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MKS Announces New Ophir® NanoScan™ Scanning Slit Laser Beam Profilers for Sub-Micron Measurement of Tunable Lasers and Mid IR Lasers

Andover, MA – August 14, 2018 – [MKS Instruments, Inc.](http://www.mksinst.com) (NASDAQ: MKSI), a global provider of technologies that enable advanced processes and improve productivity, has announced new additions to the **Ophir® NanoScan™ 2s** line of high power, scanning slit laser beam profilers. NanoScan products are NIST-calibrated profilers that instantly measure beam position and size with sub-micron precision for CW and kilohertz pulsed lasers. NanoScan profilers offer a choice of silicon, germanium, or pyroelectric detectors, which allows profiling lasers of any wavelength, from UV to far infrared, to 100µm and beyond.



The new **Ophir NanoScan 2s Pyro/9/5-MIR** is a lower cost profiler designed to measure mid IR wavelengths from 900nm to 5µm. This joins the rest of the NanoScan 2s family of products, which now includes:

- NEW! NanoScan 2s Pyro/9/5-MIR: wavelengths 900nm-5µm, beam sizes 20µm-6mm
- NanoScan 2s Si/3.5/1.8: wavelengths 190-1100nm, beam sizes 7µm-2.3mm
- NanoScan 2s Si/9/5: wavelengths 190-1100nm, beam sizes 20µm-6mm
- NanoScan 2s Ge/3.5/1.8: wavelengths 700-1800nm, beam sizes 7µm-2.3mm
- NanoScan 2s Ge/9/5: wavelengths 700-1800nm, beam sizes 20µm-6mm
- NanoScan 2s Pyro/9/5: wavelengths 190nm->100µm, beam sizes 20µm-6mm

A special software offer is also in place through the end of 2018. Users can upgrade from **NanoScan Standard** to **NanoScan Professional** software for a nominal charge. NanoScan software includes an extensive set of NIST-traceable ISO measurements for beam width and roundness, beam position, and M2. The Professional version adds an ActiveX automation interface for sharing data with other applications, such as LabVIEW® or Microsoft® Excel.

“NanoScan scanning slit profilers are designed to measure smaller beams than is possible with CCD camera technology,” said Reuven Silverman, General Manager at Ophir. “They are ideally suited for very small beam diameters and are often used by manufacturers of laser beam sources, such as for medical engineering. Ophir continues to invest in scanning slit technology and has expanded its offerings to include lower cost alternatives for measuring beams in the near IR to mid IR range, and to accommodate beam widths from as small as 20µm up to 6mm.”

NanoScan 2s profilers use moving slits – an ISO standard scanning aperture technique – to measure beam sizes from µm to mm at beam powers from µW to kW. The natural attenuation provided by the slit allows the measurement of many beams with little or no additional attenuation required. A built-in digital controller provides 16-bit digitization of the signal for high dynamic range up to 35dB power; this makes it possible to measure beam size and beam pointing with 3-sigma precision to several hundred nanometers. The silicon or germanium detector-based NanoScan 2s's include an integrated 200mW power meter that displays both total power and individual power in each of the beams being measured.

Availability

The **NanoScan 2s** beam profilers are available now.

NanoScan 2s data sheets: <http://ow.ly/KK9Y30InWV8>

About MKS Instruments

MKS Instruments, Inc. is a global provider of instruments, subsystems and process control solutions that measure, monitor, deliver, analyze, power and control critical parameters of advanced manufacturing processes to improve process performance and productivity for our customers. Our products are derived from our core competencies in pressure measurement and control, flow measurement and control, gas and vapor delivery, gas composition analysis, residual gas analysis, leak detection, control technology, ozone generation and delivery, power, reactive gas generation, vacuum technology, lasers, photonics, sub-micron positioning, vibration control and optics. We also provide services relating to the maintenance and repair of our

products, installation services and training. Our primary served markets include the semiconductor, industrial technologies, life and health sciences, research and defense. Additional information can be found at www.mksinst.com.

About the Ophir Brand

Ophir is a brand within the MKS Instruments Light & Motion division. The Ophir product portfolio consists of laser and LED measurement products, including laser power and energy meters, laser beam profilers measuring femto-watt to hundred-kilowatt lasers, high-performance IR and visible optical elements, IR thermal imaging lenses and zoom lenses for defense and commercial applications, OEM and replacement high-quality optics and sub-assemblies for CO₂ and high-power fiber laser material processing applications. Ophir products enhance our customers' capabilities and productivity in the semiconductor, industrial technologies, life and health sciences, research and defense markets. For more information, visit www.ophiropt.com.

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