#### ■ SZ61/SZ51 specifications

Item		Specifications					
Microscope body		SZ61	SZ61-60	SZ6	1TR	SZ51	SZ51-60
SZ61	Magnification		0.67X to 4.5X			0.8X	to 4X
SZ61-60	Zoom ratio		6.7:1			5	:1
SZ61TR	Working distance	110 mm					
SZ51	Tube inclination angle	45°	60°		4	5°	60°
SZ51-60	Interpupillary distance adjustment	Left/right interlocked Adjustment range: 52 to	o 76 mm (using the WHS)	Z10X eyepiec	es)		
	Video camera adaptability	-	_	C mount (0.	5x built in)	-	_
	Zoom adjustment knob	Left/right single-shaft he Interpupillary distance h	orizontal knob nigh/low magnification sto	pper incorpor	ated.		
	Optical components	Lead-free					
Auxiliary objective		Mounting by screwing i	into the thread at the botto	om of frame (I	M48 thread 2	X0.75)	
Eyepiece		"Comfort View" WHSZ s Lead-free	series				
Stand			SZ2-ST			SZ2-ILST	
SZ2-ST		Standard stand			LED reflect	ted/transmitted illuminatio	n stand
SZ2-ILST	Frame installation	Mounting diameter: 76	mm				
	Focusing adjustment	Focusing stroke: 120 m	nm				
	Stage plate	SZ2-SPBW (Black & wi SP-C (Clear glass plate	hite for anti-ESD)		The dedica 100 mm d	nted glass plate in ia. included	
	Light source	Fiber optic illumination : Transmitted light illumin (SZ2-ILA) mountable (o	system SZ2-LGB mounta nation attachment ption)	ble (option)	Reflected i	d illumination: LED Ilumination: LED ED life span: 6000 hrs. g: 100-120 V/200-240 V A, 50/60 Hz	
Weight	Zoom body only	1,30	00 g	1,50	10 g	1,30	00 g
	Configuration 3	3,52	20 g	3,72	10 g	3,52	20 g

Configuration3: Zoom body + WHSZ10X-H(2) + SZ2-ST

#### ■ SZ61/SZ51 optical performance

Microscope	Zoom		Z10X-H SZ10X	WHSZ	15X-H		Z20X-H Z20X	WHSZ	30X-H
body	magnification	F.N	l. 22	F.N	. 16	F.N.	12.5	F.N	J. 7
		Total magnification	Field of view (mm)						
	0.67X	6.7	32.8	10.1	23.9	13.4	18.7	20.1	10.4
	1X	10	22	15	16	20	12.5	30	7.0
SZ61	2X	20	11	30	8	40	6.3	60	3.5
	3X	30	7.3	45	5.3	60	4.2	90	2.3
	4.5X	45	4.9	67.5	3.6	90	2.8	135	1.6
	0.8X	8	27.5	12	20	16	15.6	24	8.8
	1X	10	22	15	16	20	12.5	30	7.0
SZ51	2X	20	11	30	8.0	40	6.3	60	3.5
	3X	30	7.3	45	5.3	60	4.2	90	2.3
	4X	40	5.5	60	4.0	80	3.1	120	1.8

<sup>\*</sup> No auxiliary objective lens is attached

#### ■ Auxiliary objective for SZ61/SZ51

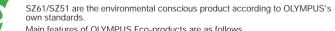
	Working distance (mm)
110ALK0.3X	250-350
110ALK0.4X	180-250
110AL0.5X	200
110AL0.62X*	160
110AL0.75X	130
110AL1.5X	61
110AL2X	38

<sup>\*</sup> Made to order

#### ■ "Comfort View" WHSZ eyepiece

		<del>* .</del>		
	F.N.	Diopter adjustment	Reticle	Focal magnification
WHSZ10X	22	_	N.A.	_
WHSZ20X	12.5	_	N.A.	_
WHSZ10X-H	22	-8-+5	Yes*	_
WHSZ15X-H	16	-8-+5	Yes*	_
WHSZ20X-H	12.5	-8-+5	Yes*	1.3X
WHSZ30X-H	7	-8-+5	Yes*	2X

<sup>\*</sup>Applicable reticle size: 24 mm diameter, t1.5



- Main features of OLYMPUS Eco-products are as follows.

  Lead-free and arsenic-free Eco-glass for optics, such as lenses and prisms.

  Adoption of cardboard for packing materials without styrene foam for promoting the recycling. treatment of metal.

**ECO-PRODUCTS** \* Some accessories are inapplicable.

Please visit our web site for further information: http://www.olympus.co.jp/en/eco-products/

- OLYMPUS CORPORATION is ISO14001 certified.
- OLYMPUS CORPORATION is FM553994/ISO9001 certified.
- Illumination devices for microscope have suggested lifetimes.
   Periodic inspections are required. Please visit our web site for details.
- Specifications and appearances are subject to change without any notice or obligation on the part of the manufacturer.



www.olympus.com

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Printed in Japan M1623E-0610B



Zoom Stereomicroscope SZ61/SZ51



# Comfort at work: the key to consistent, accurate results

User comfort has always been an Olympus priority. Even so, the standards set by the new SZ61 and SZ51 are a revelation. The smoothly contoured finish, the newly designed "Comfort View" eyepiece, and the accessible, responsive controls make operation easier and less fatiguing than ever before.

The compact design owes much to the incorporation of the Greenough optical system, which delivers excellent flatness and ample depth of field as well as clarity, detail, accurate color and the least possible distortion. Dependable, high-performance optics are central to the achievement of consistent, accurate results in today's widening range of biological microscopy applications — as are ergonomic features which make even long-duration tasks easier and less demanding to perform.

Welcome to the comfort zone.





**SZ61** 

SZ61: offers the highest zoom ratio in its class.

SZ51: offers superb cost efficiency with practical zoom ratio.

2

#### High-performance optics in a compact, comfortable design

Incorporating new improvements to the highly-regarded Greenough optical system, the SZ61 and SZ51 successfully meet the demand for a variety of observation and documentation options in a genuinely compact microscope design. Clear, sharp image reproduction is matched by new ergonomic design elements which maximize comfort and ease of use.

