Recommended Silicon Photonics Module Brands



Overview

Silicon photonics modules are transforming high-speed data transmission, enabling faster, more efficient communication networks.

Key Takeaways

Top silicon photonics module brands include Cisco Systems, Intel, IBM, Marvell, STMicroelectronics, NeoPhotonics, and Hamamatsu Photonics, recognized for high-performance optical interconnects and AI-ready data center solutions.

Leading Brands and Their Strengths

Cisco Systems – Offers 1. 6T optical transceivers, 800G linear pluggables, and AI networking solutions built on its silicon photonics platform acquired through Acacia and Luxtera, making it a strong player in AI data center optical connectivity. Intel Corporation – A pioneer in CMOS-based silicon photonics, Intel develops cloud infrastructure and data center optical transceivers, integrating photonics with electronic components for high-speed, power-efficient data processing.

IB

M – Provides advanced silicon photonics solutions for high-bandwidth data centers, leveraging its extensive R&D and integration capabilities to support scalable optical interconnects. Marvell Technology – Focuses on 1. 6T optical DSP platforms and AI-data-center interconnects, including collaborations on optical circuit switching, emphasizing high-speed, low-power solutions.

ST

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Microelectronics – Specializes in co-packaged optics for next-generation AI and data centers, delivering optical interconnects above 400 Gbit/s with reduced power dissipation.

Neo

Photonics – Known for high-performance optical modules and components, particularly in telecommunications and data center networking, offering solutions optimized for speed and integration. Hamamatsu Photonics – Provides innovative photonic devices and laser technologies, including fiber and optical components, with a strong presence in research and industrial applications.

Additional Notable Companies

Other reputable players include MACOM, GlobalFoundries, Lumentum, Coherent, Rockley Photonics, and Ayar Labs, which focus on specialized applications such as AI, healthcare, and high-speed data centers, often leveraging vertical specialization or niche photonic solutions.

Considerations for Selection

When choosing a silicon photonics module brand, consider: Data rate and bandwidth requirements (e.g., 400G, 800G, 1. 6T)Integration with existing networking infrastructurePower efficiency and thermal managementSupport for AI and hyperscale data center applicationsVendor R&D and long-term roadmap for photonics innovation These brands are widely recognized for their reliability, performance, and innovation in silicon photonics, making them suitable for high-speed optical networking, AI data centers, and next-generation computing infrastructure.

Article Content

Silicon Photonics Companies

List of the top Silicon Photonics companies based on extensive research conducted by Mordor Intelligence analysts and expert advisors that identified these brands to be the leaders and major

Top 6 Silicon Photonics Companies Worldwide 2026

The top 6 silicon photonics companies in 2026, including Cisco Systems, Intel, IBM, NeoPhotonics, Hamamatsu Photonics, and

Top Silicon Photonics Modules Companies & How to Compare

Silicon photonics modules are transforming high-speed data transmission, enabling faster, more efficient communication networks. As demand for bandwidth surges, choosing the right

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Who are the leading photonic chip manufacturers?

Leading manufacturers include Intel''s silicon photonics division, Broadcom, Lumentum, and Cisco, alongside specialized companies and PIC manufacturers across different platform

Silicon Photonics Companies

The dominant strategies in the silicon photonics industry are vertical specialization and integration. Intel and Cisco are pursuing integration, focusing on merging electronic and photonic components onto

Top 100 Silicon Photonics Companies in 2026 | ensun

Discover all relevant Silicon Photonics Companies worldwide, including Analog Photonics and Intel Corporation (UK)

10 companies in the optical transceiver industry chain 2024

The rapid development of AIGC has promoted the demand for 800G optical modules, and the entire industrial chain involving optical components, optical modules, and optical communication

Global Silicon Photonics Modules Market 2024 by Manufacturers,

The global Silicon Photonics Modules market size is expected to reach $ 15680 million by 2032, rising at a market growth of 24.4% CAGR during the forecast period (2026-2032).

Silicon Photonics – Buyer''s Guide & Supplier List | RP Photonics

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

Optical Component Startup Tracker

Skorpios ( ), a US-based startup, has developed a way to directly integrate optical components made from other

Silicon Photonics in Pluggable Optics

Discover how silicon photonics is revolutionizing high-speed data center interconnects with scalable, cost-effective optical solutions. Explore its

Silicon Photonics – silicon lasers, detectors, modulators

Silicon photonics is a technology for creating photonic integrated circuits by fabricating optical components, such as waveguides, modulators, and detectors, on silicon chips.

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Silicon Photonics Devices and Integrated Circuits

These developments have transformed silicon photonic circuits from simple passive structures to fully functional systems incorporating lasers, modulators, and detectors on a single chip

Roadmapping the next generation of silicon photonics

What will the next generation of silicon photonics look like? What are the common threads in the integration and fabrication bottlenecks that silicon photonic applications face, and

Silicon Photonics Optical Module Market 2025

Silicon Photonics Optical Module Market Analysis: The global Silicon Photonics Optical Module market size was estimated at USD 933.40 million in 2023 and is projected to reach USD 1469.67 million by

What is Silicon Photonics? : Hitachi High-Tech Corporation

What is Silicon Photonics? Silicon photonics is a technology for fabricating optical and electronic integrated circuit on silicon microchip. Since the 2000s, research and development has

Opportunities and Applications of Silicon Photonics

Silicon photonics is gaining traction in high-speed optical modules, particularly in data centers and coherent communication systems. This article

Silicon Photonics: Introduction

Overview of Silicon Photonics technology and market. Start with this guide to Silicon Photonics to get a better understanding of SiPho.

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

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