

GX Microscopes

Biological Upright Compound Microscopes Range



GXM L3200B



GXM L3000BHTG



GXM L3000AHBG



GXM L1500BHTG



GXM L1500AHBG

Research
Routine
University Teaching

Digital



GXM PH3100_U /
DM20



GXM PH20DM5



GXM DMS655



GXM F6D



GXM L1000A



GXM L500BLED

Hobbyists
Students



GXM MGS

GX Microscopes Biological Microscope Product Range Summary

Type	Model	Total Magnification (+ accessories)	Objectives	Head	Illumination (option)	Condenser	Stage/Focus
Research Routine University Teaching	GXML3200B (ID 5083)	40X-1000X (40X-1600X)	4X, 10X, 20X, 40X, 100X oil Plan Achromatic Infinity Corrected	Trinocular	Koehler 20W 6V (30W 6V) Halogen	Abbe 1.25NA on rack and Pinion	Coaxial Coarse/Fine Focus Tension Adjustable Limit Stopper Mechanical Stage with slide holder 75x50mm travel
	GXML3000BHTG (ID 0040)	40X-1000X (40X-1600X)	4X, 10X, 20X, 40X, 100X oil Plan Achromatic	Trinocular	Koehler 20W 6V Halogen	Abbe 1.25NA on rack and Pinion	Coaxial Coarse/Fine Focus Tension Adjustable Limit Stopper Mechanical Stage with slide holder 75x50mm travel
	GXML3000AHBG (ID 0019)	40X-1000X (40X-1600X)	4X, 10X, 40X, 100X oil Plan Achromatic	Binocular	Koehler 20W 6V Halogen	Abbe 1.25NA on rack and Pinion	Coaxial Coarse/Fine Focus Tension Adjustable Limit Stopper Mechanical Stage with slide holder 75x50mm travel
	GXML1500BHTG (ID 0125)	40X-1000X (40X-1600X)	4X, 10X, 40X, 100X oil SPlan Achromatic	Trinocular	20W 6V Halogen	Abbe 1.25NA on rack and Pinion	Coaxial Coarse/Fine Focus Tension Adjustable Limit Stopper Mechanical Stage with slide holder 75x35mm travel
	GXML1500AHBG (ID 0088)	40X-1000X (40X-1600X)	4X, 10X, 40X, 100X oil Achromatic	Binocular	20W 6V Halogen	Abbe 1.25NA on rack and Pinion	Coaxial Coarse/Fine Focus Tension Adjustable Limit Stopper Mechanical Stage with slide holder 75x35mm travel
Digital	GXMPH3100_U (ID 3980)	40X-1000X (40X-1600X)	4X, 10X, 40X, 100X oil Plan Achromatic	Binocular with built-in digital USB 3.1MP Camera (XP only)	20W 12V Halogen	Abbe 1.25NA on rack and Pinion	Coaxial Coarse/Fine Focus Tension Adjustable Limit Stopper Mechanical Stage with slide holder 76x52mm travel
	GXMDMS655BP (ID 5328)	40X-1000X (40X-1600X)	4X, 10X, 40X, 100X oil Infinity Plan Achromatic	Binocular with built-in digital 5MP Camera and USB output, LCD display with memory card slot video output	20W 6V Halogen	Abbe 1.25NA on rack and Pinion	Coaxial Coarse/Fine Focus Tension Adjustable Limit Stopper Mechanical Stage with slide holder 75x52mm travel
	GXMPH20DM5 (ID 5380)	40X-400X	4X, 10X, 40X Achromatic	Binocular with built-in digital USB video resolution 640x480pixels Camera (XP only)	LED	Single lens diaphragm	Separate Coarse & Fine Focus Circular stage with slide clips
Hobbyist & Student	GXMF6D (ID4420)	40X-1000X	4X, 10X, 40X, 100X oil Achromatic	Binocular	LED	Abbe 1.25NA on rack and Pinion	Coaxial Coarse/Fine Focus Mechanical Stage with slide holder 75x35mm travel
	GXML1000A (0217)	40X-1000X	4X, 10X, 40X, 100X oil Achromatic	Monocular	20W 6V Halogen	Abbe 1.25NA on rack and Pinion	Separate Coarse & Fine Focus Limit Stopper Mechanical Stage with slide holder 75x35mm travel
	GXML500BLED (4727)	40X-400X	4X, 10X, 40X Achromatic	Monocular	LED	Single lens diaphragm	Coaxial Coarse/Fine Focus, Limit Stopper stage with slide clips

How We Classify Biological Upright Microscopes

Biological Upright Microscopes also known as Compound Microscopes or High Power Microscopes, all have the same common elements of an eyepiece tube, turret of objectives, specimen stage and some form of illumination which is designed to shine through the specimen.

These microscopes are designed for looking at slide-mounted, semi-transparent subjects, typically this would be a thin section of tissue (usually stained), cells (eg blood or smears), bacteria, waterborne microbes and miscellaneous specimens such as hairs, filters, crystals etc.

This datasheet does not deal with fluorescence microscopes which are shown in other sections of our website and in other datasheets.

Microscope Heads

The head of a microscope contains the eyepieces and, optionally, a camera port. All GX Microscopes heads are inclined for comfortable viewing. There are three types of head available in the GX Microscopes range:

Monocular

A single viewing port with a **single eyepiece** commonly found in basic level microscopes.

GX Microscopes models that have the suffix 'HMG' are always monocular and there also many other monocular models, for example:



Binocular

Containing **two eyepieces** for comfortable viewing.

Most binocular (and trinocular) GX Microscopes are equipped with an **adjustable interpupillary distance** (allows you to set the correct distance between your eyes)

GX Microscopes models that have the suffix 'HBG' are always binocular, eg L3000 HBG L1500 HBG



Trinocular

A trinocular head is a binocular head with a **prism** which diverts some or all the light to an additional '**photo tube**' so images can be captured using a camera.

GX Microscopes models that have the suffix 'HTG' are always trinocular other models are only available with a trinocular head, eg: L3200, L1500B HTG



Digital or Video

Sometimes microscopes are supplied as 'Digital Microscopes' or 'Video Microscopes' in these models the camera is built into the head: GXM PH3100_U



In a few models both a camera and a monitor are built into the head:

GXM DMS655

Digital Microscopes with built in cameras can provide live digital image output typically via a USB connection to a PC where a software application will display the image and allow you to capture and manipulate the images. Some have memory card slots for image capture without the need for PC.

Video microscopes have a video output for direct connection to a video display monitor or projector. Some Digital Microscopes also have a video output.



Objective Nosepiece

The objective nosepiece holds the main magnifying lenses of the microscope known as **objectives**. In a compound microscope the objectives screw into the nosepiece and they are very accurately aligned.

Some nosepieces can take up to 5 objectives, others only 3 or 4.

Some nosepieces are **reversed** (see L3000 quintuple reversed nosepiece right) to make it easier to load specimens onto the stage.



Objectives

These are the lenses that will collect the light from the specimen. There are many types of objective lenses offered in the GX Microscopes range, the tables in the objectives datasheets show the specifications. Microscope objectives are the most important parts of an optical microscope because they are responsible for initial image formation and determine the quality of images that the microscope can yield. Objectives also determine the magnification and resolution that can be observed in the microscope. The Objectives here are ranked in order of image quality, highest quality first:

1. Infinity Corrected Plan Apochromatic
2. Infinity Corrected Plan Achromatic
3. Plan Achromatic
4. Semi-Plan Achromatic (SPLAN)
5. Economy Plan Achromatic (EPLAN)
6. Achromatic

The objective is the difficult component of an optical microscope to design and assemble. GX Microscopes provide a wide range of objective designs, which feature excellent optical characteristics under a wide spectrum of illumination conditions and provide various degrees of correction for the primary optical aberrations.