The SZ61 and SZ51 microscope bodies are manufactured using newly developed lead-free optics, demonstrating Olympus commitment to protect the environment.

#### 6.7:1 — the best zoom ratio in this class

The SZ61's class-leading magnification range extends from 6.7x through 45x (using 10x eyepieces), with a zoom ratio of 6.7:1. This derives from a newly developed optical system and allows quick, comfortable observations at the most appropriate magnification. The SZ51 provides a magnification range from 8x through 40x (using 10x eyepieces), with a zoom ratio of 5:1.

#### Outstanding depth of field and flatness

The 10-degree angle of convergence in the Greenough optical system secures excellent image flatness with large depth of field.

#### Accurate color reproduction

The careful selection of lens surface coatings and glass materials in the entire optical system makes it possible to observe and document specimen in their original, authentic colors.

#### Sharp, clear, high-contrast images

High contrast images and field flatness ensure accurate reproduction and documentation of original specimen shapes.

#### "Comfort View" eyepieces for greater comfort and faster work

Quick, comfortable observation and documentation are ensured by this completely new eyepiece design featuring Pupil Aberration Control and Appropriate Positioning in the eye point. The result is a field of view that is easy to find, comfortable to view, and easy to keep.



The Greenough optical system has two zoom optical paths inclined at a  $10^{\circ}$  angle. This enables a compact microscope design with high performance.

#### Five variations in zoom performance

The SZ61 and SZ51 provide five system configuration choices. First, they can both be equipped with an ergonomically designed 45° inclination tube when mounted on standard stands. Second, operators can attach a 60° inclination tube (SZ61-60/SZ51-60) for special applications where the zoom body has to be tilted for use with other equipment or mounting on a universal stand. And for documentation purposes, Olympus also offers the SZ61TR, which incorporates a trinocular tube for easy attachment of digital and video cameras.

#### Convenient front-access operation

Improved ease of access to the most frequently used knobs and controls maximizes operator comfort and reduces neck and back strain.





4

#### The right accessory for every application

#### Digital camera DP21

The DP21 stand-alone digital camera for microscopes allows easy observation, focusing, framing and saving while enabling smooth, live image display of high-definition images for highly professional presentations.

#### Various universal stands

A variety of universal stands are available for the observation of large size specimens. No matter how big the samples are or how much they vary in size, Olympus has the right choice of stands to suit any requirements.



SZ61TR+DP2



SZ61+SZ2-STU2



#### Wide choice of auxiliary objectives and eyepieces

A wide choice of auxiliary objectives enables observation at the optimum working distance (W.D.) for a variety of applications. W.D. can be changed between 250 mm-350 mm (0.3x objective) and 180 mm-250 mm (0.4x objective). Eyepieces are available ranging from 10x to 30x to optimize system magnification.



Auxiliary Objectives



Eyepieces



#### Choose the illumination source that suits the task at hand



#### LED illuminator stand / SZ2-ILST

The world's first LED stand features a thin design to keep sample positions low and to optimize operability. Simultaneous transmitted and reflected light are available on this stand. LED light offers both long lifetime and constant color temperature at any intensity.



**High-level transmitted light illumination base / SZX2-ILLB**Provides effective contrast from oblique illumination and easily selected "High" and "low" contrast settings. Light volume and color temperature are adjusted by means of built-in filters (LBD/ND).



#### Transmitted illumination attachment / SZ2-ILA

Used with the SZ2-ST stand, this cost-effective illumination stand provides bright, uniform illumination from low to high magnifications. Tiltable mirror provides direct and oblique illumination for low contrast specimen. Available 22 W and 100 W lamphouses provide necessary power for a variety of illumination needs.



Slim LED transmitted light illumination base / SZX2-ILLT

With a slim design of 41 mm, this transmitted light illumination base has a lower height to enable a low eyepoint and easy access to base-mounted samples during observation and operation. The LED 4-position turret enables contrast adjustment between brightfield, oblique, and darkfield illumination with a simple turn.



#### Flexible light guide / SZ2-LGSF

A single fiber optic guide is fixed at the back of the objective so as not to disturb microscope operation.



#### Interlock dual light guide / SZ2-LGDI

Standard oblique semi-rigid fiber optic light guide. The light source position on the rear side of the stand saves desk space.



