Scintil Photonics unveils its III-V-Augmented Silicon Photonic IC at OFC 2022

Start-up's optical chip with integrated III-V optical amplifiers, supporting 1,600 Gbit/sec data rate, enables the ultimate interconnection in high-speed communications

CEO Sylvie Menezo will speak at special session on emerging photonic interconnects; company will exhibit at OFC booth #5227, San Diego (CA), March 8 - 10

OFC, San Diego (CA) USA, March 7, 2022 - Scintil Photonics, a fabless company developing and marketing silicon photonic integrated circuits, today announces it will unveil a prototype III-V-Augmented Silicon Photonic Integrated Circuit (IC) at OFC 2022.

Scintil's Augmented Silicon Photonic IC is a single-chip solution comprising all the active and passive components made from standard silicon photonics available in commercial foundries, with III-V optical amplifiers/lasers integrated on the backside of advanced silicon photonic circuits.

Scintil's solution will boost communications in data centers, High-Performance Computing (HPC), and 5G networks, prime users of optical transceivers. The optical transceiver market is expected to reach US$20.9 billion in 2026, at a CAGR of 14% for 2021 – 2026.

"We are very pleased to announce our prototype IC at OFC this year," said Sylvie Menezo, president and CEO of Scintil Photonics. "The close collaboration with our commercial foundry was key to achieving this fabrication milestone, resulting in unprecedented levels of integration and performance. Scintil is already working with three leading edge customers; and it is fundamental to them that we can prototype and produce in commercial high-volume silicon foundries, using multi-customer standard processes."

Technical features and key benefits

The 1,600 Gbit/sec prototype IC integrates state-of-the-art silicon modulators and germanium photodetectors supporting 56 GBaud PAM 4, with integrated III-V-optical amplifiers. This disruptive IC technology offers the capability of delivering sustainable bit rates through parallelization and the increase of Baudrates at a competitive cost per gigabit per second.

The IC leverages wafer-scale bonding of III-V materials on silicon for integrating optical amplifiers/lasers.

The benefits in solving some key industry challenges include:

- Dramatically reducing the number of components and active alignments, resulting in better cost-efficiencies
- Addressing both the pluggable transceiver market and co-packaged/near-packaged optics requirements for bringing the optical chip close to high-performance processing units (XPU) in data center environments
- Intrinsic hermeticity removing the need for hermetic packages

Sylvie Menezo will participate as a speaker during the OFC symposium on
Emerging photonic interconnects and architectures for femtojoule per bit intra data center links networks.
Tuesday, March 8, 2022
2:00pm – 6:30pm (PST)

The company will be at booth #5227 at OFC, San Diego (CA), March 8 – 10.

About Scintil Photonics:
Scintil Photonics develops and markets Photonic Integrated Circuits (integrated laser-arrays, multiple of 800 Gbit/sec transmitters and receivers, tunable transmitters and receivers). Its circuits are fabricated on a proprietary III/V-augmented silicon photonics technology manufactured in a multi-customer silicon foundry. For accelerated adoption, the company delivers the control electronics and reference package implementations. Scintil Photonics is a recipient of the European Innovation Council (EIC) Accelerator program (2021) award.

Based in Grenoble, France, and Toronto, Canada, Scintil is currently taking its innovative product to industrial level as it gears up for mass production.

www.scintil-photonics.com

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