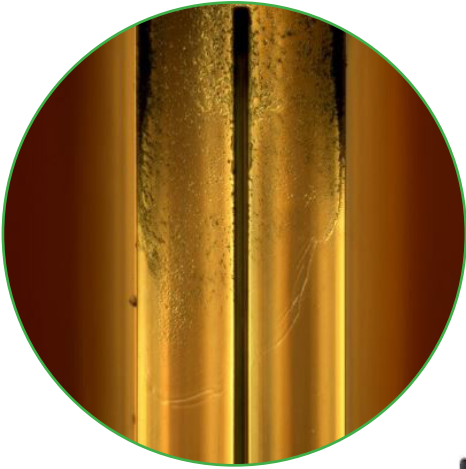




## M48 Metallurgical Microscope Semiconductor Inspection



# M48 Metallurgical Microscope Features

1 30° inclined trinocular head, erect image, interpupillary distance: 50-76mm, splitting ratio: 100:0 or 0:100

2 High eyepoint widefield plan eyepiece PL10x/25mm or PL10x/26.5mm with adjustable diopter. Eyepieces accept 26mm diameter reticle.

3 12v, 100w Halogen BD reflected arm illuminator with center adjustable iris aperture and field diaphragms with lever to switch between brightfield and darkfield.

4 Rotatable polarizer & analyzer.

5 Ergonomically low positioned coaxial focusing controls allow the operator to work with their forearms relaxed on the working surface. Coarse range of travel is 33mm. Rotation of fine focus is 0.001mm per revolution.



# M48 Metallurgical Microscope Features

6 High performance nosepiece options:  
Brightfield / darkfield quintuple and sextuple with DIC slot.  
Brightfield sextuple / septuple nosepiece with DIC slot.

7 Metallurgical objective lenses:  

- LWD Brightfield Plan Achromat
- High Resolution Brightfield Semi Apo
- LWD Brightfield / Darkfield Plan Achromat
- High Resolution Brightfield / Darkfield Semi Apo

8 Stable three layer long travel mechanical stage with low position coaxial adjustment and glass plate.  

- 6" stage size 445mm x 240mm with moving range of 158mm x 158mm.
- 8" stage size 525mm x 330mm with moving range of 210mm x 210mm.



## LWD Brightfield Plan Achromat Objectives

- FMPLN5, Plan Achromat LWD 5x Objective, NA 0.15, WD 10.8mm
- FMPLN10, Plan Achromat LWD 10x Objective, NA 0.30, WD 12.2mm
- FMPLN20, Plan Achromat LWD 20x Objective, NA 0.45, WD 4mm
- FMPLN50, Plan Achromat LWD 50x Objective, NA 0.55, WD 7.9mm
- FMPLN100, Plan Achromat LWD 100x Objective, NA 0.80, WD 2.1mm



## High Resolution Brightfield Semi Apo Objectives

- BF-SAPO-M5, Semi Apo Metallurgical 5x objective; NA 0.15; WD 19.5mm
- BF-SAPO-M10, Semi Apo Metallurgical 10x objective; NA 0.30; WD 10.9mm
- BF-SAPO-M20, Semi Apo Metallurgical 20x objective; NA 0.50; WD 3.2mm
- BF-SAPO-M50, Semi Apo Metallurgical 50x objective; NA 0.80; WD 1.2mm
- BF-SAPO-M100, Semi Apo Metallurgical 100x objective; NA 0.90; WD 1.0mm



## LWD Brightfield / Darkfield Plan Achromat Objectives

- LWD-BD-M5, Plan Achromat LWD 5X objective, NA 0.14, WD 20.5mm
- LWD-BD-M10, Plan Achromat LWD 10X objective, NA 0.25, WD 16mm
- LWD-BD-M20, Plan Achromat LWD 20X objective, NA 0.40, WD 7.8mm
- LWD-BD-M50, Plan Achromat LWD 50X objective, NA 0.55, WD 7.9mm
- LWD-BD-M100, Plan Achromat LWD 100X objective, NA 0.80, WD 2.1mm