#### Ring light guide / SZ2-LGR

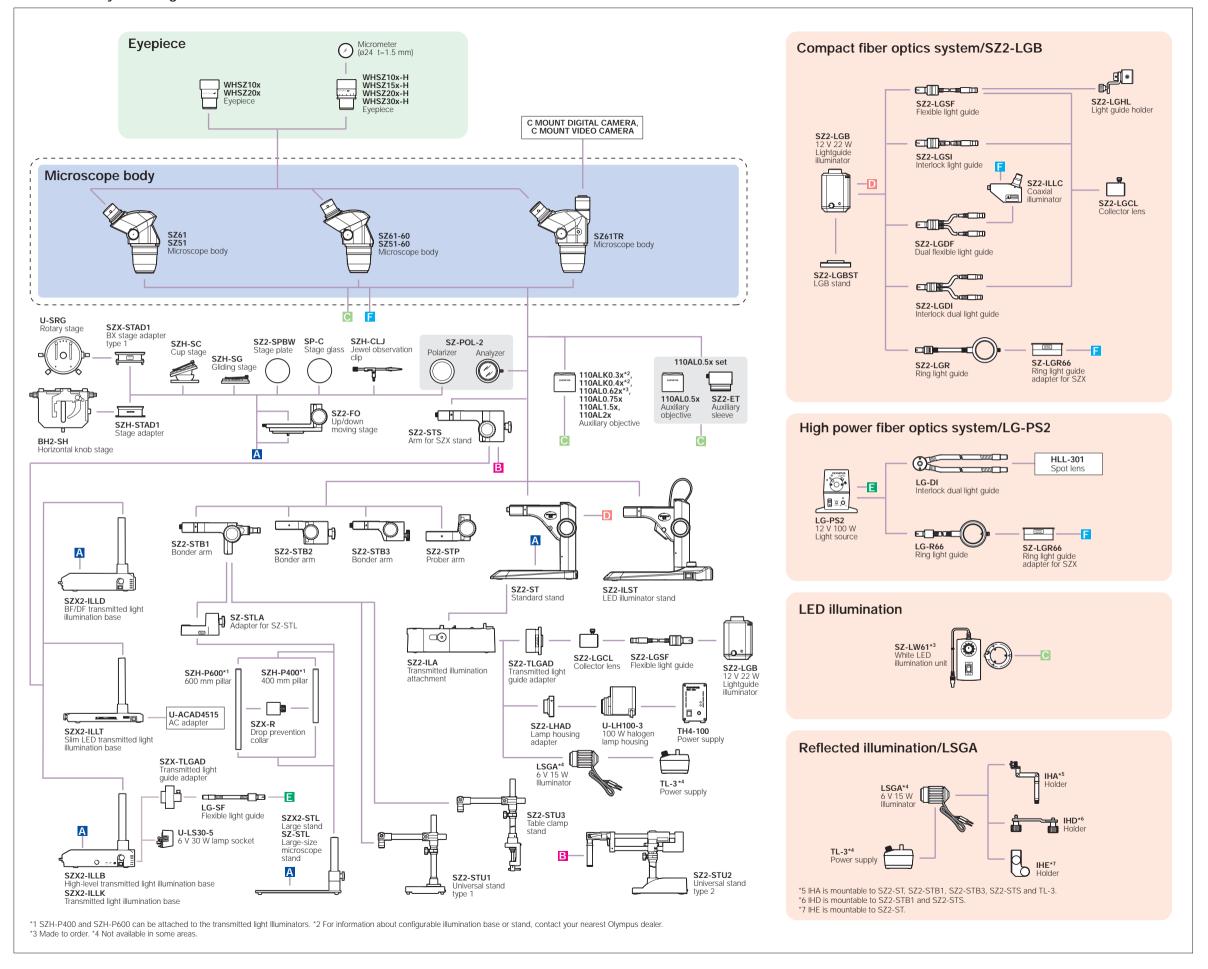
Used with LGB illumination system, this ring light guide provides bright and uniform images.

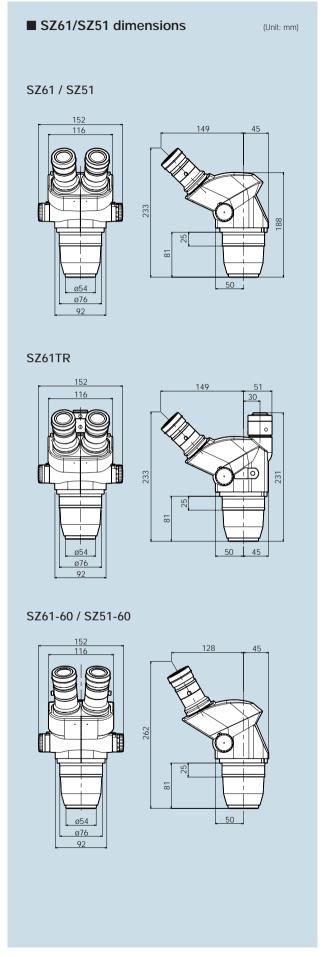


Coaxial reflected light illuminator / SZ2-ILLC

It combines a polarizer and a  $1/4\lambda$  plate, for easier viewing of specimens which are difficult to examine under oblique reflected light illumination.

#### ■ SZ61/SZ51 system diagram



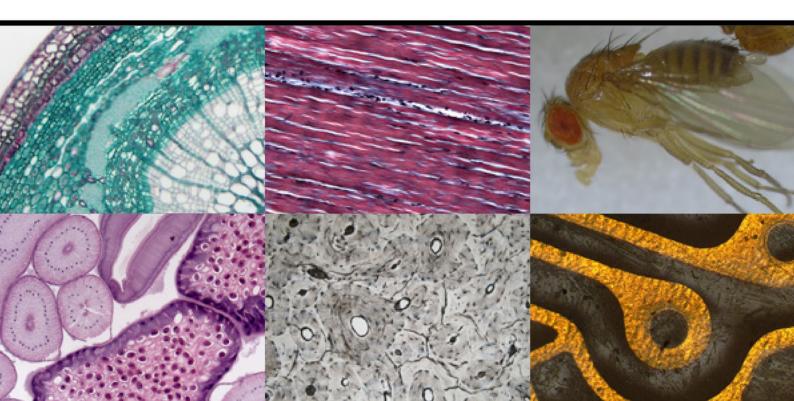


10



Next Generation

Digital Microscopy Cameras



#### Magcam H D S E R I E S

#### HD Microscope Cameras with built in SD

#### No Need for PC. Built in mouse

The significant innovation in Magcam HD cameras is embedding the application software inside the camera. The user can control the camera with just a mouse. There is no need for a PC.





#### Superb Smart Camera

Magcam HD cameras automatically analyze the acquired images and optimize the white balance, exposure time and saturation, to present perfect images. Whatever for bright field bio imaging or dark field birefringent crystal imaging, Magcam HD cameras deliver ideal images, barely needing any parameter adjustment.



#### The less Icons the Better

Magcam HD cameras embedded software is designed for ease of use. There are only two icons on the software starting screen, one for image capture and the other for the settings menu. It's as intuitive as smartphone.



#### Exposure Setting

For the first time, an HDMI camera is equipped with complete exposure and gain settings. It allows to exposure settings from I ms to up to 10 seconds and 20 levels of gain adjustment.



#### 3D Noise Reduction

An increase of the exposure time increases the image noise. But the integrated 3D noise reduction function keeps the TrueChrome IIS image always clean and sharp. The following comparison images show the amazing 3D noise reduction effect.



#### 1080P Video Recording

Just click on the button to start recording 1080P videos at 30fps. The recorded video files will be saved to the high speed SD card directly. It is also allows playback the videos in the SD card directly.



#### Get more Details with ROI Magnification Function

A series of image operation buttons on the right side of the screen allows the image to be flipped, rotatedor a Region of Interest (ROI) to be selected. The ROI function can help to get more image details throughmagnification.



#### Image Comparison Function

The image comparison function is available in the setting menu. An image can be chosen to compare with the live image and even movedaround or have a ROI selected.



