ePulse: Laser Measurement News

March 2008

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.

Technical Tips & Tutorials

Maximizing Laser Accuracy with Laser Beam Analysis
With increasingly sophisticated applications, the demands on the quality of the laser beam have become much greater. Traditional methods of measuring laser beam intensity profile, i.e., burn spots, mode burns, and viewing the reflected beam, are woefully inadequate. Today, electronic beam profile instruments enable fine-tuning of laser properties to a greater extent than previously possible. New algorithms for laser beam property quantification are discussed, along with the performance improvement of these calculations. Read the details at Laser Accuracy.

Beam Imaging Using Fresnel Lens and 1310nm Diode
The lighter weight and volume of material required for a Fresnel lens makes them popular for a variety of applications, from traffic lights and automobile headlamps to optical landing systems and solar thermal energy systems. But the multiple surfaces can make lens alignment and diode focusing a challenge. This test compares the profiles of an On-Axis Fresnel lens with an Off-Axis Fresnel lens, and then analyzes the beam quality of a 1310nm IR probe used for MEMS manufacturing. Read the details at Fresnel Lens.

What's New in Laser Measurement

Quasar, Wireless Bluetooth Interface for Laser Measurement
Quasar is the industry's first wireless Bluetooth interface that broadcasts laser meter data to any PC or laptop within 10 meters. Quasar enables operators to separate the placement of the remote laser energy meter and the operator's PC or laptop to provide optimal flexibility for complex laser meter applications. An optional antenna provides extended range up to 60 meters. Find out more at Quasar.

New 2008 Catalog

Download the new 2008 Ophir-Spiricon Laser Measurement Catalog today.

Laser Q&A

How does a beam profile analyzer display a picture with square pixels from a CCD camera with rectangular pixel elements?
CCD cameras incorporate a low pass filter in the output video line of about 5 MHz bandwidth, which very slightly smoothes the output data in the horizontal axis. Therefore, the signal in a horizontal line is not 100% correlated to pixel width. Find out how at Laser Q&A.

eProfiles

Gary Wagner, President, Ophir-Spiricon Inc.
From his early days in engineering at BF Goodrich, Gary Wagner has been knee-deep in the world of optoelectronics. Today, Gary is a recognized authority in machine vision and automated imaging which is a perfect fit for his new role at Ophir-Spiricon Find out more at eProfiles: Gary Wagner.

Conferences & Exhibitions

Defense & Security
March 16-20, 2008
Orlando World Center Marriott Resort and Convention Center
Orlando, FL
Booth 2004

ASLMS
April 2-6, 2008

M^2 Beam Propagation Analyzer Upgrade, Reduced Size
The M^2-200S beam propagation analyzer now features a smaller size and more robust enclosure. In addition, software improvements provide more efficient algorithm execution, reducing measurement reporting time by 2-3 times and making it possible to report M2 in under two minutes. Find out more at Beam Propagation.

Vega: Versatile Handheld with Vibrant Color Display
Vega is an advanced handheld laser meter with brilliant color display for laser beam measurement. Available with digital or analog needle display, Vega offers an illuminated display screen with backlit navigation buttons that are easy to use under all lighting conditions. The 320x240 color display assists operators with identifying trends or warning signals; colors can be optimized for use with laser protection glasses. Find out more at Vega.

Fast Ship Program Guarantees One-Day Shipment
Ophir-Spiricon's new **Fast Ship** program provides one-day shipment of the most popular power/energy, beam profiling, and M2 laser measurement equipment. Select equipment is guaranteed to be in-stock and available to ship in one business day. If the Fast Ship item is not in stock, Ophir will pay for shipping on that order. Same-day shipment is also available for orders placed on in-stock items before 2:00 pm MST. Find out more at Fast Ship.

What's New in Power/Energy for 2008?
This overview of what's new for 2008 covers the latest power and energy measurement equipment offerings from Ophir-Spiricon and includes a tutorial on beam profiling and how to get consistent performance from your laser. Find out more at What's New.

Gaylord Palms Resort
Kissimmee, FL

CLEO
May 4-9, 2008
San Jose McEnery Convention Center
San Jose, CA
Booth 1916

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.

60 West 1000 North, Logan UT 84321
Tel: +1 435-753-3729
www.ophir-spiricon.com