Neophotonics Announces General Availability of its Ultra-Narrow Linewidth Tunable C++ LASER™ Micro-ITLA With Up to 50 Percent Wider Tuning Range for Coherent Transmission

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6 THz Tuning Range Covers the Full "Super C-band" and Increases Optical Fiber Capacity up to 50 Percent

SAN JOSE, Calif., Sept. 23, 2019 /PRNewswire/ -- NeoPhotonics Corporation (NYSE: NPTN), a leading designer and manufacturer of advanced hybrid photonic integrated circuit based modules and subsystems for bandwidth-intensive, high speed communications networks, today announced general availability (GA) of its Ultra-Narrow Linewidth Tunable C++ LASER™ Micro-ITLA, which has a tuning range of 6 THz, covering the full "Super C-band," which is 50 percent more spectrum than a standard 80 channel, 50 GHz spaced laser.

The C++ Laser™ supports full gridless tuning and accommodates any channel spacing, including 50, 75, 100, 125, and 150 GHz. This new laser is based on the same proven and reliable high performance external cavity architecture as NeoPhotonics' industry leading Micro-ITLA product line. The C++ LASER™ maintains comparable ultra-narrow linewidth, low phase noise and low power consumption, for which the current product is known, over a full 6 THz tuning range.

New coherent transmission systems use higher baud rates (e.g., 64 or 96 Gbaud) to enable a long haul 200 Gbps or 400 Gbps transmission systems. However, these higher baud rate systems require wider DWDM channel spacings, which result in a lower number of available channels within a fixed total bandwidth, and therefore the total fiber capacity is compromised. Similarly, Data Center Interconnect and Metro Systems use these higher baud rates to achieve data rates of 400 Gbps and above per channel and encounter these same limitations.

The C++ LASER™ can tune over 80 channels with a 75 GHz per channel spacing, for example, to fully capture the increase in fiber capacity generated by these newer modulation approaches. Similarly the C++ LASER™ can tune over 120 channels on a standard 50 GHz grid spacing. The availability of this new laser dovetails with recent developments in Fiber Amplifiers as well as NeoPhotonics C++ ICR™ Receivers and C++ CDM™ Modulators, completing the eco-system necessary to support transmission over the Super C-band.

"We are pleased to announce GA of our C++ LASER, which along with our C++ ICR and C++ CDM, enables an increase in fiber capacity of up to 50 percent," said Tim Jenks, Chairman and CEO of NeoPhotonics. "The ability of our C++ LASER to tune over the full 6 THz range of the "Super C-band" is a testament to the robustness of our External Cavity tunable laser technology, which maintains industry leading linewidth and phase noise along with high optical power output with low electrical power consumption over the entire range," concluded Mr. Jenks.

About NeoPhotonics

NeoPhotonics is a leading designer and manufacturer of optoelectronic solutions for the highest speed communications networks in telecom and datacenter applications. The Company's products enable cost-effective, high-speed data transmission and efficient allocation of bandwidth over communications networks. NeoPhotonics maintains headquarters in San Jose, California and ISO 9001:2015 certified engineering and manufacturing facilities in Silicon Valley (USA), Japan and China. For additional information visit www.neophotonics.com.

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This press release includes statements that qualify as forward-looking statements under the Private Securities Litigation Reform Act of 1995, including those related to industry trends and expected demand for high speed network applications. Readers are cautioned that these forward-looking statements involve risks and uncertainties and are only predictions based on the company's current expectations, estimates and projections about their respective industry and business, management's beliefs, and certain assumptions made by the company, all of which are subject to change and which may differ materially from actual future events or results. The actual company results and the timing of events could differ materially from those anticipated in such forward-looking statements as a result of these risks, uncertainties and assumptions. Certain risks and uncertainties that could cause the company's results to differ materially from those expressed or implied by such forward-looking statements as well as other risks and uncertainties relating to the company's business, are described more fully in the Company's Annual Report on Form 10-K for the year ended December 31, 2018, as well as in the Company's Quarterly Reports on Form 10-Q for the three month periods ended March 31, 2019 and June 30, 2019, filed with the Securities and Exchange Commission.

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