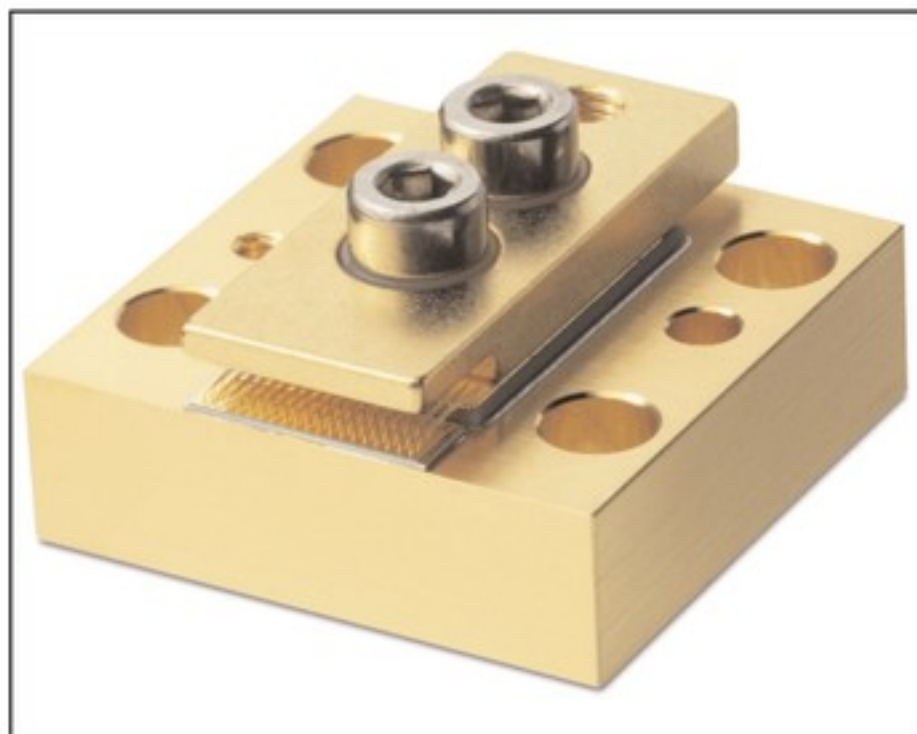


II-VI Laser Enterprise launches 170W passively cooled & 250W actively cooled laser bars for direct-diode lasers

The Zurich, Switzerland-based II-VI Laser Enterprise GmbH division of engineered materials and optoelectronic component maker II-VI Inc of Saxonburg, PA, USA (which provides high-power semiconductor laser components enabling fiber and direct-diode laser systems) has launched 170W passively cooled and 250W actively cooled laser bars.

Direct-diode lasers used in industrial sheet metal cutting, welding and additive manufacturing are achieving up to tens of kilowatts of output power using wavelength and polarization multiplexing of multiple high-power gallium arsenide (GaAs) laser bars. II-VI says that its new passively and actively cooled laser bars enable high efficiency coupling into optical fibers due to their mechanical flatness properties or 'low smile'. They also feature a critical and proprietary hard solder technology that is designed to withstand the high-power pulsed and on/off operation typical for direct-diode lasers.

"We continue to advance our high-power GaAs semiconductor



II-VI Laser Enterprise's new 170W passively cooled laser bar.

platform to extend our broad portfolio of seed lasers, pump lasers and laser bars that enable next-generation fiber and direct-diode lasers," says II-VI Laser Enterprise's general manager Karlheinz Gulden. "The use of direct-diode lasers in additive manufacturing to repair high-wear industrial tools is one of the more recent and exciting applications enabled by our new laser bars."

The 170W passively cooled and 250W actively cooled laser bars are available over a wide wave-

length range of 790–1070nm to enable a variety of wavelength-multiplexed laser designs. Both products feature II-VI's proprietary E2 front-mirror passivation, preventing catastrophic optical damage (COD) to the laser diode facet even at extremely high output powers. II-VI also offers high-power laser optics, based on magneto rheological finishing and IBS coatings, for beam management and to fiber-couple direct-diode lasers.

II-VI Inc's capabilities were showcased at SPIE Photonics West 2017 in San Francisco (31 January — 2 February), highlighting the advances that the firm's material science and technology platforms have made possible for materials processing, industrial machine tools, biomedical instrumentation and military applications. II-VI is launching several new high-power semiconductor laser chips, modules and bars as well as high-power laser optics for next-generation CO₂, fiber and direct-diode lasers.

<http://spie.org/photonics-west.xml>
www.laserenterprise.com

II-VI Inc exhibits at Photonics West

At SPIE Photonics West 2017 in Moscone Center, San Francisco (31 January—2 February), II-VI Inc exhibited its portfolio of products, including high-power semiconductor lasers, laser optics, precision optics and beam delivery solutions, for laser-based materials processing equipment, metrology equipment in life sciences, semiconductor equipment, optical communications, 3D sensing and the military.

Specifically, II-VI Inc showcased its new 170W passively cooled and 250W actively cooled laser bars for direct-diode lasers, as well as the new 976nm wavelength-stabilized multimode pump laser modules, which can offer up to 20W of



II-VI Inc's new 976nm wavelength-stabilized 20W pump laser module.

output power for ultrafast fiber lasers.

Also, at the SPIE LASE conference, II-VI gave the following technical presentations:

- 'A cutting-edge solution for 1 μ m laser metal processing'; and
- 'Diode lasers for direct application by utilizing a trepanning optic for remote oscillation welding of aluminum and copper'.

In addition, II-VI Inc's president & CEO Chuck Mattera participated on the SPIE Executive Panel 'The seven biggest challenges executives will face in 2017'.

Later on the same day, during a gala awards ceremony at the San Francisco Marriott Marquis, Mattera presented at the PRISM Awards for Photonics Innovations, where he announced the winner in the Materials and Coatings category.

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