

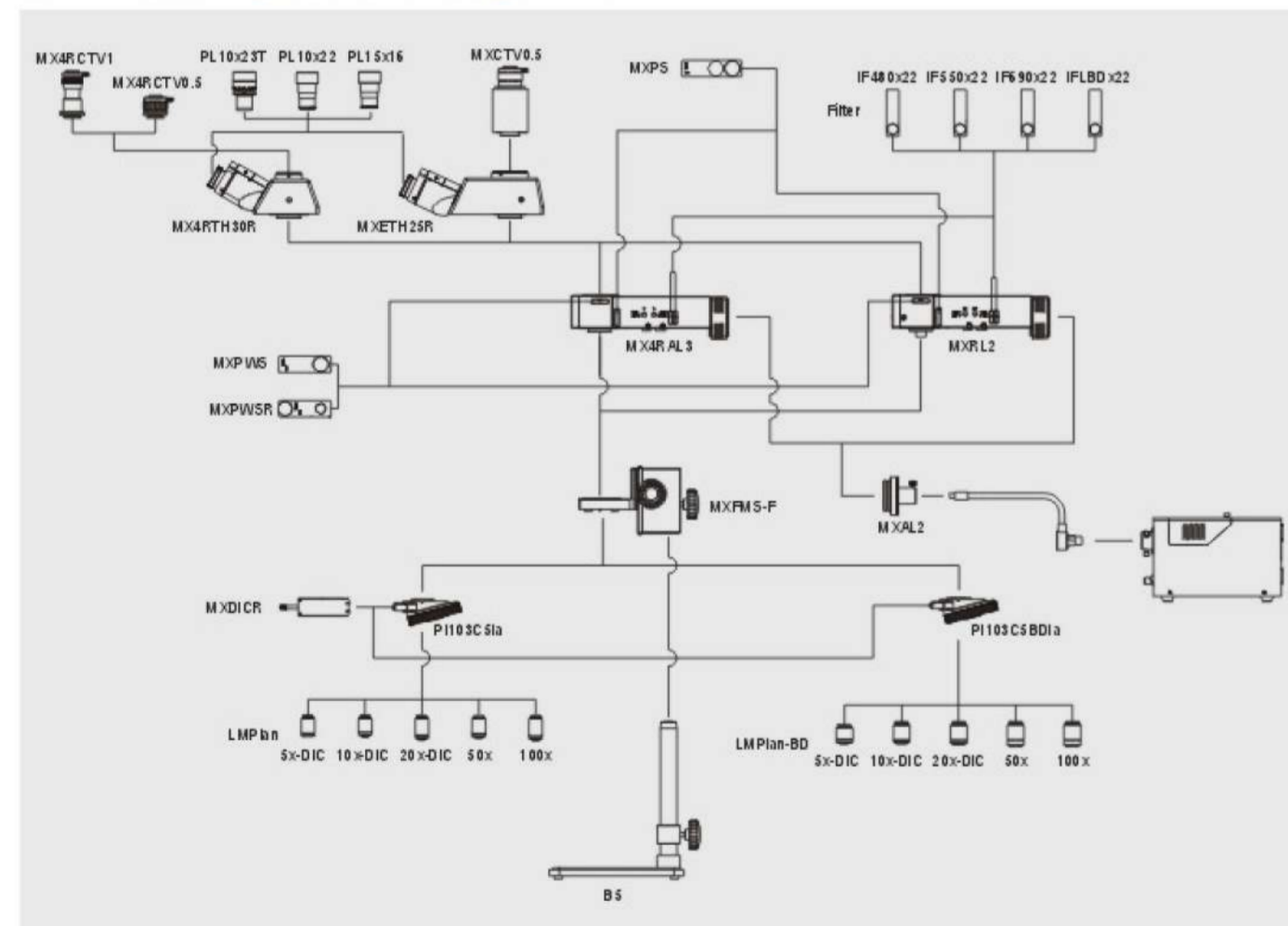
MXFMS Modular Microscope

Your flexible and practical tool for metallographic detection

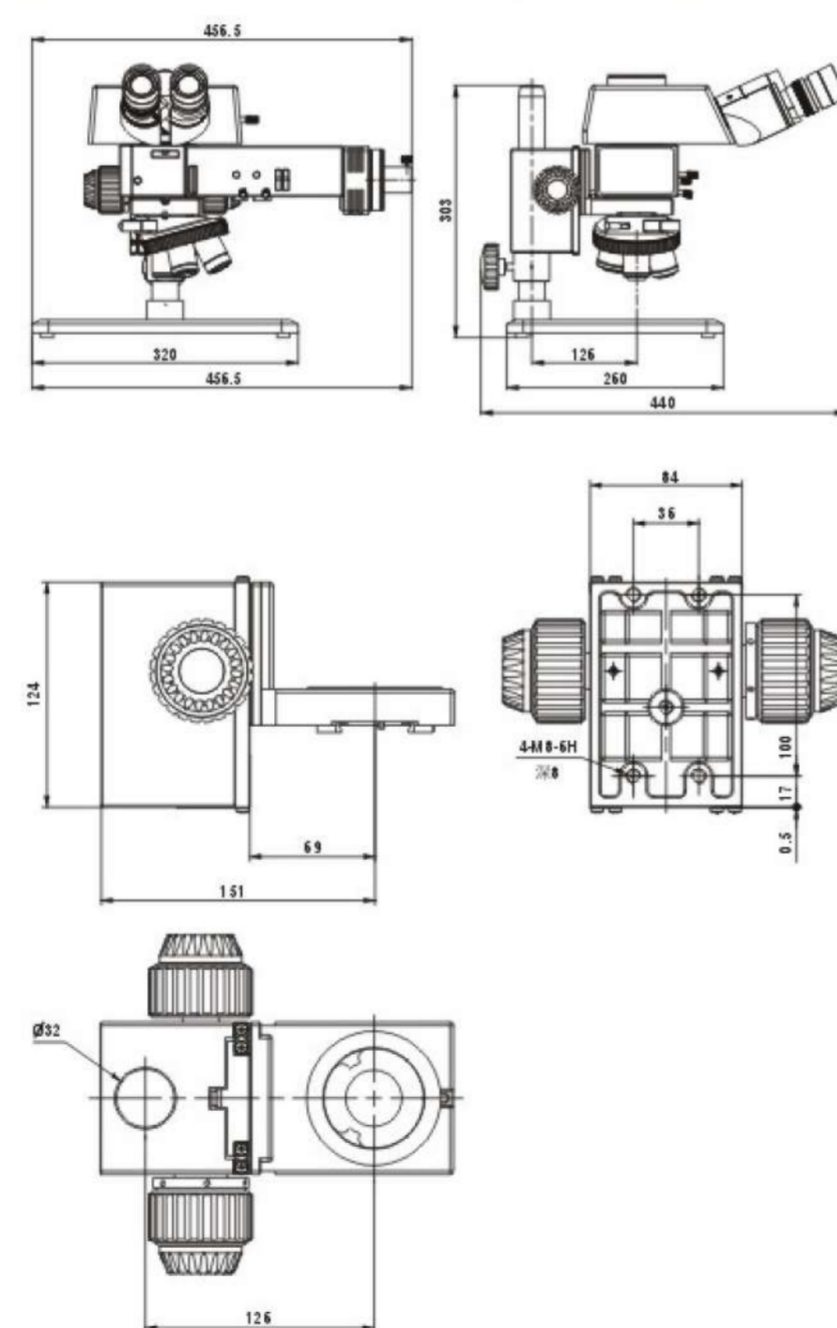
MXFMS specifications

Model	MXFMS	MXFMS-BD
Observation method	Bright field / Oblique illumination / Polarizing / DIC	Bright field / Dark field / Polarizing / DIC
Optical system	Infinity color corrected optical system	
Eyeiece	High eye-point plan eyepiece PL10X22mm	
Objective	OLIP infinity long working distance metallurgical objectives for bright field	OLIPBD infinity long working distance metallurgical objectives for bright field or dark field
Head	30° inclined trinocular head, splitting ratio for binocular:trinocular = 100:0 or 50:50, diopter Adjustment ± 5 , interpupillary