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September 24, 2024

Headline

Polaris Electro-Optics, Inc. Demonstrates Groundbreaking 102 Gbps PAM-4 Silicon Photonic Modulator Technology

Content

Broomfield, Colorado — Polaris Electro-Optics, Inc., a Colorado-based company, announced a major breakthrough for optical data transmission with the successful demonstration of 102 Gbps PAM-4 silicon photonic modulation using their proprietary new modulator technology. This innovation will be presented in a post-deadline paper at the European Conference on Optical Communications (ECOC) in Frankfurt, Germany on Thursday, September 26, 2024.

At the core of this technology are ferroelectric nematic liquid crystals - a new variant of liquid crystal. Designed as a seamless drop-in enhancer of silicon photonic chips, Polaris's modulator technology paves the way for the next generation of optical interconnects critical to the future of datacenter disaggregation.

"The need for high speed, efficient, and small footprint solutions for optical data transmission is growing rapidly. This breakthrough places our technology as a key enabler of the continued scale up of data centers," said Jason Sickler, CEO of Polaris Electro-Optics, Inc. "The technology integrates seamlessly with silicon photonic wafers post-foundry, does not require poling, and is robust and stable. This makes possible faster, smaller, and more efficient photonic chips made using standard processes at any foundry. No other technology offers that." This technology is poised to become the preferred solution for pluggable transceivers and future optical interconnect platforms.

With this rapid pace of development, Polaris is set to offer a key capability to telecommunications providers and hyperscaler datacenter operators seeking to revolutionize their infrastructure. As industries transition to disaggregated, high-speed systems, Polaris's breakthrough modulators will be at the forefront of this transformation.

About Polaris Electro-Optics, Inc.

At Polaris Electro-Optics, Inc., we believe that overcoming society's greatest challenges requires mastery of the creation, movement, and use of information. We are mastering the movement of information by leveraging patented material and design innovations to offer the highest-speed, most energy efficient integrated photonics products to the communications and computation industries. Our goal is to define the standard for moving information. We work hard in a collaborative, cross-functional team environment, and value mutual trust and respect built on a foundation of integrity, transparency, consistency, and humility. Additional information about Polaris is available at www.PolarisEO.com.