

## FOR IMMEDIATE RELEASE

### MKS' Ophir® Business Unit Expands Series of Precisely Calibrated Integrating Spheres for Measuring Divergent and Collimated Beams

San Francisco, CA – MKS Instruments, Inc. (NASDAQ: MKSI), a global provider of technologies that enable advanced processes and improve productivity, announces new additions to the Ophir® Integrating Sphere series of products. Designed for measuring divergent and collimated light sources, such as laser diodes and LEDs, the Ophir Integrating Spheres are integrating sphere and photodiode sensor systems for measuring the optical power of divergent, narrowband light sources. The series includes three precisely calibrated spheres that measure powers from 20nW to as high as 30W.

+ The IS-1 is a 1-inch (25mm) sphere that measures powers from 20nW – 20mW for light sources from 0.35µm – 1.1µm.

+ The 3A-IS is a 1.57-inch (40mm) sphere that measures powers from 1W – 3W for light sources from 350nm – 1100nm.

+ The IS-6 is a 5.3-inch (135mm) sphere with 4-ports. It measures both high and low power divergent beams, from 20µW to 30W, for light sources from 0.2µm to 2.2µm

All three integrating spheres can measure beams with divergence up to ±40 degrees. Each is delivered as a calibrated unit with a photodiode detector. The IS-6 can be purchased with no detectors for use in the user's measurement setup or as a uniform light source.

#### Availability & Pricing

The Ophir Integrating Spheres are available now. OEM prices available on request.

**Data Sheet:** <http://bit.ly/2jWBDVh>

#### About MKS

MKS Instruments, Inc. (NASDAQ: MKSI) is a global provider of instruments, subsystems and process control solutions that measure, control, power, monitor and analyze critical parameters of advanced manufacturing processes to improve process performance and productivity. Our products are derived from our core competencies in pressure measurement and control, materials delivery, gas composition analysis, control and information technology, power and reactive gas generation, vacuum technology, photonics, optics, lasers, and motion control. Our primary served markets are manufacturers of capital equipment for electronic thin film, process manufacturing, environmental monitoring and life sciences, as well as government and research.

#### About Ophir Business Unit

With over 40 years of experience, Ophir provides a complete line of instrumentation including power and energy meters, and beam profilers. Dedicated to continuous innovation in laser and LED measurement, the company holds a number of patents, including the R&D 100 award-winning BeamTrack power/position/size meters; BeamWatch®, the industry's first non-contact, focus spot size and position monitor for lasers in material processing; and 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 is ISO/IEC 17025:2005 accredited for calibration of laser measurement instruments. Their 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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