Microscope Stage

This is where your specimen is placed for examination. GX Microscopes supply a range of different stage types.

The most common and preferred type of stage is the ' **mechanical stage** ' (left) where a set of coaxial control knobs can be used to move the specimen in X and Y directions. The quality of the GX Microscopes mechanical stages is very high, providing smooth movement which makes fine positioning of specimens at high magnifications very simple.

Other types of stages include ' **clip stage** ' this is a simple pair of clips which can be used to hold your slide in place yet loose enough for you to position the specimen by pushing the slide under the clips. This type of stage is commonly found in children's microscopes.

Mechanical stages can be **motorised**, please consult GX Microscopes for advice on this matter.

All biological microscopes have holes in the stage to allow light to pass through the specimen.

The **specimen holders** (typically slide holders) are carefully designed to make specimen loading simple and accurate.



Focus

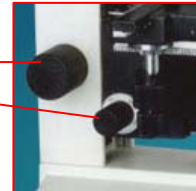
There are two basic types of focusing mechanisms available with GX Microscopes.

The simplest is **two separate knobs, a coarse and a fine focus knob**, this type of microscope is less common and generally found in schools ranges.

Separate focusing knobs:

Coarse

Fine



The most common type found in compound microscopes is the **coaxial focus knob** which has two knobs built into one, with an outer coarse and inner fine focus knob. This type is the most convenient to use.

Coaxial focusing knobs:

Many GX Microscopes also have a tension adjustment ring and a focus limit lever which prevents damage to your objectives.

Coarse

Fine



Focus Limit Lever

Tension Adjustment



Condenser

Mounted under the stage the condenser focuses the light precisely through the specimen and into the objective, ensuring the objective receives the optimum amount of light which can influence the resolution of the image viewed.



GX Microscopes can be supplied with no condenser or a simple type which as a basic lens and sometimes a diaphragm or a full resolution Abbe condenser with diaphragm mounted on its own rack and pinion.

GX Microscopes



**Research,
Routine &
University Teaching**

Biological Upright Microscopes

GX Microscopes

product datasheet

GXM L3200B

Research Grade
Biological Upright
Microscope



Features & Specifications



Equipped with a Trinocular Head with a range of optional camera adapters and cameras available to fit the phototube



Five, top quality, infinity corrected, flat field Plan Achromatic objectives mounted on a reversed nosepiece to aid specimen loading.



High quality double layer mechanical XY stage with coaxial side controls located near the focus knobs for ease of use. A spring loaded slide holder provides quick and reproducible loading of slides.



Illumination is provided by a stable, bright halogen lamp mounted beneath a collector with field iris for koehler illumination. The light is directed through a high quality Abbe condenser with iris for optimum resolution.



All controls are ergonomically designed with coaxial coarse/fine focus knobs, fingertip fine focus, tension adjustment and limit stopper to prevent accidental damage to objectives.

The L3200B microscope is GX Microscopes latest and most advanced modular, research grade biological upright microscope. It provides excellent quality images to both the eyepieces and any attached camera system through its infinity corrected optical system.

The optics are mounted on an ultra-modern design, substantial stand which provides a stable platform for high magnification imaging and allows a wide range of accessories to be added such as epi-fluorescence kits, materials epi-illuminators, camera systems and motorised stages.

The microscope has been design for research microscopy yet it is offered at a price which means that routine microscopy and teaching laboratories can afford it.

The standard microscope is equipped with five infinity corrected flat field plan achromatic objectives giving a total magnification range of 40X-1000X which can be optionally expanded to 1600X with the addition of a pair of 16X eyepieces.

With this level of microscope the majority of instruments are supplied with cameras. The phototube of the trinocular head can be fitted with a large range of cameras including Digital SLRs, Digital Compacts and cameras designed specifically for microscopy. For each type of camera a specific camera adapter is available.

The GXM L3200B microscope can be supplied with a large variety of accessories which include a phase contrast kit, epifluorescence kit, epi-illumination kit, polarising kit, darkfield kit these and many more are listed at the end of this datasheet

GX Microscopes

product datasheet

GXM L3200B

Research Grade
Biological Upright
Microscope



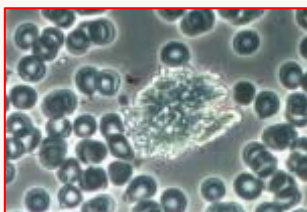
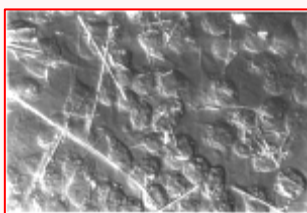
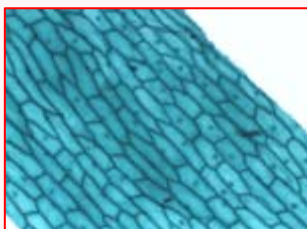
Applications

This microscope is suitable for use in a wide range of laboratories including biological research, medical research, hospital pathology, pharmaceutical and chemical industries, universities and government research.

Applications include Histology, Cytology, Botany, Zoology, Immunology, Pharmacology, Veterinary Sciences, Plant Sciences, Entomology, Microbiology, Biochemistry, Haematology, Trichology, Polymer Sciences, Powder Technology, Dermatology and Histopathology.

As standard the GXM L3200B is supplied a high quality biological microscope for brightfield imaging.

With accessories you can also use it for phase contrast imaging, darkfield imaging, materials and metallurgy and fluorescence imaging.



Accessories

Infinity Corrected, Plan Achromatic, Turret Phase Kit Includes a set of objectives

Darkfield Condensers (Dry or Oil immersion)

Polariser Kit (must be ordered with microscope)

Camera Adapters for:

- ✓ C-Mount microscopy cameras (eg GXCAM)
- ✓ Digital SLR (T-Mount),
- ✓ Canon A610,A620,A630,A640
- ✓ Nikon Coolpix with filter thread

Microscopy digital cameras (c-mount) with microscopy software.

Epi-Illuminators:

- ✓ For Metallurgy/Materials Imaging
- ✓ For Fluorescence Imaging

(must be ordered with microscope)

Other accessories include:
Additional eyepieces 16X and 10X with reticle.
Additional Objectives eg 60X and 80X
Motorised Stage and Focus Systems



