



Adam Tas Corridor Energy

Optical module CPO and silicon photonics





Overview

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. GF's SCALE solution, or Silicon photonics Co-packaged Advanced Light Engine solution, is the industry's first Optical Compute Interconnect Multi-Source Agreement (OCI MSA) capable platform, exceeding the requirements for the OCI MSA's optical interconnect specification for modern AI scale-up. , May 5, 2026 —

GlobalFoundries (GF) has introduced an optical module solution for co-packaged optics (CPO). As AI clusters push beyond 100 Tb/s per node, the gap between what silicon can generate and what traditional copper interconnects can deliver is widening fast. Three hurdles are now colliding: First, power delivery is nearing practical limits.



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GlobalFoundries accelerates adoption of co-packaged optics for

Built with GF's advanced silicon photonics technology, the SCALE CPO solution utilizes both coarse and dense wavelength-division multiplexing (CWDM, DWDM) for bi-directional data

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



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

Core Technology Enablers: Silicon Photonics (SiPh), advanced packaging (2.5D/3D integration), and high-density substrates (silicon interposers),

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



impact on the optical supply chain.



Top Silicon Photonics Stocks 2026: Breaking the

The industry knows it. The true endgame is called Co-Packaged Optics (CPO). Instead of plugging a separate optical module into the front of a switch,



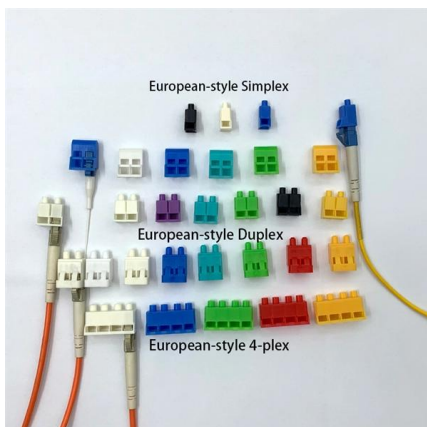
GlobalFoundries' Unveils Optical Module Solution Targeting CPO

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



Silicon Photonics and CPO: Revolutionizing Data Center Links

Silicon Photonics and CPO are driving a new era in data center optical interconnects. As AI workloads expand, bandwidth demand grows exponentially. Consequently, traditional copper and





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) --

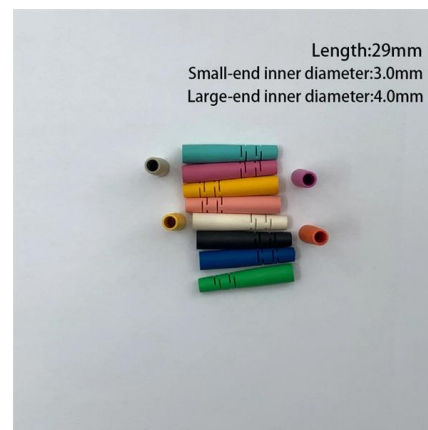


Co-Packaged Optics (CPO) Co-Packaged Optics (CPO)

Co-packaged optics overcomes these limitations by placing the optical engine much closer to the switching silicon. Its success depends on advanced semiconductor

Samsung Electronics Launches Silicon Photonics Foundry Business

Samsung Electronics' silicon photonics roadmap, outlining a phased expansion strategy from PIC platform this year through optical engines (OE) and CPO to next-generation CPO by 2030.



