

MKS Instruments Announces Ophir® PD300RM-UVA, Irradiance and Dosage Sensor with Flat Spectral Response for Use with Narrowband and Broadband Sources

Andover, MA – February 24, 2021 – [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® PD300RM-UVA** Irradiance and Dosage Sensor. Calibrated over the UVA and violet spectral range (350-450nm), the sensor provides a flat spectral response that is forgiving of inexact wavelengths, wide bandwidths, and wavelength shifts (e.g. due to heating). This allows for measuring both narrowband (lasers) and broadband sources, such as LEDs, without the need to know the exact wavelength. The sensor also supports measuring sources at different wavelengths simultaneously. It is designed to analyze light sources, including for UV curing and drying of polymers, paints, and other UV responsive materials that are used in industrial applications, such as semiconductor processing and additive manufacturing.

"UV LEDs are being put to work in a variety of industrial processes and medical applications, but accurate measurement in the UV range faces challenges, such as not knowing the precise bandwidth of the light, uneven illumination, steep angles, and wavelength shifts due to heating," said Reuven Silverman, General Manager Ophir Photonics. "The PD300RM-UVA sensor, with its small form factor, UV-resistant design, and NIST-traceable calibration over the UVA and violet spectrum, generates accurate and reproducible irradiance and dosage measurements that are in high demand in the industrial and medical applications that rely on UVA LEDs. When used in conjunction with Ophir meters, the sensor



can be employed in early R&D projects, used for calibration and maintenance at customer sites, or incorporated into fully-operational machines."

Traditional radiometers are calibrated to a single wavelength (e.g. 365nm). The Ophir PD300RM-UVA sensor employs a high quality UV-enhanced silicon photodiode design that is calibrated over a broad spectral range (350-450nm) and delivers superb linearity and sensitivity. The sensor features a small 2.75mm aperture for more precise mapping of irradiance at different positions and a cosine corrected diffuser for eliminating angle sensitivity. Its irradiance measurement range is 1.5 μ W/cm² – 15W/cm².

The Ophir PD300RM-UVA sensor, like all Ophir sensors, features a "Smart Connector" interface that operates with the company's **StarBright** and **StarLite** smart displays, and **Juno+** compact USB PC interface. Users can 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

The **Ophir PD300RM-UVA** irradiance and dosage sensor is available now.

DATA SHEET: <http://ow.ly/vtnS50DDSS0>

About MKS Instruments

MKS Instruments, Inc. (NASDAQ: MKSI), is a global provider of instruments, systems, 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, electronic control technology, reactive gas generation and delivery, power generation and delivery, vacuum technology, lasers, photonics, optics, precision motion control, vibration control and laser-based manufacturing systems 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.

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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