

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.

**What is Fusion Optics:**

ACUCAL Plan Optics Stereo Zoom Microscope offers Fusion Optics technology which puts a high resolution image at the highest possible Numerical Aperture to the right eyepiece and a large depth of field image to the left. The result is Outstanding Richness of Details and Outstanding Depth of Field. In many industrial applications, Stereozoom Microscope with this technology provide new and better possibilities of examining and evaluating microstructures of material, components and products.

APPLICATION

- Stereozoom microscopes are used in food science, marine biology, embryology, environmental science, and forensic science. In pharmaceutical and biotechnology labs, stereozoom microscopes are commonly used for magnifying biological samples such as plant tissues and organ samples.
- In Biological studies & microsurgery, geology, Zoological research work, Forensic research work, Forensic research work (Biological specimen examination) & Life Science (Fisheries).
- In Polarising studies of thin Sections, polished Sections, microfossils, mineral grains, rock samples, drill cores, micromounts, fossils) with modular zoom head for configuration flexibility.
- Wider industry applications including the examination of circuit boards and microchips. Working & inspection of Printed Circuit Boards with uneven electronics & soldering surface.

TECHNICAL SPECIFICATION**1) Optical System**

ACUSZM127OS	<ul style="list-style-type: none"> Greenough Plan Optics Zoom based Stereo Microscope with fully Plan Apochromatic & Lead Free fusion optics providing plan field of view and large depth of field. Specialized Parfocal corrected optics that combines High Resolution for Ideal 3D Optical Images.
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2) Observation Head

<ul style="list-style-type: none"> Inter-pupillary distance adjustment from 50mm to 76mm. 	
ACUSZM127BOH Binocular	<ul style="list-style-type: none"> Observation Tube inclined at 35°, rotatable at 360°.
ACUSZM127TOH30 Trinocular	<ul style="list-style-type: none"> Observation Tube inclined at 30°, rotatable at 360°. Vertical phototube for micro photography with built – in C-mount 0.55 x magnification lens & 50%:50% beam splitter or 100%:0% beam splitter.
ACUSZM127TOH35 Trinocular	<ul style="list-style-type: none"> Observation Tube inclined at 35°, rotatable at 360°. Vertical phototube for micro photography with built – in/ interchangeable 60N C-mount 0.55 x magnification lens & 50%:50% beam splitter or 100%:0% beam splitter.
ACUSZM127TOH45 Trinocular	<ul style="list-style-type: none"> Observation Tube inclined at 45°, rotatable at 360°. Vertical phototube for micro photography with built – in C-mount 0.55 x magnification lens & 50%:50% beam splitter or 100%:0% beam splitter.

3) Eyepiece

<ul style="list-style-type: none"> Diopter adjustment facility in both eyepieces suitable for both eyeglass and non eyeglass wearers. Compensating, High Eye point, Distortion- free & adjustable with exchangeable eyecup. Builtin Reticule Holder with 0.1mm least count (Optional) 	
ACUSZM127EP10X22	<ul style="list-style-type: none"> Focusable Wide field 10X (paired) F.O.V.22mm, Field Number 22
ACUSZM127EP10X23	<ul style="list-style-type: none"> Focusable Extra Wide field 10X (paired) F.O.V.23mm, Field Number 23
ACUSZM127EP10X24	<ul style="list-style-type: none"> Focusable Super Extra Wide field 10X (paired) F.O.V.24mm, Field Number 24
ACUSZM127EP15X16	<ul style="list-style-type: none"> Focusable Extra Wide field 15X (paired) F.O.V.16mm, Field Number 16
ACUSZM127EP16X16	<ul style="list-style-type: none"> Focusable Extra Wide field 16X (paired) F.O.V.16mm, Field Number 16
ACUSZM127EP20X12	<ul style="list-style-type: none"> Focusable Extra Wide field 20X (paired) F.O.V.12mm, Field Number 12
ACUSZM127EP30X8	<ul style="list-style-type: none"> Focusable Extra Wide field 30X (paired) F.O.V.8mm, Field Number 8

4) Objective

ACUSZM127OBJ1X	<ul style="list-style-type: none"> Inbuilt & 1X Objective
ACUSZM127OBJ0.5X	<ul style="list-style-type: none"> 0.5X Objective (Optional)
ACUSZM127OBJ0.63X	<ul style="list-style-type: none"> 0.63X Objective (Optional)
ACUSZM127OBJ0.7X	<ul style="list-style-type: none"> 0.7X Objective (Optional)
ACUSZM127OBJ1.5X	<ul style="list-style-type: none"> 1.5X Objective(Optional)
ACUSZM127OBJ2X	<ul style="list-style-type: none"> 2X Objective(Optional)

