ePulse: Laser Measurement News

May 2012

Welcome to **ePulse: Laser Measurement News**, a review of new developments in laser beam measurements, 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 or have them subscribe.

Tutorials

Pyroelectric Technology in Laser Sensors and Beam Analyzers
Pyroelectric technology provides unique features that are used extensively in measuring laser beam quality. This tutorial discusses how Ophir-Spiricon employs pyroelectric detectors in both power meter sensors and laser beam analyzers. Read the pyroelectric detectors tutorial.

Applications

Making High Power Measurements with Little to No Attenuation
High power is a fairly indistinct term that means different things in different contexts. This how-to article looks at the challenges of measuring laser beams up to 5000W. Find out how to make high power measurements.

The Challenge of Splitting Laser Beams for Solar Panel Manufacturing
A solar cell manufacturer faced a challenge: how to split a laser beam into multiple parts that perform equally well in solar cell scribing. Find out how they made it happen.

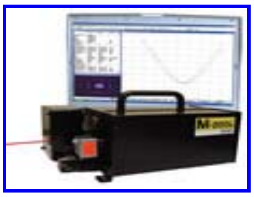
Business News

Supplier Partnership Leads to Process Improvement & Certification
Over the last five years, Ophir-Spiricon worked side by side with Medtronic to improve calibration and repair services. Lean manufacturing techniques led to supplier status and a path to ISO17025 certification. Find out more about Ophir-Spiricon and Medtronic.

Ophir-Spiricon Honored as Outstanding Technology Business of the Year
The Cache Chamber of Commerce recently honored Ophir-Spiricon as Outstanding Technology Business of the Year. The award was presented to Gary Wagner, President of Ophir-Spiricon, at the Chamber's 2012

Video of the Month

Measuring M2 with Beam Propagation Analyzers
M2 is the single value that describes how your laser beam correlates to a true TEM00 single-mode Gaussian beam, in other words, how well your beam is focused on a surface. Knowing your beams M2 value allows you control the success of your laser application. View the M2 video.



From the Blog

Beam Profiling & Medical Devices
How beam profiling was used to indicate and repair lasers that malfunctioned in medical applications: CO2 laser waveguide medical delivery system and tissue welding. Find out how beam profiling helped the manufacturers.

2012 Catalogs: Power Meter & Beam Profiling

Download the 2012 Ophir-Spiricon Laser Measurement Catalogs today. Tutorials and products in Power Meters and Beam Profiling.

Laser Puzzle

Try your hand at this month's Laser Puzzle. All entries will receive an 2GB pen drive. The grand prize winner will receive an iPad 16GB WiFi. E-mail answers to sales@us.ophiropt.com. Need a hint? E-mail kevin.kirkham@us.ophiropt.com

Here are the answers to the last

annual awards banquet at Utah State University. Technology Business of the Year.

Technical Tips

Using the Quasar Power Meter Android App
Since introducing the first mobile phone power meter app this year, we've been getting a lot of questions. Which phones are supported? What version of the Android OS? Get your Quasar Meter App answers here.

How Many Bits is Enough?
Choosing the correct digitization for a beam profiler depends on the application. Get the details here.

FAQs

Beam Profiling
What is the best beam width measurement method? Read the FAQ.

Power/Energy Meters
What are the limits on measuring pulsed lasers with photodiode sensors? Read the FAQ.

What's New

Entry-Level Laser Beam Analysis System Integrates Camera, Beam Profiles, ISO Measurements, Pass/Fail Testing
BeamMic™ is a new laser beam analyzer that combines the essentials for beam analysis in a low-cost, entry-level system. BeamMic includes easy-to-use software that measures a beam's size, shape, uniformity, and mode content. Beam intensity profiles are displayed simultaneously in 2D and 3D. Statistical analyses can be performed on measurement functions and min/max limits can be set for pass/fail testing. BeamMic Laser Beam Analysis System.

Many products available next business day in US

New Mobile App - ePulse: Laser Measurement News
Now you can use your smartphone to keep up to date on the latest developments in laser analysis, beam diagnostics, and beam profiling. Ophir has launched a mobile app of its popular ePulse: Laser Measurement Newsletter. Each time you open the app, it automatically updates with the latest industry insight, new products, and technical tips on laser measurement and spectral analysis. Using your smartphone, browse to http://www.mippin.com/ophir and download the app.

issue's puzzle. The winner was **David Yeager, Microelectronics Process and Test Engineering, Northrop Grumman Corporation**. "I have used the Ophir Nova II Power Meter and Starlab Software for about a year to monitor the power output of the fiberoptic at our laser welded workpieces. Even though our laser performs some compensation, the Nova II has been essential in providing an early warning when cleaning and maintenance of the optics are needed. Better yet, it provided the clear evidence needed to correlate specific yield issues to loss of laser power, while confirming that the fault was not in the laser source itself. For this type of analysis, the Nova II/Starlab has become an important process control tool for our laser welding operation." - David Yeager

Trade Shows

LASYS 2012
June 12-14, 2012
Stuttgart, Germany
Halle 1-J 12

MD&M Brazil
June 26-27, 2012
Sao Paul, Brazil
Booth 815

SPIE Optics + Photonics
August 12-16, 2012
San Diego, CA
Booth 516

Fast Ship Program

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

Free Laser Measurement Equipment

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 of our latest innovative instruments, detectors, or profiling cameras and software to use in your lab. E-mail kevin.kirkham@us.ophiropt.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.

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About Ophir-Spiricon, LLC

With over 30 years of experience, Ophir Photonics, a Newport Corporation brand, provides a complete line of instrumentation including power and energy meters, beam profilers, spectrum analyzers, and goniometric radiometers. Dedicated to continuous innovation in laser measurement, the company holds a number of patents, including Ophir-Spiricon's **Ultracal™**, the baseline correction algorithm that helped establish the ISO 11146-3 standard for beam measurement accuracy. The Photon family of products includes **NanoScan** scanning-slit technology, which is capable of measuring beam size and position to sub-micron resolution. The company's modular, customizable solutions serve manufacturing, medical, military, and research industries throughout the world.

An ISO 9001:2008 Registered Company.

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