Press Release
For Immediate Release

EFFECT Photonics Verifies Fully Integrated InP PIC for World's Smallest Digital ITLA for Coherent Applications

The PIC features support for 100G, 400G and 800G ZR applications and will become the cornerstone of the smallest tunable laser assembly for coherent applications.

Eindhoven, The Netherlands 2 October 2023

EFFECT Photonics, a leading developer of highly integrated optical solutions, announced today verification of its fully integrated tunable laser InP-based Photonic Integrated Circuit (PIC), the core enabler powering its digital Pico Integrated Tunable Laser Assembly (pITLA). Tunable lasers are a core component of coherent optical systems enabling dense wavelength division multiplexing (DWDM), which allows network operators to expand their network capacity without expanding the existing fiber infrastructure. With this milestone, the tunable laser InP-based Photonic Integrated Circuit (PIC) has successfully passed a series of tests showing required performance items outlined by IEEE Std. 802.3-2022, 100GBASE-ZR.

Unlike tunable laser assemblies currently available, the core of EFFECT Photonics digital pITLA is a tunable laser implemented fully as a monolithic integrated InP PIC. This enables advantages such as the ability to achieve a compact footprint, higher assembly yields, and ease of integration into pluggable form factors. The InP PIC is the only solution to integrate the gain section, laser cavity, optical amplifier, and wavelength locker into one chip. By incorporating these functions on a single chip and including the control functions in the assembly, the user can easily communicate and control the laser by simply providing digital commands.

"In the last decade, the industry has made impressive strides in reducing the size of crucial coherent optical functions, making way for digital coherent modules. EFFECT Photonics pITLA sets a new precedent in photonic integration by eliminating the need for external micro-optics for control of tunable lasers," said Roberto Marcoccia, CEO of EFFECT Photonics. "Our monolithic approach maintains all vital functions while drastically reducing the device's overall size to a smaller form factor previously unattainable."

Purposely designed to simplify the design of small form factor pluggables, the integrated InP PIC is the foundation of EFFECT Photonics new pITLA, providing an outstanding blend of power, cost-effectiveness, and compactness. It paves the way for the effortless and cost-efficient design of coherent pluggables, opening up new possibilities for the industry.

To learn more about the EFFECT Photonics pITLA, visit Stand 547 at ECOC23 or attend EFFECT Photonics' Market Focus Session "Power and Integration: InP for Coherent Transceivers at the Network Edge" on Monday, October 2 at 12pm.

About EFFECT PHOTONICS

Where Light Meets Digital – EFFECT Photonics is a highly vertically integrated, independent optical systems company addressing the need for high-performance, affordable optic solutions driven by the ever-increasing demand for bandwidth and faster data transfer capabilities.

Using our proprietary digital signal processing and forward error correction technology and ultra-pure light sources, we offer compact form factors with seamless integration, cost efficiency, low power, and security of supply. By leveraging established microelectronics ecosystems, we aim to make our products affordable and available in high volumes to address the challenges in 5G and beyond, access-ready coherent solutions, and cloud and cloud edge services.

For more information, please visit: www.effectphotonics.com.
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Media Contact:

Colleen Cronin
EFFECT Photonics
colleencronin@effectphotonics.com