distance 54mm-75mm	25° inclined trinocular positive head, splitting ratio for binocular:trinocular = 100:0 or 0:100, diopter adjustment ± 5 , interpupillary distance 54mm-75mm
Nosepiece	Intilted quintuple nosepiece for bright field, with DIC slot.	Intilted quintuple nosepiece for bright field or dark field, with DIC slot.
Base	B5 big flat base, size 320mmX260mmX16mm, post height 280mm, diameter ϕ 32mm	
Microscope body	Coaxial coarse and fine adjustment, coarse adjustment distance 32mm, precision of fine Adjustment:0.002mm, with tense adjusting device to prevent gliding.	
Reflected illumination system	With iris field diaphragm and aperture diaphragm, centre adjustable, with filter slot and polarizing slot, with oblique illumination switch.	With iris field diaphragm and aperture diaphragm, centre adjustable, with filter slot and polarizing slot, with switch device between bright field and dark field.
Illuminator	15V150W cold halogen lamp, intensity continuously adjustable; single fiber hose (550mm/1000mm/1500mm)	
Photo accessory	1/2CTV(focus adjustable), 1xCTV(focus adjustable), digital camera, relay lens	
Polarizing/DIC accessory	Polarizer, fixed analyzer / 360° rotatable analyzer, DIC board	

MXFMS system diagram



MXFMS dimensions : mm



MX Series

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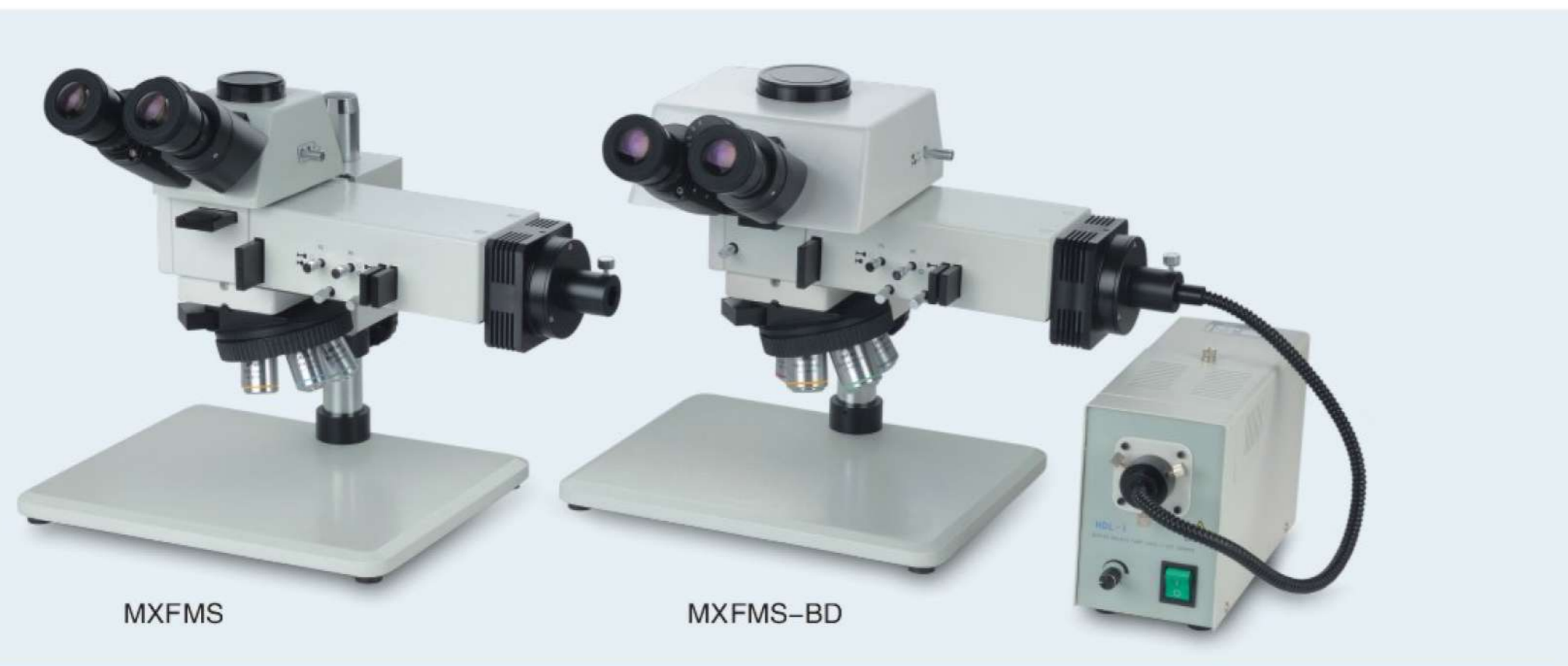
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SUNNY INSTRUMENTS
 have passed the certificate:
 ISO 9001
 ISO 14001
 ISO 13485