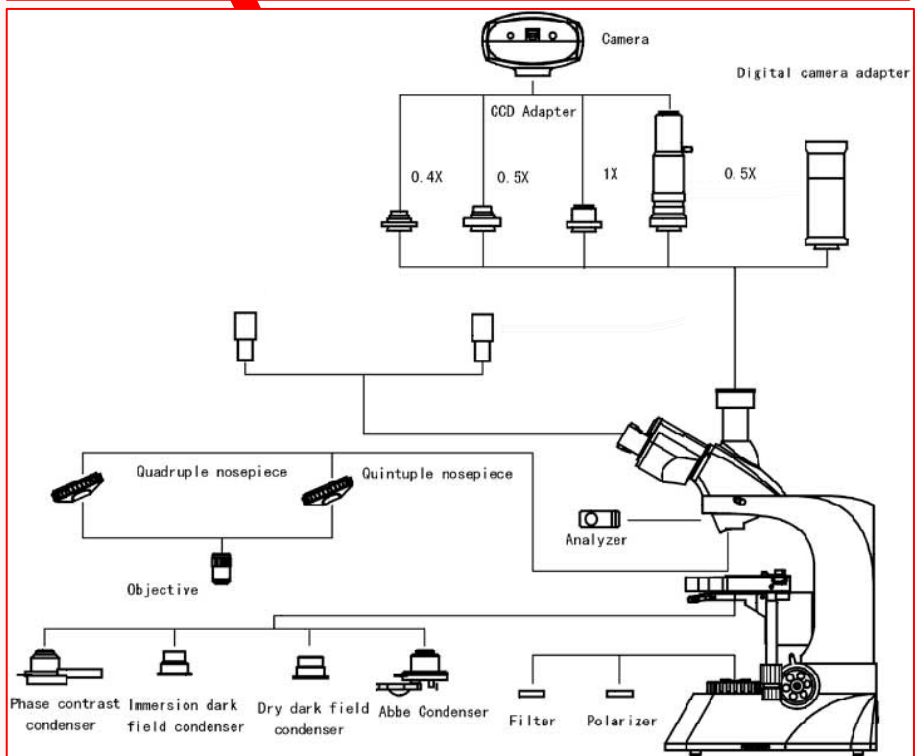
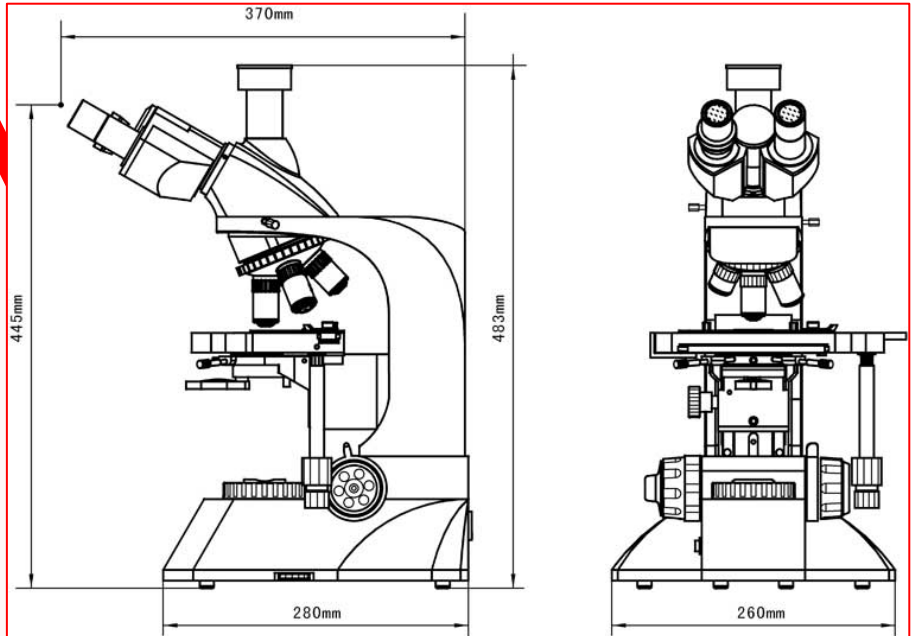
GX Microscopes

product datasheet



GXM L3200B

Specifications



GX Microscopes

product datasheet



GXM L3200B

Specifications

Microscope Part				
Head	Eyepieces	Pair 10X	Wide Field FN20	Standard
		Pair 16X	Wide Field FN11	Optional
		Single 10X with Reticle	Wide Field FN20 10mm Crosshair Reticle	Optional
	Interocular Distance Adjustment			Standard
	Diopter Adjustment			Standard
	Pair Rubber Eyeguards			Standard
	Vertical Photoport	Split 100:0/0:100		Standard
	Built-in Analyser	Retractable with lever		Optional (must be purchased with microscope, cannot be retrofitted)
Infinity Optics				
Stand	Objective Turret (nosepiece)	Quintuple 5 position	Reversed	Standard
	Objectives	Infinity Corrected Flat Field Plan Achromatic	4X/NA0.10	Standard
			10X/NA0.25 Coverslip Corrected	Standard
			20X/NA0.40 Coverslip Corrected	Standard
			40X/NA0.65 Spring loaded end Coverslip Corrected	Standard
			100X/NA1.25 Oil immersion Spring loaded end Coverslip Corrected	Standard
			60X, 80X 10X, 20X, 40X, 100X Oil Phase 40X, 100X Fluorescence	Optional
	5X, 10X, 20X, 40X, 60X, 80X, 100X Materials Objectives (non-coverslip corrected)			Optional
	Mechanical Stage	Size 210mm x140mm Travel 75mm x50mm Coaxial Drop-side Controls	Double Layer Spring Loaded Slide Holder	Standard
	Motorised Stage	Stepper Motor Controlled	Controller Hardware and Software for Scanning, Stitching and Analysis	Optional
	Coaxial Coarse and fine Focus Knobs	Ergonomic fine focus knob on right side	2 Micron Graduations Adjustable Tension, Focus Limit Lock	Standard
Motorised Focus	Stepper Motor Controlled	Controller Hardware and Software for Autofocus and Extended focus	Optional	
Sub-Stage Abbe Condenser	NA 1.25 with Iris Diaphragm	On Rack and Pinion	Standard	
Illumination	6V 20W Adjustable Intensity Halogen Lamp	Field Iris and Collector	Standard	
	6V 30W		Optional	
Filters	Blue		Standard	
	Frosted		Standard	
	Green		Optional	
	Yellow		Optional	
Imaging	Camera Adapters	C-mount adapters for Microscopy Digital and Video Cameras Special adapter Kits for SLR and specific Compact Digital Cameras		Optional
	Cameras	Microscopy Digital and Video C-Mount Cameras	Typically 1.3MP to 5MP resolution but can be up to 12MP Includes Cooled Camera Options for Fluorescence	Optional
		Eyepiece Cameras	Typically 1.3MP to 5MP resolution	Optional
	Software	Image Capture, Annotation and Image Storage Image Analysis		Optional Optional
Reflected (Incident of Epi) Illumination	Epi-Illuminator for Metallurgy and Polymers	6V 20W Adjustable Intensity Halogen Lamp	Requires non-coverslip corrected objectives	Optional
	Epi-Illuminator for Fluorescence	100W Mercury Lamphouse and Controller	Requires Fluorescence objectives and Specific Fluorescence Cubes dependant on Stains being Observed	Optional
		LED Illumination System	Requires Fluorescence objectives and Specific Fluorescence Cubes dependant on Stains being Observed	Optional
Phase Kit	Comprises of: 10X, 40X and 100X oil Infinity Corrected Plan Achromatic, Phase Objectives Centering Telescope Phase Condenser Turret Type		Optional	
Polarising Kit	Retractable Analyser in Head ad Rotatable Polariser Must be ordered with Microscope, cannot be retro-fitted		Optional	
DarkField	DF Condensers	Dry	Optional	
		Oil Immersion	Optional	
Power	110-220V switchable		Standard	

Due to our policy of continuous development specifications may change without notice

Ordering Information:
Product ID: 5083 Product Name: GXM L3200B

Last Updated: Jan 10

www.gxoptical.com

GX Microscopes

product datasheet

High specification,
modern design

L3000 Series Biological Microscopes



L3000B HBG

Features and Specifications

The L3000 series of microscopes are one of GX Microscopes' most popular microscopes. They excellent value for such an advanced modular, research grade, biological upright microscope. They also provide excellent quality images to both the eyepieces and any attached camera system through the plan achromatically corrected optical system.

