NEWS RELEASE

POET Technologies to Use Lumentum's High Speed DMLs for its 400G/800G/1.6T Data Center Solutions

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TORONTO, Nov. 14, 2022 (GLOBE NEWSWIRE) -- POET Technologies Inc. ("**POET**" or the "**Company**") (TSX Venture: PTK; NASDAQ: POET), the designer and developer of the POET Optical Interposer™, Photonic Integrated Circuits (PICs) and light sources for the data center, tele-communication and artificial intelligence markets, today announced that it will use high-speed directly modulated laser (DML) technology from Lumentum Holdings Inc. ("Lumentum"), a market-leading designer and manufacturer of innovative optical and photonic products, in POET's transmit optical engines to enable high volume, low power, and cost-efficient 400G, 800G, and 1.6T pluggable transceivers for hyperscale data centers.

Working with Lumentum, POET expects to start sampling the 400G FR4 transmit optical engines with integrated drivers in the first half of 2023 and production by the second half of 2023. The 400G FR4 optical engines are architected as photonic chiplets and will be the industry's first implementation of DMLs with flip-chip integration on an optical interposer at these data rates. With the small size and elegant design of POET's optical engines, customers will have the flexibility to design 400G, 800G, and 1.6T pluggable transceivers using the same 400G FR4 chiplets.

"The majority of the 400G transceivers in the market today use either externally modulated lasers or silicon photonics combined with external lasers. These solutions require multiple components and involve several cumbersome and costly active alignments," said Suresh Venkatesan, Chairman & CEO of POET. "POET has a significant opportunity to disrupt the market with a highly integrated solution with all passive alignments and monolithically integrated waveguides and multiplexers, which translates to lower cost, power, and size benefits to our customers."

"With the continued deployment of 400G, plus 800G on the horizon in hyperscale data centers, there is a need for laser technologies that lower power consumption and cost and are easier to scale to high volumes," said Wupen Yuen, Lumentum's senior vice president and general manager of the Datacom Business Unit. "Lumentum's high-performance 100G DML provides customers with an additional laser technology choice to help them optimize their transceiver solutions to best meet the needs of hyperscale data center operators while leveraging Lumentum's proven high-speed laser manufacturing scale and quality."

According to LightCounting's April 2022 report, the market opportunity for 400G/800G/1.6T pluggable

transceivers grows from $2B in 2023 to $6.5B in 2027.

About POET Technologies Inc.
POET Technologies is a design and development company offering integration solutions based on the POET Optical Interposer™ a novel platform that allows the seamless integration of electronic and photonic devices into a single multi-chip module using advanced wafer-level semiconductor manufacturing techniques and packaging methods. POET's Optical Interposer eliminates costly components and labor-intensive assembly, alignment, burn-in and testing methods employed in conventional photonics. The cost-efficient integration scheme and scalability of the POET Optical Interposer brings value to any device or system that integrates electronics and photonics, including some of the highest growth areas of computing, such as Artificial Intelligence (AI), the Internet of Things (IoT), autonomous vehicles and high-speed networking for cloud service providers and data centers. POET is headquartered in Toronto, with operations in Allentown, PA, Shenzhen, China and Singapore. More information may be obtained at www.poet-technologies.com.

About Lumentum
Lumentum (NASDAQ: LITE) is a market-leading designer and manufacturer of innovative optical and photonic products enabling optical networking and laser applications worldwide. Lumentum optical components and subsystems are part of virtually every type of telecom, enterprise, and data center network. Lumentum lasers enable advanced manufacturing techniques and diverse applications including next-generation 3D sensing capabilities. Lumentum is headquartered in San Jose, California with R&D, manufacturing, and sales offices worldwide. For more information, visit www.lumentum.com and follow Lumentum on LinkedIn, Twitter, Facebook, Instagram, and YouTube.

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Such forward-looking information or statements are based on a number of risks, uncertainties and assumptions which may cause actual results or other expectations to differ materially from those anticipated and which may prove to be incorrect. Assumptions have been made regarding, among other things, management's expectations regarding the success and timing for completion of its development efforts, the introduction of 800G modules based on 400G optical engine developments, financing activities, future growth, recruitment of personnel, opening of offices, the form and potential of its joint venture, plans for and completion of projects by the Company's third-party consultants, contractors and partners, availability of capital, and the necessity to incur capital and other expenditures. Actual results could differ materially due to a number of factors, including, without

limitation, the failure of its products to meet performance requirements, missing the window for 800G modules based on 400G optical engines, lack of sales in its products, once released, operational risks in the completion of the Company's anticipated projects, lack of performance of its joint venture, delays in recruitment for its newly opened operations or changes in plans with respect to the development of the Company's anticipated projects by third-parties, risks affecting the Company's ability to execute projects, the ability of the Company to generate sales for its products, the ability to attract key personnel, the ability to raise additional capital and the agreement by shareholders to approve proposals put forth by the Company at shareholders' meetings. Although the Company believes that the expectations reflected in the forward-looking information or statements are reasonable, prospective investors in the Company's securities should not place undue reliance on forward-looking statements because the Company can provide no assurance that such expectations will prove to be correct. Forward-looking information and statements contained in this news release are as of the date of this news release and the Company assumes no obligation to update or revise this forward-looking information and statements except as required by law.

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