#### The built-in measurement function\*

With built-in critical dimensioning functionality, the Magcam HD cameras are not only superb imaging camera, but also powerful metrology tools. This greatly extends the application areas of the Magcam HD cameras. The metrology functions include calibration, scalebar and line

measurement.



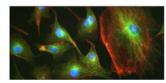
#### 1080p 30fps Full Frame Rates\*

Guaranteed 30 fps at 1080p. Magcam HID cameras present a perfect combination of outstanding resolution and frame rate, which allows the user to smoothly manipulate live images without any monitor lag.



#### The FPGA dual-core processor

Magcam HD cameras adopt innovative FPGA dual-core processor; FPGA1 high-definition image quality processor and FPGA2 image output controller to ensure high speed high quality images.



#### HDMI FL imaging Capability\*

Taking advantage of the ultra-high signal to noise ratio sensor, MagCam HD Pro allows you to set up to 10 seconds exposure time. The incredibly efficient 3D noise reduction performance delivers finest detailed images for low light fluorescence.

#### Specifications

Camera MODEL	MagCam HD Pro	MagCam HD Lite
Special Features	Calibration and Measurement	
	Perfect color reproduction	High speed data transmission
	High speed data transmission	
	Suitable for Fluorescence Imaging	
Sensor	IMX236, 5MP	MT9P031, 5MP
Sensor size	1/2.8"	1/2.5"
Dynamic resolution	1920×1080	1920×1080
Static resolution	3264×1840	2592×1944
Frame rate	1920×1080 30fps via USB2.0	1920×1080 30fps via USB2.0
	1920×1080 60fps via HDMI	1920×1080 15fps via HDM
Capture	High speed SD card(8G)	High speed SD card(4G)
Video recording	1080p 30fps @SD Card	1080p 15fps @SD Card
	1080p 30fps @PC	1080p 15fps @PC
Exposure time	0.001sec-10.0sec *	0.001sec-10sec *
White balance	Auto	Auto
Setting	Gain, gamma, saturation, contrast	Gain, gamma, saturation, contrast
Built-in software	Cloud I.0 Ver	Cloud 1.0 Ver
PC software	ISCapture	ISCapture
Output port	USB2.0, microSD Card, HDMI	USB2.0, microSD Card, HDMI
Compatible OS	Window XP and above	Window XP and above
Optical port	Standard C-Mount	Standard C-Mount







Your Vision, Our Future

CX21i

**CX2 Series** 



Step up to Higher Performance with the Olympus UIS2 Infinity Optics

20 130 140 mlimimimimim

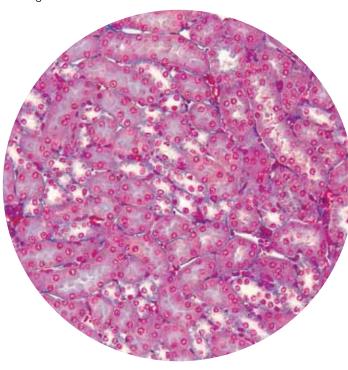
The CX21i sets new standards for educational and laboratory applications

## Superb image clarity coupled with Olympus' renowned reliability and rigidity

#### **Superior imaging**

## Plan objectives are packaged as standard, providing image flatness that is among the best in this class

The CX21i is equipped with the same UIS2 optical system used in Olympus' top-level microscopes. In addition, Plan Achromat objectives are included as standard for the first time in this class of microscope, providing sharp images with high contrast right up to the edge of the field of view.



#### **Bright, uniform illumination**

The CX21i's 6V20W high intensity halogen lamp delivers clear, stable illumination. The built-in aspheric collector lens provides images that are bright and uniformly illuminated over the entire field of view.

#### Abbe condenser for optimized contrast

The optimal aperture stop position for each objective is clearly



marked on the Abbe condenser, resulting in high-resolution, high-contrast images.

#### Easy, safe operation

#### Rackless stage for durability and ease of use

The wire-driven stage movement avoids any protrusion of racks—preventing the possibility of accidental damage or hand injury.

Abrasion-resistant rackless design ensures continuous smooth movement.





#### Component security — Student proof!

The eyepieces, objectives and condenser are all factory attached to the microscope body ensuring that no component is dropped or detached during transportation or regular use.





#### Ultra-smooth, quadruple revolving nosepiece

High-precision machining ensures smooth operation and durability. Nosepiece includes a rubber ring for an easy ergonomic grip.

#### Mechanical stage focus-lock prevents mishaps

The focus position can be locked making it easy to refocus when the specimen is changed. With the upper stage position locked,

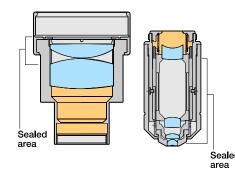


there is no chance of the objective accidentally touching the slide and damaging either the specimen or the objective itself.

#### Use in any environment

#### Anti-fungus treatment for component durability

An effective anti-fungus treatment is applied to the objectives, eyepieces and observation tube for consistent image clarity and long operating life even in hot humid work conditions.



#### Compact design, easy to store and carry

The CX21i is only 391 mm high, compact enough to be stored in a typical classroom cabinet.



#### Individual choice of adjustment

Binocular observation tube is inclined 30 degrees allowing for an ergonomic, comfortable posture during observation. Eyepieces can be easily set for multiple users with a scaled interpupillary distance



adjustment and diopter setting. High eyepoint design eyepieces with F.N. 20 can be used comfortably without removing eyeglasses.

#### Suitable for any user

#### Tension adjustment for smoother focusing

The coaxial coarse/fine focusing knob is operable from either the left or right side. Coarse movement tension can be adjusted in accordance with personal preference.

#### Ergonomic design for user convenience

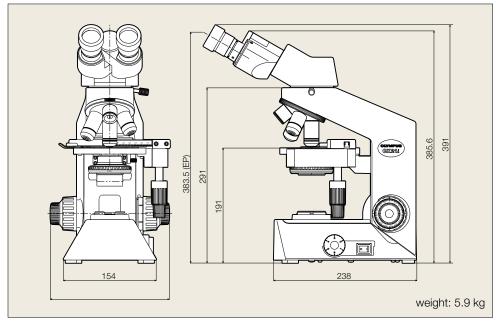
The focusing knob, light control adjustment knob and stage handle are located close together, the user can work with hands on the desk and operate the CX21i with minimal movement.



