

## IPG Photonics Successfully Tests World's First 10 Kilowatt Single-Mode Production Laser

World's Brightest Commercial Solid State Laser Enables New Applications

Munich, Germany, June 16, 2009 -- IPG Photonics Corporation, a pioneer and global leader in high-power fiber lasers and amplifiers, announced today the successful test of its new ten kilowatt single-mode fiber laser, a world record in a production laser. The unique laser produces 9.6 kilowatts of single-mode power through a single fiber at total efficiency exceeding 23%. IPG's new kilowatt laser has multiple applications including remote cutting and welding as well as directed energy.

Representing the latest development in the power scaling of IPG Photonics' patented high-power single-mode fiber laser technology, the laser's optical scheme consists of a fully-integrated MOPA (master oscillator power amplifier) with an output delivery fiber four meters long directly spliced into the power amplifier. The Company's ten kilowatt single-mode laser, the YLS-10000-SM, will be the world's brightest industrial CW solid state laser, given the combination of output power and virtually perfect Gaussian beam-quality at 1070 nm emission wavelength. Developed by its subsidiary IPG Laser GmbH, the YLS-10000-SM is a turn-key package that offers a small footprint and record efficiency wall-plug.

"The ten kilowatt fiber laser builds on our prior success with the five kilowatt single-mode lasers we introduced earlier this year" stated Dr. Valentin Gapontsev, Chief Executive Officer of IPG Photonics and an inventor of the new laser. "However, we designed a new state-of-the-art power amplifier to overcome thermal limitations, avoid higher order modes and non-linear effects, despite the enormous power density at this output level" he added.

"Industrial customers can now use fiber lasers for applications which were not previously possible with other lasers, such as remote cutting and welding without expensive assist gases in the infrastructure, automotive, aerospace and shipbuilding industries" said Bill Shiner, Vice President of Industrial Markets. "Mobile applications such as bridge construction and repair and ship and airplane paint removal can now take advantage of higher output powers in a mobile and robust laser package to increase the distance to the work piece."

This industrial product also has applications in tactical directed energy markets. The combination of ten kilowatts of output power with near-perfect beam quality and the inherent reliability, efficiency and ruggedness of a fiber laser in a compact package is a compelling solution for a variety of tactical directed energy applications.

IPG is taking orders for the YLS-10000-SM. Visit IPG at World of Photonics, Munich, Germany, June 15-18, Booth #370. Hall C2 for more information.

## **About IPG Photonics Corporation**

IPG Photonics Corporation is the world leader in high-power fiber lasers and amplifiers. Founded in 1990, IPG pioneered the development and commercialization of optical fiber-based lasers for use in a wide range of applications such as materials processing, advanced applications, telecommunications and medical applications. Fiber lasers have revolutionized the industry by delivering superior performance, reliability and usability at a lower total cost of ownership compared with conventional lasers, allowing end users to increase productivity and decrease operating costs. IPG has its headquarters in Oxford, Massachusetts, and has additional plants and offices throughout the world. For more information, please visit www.ipgphotonics.com.

## **Safe Harbor Statement**

Information and statements provided by the Company and its employees, including statements in this press release, that relate to future plans, events or performance are forward-looking statements. These statements involve risks and uncertainties. Any statements in this press release that are not statements of historical fact are forward-looking statements. Factors that could cause actual results to differ materially include risks and uncertainties, including risks associated with finding new applications and markets for its multi-kilowatt single mode lasers, enabling new applications and providing solutions for different applications. Readers are encouraged to refer to the risk factors described in the Company's Annual Report on Form 10-K (filed with the SEC on March 12, 2009) and its periodic reports filed with the SEC, as applicable. Actual results, events and performance may differ materially. Readers are cautioned not to rely on the forward-looking statements, which speak only as of the date hereof. The Company undertakes no obligation to update the forward-looking statements that may be made to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.



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