture diaphragm. zoom click stops at 0.75x , 1x ,2x,3x ,3x ,6x, 10x,13.5x (Or customized) • Maximum Field of View : 30.6 mm
ACUPSZMZR2	• Horizontal Handle Knob system Zoom Drive with Click stop for repeatable task & Manually adjustable Zoom 0.7X to 14X with coded magnification ratio of 20:1, with built-in aperture diaphragm

Magnification Range

ACUPSZMM1	• 7/7.5X-135X with 10X eyepiece & 1X objective • Upto 270X with Combination of different eyepiece & objectives used. (Optional)
ACUPSZMM2	• 7X-140X with 10X eyepiece pair and 1X Objective. • Upto 420X with Combination of different eyepiece & objectives used. (Optional)

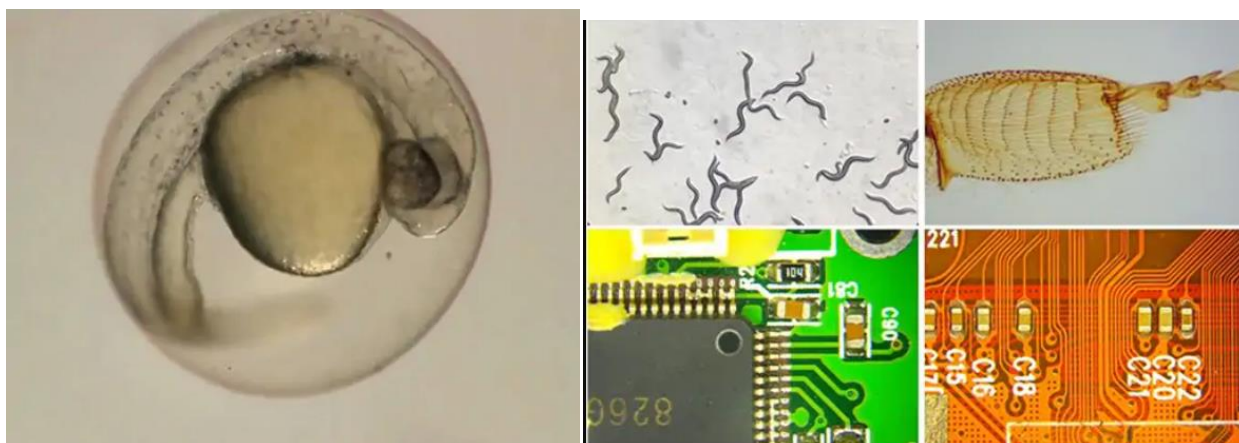
Performance Parameters

Resolution	• 525lp/mm with 1X Objective • Maximum 1000lp/mm with 2X Objective
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Mechanical Body & Stand

- Ergonomically designed, Slim light weight, LED Quad position transmitted light illumination base and pillar with transmitted illumination, glass insert plate size: diameter 180mm, High-grade, precision fixed with handle offers a huge space for sample holders, intuitive controls and an extremely low profile for easy access and reduced fatigue free body movement with anti shock feet.
- Included Stage Glass Plate, Black and white reversible stage plate with ESD capability on black surface.
- The LED diascopic illumination is designed to achieve high overall contrast and includes the innovative OIC (Oblique Illumination Contrast) system & darkfield Illumination.
- Co-axial Coarse & Fine Focusing unit on both sides, Rack and pinion focusing mechanism with tension adjustable, coarse total travel 125 mm, coarse stroke range: 50mm, fine precision 0.002mm, fine stroke range 2mm.
- Motorised Focus Column with Motorised Focusing and motorised travel range 420mm. User defined focus limits can be set (Optional)

What is OIC: An illumination method in which contrast gain is achieved by partial or complete coverage of the normal illumination beam path. For this purpose, a black OIC plate is brought into the beam path that can be moved via the OIC adjustment slider on the right-hand side of the stand base . The specimen is then radiated through at an angle, resulting in a shadow cast on the fine structures of the preparation. This enables the observation of colorless, transparent samples structures with relief and high contrast.



Electronics : Universal Input (100-240) volts $\pm$ 10% , 50-60Hz, single phase AC supply.

Illumination System

Transmitted light	• LED transmitted bright field illumination, brightness adjustable • White LED with average service life: about 60, 000 hours by rated use. • AC- Adapter & Power cord • Standard Cartridge for Bright field Standard Illumination & Oblique High Contrast illumination.
Incident/ Reflected light	• Incident/Reflected light systems with white LED lamps. • Reflected multiple LED's based ring light illumination with switchable segments and integrated control panel. • Ring Light illumination with Ring Light Guide Adapter for Reflected illumination having Colour Temperature 6200K with service life of 50,000 hours & high brightness. • Fiber Optics LED Dual Gooseneck Illumination system with Dual Interlock Light Guide with 500mm length for Reflected Light Illumination, flicker free light, silent fan.

Standard Accessories : Operating Manual, Dust Cover, Guarantee Card and Styrofoam Molded pack.

FEATURES

- **Apochromatic objective:** The Plan APO 1x Apochromatic main objective design has significantly improved the color reproduction of the objective, provides high-resolution images at both low and high magnifications. Correcting the axial chromatic aberration of red/green/blue/purple, and converge them on a focal plane, the objective is able to present the real color of the samples.
- **Large zoom ratio :** The wide range of magnifications available coupled with a precise click-stop mechanism for working with reproducible zoom settings, makes it ideal for both low magnification observation and high-magnification screening and observation of small cell structures.
- **Aperture diaphragm adjustment:** Shift the aperture diaphragm lever in front of the microscope to adjust depth of field for high-quality image.
- Ease the tiredness with ergonomic design. The excellent ergonomics and user-friendly operating system can truly allow users to experience a simple and comfortable work.

APPLICATIONS

With complete eyepieces, objectives and accessories it is an ideal instrument, has great value in a variety of applications such as:

- life science and medical research, including dissection, IVF, biological experiment, chemical analysis and cell culture.
- Industrial areas for PCB, SMT surface, electronics inspection, semiconductor chip inspection, metal and materials testing, precision parts testing.
- Coin Inspection, Gemology and Gemstone setting, Engraving, repair and inspection of small parts.

EPI-FLUORESCENCE ATTACHMENT (OPTIONAL)

The EPI-Fluorescent Attachment is equipped with 6-hole turntable fluorescent modules, it can accommodate up to five fluorescent modules and one bright field module. Four band LED light source is used to change the light source color and adjust the brightness through the LED light source controller.

High transmission and low auto fluorescence for detection of weak signals.



It include parts:

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|--------------------------------|-------------------------------|
| (1) Epi-fluorescent Attachment | (2) $1/4 \lambda$ Plate. |
| (2) Control Box | (4) Light Shading Plate |
| (3) Light Source | (6) Bright Field Filter Cube. |
| (7) Fluorescent Filter Cube | |

Fluorescent filters	Excitation	Dichroic Mirror	Barrier Filter
B Filter	BP460-490	DM500	BA520
G Filter	BP510-550	DM570	BA590
U Filter	BP330-385	DM400	BA420
V Filter	BP400-410	DM455	BA455
FL-FITC	BP460-495	DM505	BA510-550
FL-DAPI	BP360-390	DM415	BA435-485
FL-TRITC	BP528-553	DM565	BA578-633

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