The optics are mounted on an modern design, substantial stand which provides a stable platform for high magnification imaging and allows a wide range of accessories to be added such as epifluorescence kits, materials epi-illuminators, camera systems and motorised stages.

The microscope has been design for research and routine microscopy and is offered at a price affordable by almost all level of user.

These microscopes are offered in two different versions:

- ✓ L3000BHTG which has a trinocular head and is equipped with five plan achromatic objectives, giving a total magnification range of 40X-1000X which can be optionally expanded to 1600X with the addition of a pair of 16X eyepieces.
- ✓ L3000AHBG with a binocular head and 4 plan achromatic objectives

These configurations give a total magnification range of 40X-1000X which can be optionally expanded to 1600X with the addition of a pair of 16X eyepieces.

The phototube of the trinocular head of the L3000BHTG model can be fitted with a large range of cameras including Digital SLRs, Digital Compacts and cameras designed specifically for microscopy. For each type of camera a specific camera adapter is available.

The GXM L3000 series of microscopes can be supplied with a large variety of accessories which include a phase contrast kit, epifluorescence kit, epi-illumination kit, polarising kit, darkfield kit these and many more.

			Model:	L3000A	L3000B
Components and Specifications			HBG	HTG	
Eyepieces	Widefield	10X (20mm FOV)	STD	STD	
		16X (11mm FOV)	OPT	OPT	
Objectives	Plan Achromatic	PL4X/0.10	STD	STD	
		PL10X/0.25	STD	STD	
		PL25X/0.40	OPT	STD	
		PL40X/0.65 (sprung)	STD	STD	
		PL100X/1.25 (oil)(sprung)	STD	STD	
Nosepiece	Reversed inner locating on ball bearing mount	Quadruple	STD		
		Quintuple			STD
Head	Binocular	Adjustable dioptre setting 30 degree ergonomic inclination	STD		
	Trinocular	Adjustable dioptre setting 30 degree ergonomic inclination Photo tube with port selector			STD
Stage	Mechanical	Large format 140 x 160mm Movement range 50 x 75mm	STD	STD	
Illumination	Kohler	6V 20W halogen lamp with adjustable intensity	STD	STD	
Focus	Coarse/fine	Coaxial graduated knob with limit stopper and tension adjustment	STD	STD	
Options	Camera attachments	C-mount adaptors Nikon Coolpix adaptor Photographic camera attachment Digital cameras Video cameras Monitors	OPT	OPT	
	Darkfield Condenser	Dry NA 0.77-0.91	OPT	OPT	
		Immersion NA 1.25-1.40	OPT	OPT	
Phase Contrast Kit	Phase contrast plan achromatic objectives: PL10X/0.25PHP, PL25X/0.4PHP, PL40X/0.65PHP sprung, PL100X/1.25 oil sprung PHP Phase contrast condenser NA 1.25 Centering telescope	OPT	OPT		



Rack & Pinion
Abbe
condenser with
diaphragm



Reversed
nosepiece with
plan achromatic
objectives



Modern coarse/fine
focus with tension
adjustment and limit
stopper



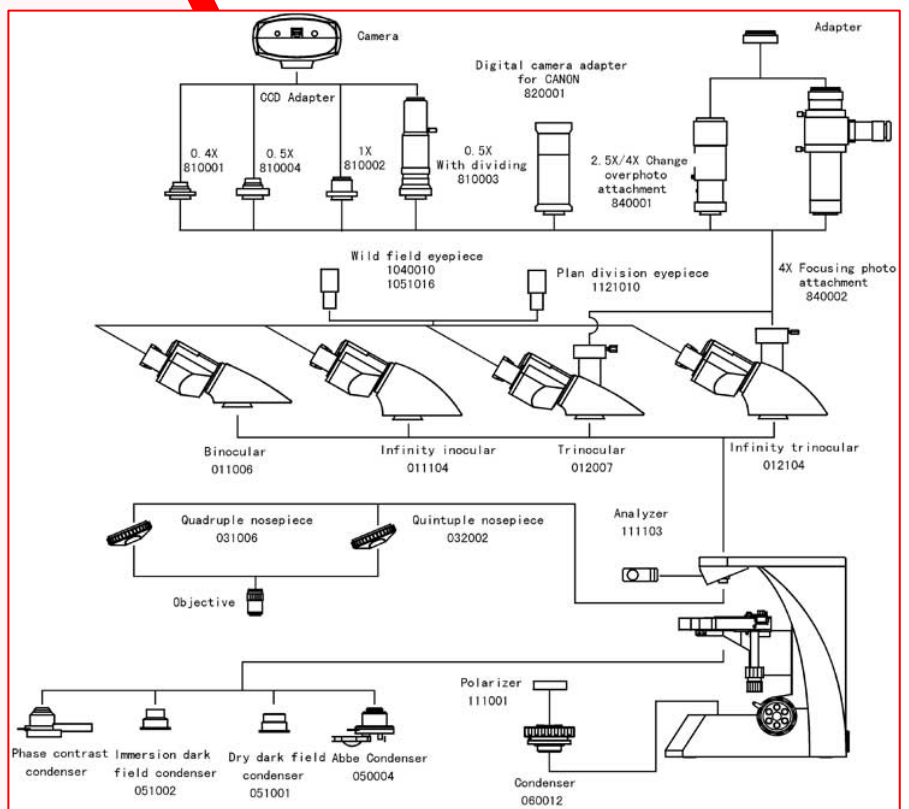
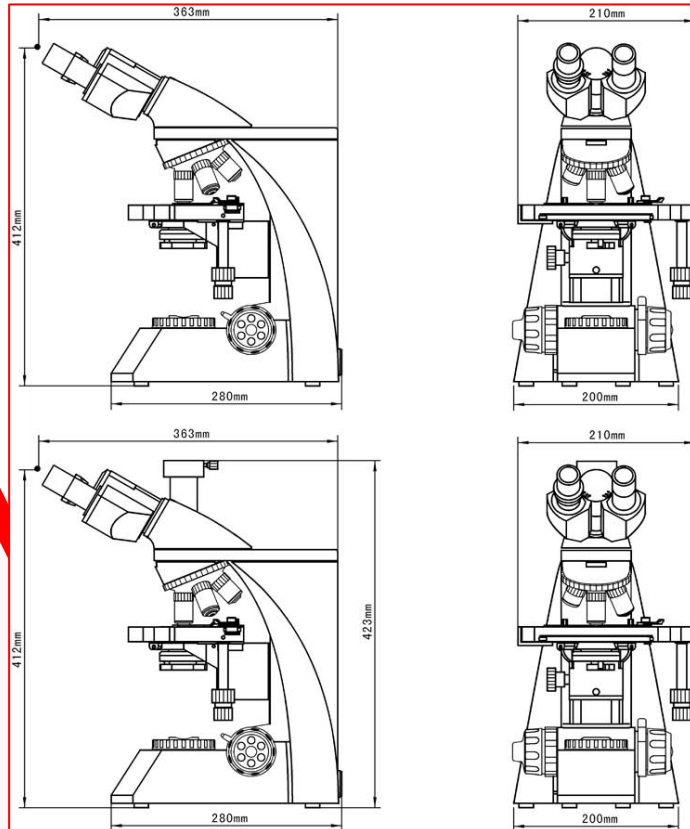
Smooth, coaxial
control mechanical
stage with slide holder

GX Microscopes

product datasheet

GXML3000

Specifications



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Ordering Information:

