

Product update

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Microscopy

Components for customising microscopes

Siskiyou now offers a set of interchangeable modules and accessories for customising the functionality of optical microscopes from all major manufacturers (Zeiss, Nikon, Olympus), or even for building a new microscope.

The heart of the system is a cube beamsplitter assembly (CBH-1.0) designed to sit in the infinity space of a conventional microscope. The CBH-1.0 enables open access in two orthogonal axes perpendicular to the microscope tube axis, and forms the foundation to which a range of other optomechanical modules can be attached. These unique modules combine the flexibility of an open cage, or breadboard type, microscope system with the superior rigidity and stability of a traditional, monolithic, tube-based microscope.

The range of modular accessories includes a self-registering slide assembly that allows a 45° beamsplitter or mirror to be smoothly inserted or removed from the microscope tube, without disruption or misalignment of the optical path. This permits various filters to be used interchangeably in the excitation light and/or imaging path. Alternatively, the CBH-1.0 can be used to incorporate a second camera into the microscope just below the trinocular assembly. Together with a new fiber optic chuck accessory, the beamsplitter module also enables a fibre delivered laser, or other focused light source, to be directed or scanned anywhere in the field of view.

Yet another available module is an interchangeable objective assembly, based on a unique pivot arrangement, which delivers superior opto-mechanical registration and alignment compared to traditional objective turrets.

www.siskiyou.com



Laser and diodes



StingRay μFocus

A new series of laser line generators from Coherent enables the detection of smaller features in machine vision applications based on triangulation. Specifically, StingRay μFocus (Micro Focus) lasers feature a linewidth that is 40 per cent smaller than standard Coherent StingRay products (at the same working distance), and can

achieve focused linewidths as small as 20μm, thus providing increased spatial resolution and the ability to discern finer details. Based on cost-effective laser diode technology, StingRay μFocus modules are available at wavelengths of 520nm, 660nm, 785nm, and 830nm, at power levels of up to 200mW.

StingRay μFocus laser line generators deliver all the same performance and ease of use features as their predecessors. These lasers also support 'dynamic line balancing,' which allows for the correction of any intensity bias in configurations where the laser must be used at off axis illumination angles. To further enhance usability, Stingray μFocus lasers include an internal 'health monitor' that indicates when a diode is approaching end of life,

www.coherent.com

CW laser for rent

A wide range of high-performance CW lasers can now be rented from Lithuanian company Integrated Optics. At the end of 2015, the company introduced a major platform upgrade for its small and cost efficient DPSS and diode lasers – the MatchBox series.

15 models of lasers can be rented for one to several months, paying just 12.5 per cent of the laser price per month. Accessories like a power supply and a heatsink come free of charge. In such a setup, a laser can be installed and started in just few minutes and controlled over

a user-friendly PC software.

The key applications of the Matchbox series lay in Raman spectroscopy, scanning confocal microscopy, holography, flow cytometry and various sorting techniques. Being very compact, they perfectly suit both portable industrial and space-restricted scientific setups.

www.integratedoptics.com/



Cobolt Tor XS

Cobolt has launched the Cobolt Tor XS, a high performance Q-switched laser at 1,064nm designed for OEM integration into handheld or portable instruments targeting LIBS applications.

Operating at 1,064nm and using the same laser cavity design as its big brother, Cobolt Tor, it provides a combination of high pulse repetition rates (>1kHz), high average power (up to 50mW), short pulse lengths (<3ns) and exceptional pulse-to-pulse stability. In addition, the emission is generated in a TEM00 beam and can be externally triggered from single pulse up to 1kHz.

The compact footprint measures only 50 x 29 x 21.4mm and weighs <100g.

The lasers are manufactured using Cobolt's HTCure Technology in a compact and hermetically sealed package. Lasers built using the HTCure Technology have been shown to withstand multiple 60G mechanical shocks in operation without any sign of degraded performance. They can be exposed to extreme temperatures (>100°C), and are insensitive to pressure and humidity.

www.cobolt.se