5) Zooming Range & Ratio

ACUSZM127ZR	<ul style="list-style-type: none"> Coded Clickstop Zoom 0.6 X to 5.5/5.6X with Optical Zoom ratio of 9:1,Manually operable. Clickstops at 10x, 20x, 30x, 40x and 50x for easy operation.
ACUSZM127ZR1	<ul style="list-style-type: none"> Click stop Zoom 0.6 X to 5.0X with Optical Zoom ratio of 8.3:1, Manually operable. Clickstops at 10x, 20x, 30x, 40x and 50x for easy operation. Clickstops at 0.65x, 0.8x, 1x, 1.25x, 1.6x, 2x, 2.5x, 3.2x, 4x, 5x for easy operation.

6) Optical Magnification Range

ACUSZM127M655	<ul style="list-style-type: none"> ● 6X-55/56 X with 10X eyepiece pair and inbuilt 1X Objective. ● 1.8X to 330X with Combination of different eyepiece & objectives used. (Optional)
ACUSZM127M650	<ul style="list-style-type: none"> ● 6X-50X with 10X eyepiece pair and inbuilt 1X Objective. ● 1.8X to 300X with Combination of different eyepiece & objectives used. (Optional)

7) Working Distance

ACUSZM127WD122	<ul style="list-style-type: none"> ● 122 mm with 1X Objective
ACUSZM127WD115	<ul style="list-style-type: none"> ● 110-120 mm with 1X Objective
ACUSZM127WD50	<ul style="list-style-type: none"> ● 50-55 mm with 1.5X Objective
ACUSZM127WD35	<ul style="list-style-type: none"> ● 35 mm with 2X Objective

8) Mechanical Body

ACUSZM127MB1	<ul style="list-style-type: none"> ● Plain Track stand with fan type big base & Clip for holding specimen. ● Transmitted & Reflected LED Focusing Stand with glass plate & Black and white plate. ● Large Focusing knobs on both sides with tension adjustable. ● Stand with a ESD Protection features : Antistatic surface , grounding socket ● RL Control – on/off/Dimming ● Integrated power socket for RL Black and white plate ● Column 250mm with drive and handle, lifting range 145mm Working surface D195xW160mm or D255xW215mm ● Observation & Contrast Methods: Bright field & Dark field
ACUSZM127MB2	<ul style="list-style-type: none"> ● Plain Track stand with fan type big base & Clip for holding specimen. ● Transmitted & Reflected LED Focusing Stand with glass plate & Black and white plate. ● Coaxial Focusing knobs on both sides with tension adjustable. ● Coarse total travel: 50mm, Fine total travel per single rotation: 0.2mm, Fine graduation: 100, Fine resolution: 2μ
ACUSZM127MB3	<ul style="list-style-type: none"> ● Dual or single Arms Heavy Base Boom Stand for better stability. ● Freely moveable Arm and can be adjusted to any location i.e 90° left and right, and Up and Down. Vertical Column length : 450mm Horizontal arm length: 450mm. ● Large Focusing knobs on both sides with tension adjustable.
ACUSZM127MB4	<ul style="list-style-type: none"> ● Diascopic White LED illumination stand suitable for brightfield, darkfield application & oblique illumination contrast by built in condenser and adjustable rotatable and slidable reflecting mirror for changing the light signal directions provides high relief observation for the colorless samples. ● Transmitted light intensity and shutter controlled via external controller unit. ● Stand fitted with broad base Track stand with Integrated base with column with glass plate & Black and white plate. ● Column 250 mm with drive and handle, lifting range 145 mm, easily accommodates Petri dish/Flask etc. ● Large Focusing unit on both sides with tension & friction adjustable. ● Hand Rest Stand. RL Control – on/off/Dimming ● Thread M49/50 Type Objective Mounting Screw for front optics or Analyzer. ● Mount D=76mm for stemi mount/mount S-Interfaces.
ACUSZM127MB5	<ul style="list-style-type: none"> ● Flexible arm stand with table clamp for installing the mount on the work table. Counterbalance adj. weight range: 1.5 to 7 kg , Load range at 2.6 kg max, Table thickness: 100 mm, Max. extension: 995 mm (360° arc) ● Mountable focus arm, 76 mm interface, pin diameter 15,8 mm (5/8"), max. focus travel 51 mm, max. 6 kg load. ● Tension adjustable focus drive with 75 mm height capable of focussing with a travel range of 50 mm