#### Specifications: CX21i Biological Microscope

Microscope Frame	CX21 FS1
Optical system	UIS2 (Universal Infinity System) optical system
Illumination System	Built-in transmitted illumination system 6 V 20 W halogen bulb 100-240 V 50/60 Hz universal voltage
Focusing	Stage height movement (coarse movement stroke 20 mm) Fine focus graduation: 2.5 µm
Revolving Nosepiece	Fixed quadruple nosepiece
Stage	Wire movement mechanical fixed stage: 120x132 mm Traveling range: 76 mm (X) x 30 mm (Y) Single specimen holder
Observation Tube	30° inclined binocular tube Interpupillary distance adjustment range 48–75 mm
Condenser	Abbe type with aperture iris diaphragm N.A.: 1.25
Objective	Plan Achromatic objectives (anti-fungus)  4x N.A.: 0.10 W.D.: 18.5 mm  10x N.A.: 0.25 W.D.: 10.6 mm  40x N.A.: 0.65 W.D.: 0.6 mm  100x N.A.: 1.25 W.D.: 0.13 mm (option)
Eyepiece (10x)	Field Number (F.N.): 20 (anti-fungus)
Optional Accessories	Mirror unit, 15x eyepiece (F.N. 12, anti-fungus), micrometer, filter holder, darkfield stop, Micro image projection system, Phase-contrast Attachment/10X, 40X, Simple Polarizing attachment

**Dimensions** (unit: mm)



#### **Features:**

- Ergonomic & compact design for user convenience
- UIS2 Plan infinity optics providing image flatness
- Seidentopf observation head for individual choice of adjustment
- Anti fungus treatment for component durability
- High eyepoint design eyepiece (F.N.20)
- High performance aspheric lenses in the abbe condenser & light relay system for bright & uniform illumination
- SMPS circuit for constant voltage output
- Rackless stage for durability and ease of use
- Mechanical stage focus-lock prevents mishaps
- Component security Student proof



- Over 200,000 highly satisfied CX21 customers world over
- CX21i is now exclusively for India at affordable cost

CX21i is the environmental conscious product according to OLYMPUS' own standards.

- Adoption of cardboard for packing materials without styrene foam for promoting the recycling.
- Lead-free and arsenic-free Eco-glass for optics, such as lenses and prisms.

- The CX21i meets ( standards for safety.
- Specifications and appearances are subject to change without any notice or obligation on the part of the manufacturer.

**CX21***i* is manufactured under license from Olympus Corporation, Japan



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#### MLX-B Plus

#### MICROSCOPE MASTERCLASS



## Specifications:

#### MAGNUS Inclined Biological Microscope Model MLX-B Plus

ITEM	SPECIFICATIONS	MLX-B Plus Binocular Version	MLX-Tr Plus Trinocular Version
Optical System	Semi-Plan achromatic optics with anti-fungal treatment. Uniformly centered, Interchangable & Parfocal, Anti-Fungus treated.	•	•
Body	Aluminium die cast body with all critical movements based on ball bearing and wire guides, thereby ensuring smooth and precise manipulation.	•	•
Inclined Observation Head	Binocular 45 degree inclined, rotatable through 360 degrees		
	Trinocular 45 degree inclined, rotatable through 360 degrees		
Eyepieces (widefield) for observation	WF 10x (FN 18mm) paired eyepiece. The unique optical design of the compensating eyepiece provides relief from eye fatigue and renders color-compensated wide-field images of utmost clarity.	•	•
Nosepiece	Quadruple revolving nosepiece based on precision ball-bearing mechanism with positive stop click.	•	•
Objectives	Semi-Plan achromatic objectives, antifungal           N.A.         W.D.           4X         0.10         29.0mm           10X         0.25         6.3mm           40X         0.65         0.6mm           100X (oil/spring)         1.25         0.15mm	•	•
Mechanical Stage	Co-axial low drive mechanical stage (125mm x 145mm) ( $\pm$ 5mm) with traverse area of 50mm x 76mm ( $\pm$ 5mm)	•	•
Condenser	Abbe condenser with aperture iris diaphragm (N.A. 1.25) focusable with rack & pinion through 20mm and a continuously variable iris diaphragm with a removable blue filter for daylight observation. Rack & pinion mounted condenser holder.	•	•
Focusing	Co-axial coarse & fine controls with a focus adjustment and fine adjustment knobs. Coarse Focus range 25mm.	•	•
Illumination base with option	a) Built-in-illumination base with pre-centered 6V 20W halogen light source coupled with an efficient collector lens system. Universal Power supply 100V~240V AC 50Hz (SMPS). Supplied with one spare bulb & spare fuse. Easily replaceable lamp from front.	MLX-B Plus	MLX-Tr Plus
	b) LED light source High brightness, long life (30000 hrs).	MLX-B Plus LED	MLX-Tr Plus
	c) LED light source (with battery backup) High brightness, long life (30000 hrs). Battery backup in-built NiMH Rechargeable batteries provide 6-8 hours back-up on full charge	MLX-B Plus Freedom	MLX-Tr Plus Freedom
Packed in a styrofoam box, with ope	ration manual, dust cover, power cord & immersion oil (10ml)		

#### Optional Accessories • Simple Polarizing attachment • Eyepiece Widefield WF 15x • Image Analysis software



Micro Image Projection System

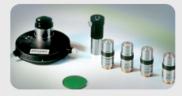
MIPS fitted on MLX-Tr Plus (Trinocular version)

MIPS can also be used with

MLX-B Plus (Binocular version)



Digital Camera System fitted on MLX-Tr Plus (Trinocular version)



Phase Contrast Attachment PC-4



Darkfield attachment

Imm. DF Condenser with OBJ

Ox having Iris Diaphragm

Dry. DF condenser



#### **OLYMPUS OPTO SYSTEMS INDIA PRIVATE LIMITED**

Works: A-3, Sector-81, Phase-II, Noida-201305 (U.P.)

