

ATF Series

Autofocus Microscope System



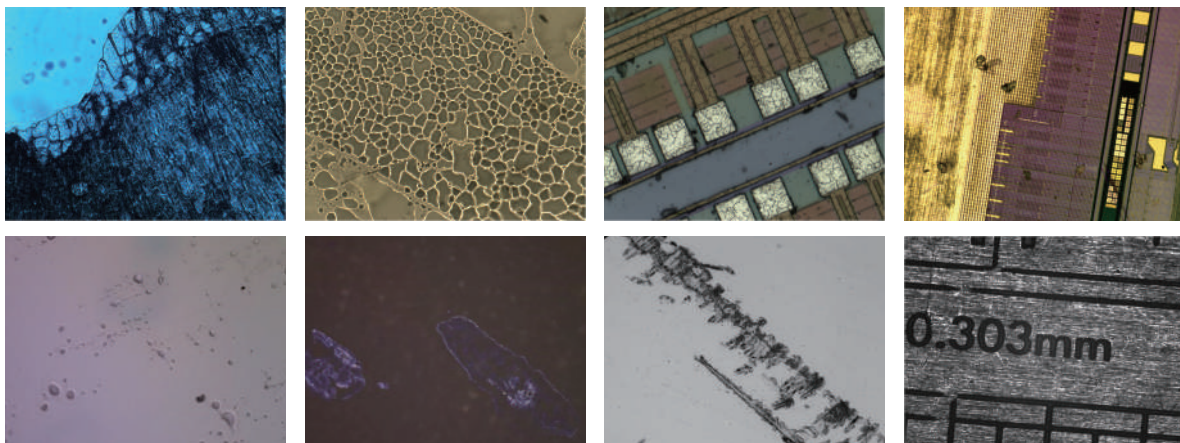
◆ Product Features

- High-speed instant autofocus on moving or static objects.
- Focusing 3K times per second. Built-in high response servo motor controller.
- A complete solution for Area & Line scan in high-speed microscopic image scanning. Highly integrated system for easy setup and use.
- Advanced SoC FPGA technology and fully digitized algorithm provide high reliability and high accuracy.
- Built-in high uniformity light illumination. Optional ultra-high intensity bright & dark field illumination reaches million lux.
- Optional linear lens changer, DIC and fluorescence optical system.
- Compatible with an infinity-corrected microscope system.
- Gigabit Ethernet network control interface provides industrial-grade reliability.

◆ Applications

- Semiconductor Optical Inspection - Wafer, Package and Die Sorting.
- Flat-panel Optical Inspection - TFT-LCD, Solar Cell and Micro-LED.
- Biomedical Science Imaging - Liquid Biopsy, Cell Slide and Fluorescence Microscopy.
- Precision Laser Processing - Cutting, Marking and Dicing.

◆ Case Pictures



◆ Specification Table

Model Name	ATF-S / ATF-SL	ATF-SLX	ATF-SI
Control Interface	Gigabit Ethernet		
Laser Wavelength	785 nm / 820 nm		
Laser Safety	Class 3B		
Focusable sample properties	Reflective surface, matte surface and transparent material		
Specimen Reflectivity	1% ~ 100%		
Image Field	Max. 30 mm		
Camera Mount	C-Mount / M42-Mount		
Focusing Accuracy	One-quarter ~ one-sixth of objective DOF		
Focusing Update Rate	3 KHz	500 Hz	250 Hz
Sampling Rate	15 KHz	2.5 KHz	1.25 KHz
Focusing Range	±700 μm (objective lens 20X)		
	±3,000 μm (objective lens 10X)		
	±9,200 μm (objective lens 5X)		
	±10,000 μm (objective lens 2X)		
Z axis – Travel & profile	±10 mm with adaptive S-curve motion profile		
Z axis - Resolution	0.015 μm with 16-bit encoder		0.030 μm with 16-bit encoder
Z axis - Speed	20mm/s @ single lens. 10mm/s @ linear lens changer and four objectives.	20mm/s @ single lens.	10mm/s @ single lens.
Z axis – Position update rate	3,000 times per second		
Z axis – Max. acceleration	Acceleration: 1,000 mm/s ² Deceleration: 400 mm/s ²		
Illuminator - Default	5W high uniformity lighting with built-in LED driver.		
Illuminator – Options Lighting	MLSU - High power bright field illumination. DFLS - Ultra-high intensity dark field illumination.		
Illuminator – Options LED Driver	Programmable LED Driver with high-speed external trigger synchronization capability. The maximum frequency of strobe input reaches to 100kHz.		