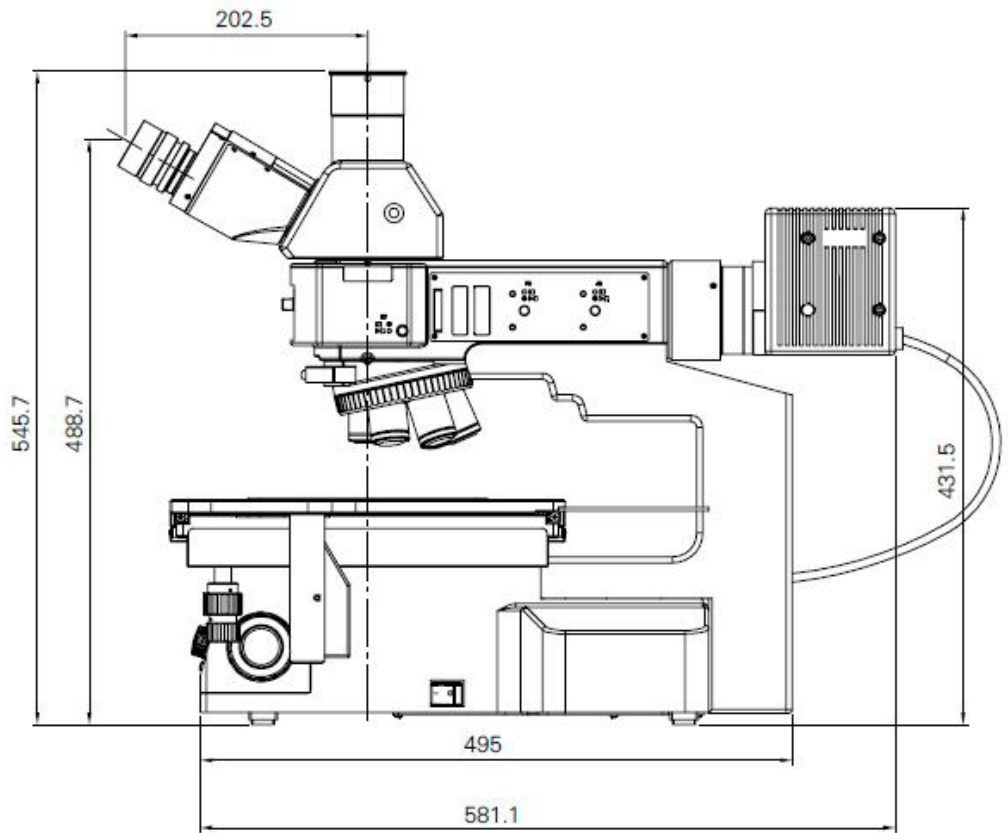
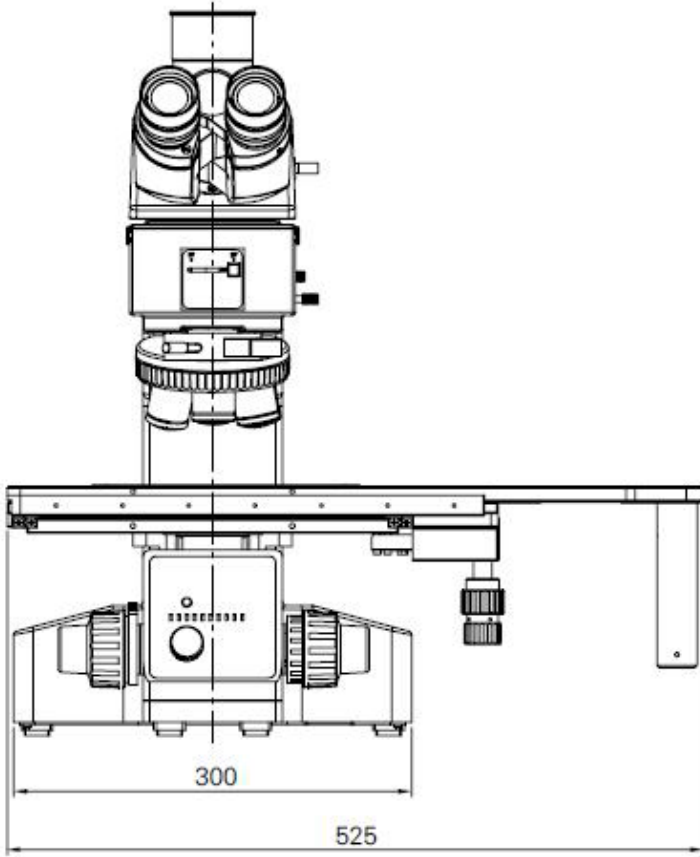
## High Resolution Brightfield / Darkfield Semi Apo Objectives

