ATF Series

Autofocus Microscope System









Product Features

- High-speed instant autofocus on moving or static objects.
- Built-in high response servo motor controller. Focusing 3K times per second.
- 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 up to four objectives with cleanroom Class 100 guaranteed.
- Compatible with an infinity-corrected microscope system.
- Ethernet network control interface. Noise immunity provides industrial-grade reliability.

Applications

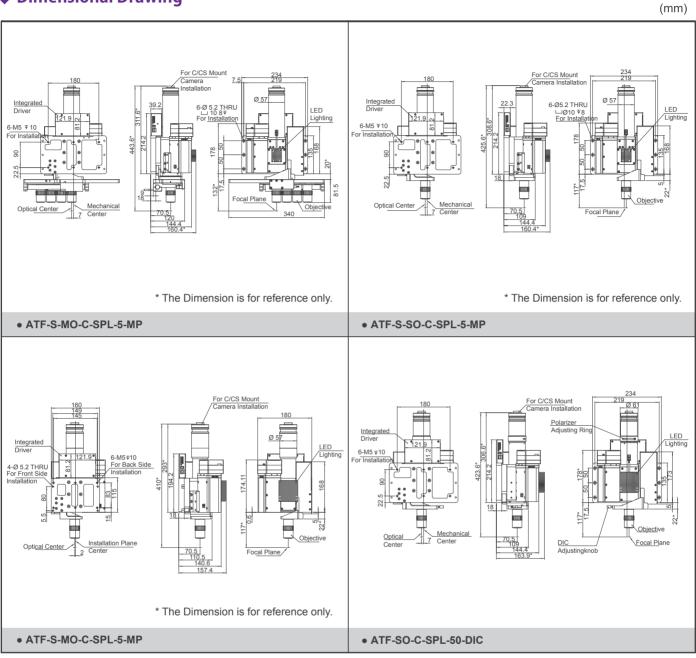
- · Semiconductor Optical Inspection Wafer, Package and Die Sorting.
- Flat-panel Optical Inspection TFT-LCD, Solar Cell and Micro-LED.
- Biomedical Science Imaging Liquid Biopsy, Cell Slide and Fluorescence Microscopy.
- · Precision Laser Processing Cutting, Marking and Dicing.

Specification Table

Control Interface	High-speed 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 DOF
Focusing update rate	3 KHz
Focusing Range	±600 μm (objective lens 20X)
	±2,700 μm (objective lens 10X)
	±9,200 μm (objective lens 5X)
	±10,000 μm (objective lens 2X)
Z axis - Travel	±10mm
Z axis - Resolution	0.015 μm with 16-bit encoder
Z axis - speed	20 mm/s @ single lens. 10 mm/s @ linear lens changer and four objectives.
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.

ATF Series

Dimensional Drawing



Case Pictures