Product ID: **0040** Product Name: **GXM L3000BHTG**
 Product ID: **0019** Product Name: **GXM L3000AHBG**

Last Updated: Jan 10

GX Microscopes

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L1500 Series

High quality routine & research microscopes for biological sciences



Model:		L1500 Series		
Component Specifications		Models:	L1500AHBG	L1500BHTG
Eyepieces		10X (0.18mm)	STD	STD
Widelfield		16X (0.11mm)	OPT	OPT
Objectives	Achromat	4X/0.10	STD	
		10X/0.25	STD	
		40X/0.65 (sprung)	STD	
		100X/1.25 oil (sprung)	STD	
		4X/0.10		STD
	SPlan Achromat	10X/0.25		STD
		40X/0.65 (sprung)		STD
		100X/1.25 oil (sprung)		STD
Head	Monocular	Inclined 30deg		
		Compensation Inclined 30deg	STD	
	Binocular	Sliding Inclined 45deg	OPT	
		Trinocular Inclined 30deg		STD
Camera options	Eyepiece Cameras – video or digital		OPT	OPT
	C-mount Cameras – video or digital with adaptor			OPT
	SLR camera attachments			OPT
	Digital Compact Camera Adaptors			OPT
Stage	High Quality Mechanical Stage 135x135mm Movement Range 35x75mm Slide holder Coaxial side control knobs		STD	STD
Condenser	Adjustable height, diaphragm control substage Abbe condenser NA 1.25		STD	STD
	Darkfield Condenser Dry or immersion		OPT	OPT
Focus	Coaxial Coarse/Fine Knobs		STD	STD
Illumination	6V 20W adjustable halogen integrated into base		STD	STD
	LED		OPT	OPT
	LED with Rechargeable Batteries in base		OPT	OPT
	Spare bulb and filters		STD	STD
Accessories	Phase Contrast Kit incl set of phase objectives and phase condenser		OPT	OPT
	Fluorescence Kit incl trinocular head with filter cube set, incident lamp & fluorescence objectives, MV lamphouse & power supply		OPT	OPT
	Immersion oil		STD	STD

Features:

This is one of GX Microscopes most popular biological microscope ranges, it combines high quality optics, professional grade stage movement and focusing technology with everything you would expect to find on scientific research grade microscopes costing many times more. The L1500 range represents outstanding value for money and is suitable for the viewing of almost all slide mounted specimens.

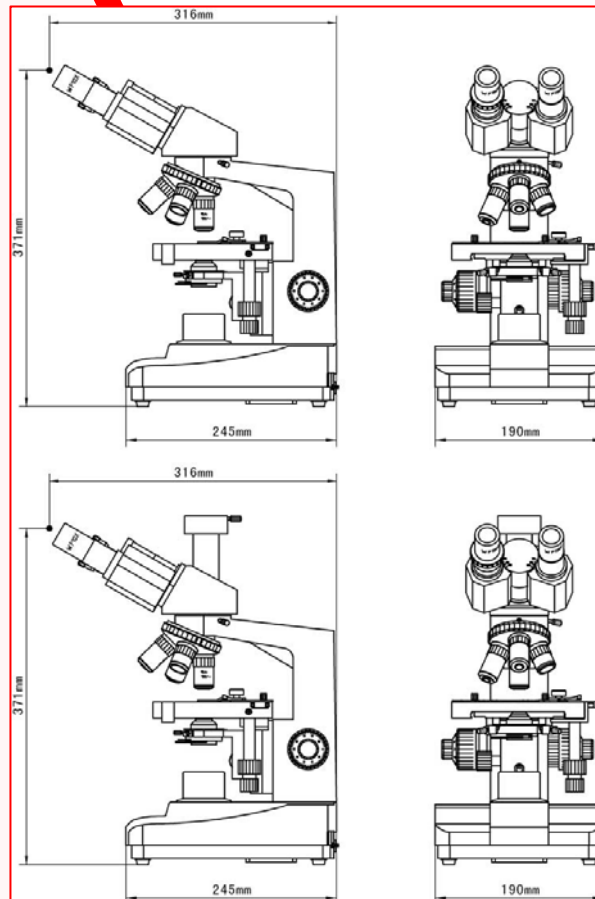
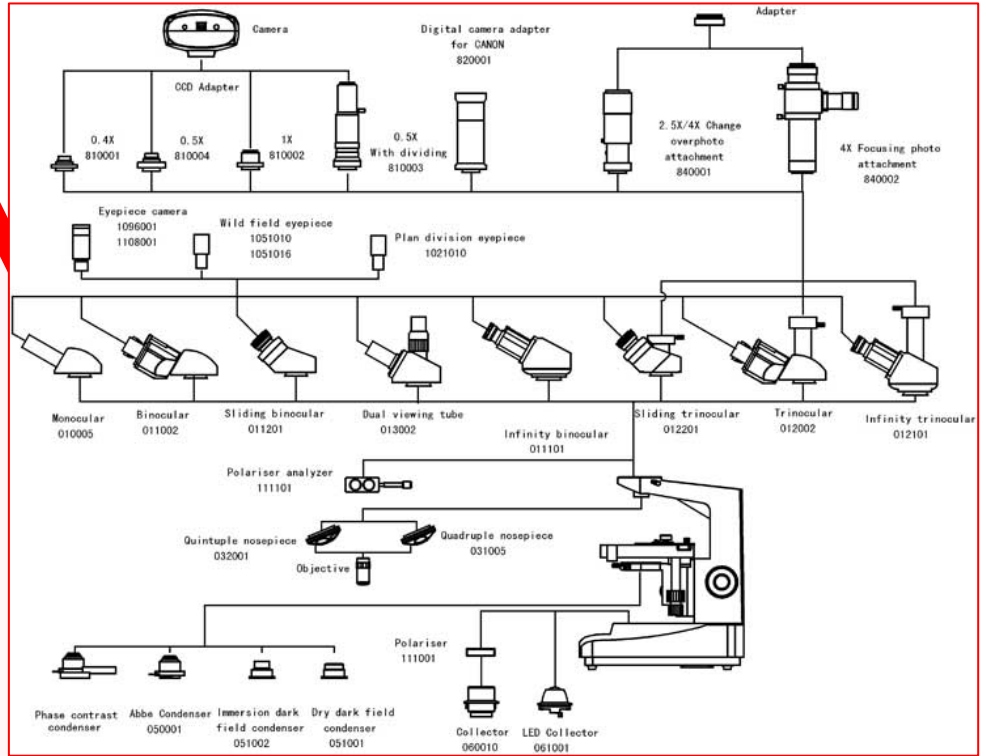
- Wide field eyepieces, choice of Achromat or Plan Achromatic objectives
- Coaxial coarse/fine focus system, with tension and limit stopper
- Mechanical stage size: 135mmX135mm.
 - Height adjustable Abbe condenser, NA=1.25.
 - Illumination with 6V 20W halogen lamp, adjustable brightness
 - Choice of monocular, binocular and trinocular heads
 - Wide range of accessories and options including LED illumination

GX Microscopes

product datasheet

GXML1500

Specifications



www.gxoptical.com

Due to our policy of continuous development specifications may change without notice

Ordering Information:
 Product ID: **0125** Product Name: **GXM L1500BHTG**
 Product ID: **0088** Product Name: **GXM L1500AHBG**

Last Updated: Jan 10

GX Microscopes



Digital

Biological Upright Microscopes

GX Microscopes

product datasheet

GXMPH Series Digital Upright Biological Microscopes

GXMPH100/1300/3100 DM20 Series
Research & Routine

Digital Upright Biological Microscopes

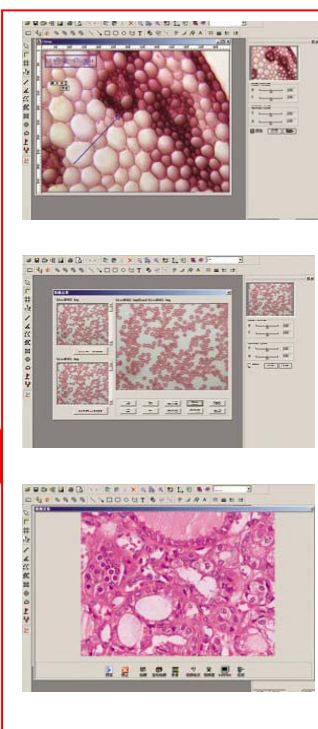
This family of microscopes incorporates the very latest technology live digital imaging systems stylishly incorporated into a modern, high performance microscope.

