

ePulse: Laser Measurement News

The true measurement of laser performance



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April 2009

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.

Tutorials

How to Select Power/Energy Sensors

The need to accurately measure laser power and energy has increased as more of these systems are used in medical procedures and industrial processes. Although a fairly simple process, this measurement is not as straightforward as an electric power measurement. With lasers, more attention must be paid to the selection of the right sensor, since different sensors perform different measurements. Selecting the wrong sensor can destroy the laser. Find out more in Yoram Shalev's article on [Power/Energy Sensors](#).

Industrial CO₂ Pulsed Laser Beam Profiling

Producing acrylic mode burns is a laborious process that produces toxic fumes and, at best, rough approximations of beam shape and size. In some cases, they simply don't work, missing important beam details. Electronic beam profiling is an easy and cost-effective option. This article shows the differences between the two processes. Find out more in [CO₂ Beam Profiling](#).

FAQs: Power/Energy Meters

When using the fiber optic adaptor, how is power loss due to the fiber relative to calibration handled? Read the [FAQ](#).

At what frequency does the Quasar work? Might there be concerns with interference from other devices? Read the [FAQ](#).

User Tips: Power/Energy Meters

Many of Ophir's laser measurement heads are calibrated with a full spectral curve. For these products, you need to select wavelength rather than a spectral range. Find out more in this issue's [User Tip](#).

FAQs: Beam Profiling

BeamGage is the first beam profiling software in the industry to be designed from scratch using the latest tools and technologies. It took years for the total vision to emerge. Find out how this new beam profiling software is changing the face of beam analysis. Read the [FAQ](#).

New! 2009 Power Meter & Beam Profiling Catalogs

Download the 2009 Ophir-Spiricon Laser Measurement Catalogs today. Tutorials and new 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.

Laser Q&A

What is the definition of damage threshold?
Find out at [Laser Q&A](#).

On-Site Seminars

Ophir-Spiricon has begun conducting a limited number of on-site beam diagnostic seminars for major laboratory facilities and academic institutions focusing on photonic developments. These educational seminars will include such topics as "Power vs energy: Which do you measure and why," "Focused spot analysis: When it makes sense," and "M2 beam propagation analysis." For more information or to schedule a seminar, contact Kevin Kirkham at Kevin.Kirkham@ophir-spiricon.com or call 435-753-3729.

Trade Shows

[Laser Expo 2009](#)
April 22-24, 2009
Pacifico Yokohama
Yokohama, Japan

[CLEO-IOEC](#)
June 2-5, 2009

User Tips: Beam Profiling

How can you align a laser beam onto a camera imager if you can't see the beam? Here are some [tips for laser alignment](#).

Laser Measurement Business

Focus on Calibration

Ophir-Spiricon is always looking for ways to improve the all-important process of calibrating equipment. A goal for 2009 is to reduce the power/energy meter standard lead time from two weeks to less than one week. Thus far in 2009, the average turnaround time for calibrations is less than 5 days. Many power/energy meters are calibrated and shipped in 24 hours. A new, free expedite service is in the works and will be announced shortly. For more information on Ophir-Spiricon's calibration services, [contact your local office](#).

What's New in Laser Measurement

Low Cost, Industrial Beam Profiler for High Power CO₂ Lasers

ModeCheck™ is a portable industrial beam profiling system that enables the quantitative measurement and viewing of high power CO₂ beams. Designed to verify performance and reduce changeover time for industrial parts manufacturers, the system measures key characteristics of the laser beam profile in real-time and stores mode images for later recall and comparison. Find out [more](#).

StarLab Laser Measurement Software

StarLab is laser measurement software for Microsoft® Windows® 2000, XP, and Vista (32-bit). StarLab works with Ophir-Spiricon's smart displays and PC interfaces, allowing users to measure, analyze, and record laser power and energy parameters from the company's line of smart power/energy sensors. The latest version of the software supports Ophir-Spiricon's full line of laser power/energy meters, including the **Quasar** wireless meter and **Pulsar** high speed, multi-channel USB meter. Find out [more](#).

Baltimore Convention Center
Baltimore, Maryland

[Laser World of Photonics](#)

June 15-18, 2009

New Munich Trade Fair Centre
Munich, Germany

About Ophir-Spiricon Inc.

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 meters, 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.

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