

Investing in optical modules



AI Overview

The optical module market is experiencing rapid growth, offering significant investment opportunities driven by 5G, cloud data centers, and AI infrastructure expansion.

Market Growth and Trends The global optical module market is projected to grow from USD 26.53 billion in 2025 to USD 66.94 billion by 2032, at a CAGR of 14.13%, reflecting strong demand across cloud, telecom, and enterprise networks . Optical module chips, essential for high-speed data transmission, are expected to grow from USD 823 million in 2024 to USD 1.52 billion by 2032, driven by 5G deployments, hyperscale data centers, and AI applications . High-speed modules such as 400G, 800G, and 1.6T are increasingly critical for modern data centers, making them a core investment area .

Key Drivers

- 5G Infrastructure:** Governments worldwide are investing heavily in 5G networks, boosting demand for optical modules in fronthaul and midhaul networks .
- Cloud and AI Expansion:** Hyperscale data centers require high-bandwidth optical interconnects, with capital expenditure on optical modules increasing 15-20% annually in top-tier facilities .
- Technological Innovation:** Advances in silicon photonics, indium phosphide (InP), and VCSELs enable higher data throughput, lower power consumption, and denser integration, enhancing module value and market growth .

Investment Vehicles

- Stocks:** Companies like Lumentum Holdings (LITE), Ciena (CIEN), Corning (GLW), and Taiwan Semiconductor Manufacturing (TSM) are actively involved in optical communications and photonics, showing strong performance in the S&P 500 .
- ETFs:** The Corgi Lithography & Semiconductor Photonics ETF (EUV) focuses on companies materially involved in photonics and light-based technologies, providing diversified exposure to the sector .

Regional Opportunities

- Asia-Pacific:** Rapid data center growth and manufacturing capabilities make this region a hotspot for optical module investment .
- U.S. and Europe:** Strong cloud infrastructure and 5G rollout create consistent demand for hig...

Article Content

POET Technologies Reports First Quarter 2026

POET Technologies Inc. ("POET" or the "Company") (NASDAQ: POET), the designer and developer of Photonic Integrated Circuits (PICs), light

Global Optical Chip Makers Accelerate Capacity Expansion as AI Data ...

Coherent, Nokia, JX Advanced Metals, and other global optical chip leaders announce major capacity expansion plans, with NVIDIA investing \$2 billion to secure photonic interconnect

NVIDIA Strategic Investments in Optical Interconnects

Executive Summary Following newly announced investments, NVIDIA has committed over \$4 billion in direct strategic investments across two optical

Lumentum

NVIDIA to Invest \$2 Billion in Lumentum to Grow Capacity, Advance US-Based Manufacturing and Deepen R& D Collaboration in Data Center Optics SANTA CLARA, Calif. and

Don't Just Buy the Light: Who Actually Makes Money in Optical

From an investment perspective, optical modules matter because they have three characteristics: If AI data centers continue to scale and the industry keeps stepping through 400G ->

Nvidia's \$4B Photonics Venture: What You Need to Know

This deal encompasses equity investments, multiyear supply commitments, capacity reservations, and joint development efforts around next

Which Companies Are Leading CPO Stocks? The Landscape of US

FAQ What are CPO concept stocks? CPO concept stocks refer to listed companies positioned along the co-packaged optics technology supply chain, covering upstream optical chips

Jenoptik strengthens its photonics profile as investors watch global ...

Jenoptik's photonics solutions can benefit from these investment cycles because high-end optical modules and measurement systems are integral to ensuring yield and reliability in chip

Top Silicon Photonics Stocks 2026: Breaking the

Optical module makers and hyperscalers have been scrambling for secondary suppliers. The EML market is dominated by a handful of names:

NVIDIA Announces Strategic Partnership With

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

Partnering With Lumentum and Coherent, Can Nvidia's

TradingKey - On Monday, March 2 local time, NVIDIA (NVDA) announced that it has entered into a deep strategic partnership with optical

Optical Interconnect Supply Chain Restructuring and Opportunities in ...

While optical modules are not subject to blanket bans, they are now governed by system-level controls. By leveraging its semiconductor ecosystem and investing in SiPh, CPO,

Optical stocks are booming. Here's how to invest in one of the most ...

Numerous companies focus on optical communications within data centers, as well as technologies such as photonics and photolithography that use light to transfer circuit patterns to chips.

Why Is the Whole World Betting on Optical Modules: From Wall Street

From Wall Street to China's A-share market, why is the whole world betting on optical modules? Anyone who has paid attention to the hard tech sector in the first half of this year has

Deep Dive: Optical Module Market

Powering next-gen connectivity: How optical modules enable fast, reliable data transfer, and What are the opportunities for investors?

Deep Dive: Optical Module Market

Today, I'm excited to share an in-depth analysis of the global optical module market, an industry I find particularly compelling due to its critical role in data center networks for the

Optical Module Chip Market 2025

Investments in smart cities and subsea cable projects are boosting demand for optical modules. However, the market struggles with low local manufacturing capabilities and geopolitical

Dongshan Precision's Source Photonics to Invest USD1.2 Billion to

(Yicai) June 17 -- Source Photonics, a subsidiary of Chinese electronics manufacturer Dongshan Precision Manufacturing, plans to invest USD1.2 billion to increase its production capacity of optical

POET Technologies Reports Third Quarter 2025

POET Technologies Inc. the designer and developer of Photonic Integrated Circuits light sources and optical modules for the AI and data center

NVIDIA and Coherent Announce Strategic Partnership

NVIDIA and Coherent Corp. (NYSE: COHR) today announced a multiyear strategic agreement to advance the frontier of advanced optics

Snowball, the market leader in optical chips and modules

Overview: Optical Communications as a Core Investment Sector In an era of rapid development in the optical communications industry, optical chips and optical modules have become

Optical Module Investment Landscape 2026: Demand,

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

Optical Module Market Analysis and Forecast in 2026

AI computing power has driven explosive growth in the optical module market, with 800G and 1.6T technologies leading the industry transformation.

NVIDIA to invest \$4b in Lumentum and Coherent

NVIDIA has announced multiyear strategic agreements with two US photonics companies; Lumentum and Coherent. It will invest \$2b in each

POET Technologies Secures Financing of US\$400 Million in a

POET Technologies Inc. the designer and developer of Photonic Integrated Circuits light sources and optical modules for the AI and data center markets, today announced it has entered into

POET Technologies Reports Fourth Quarter 2025

POET is a design and development company offering high-speed optical modules, optical engines and light source products to the artificial

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