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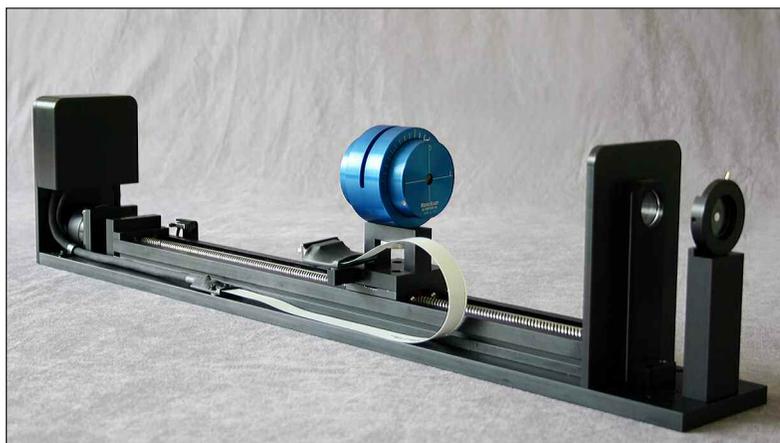
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## Ophir Photonics Group Introduces Fast, Automated, CO<sub>2</sub> Laser Beam Propagation Analyzer for M<sup>2</sup> Measurements

*Measures M2 at any wavelength, UV to IR, in ~20 seconds*

March 22, 2011 – Logan, UT – Ophir Photonics Group, the global leader in precision laser measurement, today announced the **NanoModeScan M<sup>2</sup> Laser Beam Propagation Analyzer**. NanoModeScan enables the quantitative measurement and viewing of high power CO<sub>2</sub> laser beams. The system is easy to setup and align; the straight line of sight design means little or no attenuation is required. NanoModeScan is also fast; an M<sup>2</sup> measurement can be made in as little as 20 seconds. In addition, the system reports beam waist diameter and location, divergence, and the beam's Rayleigh range for each axis. The NanoModeScan's ease of use and fast update rate (up to 20Hz) make it ideal for CO<sub>2</sub> laser-based material processing, machining, and marking applications where laser performance needs to be adjusted in real-time.



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“It is important to understand variations in the production process,” stated Allen Cary, Sales and Marketing Manager, Ophir-Photon LLC. “The faster laser beam parameters can be quantified and documented, the quicker adjustments can be made to maintain product quality and reduce downtime. NanoModeScan is a valuable tool in this process because its rapid update rates allow for real-time adjustments and its comprehensive set of measurements meet quality control requirements.”

The **NanoModeScan M<sup>2</sup>** combines the flexibility and speed of Photon Inc.’s **NanoScan** near-field profiler with dedicated M<sup>2</sup> measurement hardware and software. The system provides automated measurement of M<sup>2</sup> in as little as 20 seconds using either the ISO 11146 or Rayleigh method. It reports such parameters as M<sup>2</sup> times diffraction limit, K beam propagation factor, d0 beam waist size, Z0 beam waist location,  $\theta$  divergence, and Zr Rayleigh range.

The **NanoModeScan’s** software controlled variable scan speed allows the measurement of both CW and kHz pulsed lasers, covering the entire wavelength range from UV to FIR. Rapid beam finding and auto ranging speed up the total M<sup>2</sup> measurement to ~20 seconds for CW lasers.

Both 200mm and 400mm lenses are available to generate the proper artificial waist for the laser source under test. For ease of alignment, the system includes an entrance iris on the optical axis and a precision alignment stage for horizontal and vertical positioning.

### **Pricing and Availability**

The **NanoModeScan M<sup>2</sup>** Laser Beam Propagation Analyzer is available now. OEM pricing is available on request.

The **NanoModeScan M<sup>2</sup>** data sheet can be downloaded at <http://www.photon-inc.com/products/nanomodescan/nanomodescan.html>

### **About Ophir-Spiricon**

Ophir-Spiricon is part of the Ophir Photonics Group. With over 30 years of experience, the Laser Measurement Group 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 **Ultracal™**, the baseline correction algorithm that helped establish the ISO 11146-3 standard for beam measurement accuracy. The recently acquired 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. For more information, visit <http://www.ophiropt.com/photonics>

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