All of the microscopes have a USB digital image output to a PC running Windows XP (not Vista) where the comprehensive software application displays a live image for image capture, storage, annotation, manipulation and even measurement. PH100_VU has an additional video output.

Every microscope is supplied complete with a range of accessories which include an aluminium storage case, immersion oil, filters, calibration graticule slide and sample slides.

Suitable for almost all level of microscopy users these microscopes are very highly specified with high quality optics including a set of 4 plan achromatic objectives mounted on a reversed nosepiece, koehler illumination, mechanical stage, Abbe condenser and a pair of widefield eyepieces.

See next page for student microscope models



Research & Routine Range (see next page for studentrange)				
Specification	Model:	GXMPH100_VU Dual Output Digital & Video	GXMPH1300_U Digital Output	GXMPH3100_U DM20 Digital Output
Image Output Resolution		470k	1.3MP	3.1MP
Magnification range		40X-1600X		
Head		Binocular Built-in camera sensor parfocalised Interpupillary distance adjustment Diopter adjustment 23.2mm ID eyepiece tubes		
Eyepieces	pair	WF10X		
	pair	WF16X		
Objectives	Achromatic	4X, 10X, 40X(s), 100X(s)oil		
Nosepiece	Reversed	Quadruple with ball bearing locator		
Stage	Right side coaxial controls	Double Layer Mechanical Stage 160mm×142mm , 76mm×52mm(travel)		
Focus	Coaxial	Coarse & Fine Focus Knobs		
Condenser	Abbe	N.A.1.25,With Iris Diaphragm and Filter on rack & pinion		
Illumination	Halogen	12V/20W Brightness Adjustable		
Power	Autoswitching	AC100V-AC246V		
Output interfaces	USB-1	✓		
	USB-2		✓	✓
	Video	✓		
Cables Supplied	USB	✓	✓	✓
	Video	✓		
Software		PHMIAS2006		
Options		1. Infinity-Corrected Optical System Infinity-Plan Achromatic Objectives 4X, 10X, 40X(S), 100X(O,S) 2. Plan-Eyepiece : P10X, P16X 3. Plan-Achromatic Objectives : 25X, 63X(S) 4. Dark Field Unit, Phase Contrast Unit , Polarizing Unit , EPI Unit , EPI- Fluorescence Unit , Metallurgical Unit. 6. Micro Image Auto Processing and Analysis Software(Medical Edition)		

GX Microscopes

product datasheet



GXMPH50DM10



GXMPH20DM5

GXMPH Series Digital Upright Biological Microscopes

GXMPH50/20 Series For Students

Digital Upright Biological Microscopes

These high quality student microscopes incorporate the very latest technology live digital imaging systems stylishly incorporated into a modern, high performance microscope.

Both of the microscopes in this range have a live USB digital image output to a PC.

A comprehensive software application displays on the PC a live image for image capture, storage, annotation, manipulation and even measurement.

Every microscope is supplied complete with a range of accessories which includes sample slides and immersion oil (for 100X objective).

Although they are suitable for almost all level of microscopy user, these microscopes are specifically designed with use in schools and colleges in mind. Each microscope has a specially designed stand so it is easy to carry, it is also relatively lightweight and is of a highly robust, all metal construction.

The microscopes are highly specified with good quality optics including a set of 3 or 4 achromatic objectives mounted on a rotating nosepiece, safe cold LED illumination, a choice of stage types, Abbe condenser on the GXMPH50 model and a widefield eyepiece.

Student Range

Specification	Model:	GXMPH50DM10 Digital Output	GXMPH20DM5 Digital Output
Image Output Resolution		480k (800x600 pixels)	
Magnification range		40X-1000X	40X-400X
Head		Monocular Built-in camera sensor parfocalised 23.2mm ID eyepiece tube	
Eyepiece		WF10X	
Objectives	Achromatic	4X, 10X, 40X(s), 100X(s)oil	4X, 10X, 40X(s)
Nosepiece		Quadruple	Triple
Stage		Double Layer Mechanical Stage 125mmx115mm 70mmx30mm (travel)	Round stage dia.90mm Travel: 6mm slide clips
Focus		Coarse & Fine Focus Knobs Coaxial	Coarse & Fine Focus Knobs Separate
Condenser		N.A.1.25, With Iris Diaphragm on rack & pinion	Single Lens, with Iris Diaphragm
Illumination		White LED, safe low voltage with separate mains transformer	
Power	Autoswitching	AC100V-AC246V	
Image Output	USB-2	✓	✓
Cables Supplied	USB	✓	✓
Software		PHMIAS2006	

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Ordering Information:

Product ID: 5397 Product Name: GXM PH50DM10

Product ID: 5380 Product Name: GXM PH20DM5

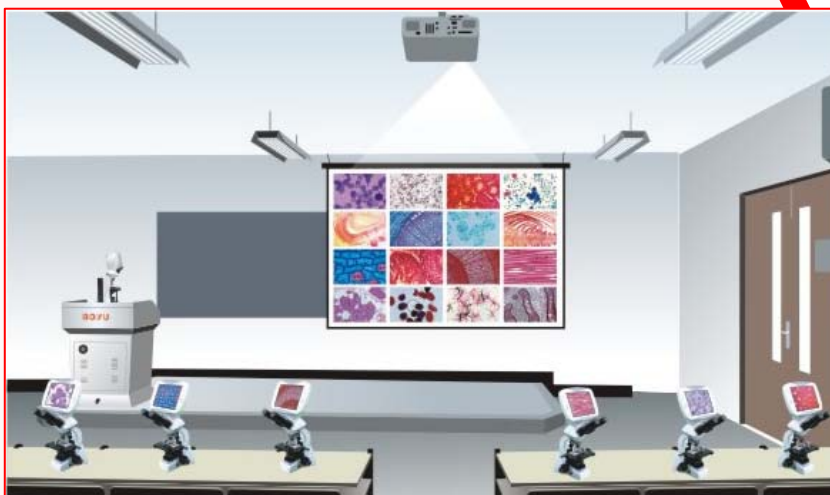
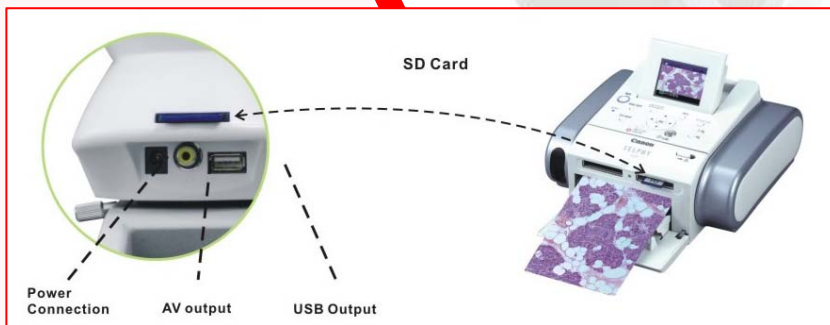
Last Updated: Jan 10

GX Microscopes

product datasheet

GXMDM655BP

5MP Digital Biological Upright Microscope



GXMDM655BP 5MP Digital Biological Microscope with Large, Built-in Display and Multiple Image Outputs

A superb microscope suitable for use in any biology laboratory, packed with really useful unique features.

