New Wavelengths for Plug-and-Play Smart Laser Modules

Coherent Inc. has added two new wavelengths - 514 nm and 552 nm - to their OBIS family of plug-and-play smart laser modules. The OBIS 514 LS and the OBIS 552 LS are now available with output powers of 20 milliwatts, and offer an optimum combination of superior beam quality (diffraction limited TEM00 beam, divergence < 1.2 mrad, pointing stability < 30µrad/ ± 3°C), power stability (< 2% over 8 hours ± 3°C) and low noise (rms ? 0.25% at 20 Hz to 20 MHz). Together with its smart integrated controller, these lasers enable true plug-and-play operation which is a unique OBIS advantage for end users and OEMs alike. In particular the OBIS laser facilitates an easier and simpler build of a new application or instrument with the ability to easily expand wavelengths and power. OBIS lasers also simplify field exchange and upgrades with the common beam parameters and form factor.

All 14 lasers in the OBIS series have the industry’s most compact footprint 70 x 40 x 38 mm (2.75 x 1.57 x 1.5 in) for lasers in this power range. Standard features include flexible operation via USB, RS 232 and serial interface ports to monitor and control all laser functions.

Both new OBIS wavelengths are expected to find widespread use in life sciences applications based on fluorescence excitation and detection. Examples include flow cytometry, drug discovery, and confocal microscopy. The OBIS 514 LS provides a compact and smart alternative to ion lasers at this important legacy wavelength. The OBIS 552 LS offers a new wavelength that provides a single laser alternative to the use of 532 nm and 561 nm lasers. For example, it effectively excites PE while avoiding spill over into both the fluorescein and PE emission bandwidth. It is

applicable for most of the dyes typically excited by 561 nm including DsRed, and red fluorescent proteins such as dTomato. Moreover, the absorption coefficient of APC and its tandem dyes is low at 552 nm which significantly simplifies the need for crossbeam compensation.

Coherent, Inc.
408-764-4000; www.Coherent.com [1]

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[1] http://www.coherent.com/