



IPG Photonics Introduces World's Smallest 25W Single Mode Fiber Laser

IPG Photonics Introduces World's Smallest 25W Single Mode Fiber Laser

March 10, 2005, Oxford, Massachusetts

IPG Photonics Corporation introduced a new line of 1 to 25 Watt compact continuous wave (CW) single mode fiber lasers. Measuring only 230 X 146 X 42 mm (including heat sink and fan) or about the size of a compact disc player, the diode-pumped Ytterbium fiber lasers are ideal for applications that require a highly compact and mobile light source at a cost-effective price, such as micro-welding, bending, sintering, soldering, engraving and marking.

YLM-C Series 25 Watt Yb Fiber Laser 230x146x42 mm on left (compact disc play on right)

With the central emission wavelength from 1065-1075 nm, the YLM-C Series deliver a diffraction limited ($M^2 < 1.1$) beam via a metal sheathed fiber cable terminated by IPG's proprietary collimator. The ultra-compact design allows this maintenance-free laser to be integrated into any customer's set-up and operated under high shock, vibration and dust conditions. The YLM-C Series are offered in 5, 10, 20 and 25 Watt powers.

"In response to customer requests for even better electro-optical efficiency and lower cost, IPG developed these ultra-compact fiber lasers. They improve upon our existing YLM Series lasers introduced in 1996" stated IPG Photonics CEO Dr. Valentin Gapontsev. "The YLM-C is opening new applications because of its much smaller size, higher efficiency and lower cost. The price, miniaturization and robustness of these maintenance-free lasers make them the best alternative to replace CO₂ and YAG lasers in existing laser applications" he added.

A spokesperson for IPG said that the YLM-C Series was made possible because they use IPG's new proprietary high power and high efficiency pump diodes and more advanced multi-clad fibers. The ultra-reliable, high brightness diodes have estimated lives (mean time before failure) well exceeding 100,000 hours.

With the entirely solid-state, monolithic, fiber-to-fiber design of the YLM-C Series, users benefit from lower utilities, no optics to align or maintain, no diode bars to replace, and no mechanics to stabilize. With focusable power and the higher power densities needed for the most exacting applications, users can confidently place the YLM-C series fiber lasers in applications that other lasers could not be used in previously. Using an integrated, advanced air-cooled heat sink, the YLM-C Ytterbium lasers require no external cooling.

About IPG Photonics

IPG Photonics has been a global leader for over thirteen years in the design and manufacture of high performance fiber lasers, fiber amplifiers, and Raman pump lasers for materials processing, aerospace, test and measurement, and other commercial applications.

IPG's proprietary technology, materials science expertise and vertically integrated manufacturing operations enable IPG to produce the world's largest range of cost-effective high and low power fiber lasers, and amplifiers with superior efficiency, performance, reliability and quality.

IPG Photonics has its world headquarters in Oxford, Massachusetts and manufacturing facilities and sales operations in Massachusetts, Germany, Russia, Italy, Japan, India, Korea, and the United Kingdom. For more information, visit <http://www.ipgphotonics.com/>. IPGP-G

For further information, contact:

Bill Shiner at 508-373-1144
bshiner@ipgphotonics.com

Jorg Thieme at 49-2736-4420-27
jthieme@ipgphotonics.com