

CPO optical module upstream suppliers



Overview

Co-Packaged Optics (CPO) Supply Chain — Interactive Map · 2026Interactive guide to the co-packaged optics (CPO) supply chain: InP laser, hybrid bond, silic.

Key Takeaways

Key upstream suppliers for CPO optical modules include manufacturers of optical chips, optical components, and optical devices such as TFC, T&S Communications, Advanced Fiber Resources, Borui Technology, Optowide Technologies, Yuanjie Semiconductor, and Shijia Photons.Overview of Upstream Supply Chain

CPO modules rely on a complex upstream ecosystem that provides the essential components for high-speed optical communication. The upstream suppliers can be categorized into three main groups: 1. Optical Chips Manufacturers These companies produce the semiconductor components that form the core of optical transceivers and CPO modules. Notable suppliers include:

- Yuanjie Semiconductor – specializes in high-speed optical chips for data center applications
- Shijia Photons – focuses on advanced photonic devices for optical communication systems
- 2. Optical Components Manufacturers These suppliers provide lasers, modulators, photodetectors, and other critical optical elements integrated into CPO modules:
- TFC – manufacturer of optical devices for high-speed networking
- T&S Communications – provides optical transceivers and components

- Advanced Fiber Resources – specializes in fiber optic components
 - Borui Technology – develops optical modules and related devices
 - Optowide Technologies – supplies optical engines and components
3. Optical Devices and PCB Suppliers High-speed PCBs and packaging materials are essential for integrating optical chips into CPO modules. Companies in this segment include:
- China's high-speed PCB manufacturers – supporting integration of optical chips into modules
 - Innolight, Eoptolink, Huagong Tech, Linktel, Accelink, CIG Shanghai Co., Ltd. – while primarily module manufacturers, they also engage in upstream R&D and packaging of optical devices

Major CPO Module Manufacturers (Integrating Upstream Components)

While not strictly upstream, these companies integrate components from the suppliers above to produce CPO modules:

- Broadcom, Intel, Ranovus, Cisco, Ayar Labs, Accelink Technologies, Zhongji Innolight, Eoptolink Technology, Cambridge Industries USA, Huagong Tech

Summary

The upstream supply chain for CPO optical modules is dominated by optical chip producers, optical component manufacturers, and high-speed PCB suppliers. These suppliers provide the critical building blocks that CPO module manufacturers integrate into high-performance, low-power optical solutions for data centers and cloud infrastructure. Understanding these upstream players is essential for sourcing, partnership evaluation, and supply chain risk management in the CPO ecosystem.

Article Content

Standing in the Light: A Comprehensive Guide to the Optical Module

This article will explain from "What is an Optical Module" to "Why CPO is the Future," to "Which Companies Upstream"

The Silicon Photonics & Co-Packaged Optics supply chain

Roughly fifteen specialist industries have to coordinate to build a single co-packaged module, and at least six of them

Chinese Optical Modules Own 7 of the Top 10 Seats. So Why Are

Innolight and Eoptolink are estimated by industry sources to supply roughly 60% of NVIDIA's 800G volume, controlling

The Silicon Photonics & Co-Packaged Optics supply chain

Move the optical engines into the same package as the switch ASIC, millimeters from the silicon doing the work. This

Global Optical Transceiver Market Strategic Audit 2026

The current super-normal profits generated by 800G modules have incentivized aggressive brownfield capacity

Beyond Chips: Unveiling the Future of the Global Silicon Photonics ...

The new report primarily categorizes optical modules based on a scale-up and scale-out framework, and further

Chinese Optical Modules Own 7 of the Top 10 Seats. So Why Are

Seven of the global top 10 optical module suppliers in 2024 were Chinese companies (including Source Photonics,

CPO Technology Nvidia: Death of Optical Modules and the Future of

The rest is supplier markup. With CPO the cost of the optical portion drops because the housing, connectors, and DSP

Optical Module Investment Landscape 2026: Demand, Scarcity, CPO,

In late May 2026, AI optical modules are the most demand-certain link in the compute chain — and the easiest place to overpay.

Silicon Photonics & CPO Supply Chain Map | Bottleneck Analysis

The CPO Supply Chain: Who Gates the \$90B Optical Buildout Co-packaged optics is the next architecture transition in AI

Progress in Research on Co-Packaged Optics

This technology has evolved from traditional board-edge optical modules to smaller and more integrated solutions. Co-packaged

Optical Interconnects Become Critical to AI Factory Expansion; CPO

Bringing optical connectivity closer to switch ASIC, shortening electrical paths, and reducing system power

CPO: Co-Packaged Optics Value Chain

CPO is not simply a story about better optical modules. It is a supply-chain architecture that only works when critical

Co-Packaged Optics — a deep dive | APNIC Blog

A failure in an optical engine might require replacing an entire CPO switch line card or server board rather than just

Which companies are the suppliers of optical module chips to

In the 800G optical module sector, Eoptolink (New Easy Tech) does not directly manufacture most core optical chips.

Foxconn CPO Switch Target Strains Optical Module Supply Chain, 2026

Several domestic suppliers have received urgent orders requiring delivery within eight weeks. As a result, upstream

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