Corporate Office: A-5, Mohan Co-operative Indl. Estate, Mathura Road, New Delhi-110044 India

Tel.: 91-11-30886743, 30886744 e-mail: sales@olympusoptosystems.in







## Specifications:

#### MAGNUS Inclined Biological Microscope Model MLXi Plus /MLX i-TR Plus

ITEM	SPECIFICATIONS	MLXi Plus Binocular Version	MLX <i>i</i> -TR Plus Trinocular Version
Optical System	Plan infinity strain free optics with Anti-fungus treatment, uniformly centered, interchangable & Parfocal		
Body	Aluminium die-cast body with all critical movements based on ball bearing & wire guides thereby ensuring smooth & precise manipulation	•	•
Mechanical Stage	Co-axial low drive mechanical stage (125mm $\times$ 145mm) (+/-5mm) with traverse area of 50mm $\times$ 76mm (+/-5mm) with double side holder	•	•
Focusing System	Co-axial coarse & fine controls with a focus adjustment and fine adjustment knobs. Coarse Focus range 20mm. Fine focus 0.2mm rotation	•	•
Condenser	Centerable abbe condenser with aperture iris diaphragm (N.A. 1.25) focusable with rack & pinion and a continuously variable iris diaphragm with a removable blue filter for daylight observation	•	•
Illumination base with option (a), (b), (c)	(a) Built-illumination base with pre-centered 6V 20W halogen light source with one bulb coupled with an efficient collector lens system. Front open Light case for easy bulb change. Universal power supply 100 V-240V 50/60Hz through SMPS circuit for constant voltage to prolong bulb life & prevent frequent bulb change. Optional 6V 30W Halogen Bulb	MLXi Plus	MLX <i>i-</i> TR Plus
	(b) LED Light source High brightness, longlife (30,000hrs).	MLX/ Plus LED	MLX/-TR Plus LED
	(c) LED light source (with battery back-up) High brightness, longlife (30,000hrs). Battery back-up in-built NiMH Rechargeable batteries provide 6 to 8 hrs back-up on full charge.	MLXi Plus Freedom	MLX <i>i</i> -TR Plus Freedom
Nose Piece	Quadruple revolving inward nosepiece based on precision ball-bearing mechanism with positive click stop. Quintuple nosepiece option is also available.	•	•
Objectives	Plan Achromat Objectives         N.A.         W.D.           4X         0.10         18.5 mm           10X         0.25         10.6 mm           40X (spring loaded)         0.65         0.6 mm           100X (oil, spring loaded)         1.25         0.13 mm           Infinity corrected plan optics           Uniformly centered, Interchangeable & Parfocal	•	•
	Anti fungus treated Tropicalized anti fungus treatment ensures image excellence for long periods in conditions favoring to fungus growth		
Inclined Observation Head With a special anti-fungus treatment and an anti-reflection optical coating of the prism (to enhance the image brightness)	Binocular (30 degree inclined siedentopf), 360 degree rotatable, Left diopter adjustment, Optical diopter adjustment on both side.		
(to enhance the image brightness)	Trinocular (30 degree inclined siedentopf), 360 degree rotatable, Left diopter adjustment, Optical diopter adjustment on both side.		
Eyepiece (wide field) for observation	WH 10x (FN 20mm) paired eyepiece. The unique optical design of the compensating eyepiece provides relief from eye fatigue and renders color-compensated wide-field images of utmost clarity. Compatible with optionally available eyepiece micrometer.	•	•

Packed in a Styrofoam box with Instruction manual, Dust Cover, Power Cord & Immersion oil (10ml). The reflector mirror, spare bulb & wooden cabinet are optionally available.

#### Optional Accessories



Reflected Fluorescence Attachment uses a unique proprietary illumination system, allowing significant increase in performance and cost reduction. The EpiLED comes with a choice of blue, royal blue and green LED cassettes.



Trinocular Head & Camera Adapters that allow users to mount various kinds of digital cameras onto the trinocular head of the microscope for quick and easy digital documentation.



Digital Camera System with Image Analysis Software

• Phase contrast attachment • Polarization attachment • Optional Eyepiece: 15X • Köhler attachment • Optional objectives: 20X, 60X and no cover objective NC 40X for Epi LED for TB applications • Image analysis Software • Heating Stage • Motorised Stage • Double layer mechanical stage • USB powered high resolution UCMOS camera (3mp, 5mp & 10mp) for BF applications & Rackless double layer mechanical stage



#### OLYMPUS OPTO SYSTEMS INDIA PRIVATE LIMITED

Works: A-3, Sector-81, Phase-II, Noida-201305 (U.P.)

Corporate Office: A-5, Mohan Co-operative Indl. Estate, Mathura Road, New Delhi-110044 India

Tel.: 91-11-30886743, 30886744











Inclined Monocular Microscope

# MLX-M Plus

#### **Key Features**

- Anti-fungus treatment
- Easy access for lamp replacement
- Choice of halogen and LED illumination
- Parfocal and centered stain free optics
- Optics with multi-layer coating and anti-fungus treated



## **SPECIFICATIONS**

#### Magnus Inclined Monocular Microscope

Item	Specifications	MLX-M Plus Monocular (SP)
Optical System	Semi-Plan (SP) optics	$\bigcirc$
Body	Aluminium Die- cast body based on ball bearing and wire guides thereby ensuring smooth and precise manipuation.	$\odot$
Inclined Observation Head	Monocular 30 degree inclined, rotatable through 360 degrees	$\odot$
Eyepiece (widefield) For Observation	HWF 10x (FN 18mm) eyepiece. The unique optical design of the compensating eyepiece provides relief from eye fatigue and renders color-compensated wide-field images of utmost clarity.	<b>Ø</b>
Nosepiece	Quadruple revolving nosepiece based on precision ball-bearing mechanism with positive stop click	$\odot$
Objectives	Semi- Plan Achromat Objectives N.A. SP 4x 0.10 SP 10x 0.25 SP 40x (spring loaded) 0.65 SP 100x (oil, spring loaded) 1.25 Uniformly centered, interchangeable & parfocal Anti-fungus treated	$\odot$
Mechanical Stage	Co-axial low drive mechanical stage (125mm x 145mm) (+/-5mm) with traverse area of 50mm x 76mm (+/-5mm)	$\bigcirc$
Condenser Holder	Rack and pinion mounted condenser holder	<b>②</b>
Condenser	Abbe condenser with aperture iris diaphragm (N.A. 1.25) focusable with rack & pinion and a continously variable iris diaphragm with a removable blue for daylight observation	$\odot$
Focusing System	Co-axial coarse and fine controls with a focus adjustment and fine adjustment knobs.  Coarse focus range 20mm	$\odot$
Illumination	a) Halogen Lamp 0R LED b) LED with battery backup	$\odot$









