ePulse: Laser Measurement News

May 2010

Welcome to **ePulse: Laser Measurement News**, a review of new developments in laser analysis, beam diagnostics, and beam profiling. Each issue contains industry news, product information, and technical tips to help you solve challenging laser measurement and spectral analysis requirements. Please forward to interested colleagues.

Business News

Ophir Optronics Acquires Photon Inc., Adds Innovative Scanning-Slit Technology

Ophir Optronics has announced the acquisition of **Photon Inc.**, a developer of precision laser beam profiling optical test equipment. Photon's scanning-slit profilers provide high accuracy and precision for the measurement of CW and KHz pulsed laser beams across the spectrum range from UV to far infrared. The scanning-slit technology offers the highest ease-of-use profiling because it can measure high power beams without the need for complicated attenuation schemes. Read the announcement.

FAQs for current and prospective Photon users.

Tutorials

Industrial Laser Beam Profiling: What's Going On Under the Hood

You may be wondering what all the fuss is over laser beam profiling. Why worry about the quality of the laser beam that you've just put into production? You might think that laser beam quality has more than likely been addressed at the R&D stage, or even at the manufacturing or integration stages of the system that you've received. You might be correct. However, you might be surprised to learn that this is not always the case. Read John McCauley's article.

Laser Power/Energy Measurement: Striving for Greater Accuracy

There is ever increasing demand for more accurate measurements. This presentation discusses the methods needed and equipment available, from power and energy calibration accuracy to thermal and pulsed sensor improvements. Read Ephraim Greenfield's article.

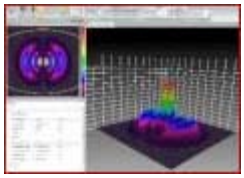
FAQs

Power/Energy Meters

Ophir-Spiricon's thermal sensor specification states "Power

Video of the Month

Laser Measurement
Make sure the laser beam you expect is the one that is delivered. See how beam profiling can help you get the most performance out of your laser. Watch the beam profiling video.



Laser Puzzle

Try your hand at this month's Laser Puzzle. All entries will receive a 1GB pen drive. The grand prize winner will receive a netbook. E-mail answers to sales@ophir-spiricon.com. Need a hint? E-mail kevin.kirkham@ophir-spiricon.com.

Here are the answers to last month's puzzle. The winner was **George S. Cross, Boeing Directed Energy Systems**. His company uses lasers for atmospheric compensation and for simulation of high power laser systems. They characterize laser mode, beam diameter, beam profile, power, and M2 to ensure maximum performance.

Free Laser Measurement Equipment

That's right. If you're an end user of our laser equipment, let's hear about it and how you use it in your application. You can write the whole article or you can collaborate with our talented writers. In exchange, we can negotiate you receiving one our latest innovative instruments, detectors, or profiling cameras and software

accuracy +/- 3% at calibration wavelength." To what exactly does the 3% refer? Read the FAQ.

Can broadband coatings on the PE sensors and 3A sensors be cleaned with a cotton swab or optical tissue wipe? Read the FAQ.

What is the Ophir meter zeroing and when should it be performed? Read the FAQ.

Beam Profiling
After installing BeamGage the source is unavailable and it will not recognize the camera that is connected. How do I get BeamGage to recognize the camera? Read the FAQ.

Can BeamGage Professional be run on the same computer that BeamGage Standard is already installed onto? Read the FAQ.

M2
Do the M2-200 and M2-200s internally provide all the necessary attenuation for operation with the direct laser beam? Read the FAQ.

What's New

Industry's First Integrated Beam Profiling/Power Meter System
BeamGage®, the next generation laser beam analysis software, is the first to support the combination of laser beam profiling with power meter measurements in a single system. The software now interfaces with Ophir power meters, including the company's Pulsar-4 multi-channel smart head to PC interface. BeamGage matches the laser power meter readings to the beam profile data, providing a more complete view of laser performance. Find out more.

Compact Thermal Laser Power Meters
Thermal Laser Power Meters are high performance, heat dissipation sensors with powers up to 400W. They feature an array of pins for cooling, unlike other devices which rely on flat cooling fins that consume significantly more space. As a result, they are the most compact laser power sensors on the market, half the size of most devices. The modular design can be tailored for a variety of custom OEM applications as well. Find out more.

Very Low Energy Laser Measurement Sensors
The PD10-IR-pJ Photodiode Energy Sensors measure very low energy, down to 30pJ. Part of the PD10 family of high sensitivity silicon laser sensors, the new devices extend the low measurement capability to the NIR range, covering from 800 to 1800nm. The new sensors are able to measure very low energies, either single shot or repetitive, up to 10kHz. Find out more.

2010 Catalog for Laser Measurement Applications
Ophir-Spiricon's 2010 Laser Measurement Catalog covers a wide range of laser power/energy sensors and meters, and laser beam profiling systems for industrial, defense, medical, and research applications. The catalog, designed as a "green" PDF-formatted reference book, covers laser measurement and analysis needs, from photodiode, thermal, and pyroelectric power/energy detectors to portable displays and high power, high accuracy beam profilers. Download today.

to use in your lab. For power/energy meters, e-mail Burt.Mooney@Ophir-Spiricon.com and for beam profilers, e-mail Kevin.Kirkham@Ophir-Spiricon.com. In a few nanoseconds, you'll be telling the laser world about your application using our equipment and a femtosecond or two later you'll be logging your data on our equipment like the Nova II, Vega, Quasar or BeamGage.

2010 Power Meter & Beam Profiling Catalogs

Download the new 2010 Ophir-Spiricon Laser Measurement Catalogs today. Tutorials and products in Power Meters and Beam Profiling.

Fast Ship Program

Ophir-Spiricon's new Fast Ship program provides one-day shipment of the most popular power/energy, beam profiling, and M2 laser measurement equipment.

Trade Shows

Upcoming shows where you can see Ophir-Spiricon equipment in action. For a complete list of trade shows, click here.

SPIE Optics + Photonics
August 3-5, 2010
San Diego Convention Center
San Diego, CA

About Ophir-Spiricon, LLC

Ophir-Spiricon is part of the Ophir Optronics Laser Measurement Group. The Laser Measurement Group provides a complete line of instrumentation including power and energy sensors, beam profilers, and spectrum analyzers. Wholly focused on laser measurement, the group's modular, customizable solutions serve manufacturing, medical, military, and research industries throughout the world. Since 1978, an unwavering commitment to forward thinking has kept us "the partner of choice" in optoelectronics.

Ophir-Spiricon Supports LaserFest
Ophir-Spiricon has joined with the American Physical Society, the Optical Society, and SPIE to celebrate the 50th anniversary of the laser. Find out about activities and events.

An ISO 9001:2008 Registered Company.

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