

For Immediate Release –May 1, 2007

Photon Measures M^2 of a Laser over 1 Million Times with New Real-Time M^2 Measurement System



Photon's Model 1780 ModeScan System

San Jose, CA – Photon announces a new beam profiling system to measure the M^2 Beam Propagation Ratio and all associated ISO 11146 parameters in real time. This instrument, the Photon ModeScan Model 1780, uses a patented technique with 10 reflective surfaces to form 10 simultaneous images of the beam onto a CCD detector array. The M^2 and other beam parameters are measured and updated at a rate over 20 Hz. The ModeScan Model 1780 analyzes continuous wave, pulsed, and single-shot lasers over the wavelength range of 250-1100 nm. This compact system measures 62 x 140 x 210 mm with an IEEE 1394 "FireWire" interface, and is designed to occupy a minimum of optical bench space and provide a high level of portability.

To demonstrate the speed of Photon's new real time measurement system, Photon measured the M^2 parameter of a single laser over 1 million times. This is believed to be the most times any laser M^2 parameter has ever been measured. In addition to the HeNe laser used in this demonstration, Photon also measured Nd:YAG lasers, laser diodes, and other lasers and found the M^2 results determined in real time to be in excellent agreement with known values.

Previously, the M^2 parameter involved a process of measurements involving at least 30 seconds and as long as a few minutes to complete, even with automated systems. Real time M^2 measurements now provide laser engineers and manufacturers the ability to make real time adjustments with lasers and determine the effects on M^2 on the fly. In addition, M^2 and beam propagation measurements can now be performed on single shot lasers without the need for multiple pulses, and thus, important pulse to pulse variations of these lasers can now be measured.

As with all Photon products, this instrument generates NIST traceable measurements, which is important for ISO and other quality programs, FDA regulations, and other applications where traceability to a national standards laboratory is essential.

Photon, a leading beam profiling manufacturer, has earned numerous patents and new product awards over its 23-year history.

Contact: Mary Russell
Phone 408.226.1000, x120
Fax 408.226.1025
mrussell@photon-inc.com