

# Suppliers of coherent optical modules



## AI Overview

Key manufacturers of coherent optical modules include Coherent, Lumentum, and Fabrinet, with emerging startups also contributing to innovation in silicon photonics and high-speed optical transceivers.

**Major Manufacturers**

**Coherent** is a leading supplier of coherent optical modules, transceivers, and photonic devices, offering solutions for hyperscale data centers, 5G networks, and long-haul communications. Their portfolio includes silicon photonics-based transceivers, active optical cables, and high-performance lasers, supporting speeds up to 1.6 Tbps per lane. Coherent emphasizes vertical integration to ensure supply chain reliability and scalability.

**Lumentum** focuses on optical transceivers and externally modulated lasers (EMLs), addressing the growing demand for high-speed data transmission in AI-powered data centers and 5G networks. The company has invested heavily to expand production capacity and mitigate component shortages.

**Fabrinet** acts as a contract manufacturer for major technology companies, producing optical transceivers and modules. Their operational scale, particularly in Thailand, allows them to meet global demand for telecom and data center applications.

**Emerging Startups**

Several venture-backed startups are innovating in coherent optics and silicon photonics. Examples include:

- Akhetonics:** Developing all-optical general-purpose processors for AI and data center applications, integrating optical processing, memory, and interfaces.
- Startups** focusing on quantum dot lasers, heterogeneous silicon photonics, and 3D optical interconnects for AI nodes and co-packaged optics (CPO) applications.

**Market Trends**

The coherent optical module market is driven by:

- High-speed internet and data bandwidth demand, fueled by 5G, cloud adoption, and AI/ML workloads.
- Adoption of 400G and 800G technologies to meet increasing bandwidth requirements.
- Shift toward pluggable coherent optics for scalable, cost-effective deployment.
- Integration of software-defined networking (SDN) to enhance network flexibility and efficiency ....

## Article Content

Coherent Distributor | DigiKey

Broad product offerings and innovative technology have made Coherent the world's largest supplier of pluggable optical modules.

Coherent (COHR): In this round of AI optical

Coherent Corp. is positioned differently from Lumentum despite both receiving Nvidia investment for optical interconnects. Coherent's vertically

Tracking the Coherent DSP Supply Chain - 2026

Growth in the coherent optical market has moved to pluggables, which now dominate the number of modules shipped. The cost of developing newer high speed performance modules is

100G-and-beyond Coherent Components

NEL, a leading supplier of coherent Digital Signal Processor (DSP) solutions to system and module manufacturers worldwide, provides key components for 100G-and-beyond coherent transceivers,

Tracking the Coherent DSP Supply Chain - 2025

In the past, when coherent optics were reserved for long haul routes and high-capacity metros, the vertically integrated vendors who controlled their

QSFP-DD Product Family » Acacia

800G ZR+ QSFP-DD Pluggable Coherent Optical Module Metro/regional | Service provider ROADM networks

Eoptolink: The development history of a domestic optical module giant

After its establishment, Eoptolink will focus its main efforts on the research and development and production of optical modules. An optical module is a core optoelectronic device used in fiber-optic

Global 800G Optical Module Market Size, Share,

Global 800G Optical Module Market Size By Product Type (Coherent Optical Modules, Non-Coherent Optical Modules), By Application

AI optical transceiver market to grow 57% to US\$26bn in 2026

AI optical transceiver market to grow 57% to US\$26bn in 2026 Market analyst firm TrendForce forecasts that the global AI-focused optical transceiver market will rise at more than 57%

Global Coherent Optical Module Supply, Demand and Key Producers,

Description The global Coherent Optical Module market size is expected to reach \$ million by 2029, rising at a market growth of % CAGR during the forecast period (2023-2029). This report studies the

AI Data Center Optical Component Shortage: Nvidia's

AI data center optical component shortage is pushing 800G transceiver production 40-60% below demand through 2027, McKinsey warns.

Partnering With Lumentum and Coherent, Can Nvidia's

Nvidia is investing \$4 billion in optical technology manufacturers Lumentum and Coherent to secure its supply chain for next-generation AI data

AI drives ramp-up in datacom optics – report

Nvidia's 800G solutions sourced from Fabrinet represent the third-largest source of modules at the highest production speed. Marvell and Acacia

Optical networks

The Nokia optical network portfolio leverages highly vertically integrated coherent optical engines to build an advanced-connectivity foundation for the AI

Nvidia invests \$4B in co-packaged optics suppliers

Nvidia invests \$4B in co-packaged optics suppliers Lumentum, Coherent - SiliconANGLE  
SiliconANGLE Media is a recognized leader in digital

NVIDIA Announces Strategic Partnership With

NVIDIA today announced multiyear strategic agreements with Lumentum Holdings Inc. (NASDAQ: LITE) to accelerate innovation in advanced

Optical Transceiver Market Size, Growth Drivers

The Optical Transceiver Market worth USD 15.42 billion in 2026 is growing at a CAGR of 13.67% to reach USD 29.26 billion by 2031. Coherent

AI Optics Stocks Surge: LITE, AAOI Lead 2026 Boom

AI optical stocks like Lumentum, Applied Optoelectronics, and Coherent are outperforming the Nasdaq by up to 20x. Explore how AI data center demand drives massive gains, key risks, and how traders

PW Consulting Forecasts Coherent Optical Module Market to Grow at

PW Consulting today releases a preview of our forthcoming Coherent Optical Module Market report (base year 2025). The market has evolved from roughly USD 3.4 billion in 2020 to about USD 6.25

Laser Components and Accessories | Coherent

Choose from single emitters, bars, stacks, or fiber-coupled modules. Choose from a broad selection of laser diodes, arrays, and modules for automotive, industrial,

Top 10 Leading Companies in the Global Optical

Formerly known as II-VI Incorporated, Coherent Corp. is one of the largest suppliers of optical components and subsystems globally. With its

Global AI Optical Transceiver Market to Reach US\$26

TrendForce's latest research indicates that the global market for AI-focused optical transceivers has entered a phase of rapid growth, with market

Coherent Distributor

The company is headquartered in Saxonburg, Pennsylvania, and was founded in 1971 to manufacture high-quality materials and optics for industrial lasers. Today, the company operates in more than 20

Coherent Optical Modules - GIGALIGHT

GIGALIGHT provides 100G, 200G, and 400G pluggable digital coherent optical transceiver modules (DCO) for data center interconnection (DCI), 5G backhaul, metro telecommunication, and other long

Global Leader in Materials, Networking, and Lasers | Coherent

Communications Transform global communications networks with our comprehensive portfolio of coherent transceivers and modules, lasers, amplifiers, and photonic devices. Our innovations

Coherent optical communications

Generate high-bandwidth, complex modulation format optical signals with our high-performance coherent optical communications and analysis solutions. Our products use high-quality components

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