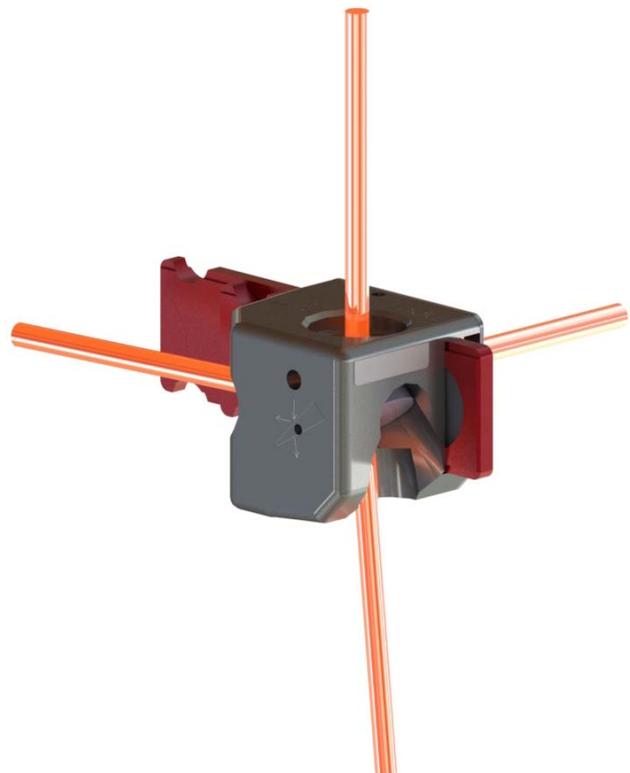


MKS Announces Ophir® LBS-300HP-NIR, Compact Laser Beam Splitter for Extremely High Attenuation to 15MW/cm²

Andover, MA – October 28, 2019 – [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® LBS-300HP-NIR Beam Splitter** for high power NIR lasers. The LBS-300HP-NIR is a compact device that can deliver extremely high power density attenuation, up to 15MW/cm² at 5kW. It reflects less than 0.0001% of the incident NIR beam while transmitting 99.9999%. This enables measurement of beam shape, focal spot, beam waist, and overall power. The patent-pending LBS-300HP-NIR beam splitter is ideal for online beam profiling in a variety of high power military lasers, and Nd:YAG applications in industrial materials processing and R&D.

“As use of high beam quality lasers increases in materials processing and military applications, there is a growing need for measurement equipment that can handle higher powers without damage,” said Reuven Silverman, General Manager for the Ophir brand. “The LBS-300HP-NIR beam splitter reduces extremely high laser power at an unprecedented 15MW/cm² at 5kW. This allows reflection of less than 0.1% of the beam while keeping the original beam profile intact. This is enabling technology that, for the first time ever, allows camera-based beam profiling for high power lasers.”

The LBS-300HP-NIR beam splitter measures NIR laser powers from 100mW – 5kW at power densities of up to 15MW/cm². It operates by reflecting a fraction of the



incoming laser beam into the camera through the front surfaces of a pair of orthogonally oriented wedges. This reflects the beam in three directions: <0.0001% to the Ophir beam profiler camera, 99.9% to the Ophir power meter sensor, and 0.1% to the Ophir beam dump. The result is uniform attenuation of any beam shape, from Gaussian to flat-top to doughnut.

The LBS-300HP-NIR beam splitter attaches to C-mount, CS-mount, or Ophir mount cameras. A set of adjustable ND filters are provided for final intensity adjustments before the beam reaches the camera imager.

Availability & Pricing

The LBS-300HP-NIR beam splitter is available now. OEM prices available on request.

LBS-300HP-NIR beam splitter DATA SHEET:

<https://www.ophiropt.com/laser--measurement/node/13495>

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.

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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