



The Power to Transform®

## **IPG Photonics Announces New Breakthrough In High Brightness Fiber-Coupled Diode Lasers**

### *100 Watt Output Greatest in Class*

Oxford, MA, July 28, 2009 -- IPG Photonics Corporation, the world leader in high power fiber lasers and amplifiers, announced today the availability of a 100 Watt fiber-coupled laser diode, the most powerful high brightness single-emitter based laser diode.

“This new laser diode delivers up to 100W power out of a 105µm core diameter fiber with a numerical aperture lower than 0.12” said Dr. Alex Ovtchinnikov, IPG Photonics Corporation’s Vice President - Components. “It is assembled using IPG’s long-life 90µm wide single-emitter chips and proprietary micro-optics. The wall-plug efficiency exceeds 50% due to nonsaturated mode of operation at a thermally-conductive passive cooling. The package size is an order of magnitude smaller than similar devices on the market. Also taking in account the lowest cost per Watt, the new PLD-100 series is well ahead in performance of any existing fiber-coupled laser diodes available in the market.”

After release earlier in 2009 of the PLD-60 series with output power up to 60W in a 105µm core fiber, IPG now extends the power into the same fiber with the new PLD-100 series. The available choice of wavelength covers all 9xx nm spectral range. The product will be released for sale starting in Q4 2009.

Combining emission of these laser diodes, it is now possible to manufacture high power diode laser modules or complete system solutions with output powers up to multiple kW’s out of a reasonably thin fiber with a narrow linewidth of emission. Such solution provides new opportunities for plastic and metal welding, brazing, cladding, medical and many other applications. It simplifies the pumping schematics of superpower fiber and disc lasers and opens opportunities for further achievements.

IPG’s semiconductor products division is the world’s largest vertically-integrated maker of high power single-emitter based laser diodes.

### **About IPG Photonics Corporation**

IPG Photonics 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, telecommunications and medical ones. 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, MA, and has additional plants and offices throughout the world. For more information, please visit [www.ipgphotonics.com](http://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, including, but not limited to, those relating to the expected release date, possibility of manufacturing new laser diode modules and solutions, potential applications and benefits of the new PLD-100 laser diodes. Factors that could cause actual results to differ materially include risks and uncertainties, including risks associated with downturns in the markets we serve, uncertainties and adverse changes in the general economic conditions of our markets, the Company’s ability to penetrate new applications, the rate of acceptance and penetration of IPG’s products, effective management of growth, intellectual property infringement claims and litigation, interruption in supply of key components, manufacturing risks, competitive factors including, uncertainties pertaining to customer

orders, demand for products and services, development of markets for the Company's products and services and other risks identified in the Company's SEC filings. 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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