

New CPO Optical Module Technology



Overview

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 improvements in bandwidth density and system scalability versus traditional copper interconnects. 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). GF's SCALE. As AI infrastructure scales, the limitations of pluggable optics in the data center are becoming increasingly apparent. 9B by 2029, fueled largely by AI data centers. (NYSE: COHR), a global leader in photonics, today announced it will demonstrate multiple co-packaged optics (CPO) technologies at OFC 2026 in Los Angeles, highlighting the company's broad portfolio and vertical technology stack. Co-packaged optics (CPO) technology, a key enabler for next-generation data center architectures, promises unprecedented bandwidth density and power efficiency by tightly integrating optical engines with switch silicon. But after nearly a decade of existence, where does this next-generation optical.

Article Content

IBM Brings the Speed of Light to the Generative AI Era

In a technical paper, IBM introduces a new CPO prototype module that can enable high-speed optical connectivity. This technology could significantly

STMicroelectronics enters high-volume production of its industry ...

In parallel with high-volume PIC100 production, ST is planning to introduce the next step in its silicon photonics technology roadmap: the PIC100 TSV, a new and unique platform that integrates

Samsung Foundry Reportedly Wins Optical Module Order,

As a result, optical transmission technologies are becoming increasingly important. TrendForce forecasts that co-packaged optics (CPO) will steadily increase their share of optical

GlobalFoundries accelerates adoption of co-packaged optics for

MALTA, N.Y., May 04, 2026 (GLOBE NEWSWIRE) -- GlobalFoundries (Nasdaq: GFS) (GF) today announced the introduction of its SCALE™ optical module solution for co-packaged optics (CPO).

Co-Packaged Optics (CPO) Market Trends 2026: AI Data Center Optical ...

Explore the future of co-packaged optics (CPO) in AI data centers. Learn how silicon photonics, optical I/O, and high-speed optical interconnect technologies are shaping next-generation

Nvidia's \$4B Photonics Venture: What You Need to Know

Nvidia's \$4B Photonics Venture: What You Need to Know The strategic investment in optical component suppliers Lumentum and Coherent

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

Co-Packaged Optics (CPO) has long promised to transform datacenter connectivity, but it has taken a long time for the technology to come to market,

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).

POET Technologies seals \$50M AI optical engine deal | POET Stock News

POET Technologies (NASDAQ: POET) and Lumilens announced a strategic supply and joint development agreement to advance wafer-level photonic integration for next-generation AI optical

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 4, 2026 - GlobalFoundries (Nasdaq: GFS)

Co-Packaged Optics (CPO)Co-Packaged Optics (CPO)

Source: IDTechEx The importance of advanced semiconductor packaging technologies for Co-Packaged Optics (CPO) Traditional pluggable optical

Coherent's \$23B Opportunity Lifted by NVIDIA's Optical Ambitions

1.6T optical module demand as a CPO transition indicator. The pace of that migration will determine whether Coherent's new CPO revenue is additive to its existing transceiver business or

ELSFP Module Market to Exceed \$1.5 Billion by 2030

In scale-up, CPO replaces copper, opening an entirely new market for optical connectivity. Nvidia will be the first vendor to deploy CPO at volume through its Quantum-X and Spectrum-X

The advent of co-packaged optics (CPO) in 2025

A new optical computing era TSMC's approach involves integrating CPO modules with advanced packaging technologies such as chip-on-wafer-on

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

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

Coherent Demonstrates Multiple Technologies for Co

These demonstrations highlight Coherent's ability to support multiple optical architectures for co-packaged optics, leveraging its expertise across key

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

New approaches to fiber coupling and optical alignment—ranging from edge and vertical coupling to advanced passive and active alignment

GlobalFoundries' Unveils Optical Module Solution Targeting CPO

MALTA, N.Y., May 5, 2026 — GlobalFoundries (GF) has introduced an optical module solution for co-packaged optics (CPO). According to the company, the Silicon photonics Co-packaged Advanced

How open ecosystems will advance CPO adoption

There is an inflection point approaching in data center networking with a new technology that is forecasted to supersede pluggable optical modules for highest port count shipments.

Co-Packaged Optics (CPO) Market Size to Hit USD

The global co-packaged optics (CPO) market size is evaluated at USD 95.04 million in 2025 and is predicted to hit around USD 1,055.11 million by

Broadcom, Marvell set to benefit as 1.6T optical modules near mass ...

1.6T optical communication modules are set for broad adoption in AI data centers in 2026, with optical transceiver vendors and key IC design houses preparing for shipments.

The Evolution of Optical Modules: 400G → 800G → 1.6T - A Strategic ...

Discover the evolution from 400G to 800G and 1.6T optical modules. Learn key technologies, CPO vs pluggable, and upgrade strategies for future-ready data centers.

Coherent Demonstrates Multiple Technologies for Co

Coherent announced it will demonstrate multiple co-packaged optics (CPO) technologies at OFC 2026 in Los Angeles.

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

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

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.

Co-packaged Optics: Powering the Next Wave of AI

Co-packaged optics (CPO) will play a fundamental role in improving the performance, efficiency, and capabilities of networks, especially the scale-up

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