II-VI Incorporated
MATERIALS THAT MATTER

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Press Release

II-VI Laser Enterprise Introduces 170 W Passively Cooled and 250 W Actively Cooled Laser Bars for Direct Diode Lasers

PITTSBURGH, January 19, 2017 (GLOBE NEWSWIRE) – The II-VI Laser Enterprise Division of II-VI Incorporated (NASDAQ:IIVI), a leading provider of high-power semiconductor laser components, today announced the introduction of 170 W passively cooled and 250 W 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 GaAs semiconductor laser bars. II-VI's new passively and actively cooled laser bars enable high efficiency coupling into optical fibers due to their excellent mechanical flatness properties or "low smile". They also feature a critical and proprietary hard solder technology which 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 platform to extend our broad portfolio of seed lasers, pump lasers and laser bars that enable next generation fiber and direct diode lasers," said Karlheinz Gulden, General Manager, II-VI Laser Enterprise. "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 170 W passively cooled and 250 W actively cooled lasers bars are available over a wide wavelength range from 790 to 1070 nm to enable a wide 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 at SPIE Photonics West, Jan. 31- Feb. 2, 2017, South Hall, Booth # 1833

II-VI Incorporated innovations and capabilities being showcased at Photonics West 2017 will highlight the advances our material science and technology platforms have made possible for our customers in materials processing, industrial machine tools, biomedical instrumentation and the military. II-VI will launch 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.

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About II-VI Laser Enterprise

II-VI Laser Enterprise GmbH, located in Zurich, Switzerland, is an industry-leading manufacturer of high-power semiconductor laser components enabling fiber and direct diode laser systems for material processing, medical, consumer, printing, aerospace and defense applications. In addition, II-VI Laser Enterprise manufactures pump lasers for optical amplifiers for both terrestrial and submarine applications and vertical cavity surface emitting lasers (VCSELs) for optical navigation, optical interconnects and optical sensing applications.

About II-VI Incorporated

II-VI Incorporated, a global leader in engineered materials and opto-electronic components is a vertically integrated manufacturing company that develops innovative products for diversified applications in the industrial, optical communications, military, life sciences, semiconductor equipment, and consumer markets. Headquartered in Saxonburg, Pennsylvania, with research and development, manufacturing, sales, service, and distribution facilities worldwide, the Company produces a wide variety of application-specific photonic and electronic materials and components, and deploys them in various forms including integrated with advanced software to enable our customers.

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