

## MKS Announces Ophir® Multi-Measurement Integrating Sphere for VCSELs and Other Pulsed Semiconductor Lasers

Andover, MA – February 4, 2020 – [MKS Instruments, Inc.](http://www.mksinst.com) (NASDAQ: MKSI), a global provider of technologies that enable advanced processes and improve productivity, has announced the **Ophir® IS1.5-VIS-FPD-800 Integrating Sphere** at SPIE Photonics West 2020. Designed for applications in remote sensing, LIDAR, facial recognition, and more, the sensor provides accurate and reliable measurement of the optical parameters of VCSELs and other pulsed semiconductor lasers. The new integrating sphere combines multiple measurement capabilities in a single device: a precision photodiode delivers calibrated average power measurement, a fast photodiode provides pulse shape characterization on an oscilloscope, and an SMA fiber optic adapter makes for easy connection to a spectrometer.

The Ophir IS1.5-VIS-FPD-800 is part of the Ophir Integrating Spheres series of products. It accurately measures light that diverges up to  $\pm 60$  degrees. A large, 20mm aperture enables long working distances. The device has a small internal diameter of 1.5 inch (38mm), which minimizes the pulse stretching effect inherent to integrating spheres and provides a fast response time of 2.8ns. The calibrated device is NIST traceable.

“Pulsed VCSELs and other semiconductor laser sources require tailored optics and electronics to generate consistent pulses with optimal efficiency,” said Reuven Silverman, General Manager for the Ophir brand. “The IS1.5-VIS-FDP-800 integrating sphere is a fast detector designed to determine peak performance of pulsed



lasers. This multifunction device features a flexible design that accurately and reproducibly determines total power.”

The IS1.5 integrating sphere features a “Smart Connector” interface that operates with any of Ophir's smart displays, including the **Centauri**, **StarBright**, **Vega**, **Nova II**, and **StarLite**, as well as the company's PC interfaces and process automation software. Choose between a variety of data display formats, including Digital with Bargraph, Line Plot, Pulse Chart, and Real Time Statistics. The displays also feature sophisticated logging of power and energy, statistics, histograms, and more, as well as advanced math functions. The display is automatically configured and calibrated when plugged into one of the company’s laser measurement heads.

### **Availability & Pricing**

The IS1.5-VIS-FPD-800 integrating sphere is available now. OEM prices available on request.

IS1.5-VIS-FPD-800 DATA SHEET: <http://ow.ly/rAEF50y0tBI>

### **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, optics and laser-based manufacturing solutions. We also provide services relating to the maintenance and repair of our products, installation services and training. Our primary served markets include semiconductor, industrial technologies, life and health sciences, research and defense. Additional information can be found at [www.mksinst.com](http://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 CO<sub>2</sub> 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](http://www.ophiropt.com).

###

Sales Inquiries: [sales@us.ophiropt.com](mailto:sales@us.ophiropt.com)

**For more information, contact:**

Reuven Silverman, General Manager  
Ophir Business Unit (U.S.)  
3050 North 300 West, North Logan, UT 84341  
Tel: +1 435-753-3729  
E-mail: [reuven.silverman@ophiropt.com](mailto:reuven.silverman@ophiropt.com)  
[www.ophiropt.com/photonics](http://www.ophiropt.com/photonics)

Shari Worthington, PR  
Telesian Technology  
49 Midgley Lane, Worcester, MA 01604  
Tel: +1 508-397-6345  
E-mail: [sharilee@telesian.com](mailto:sharilee@telesian.com)