

# PRESS RELEASE

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## POET Launches *LightBar™* Solution for Data Centers

*Advanced Remote Laser Light Source for Transceivers and Data Center Switches*

*Management to Host “Beyond the Press Release” Interview to Discuss the LightBar Product*

**TORONTO, Ontario, December 8, 2020** – POET Technologies Inc. (“POET” or the “Company”) (TSX Venture: PTK; OTCQX: POETF) the designer and developer of the POET Optical Interposer™ and Photonic Integrated Circuits (PICs) for the data center and tele-communication markets, announced today that it has completed and tested its designs for a line of high-performance remote laser light source products for 400G FR4, 800G and Co-Packaged Optics (CPO) applications in Cloud Data Centers, named *LightBar™*.

For makers of conventional and Silicon Photonics-based optical transceivers, the *LightBar* product line offers a fully aligned, tested, and multiplexed laser light source attached to an output fiber, eliminating the difficult and costly step of four laser alignments in optical transceivers. For makers of next generation network switches that require the combination of switch components and optical components in a single package, commonly referred to as “Co-Packaged Optics” (CPO), using *LightBar* products will reduce heat generation within the package, which is a common cause of component failure. When used as a remote laser source, POET’s *LightBar* is expected to improve overall system reliability for both transceiver and CPO applications by offering the ability to replace failed laser assemblies in the field, without disturbing other components and sub-assemblies. Laser failures have proven to be the cause of a large majority of sub-assembly failures in both optical transceivers and co-packaged optics applications.

*LightBar* products are configured as a Transmit Optical Sub-Assembly (TOSA) incorporating four Continuous Wave (CW) lasers into the waveguide matrix of POET’s proprietary Optical Interposer, meeting the CWDM4 and FR4 technical specifications. The 400G version is upgradeable to 800G with the incorporation of additional components. The *LightBar* is completely customizable and can support a wide range of output power from 15mW to 60mW depending on the application. In all cases, *LightBar* incorporates POET’s proprietary designs and assembly features that deliver an industry-leading laser coupling efficiency of >80% (power loss = <1.0dB), while maintaining wafer-scale integration capability. These results are significantly better than the best results observed with competing integrated approaches. Better coupling efficiency allows the use of lower power, more reliable lasers to achieve the same output. POET will begin sampling the *LightBar* product line to customers beginning in Q1 2021. Following qualification with customers, the Company expects to begin volume production in Q4 of 2021.

According to LightCounting, the market for 400G optical transceivers in all formats will grow to over \$3 billion by 2025 from an estimated \$0.5 billion in 2021. The market for optical connectivity, also known as chiplets in co-packaged optics, is forecast to be more than \$4 billion in 2028.

### **Beyond the Press Release Interview**

POET Technologies management goes “Beyond The Press Release” to discuss today’s news. Investors and other interested parties are encouraged to visit the following link the evening of Tuesday, December 8, 2020 to view the interview:

<https://agoracom.com/ir/POETTechnologies/forums/discussion/topics/750580-poet-technologies-goes-beyond-the-press-release/messages/2291701#message>

### **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 and Singapore. More information may be obtained at [www.poet-technologies.com](http://www.poet-technologies.com).

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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, financing activities, future growth, recruitment of personnel, opening of offices, the form and potential of its planned 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, operational risks in the completion of the Company's anticipated projects, a delay or abandonment of its planned 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, and the ability to raise additional capital. 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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