Which companies can produce 400g optical modules

Overview

How 400G Optical Modules Are Shaping Next-Gen NetworksDiscover key factors driving the rapid adoption of 400G optical transceivers, including AI, 5G, coher.

Key Takeaways

Leading manufacturers of 400G optical modules include InnoLight, Intel, Cisco, Juniper, Arista, Mellanox/NVIDIA, Dell, Amphenol, Broadex, Lumentum, Accelink, Sumitomo Electric, and Topstar Technology.Key Manufacturers and Their Focus

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InnoLight Technology Corporation – Specializes in high-volume production of data center interconnect modules, serving hyperscale cloud operators and enterprise networks, with a focus on QSFP-DD and OSFP form factors for 400G deployments . Intel – Leverages Silicon Photonics to produce integrated 400G transceivers, emphasizing power efficiency, high-density solutions, and compatibility with cloud and enterprise data centers . Cisco – Integrates 400G modules into its routing and switching platforms, supporting interoperable solutions across large-scale networking environments . Juniper Networks – Offers a broad portfolio of 400G coherent and direct-detect optical transceivers for metro, edge, core, and data center networks, ensuring compliance with industry standards . Arista – Provides high-performance networking solutions for cloud data centers and large enterprises, requiring cutting-edge 400G optical modules for scale and speed . Mellanox Technologies (NVIDIA Networking) – Supplies 400G Ethernet and InfiniBand transceivers for high-performance computing (HPC) and AI clusters . Dell – Integrates 400G modules into servers and networking solutions, focusing on system compatibility and robust performance for enterprise and data center clients . Amphenol Corporation – Manufactures interconnect solutions, including connectors and cable assemblies essential for 400G deployments . Broadex Technologies – Produces cost-effective 400G optical transceivers and components for various market segments . Lumentum Operations LLC – Designs and manufactures high-speed optical transceivers for 400G and 800G data rates, supporting data center and cloud infrastructure globally . Accelink Technology Co. Ltd – Based in China, develops optical transceivers, components, and modules for high-speed network applications, emphasizing cost-efficient and reliable 400G solutions . Sumitomo Electric Industries Ltd – Offers optical transceivers and components for datacom, metro, and long-haul applications, incorporating advanced photonic integration technologies . Topstar Technology Industrial Co., Ltd. – Provides a range of optical transceivers including SFP, QSFP28, CFP, and 400G modules, designed for high-speed data transmission in data centers and telecom networks .

Market Context

The adoption of 400G optical modules is driven by hyperscale data centers, 5G/5.5G deployments, and AI workloads requiring high-bandwidth, low-latency connectivity. Modules typically use PAM4 modulation, DSP, and coherent optics to achieve 400 Gbps per port, with compact form factors like QSFP-DD and OSFP enabling dense deployment . The market is projected to reach USD 14.8 billion by 2025, reflecting strong demand for next-generation networking infrastructure . These companies collectively cover a wide range of applications, from short-reach data center interconnects to long-haul coherent transport, providing both standardized and custom 400G solutions for global networking needs.

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Article Content

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Listed companies producing 400G optical module chips

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Optical transceiver market leaders: the top 10 manufacturers powering 400G and 800G modules for hyperscale data

Which companies manufacture the most reliable 400G QSFP-DD

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Global 400G Optical Module Market Size, Share & Industry Forecast

The 400G Optical Module Market value chain begins with the procurement of raw materials, primarily high-grade

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Over 20 Million 400G & 800G Datacom Optical Module Shipments

Unit shipments of 400G and 800G modules have grown nearly fourfold over the past 12 months and are expected to

400G Transceiver Guide: Architecture, Selection & TCO for AI

The Definitive 400G Optical Transceiver Guide: Selection, Deployment, and TCO for 2025 The definitive guide to

400G and 800G Optical Modules: Advancements and Comparison

Explore 400G and 800G optical modules with EML, VCSEL, and Silicon Photonics for data centers.

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Report Overview The 400G optical module is a high-speed transceiver used in data centers and telecommunications

400G Optical Module: Growth Opportunities and Competitive

The 400G Optical Module market is projected to reach $14.8B by 2025, growing at 11.5% CAGR. Demand from data

Optical Module Evolution: From 400G to 3.2T

This article provides a strategic and technology-focused roadmap for the evolution of optical modules from 400G to

Top 10 Optical Transceiver Manufacturers in the World

The optical transceiver market is undergoing an unprecedented super-cycle. Fueled by the explosive

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Which companies manufacture the most reliable 400G QSFP-DD optical modules?

Several leading companies in the telecommunications and networking industry manufacture highly reliable 400G QSFP

Why 400G and 800G Optical Modules Are Critical for AI ...

This is where 400G and 800G optical transceivers step in—delivering high-speed, low-latency, and energy-efficient

400G Optical Modules 2026 Guide: DR4 vs. FR4 vs. LR8 Lab

Our CCIE/HCIE team shares lab-tested benchmarks for DR4, FR4, and LR8, focusing on power efficiency, latency,

Optical Modules Evolution and Innovation From 400G to 1.6T

Explore the evolution of optical modules in speed and form factors from 400G to 1.6T, stressing key enhancement

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400G Optics

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800/400/200/100/40G Fiber Optical Modules

FS offers a growing portfolio of 800/400/200/100/40G optical transceiver modules and cables. The super-high density and backwards

Global 400G Optical Module Supply, Demand and Key

Manufacturers include optical communication equipment vendors, dedicated optical module producers, and integrated optoelectronic

400G Optical Module: Growth Opportunities and Competitive

Economic drivers in this segment include the CAPEX cycles of major cloud service providers (CSPs) and colocation

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Companies like Cisco and Huawei are pioneering AI-enabled optical solutions, which are expected to catalyze the

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