

Price List for Low-Loss Co-packaged Photonics for Data Center Interconnects



AI Overview

Co-packaged optics (CPO) solutions for data center interconnects currently range from hundreds to thousands of dollars per module, depending on data rate, integration level, and component type. Market Pricing Estimates The global co-packaged optics market was valued at approximately USD 1.8 billion in 2025, with projections to reach USD 3.2 billion by 2034, reflecting a CAGR of 5.5%. Another market analysis estimates the CPO market at USD 70.2 million in 2025, with a projected CAGR of 47.12% from 2025 to 2033, driven by high-speed interconnect demand and AI workloads. Individual CPO modules, particularly low-loss optical engines and photonic integrated circuits (PICs), are priced higher for 800G-1.6T and above data rates, reflecting the complexity of integration and silicon photonics technology. Cost Drivers Integration Level: Fully integrated CPO modules combining optical transceivers, PICs, and ASICs are more expensive than near-packaged or pluggable solutions due to advanced 3D integration, hybrid bonding, and thermal management requirements. Data Rate: Modules supporting 200G/channel, 400G-800G, or 1.6T links command higher prices because of tighter tolerances, low insertion loss, and high-speed signal integrity demands. Component Type: Lasers, modulators, and high-performance PICs are significant contributors to module cost. Silicon photonics integration reduces some costs but requires specialized manufacturing. Volume and Supply Chain: Large-scale deployments in hyperscale data centers can reduce per-unit costs, but component shortages (e.g., lasers, photonic chips) can temporarily increase prices. Technology Maturity: Early adoption of co-packaged optics involves higher upfront capital expenditure for new manufacturing lines and testing equipment, which is reflected in module pricing. Pr...

Article Content

Silicon Photonics Market Size, Share and Trends

The silicon photonics market share has been growing strongly as demands for high-bandwidth, low-latency and energy-efficient data communication increase. It is

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Explore how CPO technology is revolutionizing ****data centers, AI/ML, and HPC**** with ****silicon photonics**** and ultra-efficient optical interconnects. Get insights

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This report categorizes the photonic integrated circuit industry, including silicon photonics. It offers a deep dive on the key technology options for components

Optics for co-packaged applications

Explore five practical use cases for enabling data center and AI-driven deployments with coherent routing.

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

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

Optical Transceiver Market Size, Share, and Trends Analysis 2032

Optical Transceiver Market Trends “Rising Adoption of Co-Packaged Optics in Data Centers” • Co-packaged optics is emerging as a transformative innovation by integrating optical engines directly

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NVIDIA Doubles Down on Photonics: CPO Emerges as the Next

NVIDIA Doubles Down on Photonics: CPO Emerges as the Next Battleground for AI Data Centers By Xiao Bing, Chaoxiang Research On June 1, 2026, at the Taipei Pop Music Center,

AI Data Center Optics: Validation & Testing Handbook 2026

The complete operator guide to AI data center optics validation — sample testing, 5-check bring-up, DOM baselines, burn-in, and triage. 23 chapters, 15 reference cards.

Optoelectronics Market by Product Type, Material Type, Application ...

AI workloads increase the need for high-bandwidth optical transceivers, co-packaged optics, photonic integrated circuits, and low-power interconnects that can move data faster than

Silicon Photonics and Co-Packaged Optics at the Heart

Yole Group unveils its latest photonic market and technology analyses, "Silicon Photonics 2025" and "Co-Packaged Optics for Data Centers

Co Packaged Optics (CPO) – Scaling with Light for the Next Wave of ...

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

Broadcom CPO: Highest Power Efficiency and

Co-Packaged Optics (CPO) is an advanced heterogeneous integration of optics and silicon on a single packaged substrate that addresses

SILICON PHOTONICS

Short-reach optical interconnects using silicon photonics technology enable high-speed data transfer with low power consumption and improved thermal efficiency, making it ideal for real-time decision

LWLG Q1 2026 Earnings Report on 5/15/2026

Lightwave Logic announced their Q1 2026 earnings on 5/15/2026. View LWLG's earnings results, and conference call transcript at MarketBeat.

Unlocking Growth in 1.6T Optical Transceiver Market 2026-2034

Explore the booming 1.6T Optical Transceiver market, projected at **5 million USD** in 2025 with a **4.5% CAGR** through 2033. Discover key drivers like hyperscale data centers, AI/ML clusters, and

Evolution of Co-Packaged Interconnects

Samtec's offerings, from mid-board pluggable (FireFly™, Halo ®) to co-packaged pluggable interconnects (SiFly ® HD CPX), provide options and a

Co-packaged Optics Market 2026-2034 Analysis:

The Co-packaged Optics (CPO) market is poised for explosive growth, driven by the insatiable demand for higher bandwidth, reduced power consumption, and

Co-Package Technology Platform for Low-Power and

We report recent advances in photonic-electronic integration developed in the European research project L3MATRIX. The aim of the project

Co-Packaged Optics (CPO) 2025-2035: Technologies,

IDTechEx's "Co-Packaged Optics (CPO) 2025-2035" explores technical innovations and packaging trends, analyzing the value chain. It evaluates industry players

Co-packaged optics (CPO): status, challenges, and

Therefore, co-packaged optics (CPO) has been proposed to unleash the future bandwidth bottleneck at data center. Using integrated optics and

Fiber Bragg Gratings – Buyer's Guide & Supplier List

This buyer's guide for fiber Bragg gratings provides technical background, comparison of major types, selection criteria, and an overview of suppliers.

Photonic Integrated Circuits: Research Advances and

Silicon photonics, serving as a cornerstone technology in modern information technology, demonstrates significant application potential in critical

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Co Packaged Optics Market Report: Size, Growth,

Co Packaged Optics (CPO) is an innovative optical interconnect technology that

AI Optical Transceiver Market: \$15.44B by 2025, 11.1% CAGR

The AI Optical Transceiver market is projected to reach \$15.44 billion by 2025, driven by expanding large model training and data center infrastructure needs. Obtain analytical insights and

Co-packaged Optics Market Report 2034

Intel and Broadcom are leading the development of silicon photonics and high-speed optical engines for hyperscale data center applications, while Cisco and NVIDIA are focused on integrating co-packaged

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

The report is based on extensive research and interviews with industry experts and provides valuable insights for anyone interested in gaining a strategic

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