



PRESS RELEASE

II-VI Incorporated
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II-VI Incorporated Unveils 100 Gbps Indium Phosphide Directly Modulated Lasers for High-Speed Transceivers Deployed in Datacenters

PITTSBURGH, June 1, 2021 (GLOBE NEWSWIRE) – II-VI Incorporated (Nasdaq: IIVI), a global leader in semiconductor lasers for optical communications, today announced the introduction of 100 Gbps indium phosphide (InP) directly modulated lasers (DMLs) for high-speed transceivers deployed in datacenters.

The growing demand for 400 and 800 gigabit Ethernet (GbE) transceivers is driving substantial investments in technology advancements of DMLs due to their lower cost and lower power consumption compared to electro-absorption modulated lasers (EMLs) currently used in these high-speed transceivers. II-VI's 100 Gbps DMLs are differentiated by their ability to achieve state-of-the-art modulation speed and signal quality at high output power and low power consumption. As a result, II-VI's DMLs are preferred over EMLs in 400 GbE and 800 GbE transceivers that use 100 Gbps optical lanes.

“The technology embedded in these directly modulated lasers is so advanced that our early results were published in the journal *Nature Photonics* in January of 2021,” said Dr. Charlie Roxlo, Vice President, Indium Phosphide Devices Business Unit. “This breakthrough performance was achieved thanks to multiyear R&D investments and deep expertise across a broad internal multi-disciplinary team of semiconductor laser physicists, high-speed RF analog integrated circuit designers, and transceiver experts.”

II-VI's new DMLs are built on its world-class, highly reliable InP technology platform -- one of the very few in the industry that has been proven with more than one hundred million lasers in the field deployed over the last decades. The low power consumption of II-VI's DMLs and their design for non-hermetic packaging are ideal features for today's pluggable form factors and tomorrow's co-packaged solutions.

II-VI's broad portfolio of InP components includes Fabry-Pérot lasers, DMLs, EMLs, and tunable lasers, as well as photodiodes for high-speed receivers and power monitoring. Lasers are available in LAN-WDM and CWDM wavelength plans.

II-VI will showcase its broad portfolio of optical communications products virtually at [OFC 2021](#), June 6-11, 2021.



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About II-VI Incorporated

II-VI Incorporated, a global leader in engineered materials and optoelectronic components, is a vertically integrated manufacturing company that develops innovative products for diversified applications in communications, industrial, aerospace & defense, semiconductor capital equipment, life sciences, consumer electronics, and automotive markets. Headquartered in Saxonburg, Pennsylvania, the Company has 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 support our customers. For more information, please visit us at www.ii-vi.com.

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