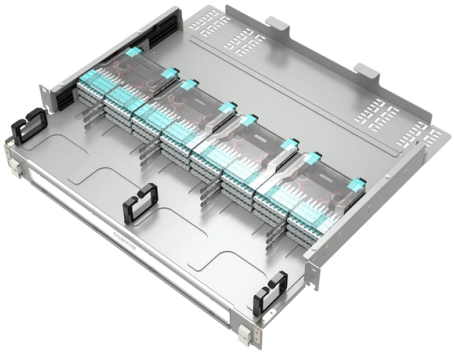
Semiconductor companies producing optical modules



Overview

Optical Component Startup Tracker The number of venture-backed optical component startups has exploded - the Optical Component Start-Up Tracker identifies.

Key Takeaways

Leading companies producing semiconductor optical modules include Broadcom, Lumentum, II-VI, Marvell, Innolight, Accelink, and Eoptolink, among others.

Global Leaders

Broadcom Inc. (NASDAQ: AVGO): Supplies PHY chips, driver ICs, TIAs, and multimode VCSEL arrays for 25G, 50G, and 100G optical modules, serving both short-reach and long-reach data center and telecom applications. Lumentum Holdings Inc. (NASDAQ: LITE): Focuses on high-speed VCSELs, DFB lasers, and optical components for short-reach multimode fibers and long-reach single-mode applications, supporting cloud data centers and telecom operators. II-VI Incorporated (NASDAQ: IIVI): Manufactures DFB lasers, modulators, and integrated optical modules for coherent optical systems, high-speed Ethernet, 5G, metro, and long-haul networks.

Finisar, now part of II-VI, is also a key supplier of VCSELs and long-reach DFB lasers. Marvell Technology: Provides high-speed DSP chips for 100G, 200G, and 400G optical modules, widely used in modern high-speed optical communication systems. Analog Devices and Texas Instruments: Offer high-performance analog and mixed-signal chips, including laser driver ICs and TIAs, which are critical for optical module performance.

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Chinese Market Leaders

Innolight (Zhongji Innolight Co., Ltd.): Specializes in high-end optical communication modules, including 100G, 200G, 400G, and 800G modules for cloud data centers and telecom networks. It holds a leading global market share in 200G and 400G products and is advancing in 800G and coherent modules. Accelink Technologies: Provides complete capabilities from optical chips to modules, serving China's optical communication industry and global markets.

Eoptolink Technology: Supplies high-speed optical modules for cloud computing platforms and large-scale data center networks. Huagong Tech, Linktel, CIG Shanghai Co., Ltd.: Other notable Chinese manufacturers contributing to the optical module supply chain.

Emerging Startups and Specialized Companies

Alcyon (Spain): Develops photonic integrated circuits (PICs) and silicon photonics solutions for optical interconnects. Aloe Semiconductor: Focuses on doubling the bandwidth of PAM4 optics via dual polarization, leveraging expertise in optical interconnects. Akhetonics (Germany): Works on all-optical processors, integrating optical interfaces, processing, and memory, which could influence future optical module designs.

These companies collectively cover the full spectrum of optical module production, from semiconductor chips and lasers to fully integrated modules, supporting high-speed data centers, telecom networks, and emerging 5G/6G infrastructure. The industry continues to evolve with advances in silicon photonics, coherent optics, and high-bandwidth PAM4 technologies, driving demand for faster, more efficient optical modules.

Frequently Asked Questions

What does an optical transceiver do?

Optical modules are mainly packaged by optoelectronic devices TOSA/ROSA, functional circuits and optoelectronic interface components. The optical t...

What is the optical module industry chain?

The upstream industry of optical modules mainly includes optical chips, optical components and optical devices, and the downstream industry mainly...

Who are the main manufacturers and suppliers in the optical module industry chain?

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Article Content

Optical Component Startup Tracker

The number of venture-backed optical component startups has exploded - the Optical Component Start-Up Tracker identifies these companies

10 companies in the optical transceiver industry chain 2024

To help you choose the best partner, this article will analyze and introduce 10 companies in the optical transceiver industry chain for you.

Which listed companies manufacture optical module chips?

As a result, the number of publicly listed companies producing optical module chips has increased significantly, gradually forming a relatively complete industrial ecosystem. At present, most

Top 10 Opto Semiconductor Manufacturing Companies

The renowned global semiconductor supplier has maintained an immovable position in the semiconductor industry, having built a diverse and robust portfolio over the past few decades,

Top 10 Optical Module Brand & Manufacturers

Through continuous technical accumulation, the company has established three major technical platforms: optical transceiver modules, optical amplifiers, and optical transmission subsystems.

Top 10 Optical Module Manufacturers'' Annual Reports ...

By 2025, its 800G optical module shipments will exceed 5 million units, making it the global "shipment champion" in the optical module industry, demonstrating significant economies of scale.

Top optical semiconductor companies | VentureRadar

Top companies for optical semiconductor at VentureRadar with Innovation Scores, Core Health Signals and more. Including Mojo Vision, Ayar Labs, Optalysys etc

Which companies make up the optical module and semiconductor chip ...

Understanding the composition of these vendors is critical to grasping the structure of the optical communication industry and its supply chain. Below is a detailed overview of core optical chip

World''s Top 50 Companies in Optoelectronics in 2025 Watch List ...

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French company ICON Photonics creates solutions for rapid optical communication. Using a monolithic on-chip layer that facilitates high-performance optical coupling and packaging, the startup enhances

Top 10 Optical Module Manufacturers'' Annual Reports ...

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With our lithography optics and optics modules, we are driving semiconductor industry: for the technologies of tomorrow.

Which publicly traded companies manufacture optical chips for optical ...

Chinese Optical Module & Integrated Chip Companies (Fast-Growing Segment) This category includes companies that dominate global 800G optical module manufacturing, with

Top 10 AI Optical Chips Companies to Watch in 2025 and Beyond

Top 10 AI Optical Chips Companies to Watch in 2025 and Beyond Explore the evolving AI Optical Chips market as we profile ten industry top players shaping innovation, efficiency, and competitive

Lasers, Optical Transceivers & HFC Networks

AOI designs and manufactures advanced semiconductors, laser components, optical transceivers, and RF access network equipment that support high-performance connectivity across multiple markets.

LITEON Technology | LITEON

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LITEON is a trailblazer in the field of LED technologies and the first listed electronic company in Taiwan. A world-leading provider of optoelectronic semiconductor

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