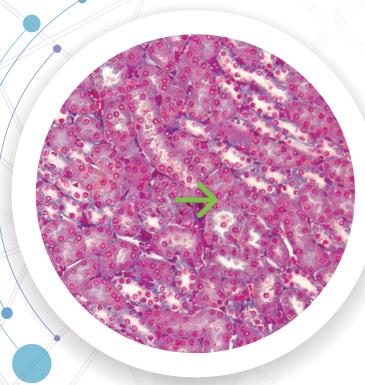
# Magnus

## MICROSCOPE D'ENSEIGNEMENT MULTI-TÊTES

Pour l'éducation médicale et de recherche







# Nous présentons

Microscope d'enseignement multitêtes avec pointeur LED

Applications en recherche et éducation médicale

Discussions de laboratoire en direct



Microscope Dual Head (pour 2 personnes)



## Magnus

Le pointeur de lumière verte mobile permet à l'observateur principal de mettre en évidence une zone de spécimen importante à co-observateur. Pour optimiser la visibilité du pointeur avec différentes taches, l'intensité du pointeur peut être ajustée.

L'orientation de l'image est identique pour tous les co-observateurs. L'irritation provoquée par l'image miroir ou l'image pivotée est totalement exclue.

Observations de diagnostic

Démonstration de spécimen

Orientation

**LED** pointeur

Microscope Penta Head (pour 5 personnes)



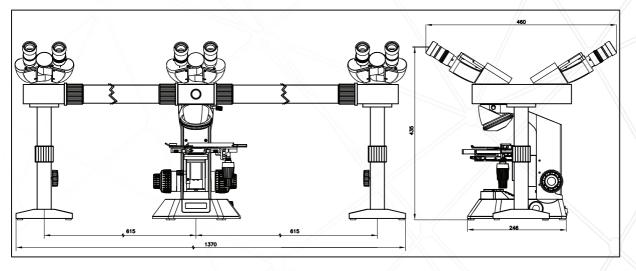






#### Spécifications pour Microscope Penta/Dual Head Microscope (Theia-i)

	Description	Penta Head	Dual Head	Penta head attachment	Dual head attachment
Système optique	Système optique corrigé à l'infini avec traitement antifongique, centré uniformément	0	0		4
Corps	Corps en aluminium moulé sous pression avec mouvement critique sur roulement à billes et guide-fil assurant ainsi un mouvement fluide et précis	O	О		
Tête de vision pour l'observateur principal	Tête trinoculaireSiedentopf inclinée à 30°, Distance interpupillaire: 48-75mm avec réglage dioptrique - 1 unité	О	О	О	О
Tête de vision pour	Tête binoculaire Siedentopf inclinée à 30°, Distance interpupillaire: 48-75mm avec réglage dioptrique – 4 unités	О		О	
Co-observateurs	Tête binoculaire Siedentopf inclinée à 30°, Distance interpupillaire: 48-75mm avec réglage dioptrique - 1 unité		O		О
Fixation de Penta Head	Stand pour le support - 2 unité Fixation de pointeur LED - 1 unité Ferrure d'assemblage - 2 unité Les co-observateurs devraient avoir la même orientation d'image que celle de l'observation principale	0		O	
Fixation de Dual Head	Stand pour le support - 1 unité Fixation de pointeur LED - 1 unité Ferrure d'assemblage - 1 unité Les co-observateurs devraient avoir la même orientation d'image que celle de l'observation principale		0		0
Oculaire	WH10X/20 (FN 20) - 5 paires	О		0	
Oculaire	WH10X/20 (FN 20) - 2 paires		О		O
Porte-objectifs	Quadruple incliné vers l'intérieuravec un clic positif	О	О		
Objectifs	Objectifs achromat du plan parfocalà l'infini : 4x, 10x, 40x (ressort), 100x (ressort, huile)	О	О		
Système de Focalisation	Boutons de focalisation coaxiaux grossiers et fins des deux côtés	O	О		//
Platine Mécanique	Platine mécanique monocouche, surface : 145 x 125mm avec une surface transversale de 76 mm x 30 mm, double porte-lame	0	О		
Éclairage	LED 3W (durée de vie : 30000 heures de travail)	О	О		
Condenseur	Centrebale condenseur d'Abbe avec diaphragme à iris (NA 1,25) focalisable à crémaillère et pignon	О	О		

