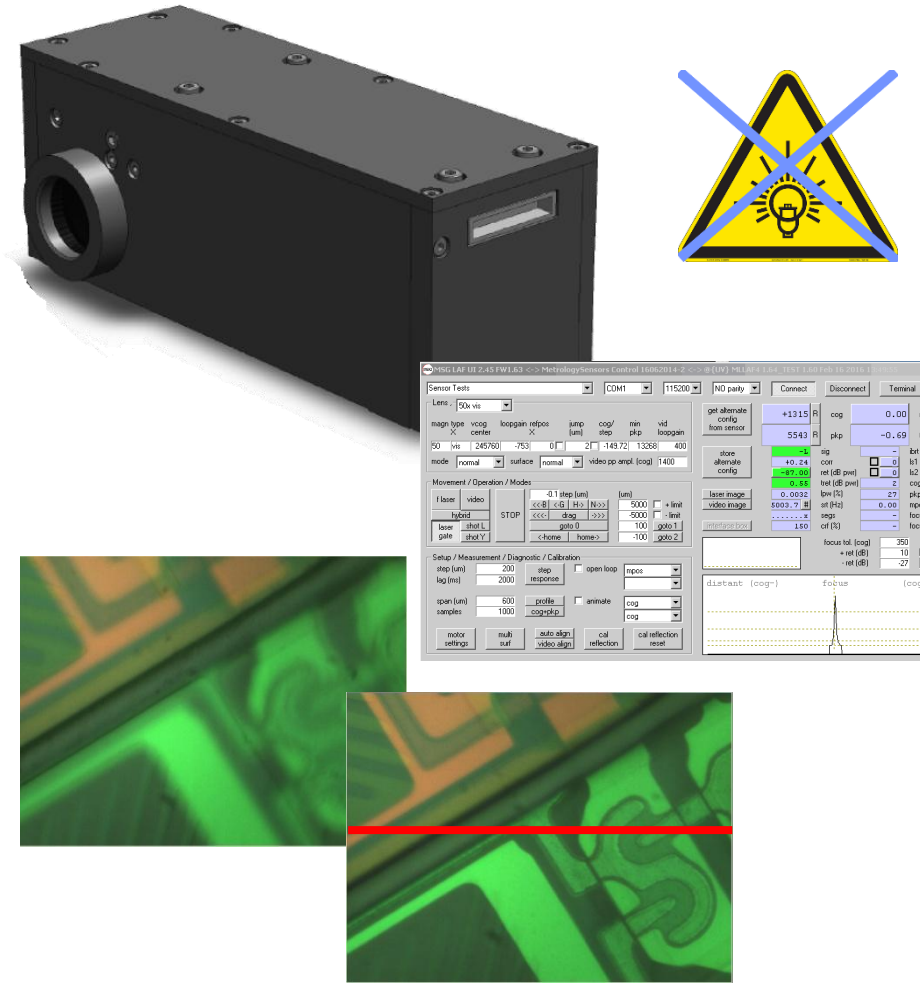
LAF5S-P

Advanced Laser Auto Focus & Tracking System for microscope automation with optical protection filter



- Applicable to Plan Apo lenses 1x-100x, VIS, IR & UV
- Built in optical protection against strong light or laser sources which can disturb the focus measurement
- Full laser line with segment processing
- Fast internal image sensor for minimum update latency
- Motor controller interface with analog & digital outputs for a seamless closed loop integration with third party's stepper motor, piezo, voice-coil or servo drives
- Applicable to Plan Apo lenses 1x-150x, VIS, IR & UV
- User interface with enhanced network capabilities for multi sensor operation
- Easy integration of UI functions into the customer software without software library needed

- Multi surface recognition to track focus on a determined surface in multilayer substrates
- User Interface supported optical alignment and motor setup
- Enhanced network capabilities for multi sensor operation

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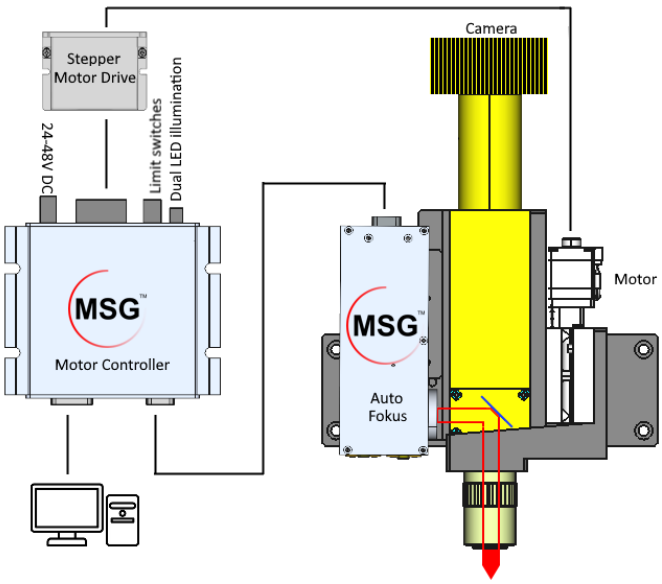
Specification LAF5

Lens Type	APO Plan Infinite Microscope Objectives				
Magnification	5x	10x	20x	50x	100x
Numerical aperture	0.14	0.28	0.42	0.55	0.70
Sample rate	4kHz max.				
Image sensor	250 full frames/sec. max.				
Surface detection Range	±12000µm	±4000µm	±1500µm	±300µm	±100µm
Accuracy*	Laser mode: +/-0.4 of Lens DOF				
Light Source	Safety Class III R Wavelength 660nm-670nm, 785nm				
Operation Temperature	+ 5°C to + 50°C				
Beam Shape	45 ° tilted laser line				
Weight Sensor + cable	400gr+ 140gr				
Built in Optical Filter	Blocking range: 200nm -1200nm Transmission windows 85% for 665nm, +-10nm FWHM				
Weight Interface	400gr				
Recommended port	Beamsplitter 50/50 @670nm or				
Laser AF Cycle time				0.1s	Auto Tracking
Power	In		+12V DC sensor only, 24-48V sensor with Motor controller		
Distance Output	Analog		0- 10V		
Signal Quality Output	Analog		0- 10V		
Communication	Digital		RS232	Ethernet optional	
Laser ON/OFF	In		TTL	& via RS232	
*All data refer to measurement on plain glass					

Table 1

Working Principle



① Auto Focus Sensor LAF

② LAF-C2 motor controller