OFC 2025: Scintil Photonics showcases LEAF Light™, world's first single-chip, multi-wavelength laser source for DWDM co-packaged optics in AI datacenters

Reducing power consumption, while increasing networking bandwidth and reach, is a critical priority for AI datacenters. LEAF Light remote laser source demonstrates industry leading cost, size, channel spacing and power efficiency to enable co-packaged optics interconnects in AI datacenters

Scintil Photonics will demonstrate LEAF Light, designed for DWDM co-packaged photonic interconnects, at booth 6357 during OFC exhibition, Moscone Center in San Francisco (CA), April 1-3

Grenoble, France, March 25, 2025 — Scintil Photonics, a trailblazer in heterogeneous silicon photonics, today announces it will demonstrate LEAF Light™, the world's first single-chip, multi-wavelength laser source that delivers the speed, reach, power-efficiency and lower latency required for scale-up networks. Scintil's compact DWDM (Dense Wavelength Division Multiplexing) remote light source with the world's most precise wavelength spacing, is a vital component within the emerging co-packaged DWDM architecture that addresses the challenges for scalable AI datacenters.

As copper cables hit their limit in speed and reach for AI interconnects, DWDM co-packaged optics is emerging as the ultimate optical networking solution for AI datacenters. Compared with legacy CWDM (Coarse Wavelength Division Multiplexing) implementation, DWDM will reduce latency, boost power efficiency, increase bandwidth density and enable up to 2 terabits per second (Tbps) in a single fiber.

"Scintil Photonics is delighted to showcase LEAF Light for the first time to international attendees at OFC. LEAF Light is the only single-chip solution that can meet all the system requirements at an acceptable size and cost for the emerging co-packaged DWDM architecture that requires the finest, high-precision multi-wavelength light source to efficiently transmit data," said Matt Crowley, CEO at Scintil Photonics. "Our aim is to closely align volumes of LEAF Light with the growth in the XPU accelerator market, expected to reach $600bn in 2030 with about 35 million AI accelerators. We are sampling a limited number of select customers later this year, with broader availability of our External Laser Small Form-Factor Pluggable (ELSFP) engineering samples in 2026."

LEAF Light is manufactured with Scintil's proprietary SHIP™ (Scintil Heterogeneous Integrated Photonics) process technology. This revolutionary silicon photonics process integrates III-V and other materials into the standard silicon photonics process flows now available from commercial

foundries. Our process compatibility with standard silicon photonics fabs and wafer-scale manufacturing gives LEAF Light the capability to scale to tens of millions of units per year and beyond.

“In close collaboration with customers, we have developed a single chip light source solution, featuring 8 to 16 multiplexed lasers with 200 GHz or 100 GHz frequency spacing, respectively,” said Sylvie Menezo, founder and CTO of Scintil Photonics. “In addition, we have developed the control electronics and the optical packaging to fit into an ELSFP.”

Scintil Photonics will exhibit LEAF Light at OFC, the Moscone Center, San Francisco (CA), at booth 6357, April 1-3. OFC is the premier global event dedicated to optical networking and communications, where Sylvie Menezo is also invited to discuss light sources for co-packaged optics switches and XPU systems at the Technical Conference:

- ‘High Power and Multi-Wavelength Laser Light Sources: How Can They Address the Needs of AI/ML Interconnects’ Workshop – Sunday, March 30, 13:00 – 15:30 PDT
- ‘Advanced Packaging and Integrated Optics for Scale-Up AI Interconnects’ Symposium– Wednesday, April 2, 14:00 – 18:30 PDT

About Scintil Photonics
Scintil Photonics is a fabless company developing and commercializing silicon photonic integrated circuits with integrated lasers for AI datacenters. Based on the company’s disruptive SHIP™ process technology, Scintil enables optical interconnects to achieve low-latency, high-density, power-efficiency and ultra-high-speed. Scintil is an international company headquartered in France, with offices in Canada and the United States.
www.scintil-photonics.com

Media and analyst contact
Andrew Lloyd & Associates
Carol Leslie / Juliette Schmitt
carol@ala.associates – juliette@ala.associates
UK: +44 1273 952 481
US: +1 203 724 5950