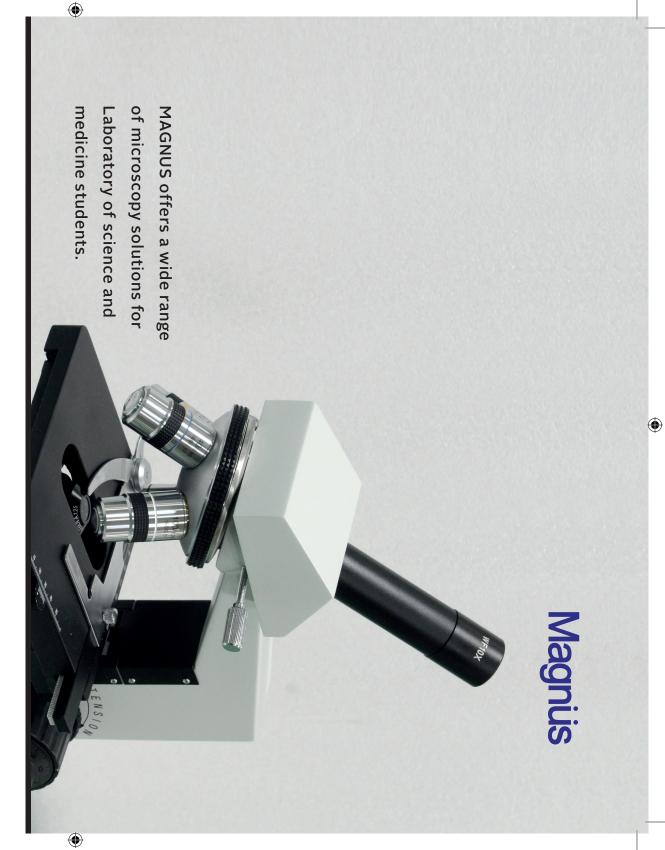


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Magnus

# **Education Microscopes**

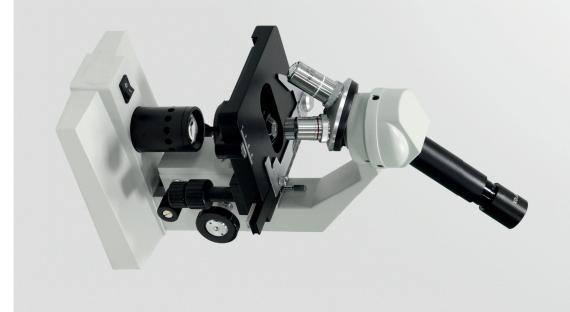


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# MagMaster

100 MS/MH

All metal rugged Stand with individual Coarse & Fine Focus drive with focus stop, Maintainence Free ECO LED illumination including Battery backup with regulating intensity control for 220V/50Hz, Achromatic Condenser 0.65/0.90NA with aperture iris diaphragm, stage plate with clips or two plate mechanical stage, Quadruple revolving nosepiece, Achromatic objectives 4x, 10x, 40x(spring) and 100x(Spring) for SM 100, 360° rotatable 45° inclined Monocular head with Widefield Eyepiece 10x/18 lockable, anti-mould optics for fungus protection.



# MagStar

EM 200/210

All metal rugged Stand with Coaxial Coarse & Fine Focus drive with focus stop, Fixed Koehler 6V 20W halogen/LED illumination with regulating intensity control for 220V/50Hz, movable Condenser drive, Abbe Condenser 0.9/1.25 NA with aperture iris diaphragm, Double layer Mechanical stage 132 mm X 140 mm with Coaxial X/Y drive including double slide holder, Paracentric Quadruple precision ball bearing nosepiece, Semi-Plan (SP) Achromatic objectives 4x, 10x, 40x (spring) & 100x (spring, oil immersion), 360° rotatable 45° inclined Monocular head with Widefield Eyepiece 10x/18 lockable, anti-mould optics for fungus protection.





# Specification

Model			MagMaste	laster	geM	MagStar
Parts	Function / Feature	Specification	100 MH	00 MS	EM200	EM210
Stand	Metal Base and Arm	built-in halogen/LED illumination	×	×	×	×
Focus drive	Seperate coarse and fine focus knobs	Knurled hand grip.	×	×		
	Co-axial coarse and fine focus knobs	Graduated with Vernier reading			×	×
	Focus stop	Adjustable	×	×	×	×
	focus drive tension adjustment	Adjustable			×	×
Nose piece	Quadruple (4x)	precision click stops and rubber grip	×	×	×	×
Specimen Stage	stage Plate	110mm×120mm	×			
	Double plate Mechanical Stage	115 X 125mm		×		
	with co-axial X-Y drive knobs	132 X 148mm			×	×
Specimen holder	Stage Clips	2x spring loaded clips	×			
	Single slide holder	30mm x 75mm scan area		×		
	Double Slide holder	50mm × 75 mm scan area			×	×
Condenser	NA 0.65 / 0.90	With disc diaphragm	×			
	Achromatic, Abbe NA1.25	with iris diaphragm			×	×
	rack and pinion drive for condenser	focusable drive			×	×
Built-in Illumination	LED	Built-in Battery backup & Charger	×	×		×
	Halogen 20VV	Easy change lamp holder			×	
Power Supply	CE compliant, 90- 220 V, 50Hz with 3 pin plug	External power supply module for easy exchange/replacement	×	×	×	×
Tubes (360°C, Rotatable)	45 Deg. Monocular head	Safe locking screw	×	×	×	×
Achromat/Spachromat Objectives	4X/0.10		×	×	×	×
	10X/0.25		×	×	×	×
	40X/0.65	Spring	×	×	×	×
	100X/1.25(oil)	Spring	*	×	×	×
Eye-piece	WF I0XI8mm		×	×	×	×
Dust Cover			×	×	×	×
Optional Accessories	Filters	Blue			×	
	Eye piece with pointer	10×18mm	*	*	*	*
	Eye piece with reticule	10×18mm	*	*	*	*
	Wooden Case		*	*	*	*
	45Deg. Binocular head	Safe locking screw, IPD adjustment	1	1	*	*
	30 Deg. Binocular head	Safe locking screw, IPD adjustment	-	1	*	*
	20X/0.45		*	*	*	*
	60X/0.85	Spring	*	*	*	*
	WF I5XI3mm		*	*	*	*
	WF 20X 10mm		*	*	*	*

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<sup>\*:</sup>Optional

Blank :On request





MagEdu\_microscope\_.indd 3

<sup>- :</sup>Not available



# MagStereo

FM 24

Dual Step Stereo Microscope with pillar stand for adjustable focusable working distance including transmitted & reflected light illumination, 95 mm glass plate, Black & White stage plate with clips, 360° rotatable Rack & pinion focus drive, dual step turret objective of 2x (81 mm) / 4x (58 mm) for magnification of 20x or 40x with paired widefield eyepiece 10x/ 20 mm, Microscope body with built in 45° binocular tube with IPD of 55-75 mm, +/- 5 mm adjustable diopter.



# Specification

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Technical Feature	MagStereo
	FM 24
Optical design	Greenough
Stereo Optical system	Par focal
Magnification Changer	fixed 2x & 4x
	10X/20mm
Eyepieces	15X/13mm
	20X/10mm
Dioptre correction	±5
Binocular tube	Integrated
interpapillary Distance	55mm-75mm
Binocular observation	45deg
Working Distance	81/58mm
Magnification Range	20X & 40X
Stand	Pillar Stand
Focus Drive	Individual adjustable movement 60mm travel
Grip	Integrated
Illumination System	Long lasting LED
Incident and Transmitted light	Yes, as a standard



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Marketed by:

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