

Newsletter – Dec 2013

Wavelab Scientific is a leading company for software and hardware products for the Photonics industries.

This will be the last newsletter for the year and from this company. We will be migrating to a new company, Wavelength Opto Electronic (S) Pte Ltd from Jan 2014.

1. High Resolution CCD Spectrometer



Mightex HRS series compact CCD spectrometers features a high-resolution 100mm Czerny-Turner optical platform coupled with a Toshiba 3648-element CCD array.

Wavelength and amplitude stability are some of the features.

The spectrometer is controlled through a USB2.0 interface.

Applications:

- Lab research
- Process control
- Environment monitoring

2. Dynamic Spatial Illuminators



Polygon400 DSI integrates the state-of-the-art spatial light modulators and high-power LEDs using a proprietary Etendue-preserving optical design to deliver high-intensity illumination patterns with diffraction-limited resolution.

Applications:

- Optogenetics
- Photoactivation
- Photostimulation
- Structured illumination

3. Avalanche Photodiodes



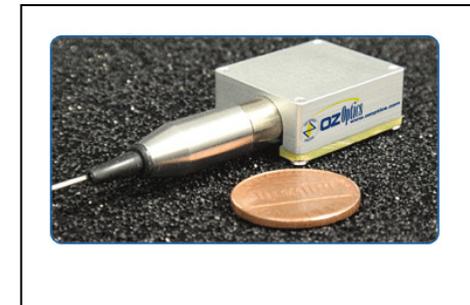
SAP500 series is based on a reach-through structure featuring excellent quantum efficiency, extremely low noise, and low dark current. To detect individual photons, the avalanche photodiode is operated in Geiger mode; it is operated at a voltage above the breakdown voltage, $V_R > V_{BR}$. The component has an active area of 500 μm and comes in a hermetically-sealed TO-46 housing – optional with single-stage thermoelectric cooler (TO-37) or two-stage TEC in a TO-8 housing.

The new SAP500 series is particularly suitable for applications in which the weakest light signals, down to the individual photons, have to be quantified and timely resolved.

Applications:

- LIDAR
- Spectroscopy
- fluorescence measurement
- photon counting

4 MEMS 1xN All-Optical Switches



OZ Optics 1xN MEMS Switches have best-in-class shock & vibration spec, and come in compact, easy to install form factors. Form factors of 1x2, 1x3, 1x4, 1x8 and 1x12 switches are identical.

The MEMS technology used in these switches offers extremely low electrical power consumption, high durability (> 1x10⁹ cycles), no stiction, and high resistance to shock & vibration. Laser welded assembly ensures repeatability and ruggedness in field applications.

5. Near-Field Measurement System



PM-NFMS™ system performs brightness and color measurements as a function of viewing angle for large light sources.

Because the PM-NFMS™ system captures a complete near-field model of the light source, it provides much more comprehensive information — in a much smaller measurement space — than can be obtained from traditional spotmeter-based measurements.

6. Laser Safety



Laservision designs and manufactures a complete line of laser safety protection products including laser safety eyewear, laser safety glasses and goggles, laser safety face shields, laser viewing sheets and windows and laser safety barrier systems.

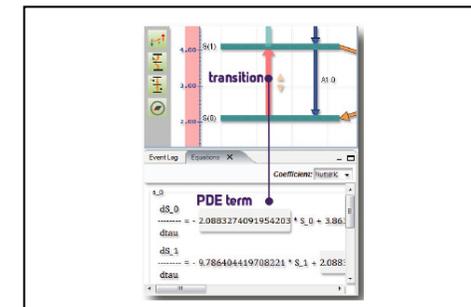
7. Simphosoft



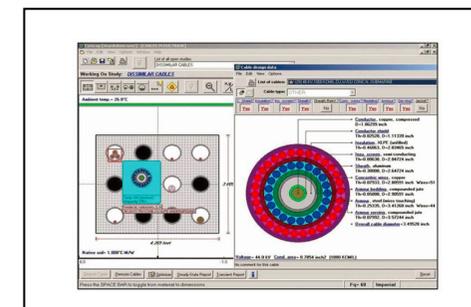
SimphoSOFT 3.0 brings new powerful features which help to better understand absorption and emission of photo-activated materials, to accurately predict material damage, to optimize multi-photon parameters against z-scan experiments, and which help in teaching non-linear optics in class.

Features:

- Stimulates laser-material experiments
- Optical material bulk properties
- Optimization of photophysical or experimental parameters
- Database of photophysical parameters:
- Simulation Output



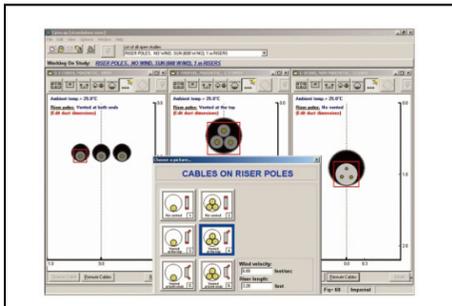
8. Power Cable Ampacity Calculations



The CYMCAP software is dedicated to the calculation of ampacity and temperature rise for power cable installations.

It addresses steady-state and transient thermal cable rating as per the analytical techniques described by Neher-McGrath and the IEC 287, and IEC 853, International standards.

The accuracy of our software provides increased confidence when upgrading power cable installations and designing new ones; maximizing the benefits from the considerable capital investment associated with them. It also helps increase system reliability and support the proper utilization of the installed equipment.



We are proud to represent the following companies for this issue of newsletter:



- Spectrometer and Illuminators



- APD



- Fiber Optics



- Light measurement



- Laser Safety



- Simulation



- Power Cable calculations

The Wavelab team who is there for You!



(From left): Vijay, Yvonne, Peng Peng, Sam and John

Hope we can continue to work closely with you
and
provide solutions to your issues in the
new Company!