UNIQUELY POWERFUL

Most digital microscopes do not have a built-in display, and of those that do, the display is usually relatively small making it difficult to focus and consult with your colleagues. The GXMDM655BP series has overcome these limitations with a superb quality large 8in TFT high resolution display which is professionally integrated into the head of the microscope.

Many other digital microscopes that do have a display often do not have any eyepieces, with this microscope the widefield 10X (FN18) eyepieces are still operational allowing it to be used as a conventional microscope without limitation.

Another excellent feature is that it is equipped with a superb live 5MP digital colour camera (many times higher resolution than most digital microscopes) with a direct image connection to a PC via a USB link and imaging software, there are also additional outputs to a removable SD memory card and a video output, ideal for display onto projectors.

VERSATILITY

All of these features make this a truly unique and innovative digital biological microscope, suitable for not only routine and research applications but also ideal for teaching and consultative environments and any circumstance where a report incorporating images needs to be generated.

GX Microscopes

product datasheet

GXM DM655BP

Specifications

			Model: DM655BP
Components and Specifications			
Eyepieces	Widfield	10X (20mm FOV)	STD
		16X (11mm FOV)	OPT
Objectives	Infinity Plan Achromatic	PL4X/0.10	STD
		PL10X/0.25	STD
		PL20X/0.40	OPT
		PL40X/0.65 (sprung)	STD
		PL100X/1.25 (oil) (sprung)	STD
Nosepiece	Reversed inner locating on ball bearing mount	Quadruple	
		Quintuple	STD
Head	Trinocular	Adjustable diopter setting 30 degree ergonomic inclination Integrated camera and 8in LCD display with multiple outputs	STD
Stage	Mechanical	Large format 140 x 160mm Movement range 50 x 75mm	STD
Illumination	Kohler	6V 20W halogen lamp with adjustable intensity	STD
Focus	Coarse/fine	Coaxial graduated knob with limit stopper and tension adjustment	STD
Options	Darkfield Condensers	Dry NA 0.77-0.91	OPT
		Immersion NA 1.25-1.40	OPT
	Phase Contrast Kits	Phase contrast plan achromatic objectives: PL10X/0.25PHP, PL20X/0.4PHP, PL40X/0.65PHP sprung, PL100X/1.25 oil sprung PHP Phase contrast condenser NA 1.25 Centering telescope	OPT
	Polariser	Retractable head analyser and rotatable polariser, must be purchased from new, not retrofittable	OPT

Features and Specifications

The GX DM655BP represents excellent value for money for such an advanced modular, research grade, biological upright digital microscope. It provides excellent quality images to the eyepieces and camera system delivered by the plan achromatically corrected infinity optical system.

The optics and camera system are mounted on a modern design, substantial stand which provides a stable platform for high magnification imaging and allows a wide range of accessories to be added such as epi-fluorescence kits, materials epi-illuminators, camera systems and motorised stages.

The microscope has been designed for research and routine microscopy applications in universities, and research laboratories

The GXM DM655BP series of microscopes can be supplied with a large variety of accessories which include a phase contrast kit, epifluorescence kit, epi-illumination kit, polarising kit, darkfield kit these and many more.



Rack & Pinion Abbe condenser with diaphragm



Reversed nosepiece with plan achromatic objectives



Modern coarse/fine focus with tension adjustment and limit stopper



Smooth, coaxial control mechanical stage with slide holder

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Ordering Information:
Product ID: 5328 Product Name: GXM DM655BP

Last Updated: Jan 10

GX Microscopes



Hobbyist & Student

Biological Upright Microscopes

GX Microscopes

product datasheet

GXM F6D

High quality routine & educational microscope for biological sciences



Features and Specifications

The GXM F6D is GX Microscopes' best value for money binocular biological microscope.

This microscope is supplied four, good quality, achromatic glass objectives in RMS threaded steel barrels giving a maximum magnification of 1000x and a magnification range of 40X-1000X.

The head of the microscope is binocular and is equipped with 2 10X WF eyepieces, adjustable interpupillary distance and adjustable diopter settings to accommodate a range of users regardless of eyesight differences.

It is additionally equipped with a high quality Abbe condenser and a professional grade mechanical stage.

The Abbe condenser is designed to present precisely the correct cone of light to the objectives which can greatly increase the resolving power of the optics. Furthermore the condenser can be adjusted to produce different image enhancement effects such as 'pseudo-phase' which is particularly helpful when looking at unstained cytoplasmic materials.

The mechanical stage enables highly accurate and systematic scanning of specimens at high magnifications which is vital for many professional users who need to scan whole slides or perform counts.

The coaxial coarse and fine focus knobs are similar to those you find on much more expensive professional microscopes.

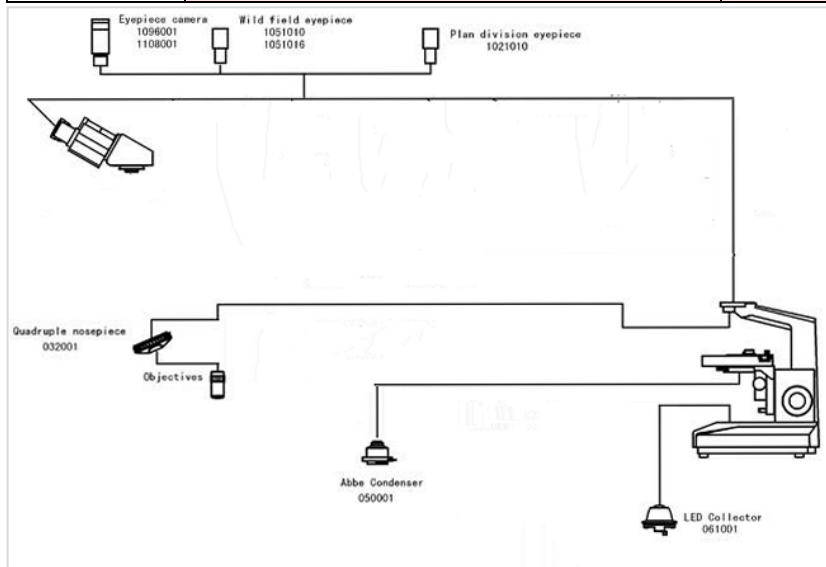
The F6D has LED illumination providing a low temperature, white light giving accurate colour reproduction.

The F6D microscope is outstanding value for money and is suitable for the viewing of almost all slide mounted specimens.

- Wide field eyepieces, choice of Achromatic objectives
- Coaxial coarse/fine focus system, Mechanical stage
- Height adjustable Abbe condenser, NA=1.25.
- LED illumination
- Binocular head

This microscope is widely used by professionals, in universities, colleges, schools and by amateurs. It is suitable for observing any slide mounted specimens.

