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 it will demonstrate its Nano-ITLA ultra-compact external cavity tunable laser at the Optical Fiber Communications Conference and Exhibition in San Diego, March 13 to 15. The NeoPhotonics Nano-ITLA is based on the same proven and reliable external cavity technology as its industry leading Micro-ITLA product line. Further, the Nano-ITLA maintains the ultra-narrow linewidth, the low frequency phase noise performance, and the low power consumption of the current product in a compact package approximately one half the size.

The Nano-ITLA utilizes an ASIC control IC that reduces the size of the electronic control circuitry. The laser can also be used separately with the ASIC mounted on the customer's circuit board. Using both approaches, the Nano-ITLA is well suited for use in 400ZR small form factor pluggable coherent modules, including OSFP and DD-QSFP, and for compact daughter cards for 600G and 1.2T applications.

Coherent communications is moving simultaneously to higher data rates per wavelength and to smaller form factors, requiring higher performance from the optical components at the same time that the size and power must be significantly reduced. Increasing the symbol rate to 64 Gbaud and using higher order modulation, such as 16 QAM to 64 QAM, can increase the data rate per wavelength to 400G or 600G. However, such higher order modulation schemes are more sensitive to both amplitude and phase noise since the separation between states is necessarily reduced. This situation therefore requires the most stable, ultra-narrow linewidth laser sources. The new Nano-ITLA uses a miniaturized design while maintaining the performance of an external cavity approach, which results in high output power, low electrical power consumption and the narrowest linewidth in the industry – resulting in high fidelity in higher order modulation formats.

“We are pleased to demonstrate our new ultra-compact Nano-ITLA at OFC. By doing so, we are assuring our customers of the superior features of this uniquely capable laser, which enables the next generation of 400G and 600G compact optical modules. This Nano-ITLA delivers all of the performance advantages our customers currently enjoy with our external cavity design, but with the laser size reduced by half,” said Tim Jenks, Chairman and CEO of NeoPhotonics. “Shrinking the size while maintaining performance is made possible by our Advanced Hybrid Photonic Integration technology,” concluded Mr. Jenks.

NeoPhotonics will exhibit its Nano-ITLA along with its suite of coherent components for 600G and 1.2T at the OFC Optical Networking and Communication Conference & Exhibition in Booth 3322 in San Diego, March 13 to 15, along with its broad family of products for high speed applications.

In addition, NeoPhotonics will participate in a panel discussion and will co-author two papers as part of the OFC technical conference.


Thursday, 15 March, 10:15-11:15, Winston Way, NeoPhotonics CTO, Systems, will participate in a panel discussion entitled “400G Coherent: What Does it Mean to You?” as part of the “Intra and Inter Data Center Connectivity” program in Theater II, Hall E.

Thursday, 15 March, Paper ThII.21a at 10:30: “Block-wise Time Domain Large Signal Model of Carrier-depletion Mach-Zehnder Silicon Photonic Modulators”, Qun Zhang (Minnesota State Univ) et. al., with co-authors Jianying Zhou and Jin Hong of NeoPhotonics.

About NeoPhotonics

NeoPhotonics is a leading designer and manufacturer of hybrid photonic integrated optoelectronic modules and subsystems for bandwidth-intensive, high-speed communications networks. 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 9001:2000 certified engineering and manufacturing facilities in Silicon Valley (USA), Japan and China. For additional information visit www.neophotonics.com.

Safe Harbor Statement Under the Private Securities Litigation Reform Act of 1995

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 Coherent and other 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 its 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, 2016, as well as in the Company Quarterly Reports on Form 10-Q for the three month periods ended March 31, 2017, June 30, 2017 and September 30, 2017, filed with the Securities and Exchange Commission.

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