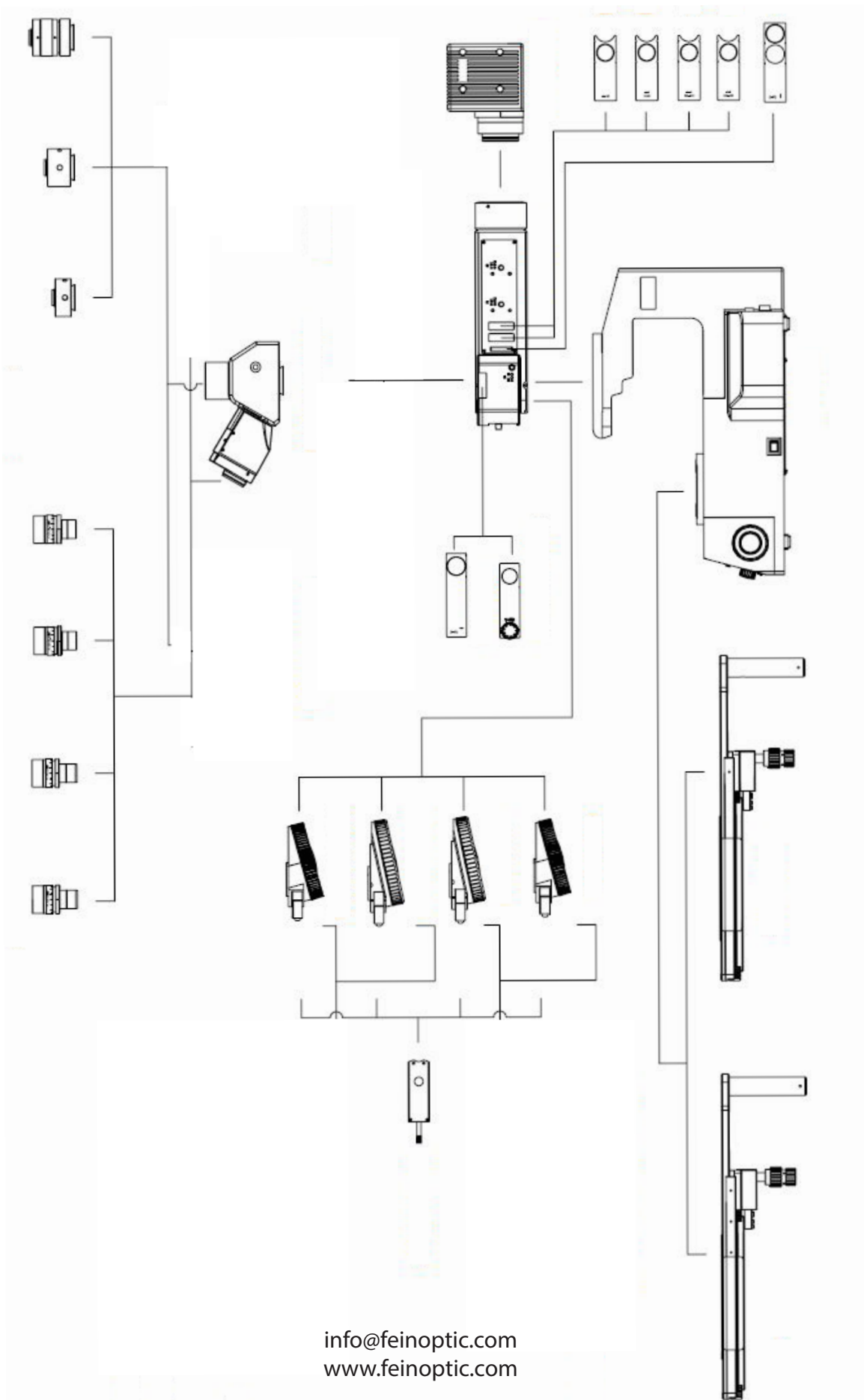
- BD-SAPO-M5, Brightfield / Darkfield Semi Apo 5x objective; NA 0.15; WD 19.5mm
- BD-SAPO-M10, Brightfield / Darkfield Semi Apo 10x objective; NA 0.30; WD 10.9mm
- BD-SAPO-M20, Brightfield / Darkfield Semi Apo 20x objective; NA 0.45; WD 3.2mm
- BD-SAPO-M50, Brightfield / Darkfield Semi Apo 50x objective; NA 0.80; WD 1.3mm
- BD-SAPO-M100, Brightfield / Darkfield Semi Apo 100x objective; NA 0.90; WD 1.0mm