- ◎ High quality component design
- ◎ Simple and flexible combination
- ◎ Strong metallographic detecting function
- ◎ MXFMS is the best choice for large size sample observation.

- Compact and flexible structure adapt to various surroundings.
- Clear and sharp image can be got under various kinds of observations.
- Optical components are all specially processed and coated with special film.
- New design of long working distance professional metallurgical objectives which is high power adopted semi-apochromatic technology.

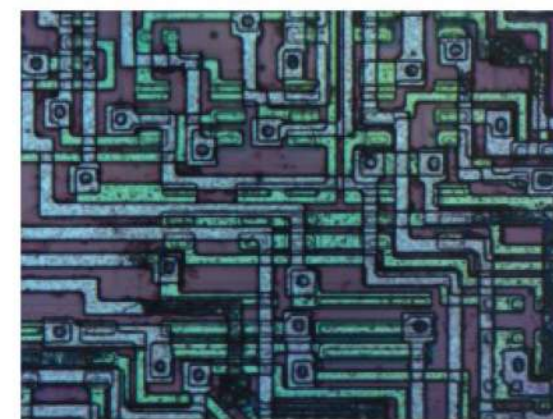


MXFMS — independent metallographic detecting system

Different from traditional metallographic microscope, we choose a compact structure design for MXFMS. The appearance is small and exquisite. The operation is easier and quicker. Big flat base B5 and coaxial focusing bracket, conquer the limit of large or thick sample observation with common metallographic microscope. With integrated several observing functions such as bright field, dark field, polarizing and DIC, you could choose freely according to practical application.



FPC 10X暗场



集成电路 50X 明场

MXFMS — visual system for large-scale equipment

Integration of several observations, professional metallographic microtechnique and flexible contraption make MXFMS the first professional metallographic microscope that can be mounted in large-scale production/test equipment for large LCD/PCD panels as visual system. With photo and video mount, the image can be output to monitor or computer. It makes the rapid detection more convenient.

Different illuminator for option

Bright field reflecting illuminator: with iris field diaphragm and aperture diaphragm, centre adjustable, with oblique illumination.
Bright/dark field reflecting illuminator: with iris field diaphragm and aperture diaphragm, centre adjustable, with switch device between bright field and dark field.
External lamphouse: 15V 150W cold halogen lamp, connected with single fiber.