Components & Specifications			
Component		Model:	GXM F6D
Eyepieces Widfield		10X (0.18mm)	STD
		16X (0.11mm)	OPT
Objectives	Achromat	4X/010	STD
		10X/0.25	STD
		40X/0.65 (sprung)	STD
		100X/1.25 oil (sprung)	STD
Head	Binocular	Compensation Inclined 30deg	STD
		Sliding Inclined 45deg	OPT
Camera options	Eyepiece Cameras - video or digital		OPT
	C-mount Cameras - video or digital with adapter		OPT
	SLR camera attachments		OPT
	Digital Compact Camera Adaptors		OPT
Stage	High Quality Mechanical Stage Slide holder Coaxial side control knobs		STD
Condenser	Adjustable height, diaphragm control substage 1.25NA Abbe condenser		STD
Focus	Coaxial Coarse/Fine Knobs		STD
illumination	LED integrated into base		STD



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Ordering Information:
Product ID: 4420 Product Name: GXM F6D

Last Updated: Jan 10

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GX Microscopes

product datasheet



L1000A

L500 – L1000 Series

Value range of robust, high quality, economical biological microscopes for universities, colleges and schools



L500BLED

Features and Specifications

Each of these high quality microscopes is equipped with a set of high contrast, glass, achromatic objectives, a wide-field eyepiece, a metal stand and a brass coggled focus mechanism to provide a clear and bright image of the subject under observation.

L500BLED has 3 achromatic objectives giving a magnification range from 40X to 400X. It has a clip stage and a simple condenser.

L1000A has 4 achromatic objectives with a total magnification range from 40X to 1000X.

L1000A is additionally equipped with a high quality Abbe condenser and a professional grade mechanical stage.

The Abbe condenser is designed to present precisely the correct cone of light to the objectives which can greatly increase the resolving power of the optics. Furthermore the condenser can be adjusted to produce different image enhancement effects such as 'pseudo-phase' which is particularly helpful when looking at unstained cytoplasmic materials.

The mechanical stage enables highly accurate and systematic scanning of specimens at high magnifications which is vital for many professional users who need to scan whole slides or perform counts.

The monocular eyepiece tube has an inclination of 45deg and can be rotated through 360deg, ideal for shared use. The microscopes provide comfortable viewing and are simple and safe to operate.

The L500B model has LED illumination, the L1000A has a 15W tungsten lamp.

You can choose between coaxial coarse and fine focus knobs on the L500B or separate knobs on the L1000A.

Other differences between models are the nosepiece, number of objectives, type of stage and condenser.

These microscopes are widely used in schools, by amateur microscopists and by professionals in a number of field such as veterinary sciences and breeding

		Model: -		
Components & Specifications		L500B	L1000A	
Eyepieces	Widefield	WF10X (18mm)	STD	STD
		WF16X (11mm)	OPT	OPT
Objectives	Achromatic	4X/0.10	STD	STD
		10X/0.25	STD	STD
		40X/0.65 (spring)	STD	STD
		100X/1.25 oil (spring)		STD
Nosepieces	Triple		STD	
	Quadruple			STD
Monocular	Inclination of 30deg, 360 rotatable		STD	STD
Stage	Fixed size: 120 x 120mm with clips		STD	
	Fixed with attachable mechanical, size: 120 x 120mm			
	Mechanical stage size: 125 x 135mm with spring-loaded slide holder & XY coaxial drop-side knobs			STD
Focus system	Separate coarse/fine focus			STD
	Coaxial coarse/fine focus		STD	
Condenser	Single lens with iris diaphragm or disc diaphragm		STD	
	Abbe condenser NA=1.25, spiral adjustment			
	Abbe condenser NA=1.25 rack & pinion adjustment			STD
Light source	Illumination (std 240V mains power input)		LED	15W lamp

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GX Microscopes

product datasheet

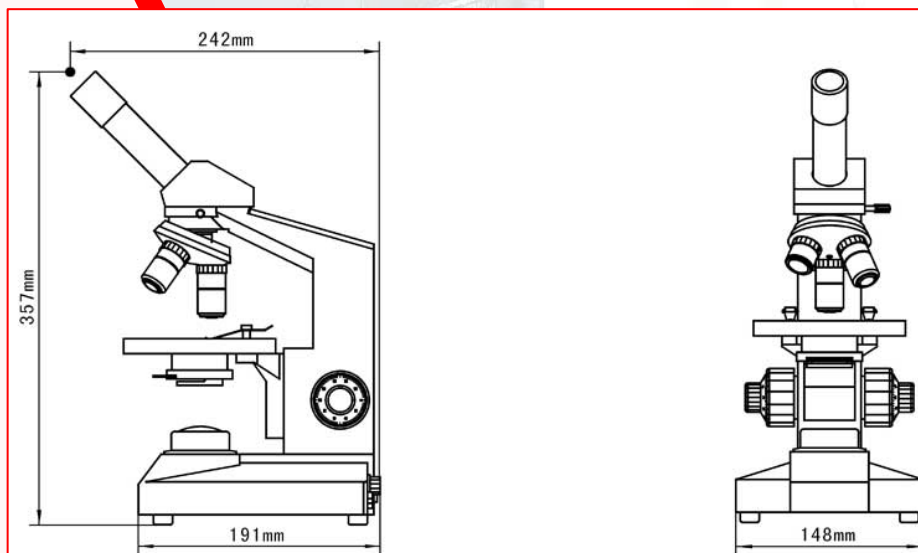
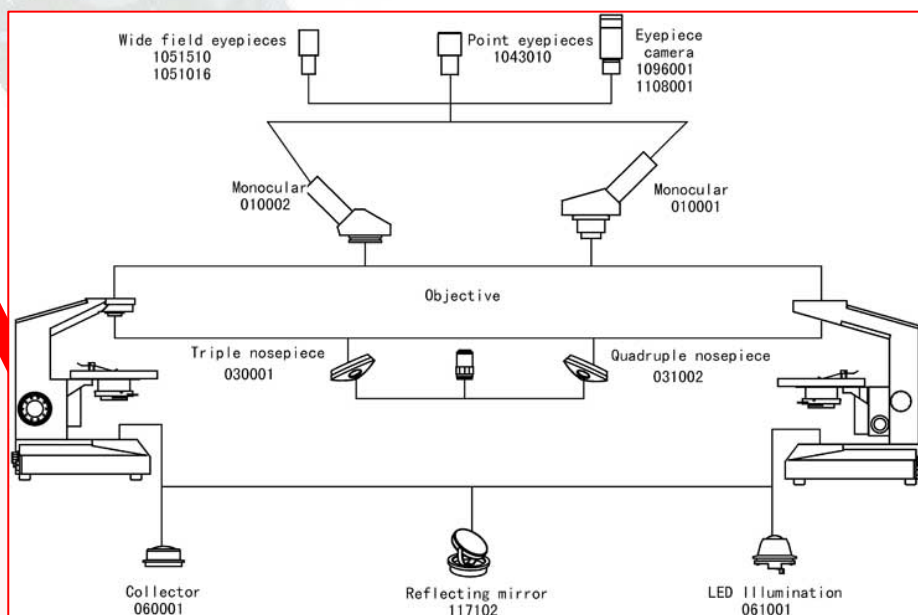
L500 – L1000 Series



L1000A



L500BLED



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Ordering Information:

Product ID: 0217 Product Name: GXM L1000A

Product ID: 4727 Product Name: GXM L500BLED

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