9) Performance Parameters

Resolution ACUSZM127R	<ul style="list-style-type: none"> • 250lp/mm with 1X Objective • Maximum 500lp/mm
Depth of Field	<ul style="list-style-type: none"> • 12mm
Numerical Aperture	<ul style="list-style-type: none"> • 0.167
Field of View (Object field Diameter):	<ul style="list-style-type: none"> • Maximum 38mm @ 10X eyepiece and 1x lens combination.
Focusing Range	<ul style="list-style-type: none"> • 105mm

10) Illumination System (Diascopic & Episcopic)

ACUSZM127I1	<ul style="list-style-type: none"> • High Power Incident/Reflected and Transmitted Light Base light systems with white LED lamps having lifetime of more than 30000 hrs. • Regulated power supply for both lights with separate brightness controls & ON/OFF. • Additional Reflected multiple LED's based ring light illumination or Double Spot Illuminator, with high brightness (Optional) • 65 mm illumination area • Integrated power unit 12V DC 24W/100...240V AC/50...60Hz
ACUSZM127I2	<ul style="list-style-type: none"> • Incident/Reflected and Encoded transmitted Light Base transmitted light systems with white LED lamps. • LED illumination having lifetime of more than 25000 hrs and suitable for bright field as well as one side Rottermann contrast or /equivalent contrast and dark field. • Additional Reflected multiple LED's based ring light illumination with switchable segments and integrated control panel. High performance diffusor to remove glares from reflected surface samples. • Double Spot Illuminator, with high brightness (Optional)
ACUSZM127I3	<ul style="list-style-type: none"> • Incident/Reflected and transmitted light systems with white LED lamps. • Regulated power supply for both lights with separate brightness controls. • 04 Point segmented Ring Light illumination for Reflected illumination having Colour Temperature 6100K with service life of 50,000 hours & high brightness. • 3-point arc light for oblique illumination. Transmitted light with centered LED for contrast enhancing • Double Spot Illuminator, with high brightness (Optional)
ACUSZM127I4	<ul style="list-style-type: none"> • Incident/Reflected light systems with 6100K LED lamps. • Regulated power supply for brightness controls. • 04 Point segmented Ring Light illumination for Reflected illumination having Colour Temperature 6100K with service life of 50000 hours & high brightness. • Inbuilt programme to adjust the LED segments in full rotatable half and quarter ring segments. • Diffuser provided for homogeneous illumination, push button for operation modes and rotary button for continuous intensity adjustment. • Double Spot Illuminator, with high brightness (Optional)

11) Operating Conditions

<ul style="list-style-type: none"> • Temperature 15°C to 50°C and Humidity 40 to 100% RH
<ul style="list-style-type: none"> • Power supply- 230AC± 10%. Single Phase, Frequency – 50Hz ± 3% , Indian Electric Standards

12) Standard Accessories

<ul style="list-style-type: none"> • Operating user Manual, Antistatic Polymer Dust Cover, Guarantee Card and Styrofoam Molded pack.

FEATURES

- High quality optical components, providing sharp and striking contrast image and ensure flat image at big depth of field with Sharply focused over the whole magnification range.
- Ease the tiredness with ergonomic design.
- Providing even illumination With LED light & Compatible with multiple types of illumination techniques.
- With complete eyepieces, objectives and accessories it is an ideal instrument for industry assembling, inspection and teaching field.
- Large Field of view and apochromatic correction with Extended Working distance
- Efficient stray light suppression for crisp three dimensional images.
- User interchangeable Apochromatic front optics
- Double your resolution or enjoy large working distance without compromising optical quality.
- Flexible with different digital cameras.
- Designed for vibration free observation and heavy workloads, using durable and reliable mechanics.
- Continuous variable zoom or in reproducible mode by activating click stops well balanced 3D impression
- Ergonomically user friendly than any other Greenough-type stereo microscope
- Antibacterial surface treatment for Anti fungus from preventing contamination from dust, oil and water.

OPTIONAL ACCESSORIES

- Plan APO Objectives: 0.5X , 0.7X & 2X
- Wide Field Eyepieces: 15X/Ø16, 20X/Ø12 & 30X/ Ø8



Fibre Optics Illumination:
Halogen/LED



Ring Illuminator :
Halogen/LED



Polarizer/Analyzer



Dark Field Attachment



Micrometer Eye Piece



High Resolution
Microscopy Camera



XY Mechanical Stage



Dual Swing Arm
Boom Stand