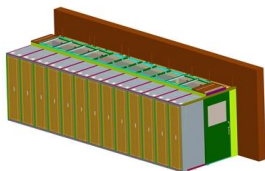
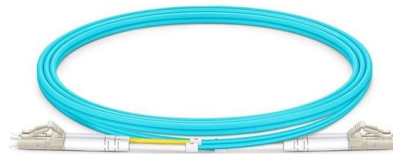
Samsung Foundry Reportedly Wins Optical Module Order,

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



AI Interconnect Outlook: NVIDIA Leads the Transition to CPO and Silicon

NVIDIA shifts AI competition from computing performance to system interconnects, leveraging CPO and silicon photonics to break I/O bottlenecks. By integrating high-speed fabric with

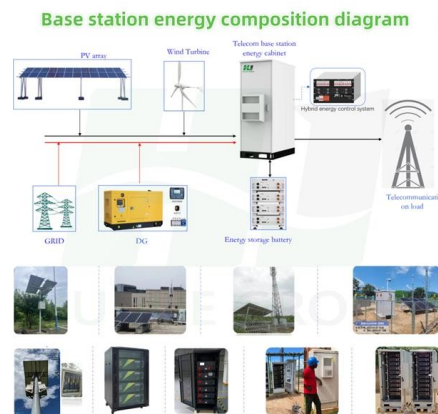


Optical Communication Industry Trends 2026: AI, 800G/1.6T Optical

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.

The Evolution of Optical Modules: Powering the Future

What Is CPO? Why CPO Matters Technology Options Industry Milestones Optical Input/Output (OIO): A New Era for Compute and Storage



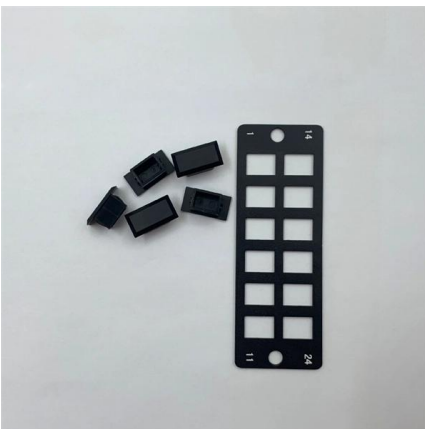


How Industry Collaboration Fosters NVIDIA Co

NVIDIA is developing a co-packaged optics (CPO) platform that integrates optical and electrical components to improve data-center connectivity,

Silicon Photonics

GF proven silicon photonics technology helps you innovate your designs for success at the speed and bandwidth your customers expect. With our electro-optical



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

Relative to mature CMOS processes, silicon photonics manufacturing still exhibits higher variability and places greater emphasis on yield and Known

Silicon photonics and co-packaged optics at the heart of

China emerges as a key competitor, shipping millions of modules and closing the technology gap with Western suppliers. Co-packaged optics (CPO) is



GlobalFoundries Accelerates Adoption of Co-Packaged Optics for

GlobalFoundries (Nasdaq: GFS) (GF) today announced the introduction of its SCALE(TM) optical module solution for co-packaged optics (CPO). GF's SCALE solution, or Silicon photonics Co-packaged



Co-Packaged Optics -- a deep dive , APNIC Blog

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



STMicroelectronics enters high-volume production of its industry

STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications, is now entering high-volume production for its state





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



The 1.6T Surge: Silicon Photonics and CPO Redefine AI Data Centers

Breaking the 1.6T Barrier: The Shift to Silicon Photonics and CPO The technical backbone of this 2026 surge is the 1.6T optical module, a breakthrough that doubles the bandwidth

Market Insights: 800G & 1.6T Silicon Photonics Optical

This article answers key questions about 800G and 1.6T silicon photonics optical transceivers, covering chip architecture, packaging differences versus EML,



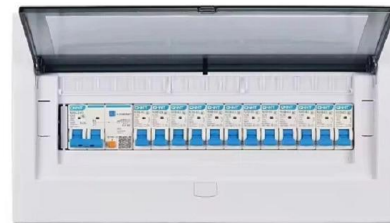
AI Data Center Optical Transceiver Module Market 2025-2030

Silicon photonics, LPO, and CPO represent three concurrent technology paths that will coexist in the near term: silicon photonics has achieved mainstream status in 800G/1.6T applications, LPO is



The Rise of Co-Packaged Optics

By integrating an electrical die and a silicon photonics die in the same package, CPO brings optical fibers as close as possible to the ASIC or FPGA,



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