



Electro Optical Components, Inc.

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Optical tweezers

The optical tweezers system can achieve stable capture in the visible light band and the infrared band at the micron level, and is widely used in biomedicine, colloidal physics, atomic physics and other fields.



Optical Tweezers System Product Specification

Item	SQT-A	SOT-B	SOT-C
Operating Wavelength	532nm	633nm	1064nm
Lighting source	400-700nm/1W	400-700nm/1W	400-700nm/1W
Objective lens	40x-100x/NA1.25-1.42	40x-1001x/42NA 1.25-1.42	60x-100x/NA1.25-1.42
Sample	3-10µm Silica, Polystyrene microspheres	3-10µm Silica, Polystyrene microspheres	3-10µm Silica- Polystyrene microspheres and biological cells, etc.
Camera			
Breadboard	600mm*300mm	600mm*300mm	600mm*300mm

Features

- The system is compact and easy to integrate to meet a variety of applications and needs
- The hardware equipment has an optoelectronic integration module, which can flexibly realize multi-beam and multi-band integration upgrades
- Independent research and development of module structure and photoelectric drive system, can provide a variety of capture types of products

Experiment Results



Application areas

As a non-invasive mechanical manipulation system, optical tweezers can be applied to basic research in interdisciplinary fields such as cell biology, aerosol science, and physical chemistry, including changes in cell microenvironment, deformation and stretching, and measurement of microparticle mechanical parameters. Optical tweezers can also be combined with image recognition to automatically capture and sort particles; optical tweezers can be combined with optical microscopes to quantify the dynamic properties of cells and molecules, creating a huge research space in the midstream of cell biology.