# M48 Metallurgical Microscope Specifications

Optical System	Infinity Color Corrected Optical System
Observation	Brightfield / Darkfield / Polarization / DIC
Viewing Head	30° inclined trinocular head, erect image, interpupillary distance: 50-76mm, splitting ratio: 100:0 or 0:100.
Eyepieces	High eye point widefield plan eyepiece PL10x/25mm, with adjustable diopter. Accepts 26mm diameter reticle.
	High eye point widefield plan eyepiece PL10x/26.5mm, with adjustable diopter. Accepts 26mm diameter reticle.
Objective Lenses	Infinity Corrected LWD Brightfield Plan Achromat Objectives: 5x, 10x, 20x, 50x, 100x.
	Infinity Corrected High Resolution Brightfield Semi Apo Objectives: 5x, 10x, 20x, 50x, 100x.
	Infinity Corrected LWD BD Plan Achromat Objectives: 5x, 10x, 20x, 50x, 100x.
	Infinity Corrected High Resolution BD Semi Apo Objectives: 5x, 10x, 20x, 50x, 100x.
Nosepiece	Brightfield / Darkfield quintuple nosepiece with DIC slot.
	Brightfield / Darkfield sextuple nosepiece with DIC slot.
	Brightfield sextuple nosepiece with DIC slot.
	Brightfield septuple nosepiece with DIC slot.
Focus Adjustment	Low position coaxial focus mechanism, coarse range: 33mm, fine precision: 0.001mm. Upper limit and tension adjustment.
Body	Power supply 100~240V wide voltage system.
Stage	6" three layer mechanical stage with low position coaxial adjustment, size: 445mm x 240mm. Moving range: 158mm x 158mm. Clutch handle for quick movement and glass plate for reflected use.
	8" three layer mechanical stage with low position coaxial adjustment, size: 525mm x 330mm. Moving range: 210mm x 210mm. Clutch handle for quick movement and glass plate for reflected use.
Illumination	12V/100W halogen BD reflected illuminator with electronic variable aperture and field diaphragm, center adjustable with switch for changing from brightfield to darkfield. Slots for filters and polarizing kit.
Polarization	Analyzer with rotatable polarizer.
C-Mount Adapters	0.5x, 0.65x, 1x c-mount adapter.





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