

MIC4™

The only commercially available microscope guaranteeing transmission of more than 80% for all four YAG laser harmonics – 266, 355, 532, and 1064 nm – without compromising the review channel fidelity.

In response to industry demand, WDI has introduced the new microscope MIC4, capable of assisting in laser repair of TFT arrays over a wavelength range from infrared (1064 nm) to deep ultraviolet (266 nm).

This innovation facilitates efficient trimming of metals, silicon and ITO as well as open line repair, within a single piece of repair equipment.

The MIC4 is fully compatible with the ATF4, ATF5, and LLC6 linear lens changer products which are all members of the WDI family of products supporting the FPD fabrication process.

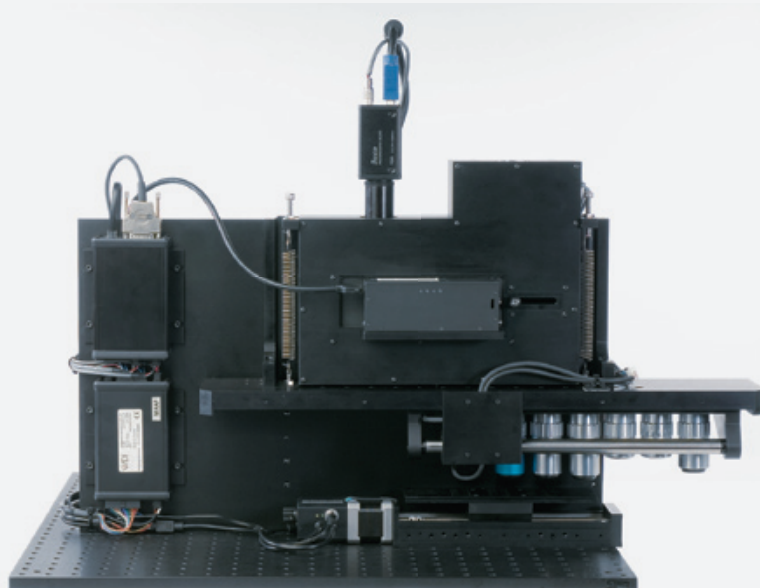
MIC4 goes beyond TFT repair and is fully able to support the following applications

- Cell & Module repair
- Color filter inspection and repair
- Photomask inspection and repair
- Laser Micromachining

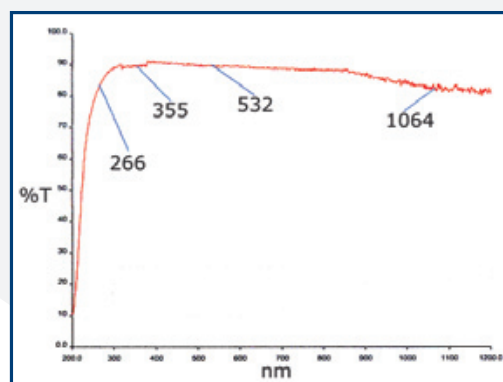
Inspection Microscope Head for YAG Application

MIC4 Special Features

- Supports 4 YAG laser harmonics
- >80% transmission for 266 nm, 355 nm, 532 nm, and 1064 nm
- Uncompromised quality of vision (review) channel
- High speed and accurate linear lens changer
- Integrated white LED (WLED) field light illuminator, enhancing chromatic contrast between thin film layers
- Incorporating WDI Laser Autofocus system (ATF4 or ATF5)
- Easy to integrate, light weight, and compact



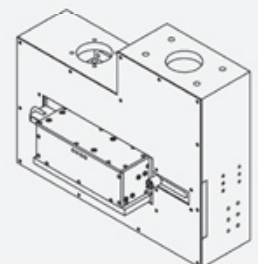
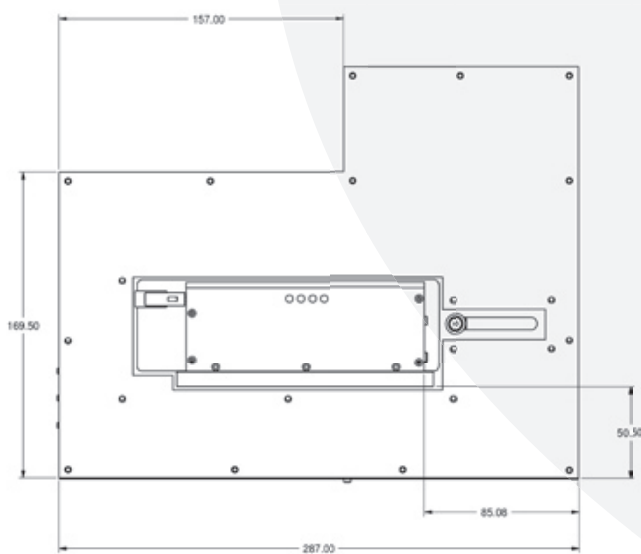
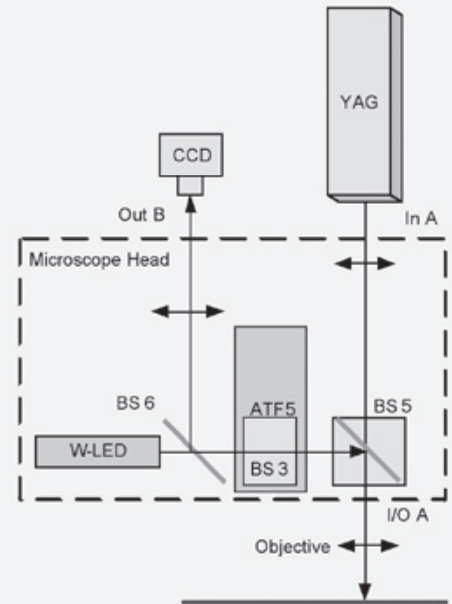
MIC4 Transmission Characteristic



Optical Characteristics

Optical input ports	In A	YAG laser	
	(In B)	Field light illuminator.	Standard internal WLED Illuminator. Optical port optional.
Optical bi-directional ports	I/O A	Auto-focus sensor	
Optical output ports	Out A	Microscope objective	
	Out B	Camera	C-mount
Tube lenses		YAG laser	FL 200mm; Meniscus; UV grade fused silica
		Camera	FL 200mm; Achromat; Broad band multilayer AR coated
Beam-splitters		BS5	Broad-band custom Beam-crystal polarizer
		BS3	Custom Rugate optical band-pass filter; 670nm ±30nm; Reflectance @ 670nm 99%; Transmission >90%
		BS6	Dielectric half mirror (50-50)
Light transmission	In A -> I/O A	1064nm > 80%	
		532nm > 80%	
		355nm > 80%	
	In B -> Out A	>30%	
	I/O A -> Out B	35%	
Mechanical Characteristics			
Dimensions			See drawings
Focus adjustment	In A	80 threads/inch, lens barrel	15 mm adjustment range
	Out B	80 threads/inch, lens barrel	15 mm adjustment range

Optical Diagramm



Physical Dimensions

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