

CPO optical module devices



Overview

Co-Packaged Optics (CPO) is a technology and design approach where optical components, such as lasers and photodetectors, are integrated alongside electrical components, like Application-Specific Integrated Circuits (ASICs), within the same package. As data demands grow, these systems face limitations such as bandwidth constraints, latency issues, and space limitations. SCALE CPO solution is the industry's first OCI MSA capable platform and built with GF's proven silicon photonics technology MALTA, N., May 4, 2026 - GlobalFoundries (Nasdaq: GFS) (GF) today announced the introduction of its SCALE™ optical module solution for co-packaged optics (CPO). CPO optical modules put optical and electronic parts together. It refers to the co-packaging scheme in which the switching chip and optical engine are assembled within the same integrated socket.



Article Content

Five Key Trends of Co-Packaged Optics (CPO) in 2026

These pressures are driving renewed momentum behind co-packaged optics (CPO). According to LightCounting, sales of lasers and photonic integrated

GlobalFoundries' Unveils Optical Module Solution Targeting CPO

The SCALE CPO solution uses both coarse and dense wavelength-division multiplexing (CWDM and DWDM) for bi-directional data transmission over each optical fiber, delivering significant

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Co-packaged Optics: The Next-Gen Data Center Tech

CPO, or "Co-Packaged Optics," is an advanced opto-electronic co-packaging technology. It involves co-packaging the optical engine (including

Co-Packaged Optics — a deep dive | APNIC Blog

Co-Packaged Optics — a deep dive OFC 2025 made one thing clear: The transition to Co-Packaged Optics (CPO) switches in data centres is

GlobalFoundries accelerates adoption of co-packaged optics for

GF's SCALE CPO solution and silicon photonics technology offer an advanced portfolio of fully-qualified photonic devices, such as 50Gbps and 100Gbps micro-ring modulators, coupled ring

GlobalFoundries Announces New Co-Packaged Optics Solution for AI

GlobalFoundries (GF) announced the introduction of its SCALE™ optical module solution for co-packaged optics (CPO). GF's Silicon photonics Co-packaged Advanced Light Engine (SCALE)

Samsung Electronics 1Q26 Conference Call Q& A Key Takeaways (1)

Beyond silicon photonics devices, Samsung is also developing advanced-node processes, 3D packaging, and CPO technologies. Mass production for optical communication

Co-Packaged Optics (CPOs)

Optical modules are known to experience both hard and soft failures. Even with high-quality optics, hard failure rates are around 100 FIT, and soft

The Rise of Co-Packaged Optics: A Deep Dive into CPO

This article provides a comprehensive overview of CPO optical modules, exploring their technology, benefits, challenges, and the pivotal role

Co Packaged Optics (CPO) – Scaling with Light for the

This section will explore the evolution of the market from copper to co-packaged copper and from digital signal processor (DSP) optics to linear

Where co-packaged optics (CPO) technology stands in

Co-packaged optics (CPO) technology, a key enabler for next-generation data center architectures, promises unprecedented bandwidth density

CPO (Co-Packaged Optics): A Key Technology Path for

CPO, a technology that deeply co-packages the optical engine with the switch chip, offers a solution for next-generation AI cluster interconnects by

Nvidia invests \$4B in co-packaged optics suppliers Lumentum ...

Lumentum, the first company in which Nvidia has invested, is among the world's top suppliers of CPO-optimized laser modules.

GlobalFoundries accelerates adoption of co-packaged optics for

GlobalFoundries accelerates adoption of co-packaged optics for advanced AI data centers with SCALE optical module solution PRESS RELEASE GlobeNewswire May. 4, 2026, 08:30

The Evolution of Optical Modules: Powering the Future

Optical modules are the unsung heroes of modern data communication. These compact devices serve as the interface between electrical

Inside Nvidia's \$4B Optical Strategy--And Why CPO Changes Everything

Nvidia Corporation's \$2B bets on Coherent & Lumentum signal a major CPO rollout as it battles Broadcom. Click for this NVDA stock update.

What is Co-Packaged Optics (CPO) Technology? | Corning

What is Co-Packaged Optics? Co-Packaged Optics (CPO) is a technology and design approach where optical components, such as lasers and photodetectors,

Optical Communication Industry Trends 2026: AI, 800G/1.6T Optical ...

Explore optical communication industry trends in 2026, driven by AI infrastructure, 800G and 1.6T optical modules, silicon photonics, and next-generation data center connectivity solutions.

Optical Modules and PCBs: Driving High-Speed Data Transmission in

This path underscores the shift toward more efficient, compact designs that minimize latency and energy use, critical for optical module PCBs in high-performance setups.
Composition of

Optics Primer, Part 3: Co-Packaged Optics (CPO)

Optics Primer, Part 3: Co-Packaged Optics (CPO) From EML lasers and DSPs to silicon photonics and external CW lasers. How CPO works and the

An Introduction To CPO Technology

Compared with the separate packaging of traditional optical modules and electronic chips, CPO achieves a much more compact form factor, which is highly suitable

GlobalFoundries accelerates adoption of co-packaged optics for

SCALE CPO solution is the industry's first OCI MSA capable platform and built with GF's proven silicon photonics technology MALTA, N.Y., May 04, 2026 (GLOBE NEWSWIRE) --

Optical Interconnect Technology Analysis: LPO, NPO, CPO

Exploring optical interconnects for AI data centers: LPO for low-power, short-distance links, NPO for high-density, near-package connections,

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