Wide field of view gemel trinocular head

MXETH25R erected gemel trinocular head, the motion trails of image is the same to the objective's movement, easy to view and operate.



MX4RTH30R gemel trinocular head, inverted image, compact structure design, assemble easily and lighten the weight of the whole body.

Long working distance metallurgical objectives

New design of long working distance professional metallurgical objectives. Using semi-apochromatic and multilayer broadband coating technology makes the image clear and sharp, the color natural and bright in the whole field. Long working distance design, W.D. 7.8mm for 50X, W.D.2.1mm for 100X. 5X、10X、20X objectives can make DIC differential interference observation perfectly.

Complete set of bright/dark field objectives, luminance of new dark field illumination is double than the traditional one's.



LMPlan Infinity long working distance metallurgical objective



LMPlan-BD Infinity long working distance bright/dark field metallurgical objective

Model	Magnification	N.A.	Working distance (mm)	Cover-glass thickness (mm)	Parfocal distance (mm)	Conjugate distance (mm)
LMPlan Infinity long working distance metallurgical objective	5X	0.15	10.8	0	45	∞
	10X	0.30	10.0			
	20X	0.45	4.0			
	50X	0.55	7.8			
100X	0.80	2.1				

Model	Magnification	N.A.	Working distance (mm)	Cover-glass thickness (mm)	Parfocal distance (mm)	Conjugate distance (mm)
LMPlan-BD Infinity long working distance bright/dark field metallurgical objective	5X	0.15	11.0	0	45	∞
	10X	0.30	9.5			
	20X	0.45	3.4			
	50X	0.55	7.5			
	100X	0.80	2.1			



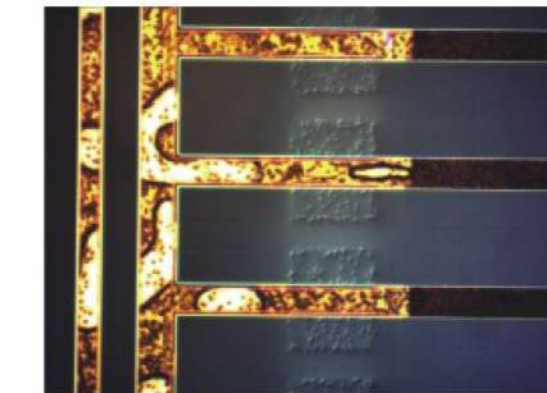
Polarizing and DIC accessories

Insert polarizer and analyzer into the exact slot of the illuminator, you would achieve simple polarizing observation. On the base of orthogonality polarizing, insert Nomarski DIC prism to match DIC observation. Using DIC technology can show obvious emboss for the small high-low difference, increase the image contrast.

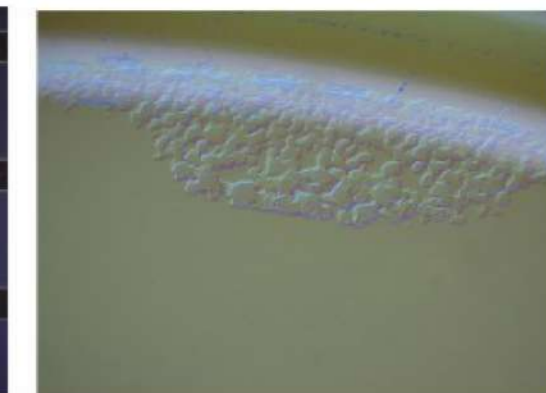


Photo and video accessories

Trinocular head comes with video accessories, user can get the image from monitor or computer, to achieve image analysis, processing, save or transmitting. Use special C mount and relay lens, connecting with digital camera to take photos and catch images.



Conducting particles 20X DIC



CD 10X DIC



Various interference filters for option

You can choose LBD sunlight filter, to get soft bright and white background. In industry use, choose other filter to adjust the light spectrum to get the best image result.