

# India Co-packaged Photonics 800G



## Overview

The 800G solution, through QSFP-DD/OSFP packaging, increases the single-port rate to 800Gbps with 8-channel parallel transmission, and reduces power consumption by 30% in combination with LPO linear drive technology. STMicroelectronics just entered high-volume production of its PIC100 silicon photonics platform — the manufacturing technology behind the 800G and 1.6T optical modules going into every major AI data center buildout. For network engineers, this is the plumbing layer beneath your VXLAN EVPN overlays. Yole Group unveils its latest photonic market and technology analyses, *Silicon Photonics 2025* and *Co-Packaged Optics for Data Centers 2025*, which explore how AI-driven demand is reshaping connectivity, from transceivers to packaging innovation. 6T PIC100 transceivers enable higher bandwidth, lower latency, and greater energy. Co-Packaged Optics (CPO) is an advanced optical interconnect architecture that integrates optical components—such as photonic integrated circuits (PICs) and lasers—directly alongside switching ASICs or processors within the same package. This approach significantly reduces electrical I/O distance. What is the difference between 1. Basic electronic chips in a module, such as DSPs and drivers for the transmitter, and TIAs for the receiver, are essential for 400G, 800G, or silicon/non-silicon. BENGALURU, INDIA — August 21, 2025 — izmomicro, a specialized division of izmo Ltd., today announced a major milestone in silicon photonics packaging, underscoring its role as a pioneer in India's semiconductor ecosystem and advancing the country's position in the global race toward next-generation.

## Article Content

Oct 22, 2025

STMicroelectronics enters high-volume production of

STMicroelectronics is now entering high-volume production for its state-of-the-art silicon photonics-based PIC100 platform used by hyperscalers for

Apr 08, 2026

Deep Dive

The AI optical/photonics complex has become the cleanest picks-and-shovels exposure to the hyperscaler capex supercycle, and remains supply-constrained rather than demand

Aug 28, 2025

Unlocking the Potential of Silicon Photonics Using

Celestica is working with industry leaders to commercialize technologies such as On-Board Optics (OBO) and Co-Packaged Optics (CPO) in

Jun 05, 2026

Co-Packaged Optics Market Size, Growth & Trends, 2031

Co-packaged optics market to grow from USD 161.43M in 2026 to USD 748.62M by 2031, driven by AI/ML bandwidth, hyperscale data centers, and

Mar 08, 2026

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

Oct 24, 2025

Silicon photonics and co-packaged optics at the heart of

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

Dec 19, 2025

Optical Transceiver Market Size, Share, Industry Report

Co-packaged optics development initiatives. Challenges Thermal management complexity in dense racks. High 800G module power consumption. Opportunity

Oct 03, 2025

### Photonics Integrated Circuit (IC) Market Size, Share & Analysis 2034

The Photonics Integrated Circuit (IC) Market Research Report also highlights that co-packaged optics represented approximately 29% of new product development programs among

Sep 03, 2025

### Powering the Next Data Race: How 800G & 1.6T Optical

This performance demand accelerates the adoption of cutting-edge technologies such as LPO (Linear-Drive Pluggable Optics) and CPO (Co-Packaged Optics),

Apr 27, 2026

### Co-Packaged Optics Race: Strategic Approaches from NVIDIA and

Co-packaged optics integration and packaging Both companies incorporate co-packaged optics using TSMC's semiconductor packaging approaches, with the optical engine integrated using

May 17, 2026

### Optical Module Package Market 2025

MARKET INSIGHTS The global Optical Module Package Market was valued at 8942 million in 2024 and is projected to reach US\$ 20220 million by 2032, at a CAGR of 12.7% during the forecast period.

Jan 12, 2026

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

Co-packaged optics (CPO) is a disruptive approach to increasing the interconnecting bandwidth density and energy efficiency by dramatically

Jul 04, 2025

### STMicro's Silicon Photonics Hits Mass Production: What 800G/1.6T

Key Takeaway: Silicon photonics and co-packaged optics are the technologies enabling AI data center fabrics to scale to 800G/1.6T per link while cutting power consumption by up to 70% —

Mar 20, 2026

### Silicon photonics and co-packaged optics at the heart of

Silicon photonics and co-packaged optics at the heart of next-gen AI-driven data infrastructure Yole Group unveils its latest photonic market and

Aug 25, 2025

### 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

May 27, 2026

### Co Packaged Optics Market Report: Size, Growth,

Co Packaged Optics Market size is projected to reach USD 0.84 Billion by 2032, growing at a CAGR of 27.5% from 2026 to 2032 The report provides key trends,

Nov 17, 2025

### Everything You Need to Know About 800G/1.6T Optical

Explore 800G/1.6T pluggable optics: key architecture, applications, challenges, and future co-package trends.

Aug 18, 2025

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

Over the past five years, data center interconnects have transitioned from incremental upgrades to a dramatic shift. With 400G modules now the baseline, 800G adoption is

Apr 16, 2026

### IIT Madras unveils India's first indigenously developed silicon ...

The Indian Institute of Technology (IIT) Madras has launched two homegrown silicon photonics products, marking a first for India. Developed at the Centre of Excellence for Co-Packaged

Oct 25, 2025

### Co-Packaged Optics | Anritsu India

Photonics-Electronics Convergence technology is expected to be one solution to this challenge. Integrating optoelectronics into electronic devices and replacing electrical wiring with photonic wiring

Jan 03, 2026

### National Center for Biotechnology Information

Hier sollte eine Beschreibung angezeigt werden, diese Seite lässt dies jedoch nicht zu.

Dec 16, 2025

izmomicro Achieves Breakthrough in Silicon Photonics Packaging ...

"Only a handful of companies worldwide have demonstrated this capability, and we are proud to be the first in India. This breakthrough validates our years of R& D in precision packaging and positions us

May 25, 2026

STMicro's Silicon Photonics Hits Mass Production: What 800G/1.6T Co ...

STMicroelectronics enters high-volume PIC100 silicon photonics production for AI data centers. Here's what 800G/1.6T co-packaged optics mean for fabric design, power budgets, and

Sep 14, 2025

400G, 800G, and Terabit Pluggable Optics:

Current trend: 800G Pluggables supporting dense 400 GbE Both 400G & 800G form factor enables an economical way to implement breakout to lower speed Ethernet interfaces.

## Contact Us

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