

What is the domestic demand for optical modules



AI Overview

Domestic demand for optical modules in China is rapidly increasing, driven by AI computing, 5G deployment, and data center expansion, with localization rates for key components steadily rising.

Market Drivers The domestic demand for optical modules is primarily fueled by AI and cloud computing growth, which require high-speed, low-latency data transmission in hyperscale data centers. Large-scale 5G network deployment further accelerates demand, particularly for 25G and 100G optical modules used in fronthaul and midhaul networks. Government initiatives, such as the "East Data West Computing" project, provide policy support that encourages domestic production and infrastructure expansion.

Production and Localization China has made significant strides in domestic production of optical modules. For low-speed modules (2.5G/10G), localization rates have reached 90% and 60%, respectively, while medium- and low-speed chips below 10G exceed 65% localization. Core chip production, including 25G/50G DFB and EML lasers, has achieved over 50% self-sufficiency, although high-end DSP chips remain largely imported. Domestic manufacturers like ETU-LINK have established full production lines with on-time delivery rates above 99%, supporting the growing domestic demand.

Market Size and Growth The global optical module market is projected to grow from \$13.2 billion in 2022 to \$35.8 billion by 2030, with China accounting for over 70% of global manufacturing. Domestic demand is expected to mirror this growth due to hyperscale data center expansion, AI workloads, and 5G infrastructure, with high-speed modules (100G and above) seeing the fastest adoption.

Technological Advancements Technological breakthroughs in domestic optical modules include 100G QSFP28 ZR4 80KM modules and 25G SFP28 BIDI 80km modules, which offer h...

Article Content

Economic Watch: From optical modules to chips

The competitiveness of optical modules also largely hinges on the synergy of the complete upstream industrial chain, covering optical chips, ceramic packages

Source Photonics to Expand Optical Chip and Module Production

Source Photonics is one of the world's leading optical communications suppliers, with operations spanning optical chip R& D, wafer manufacturing, packaging and testing, and optical

Domestic optical module chips | Weyland

Optical modules play an integral role in optical communication systems, as they rely on core chip technologies to enable high-speed data transmission. For many years, the core chips used

Optical Transceiver Market Size, Growth Drivers

Optical Transceiver Market Analysis by Mordor Intelligence The optical transceiver market size reached USD 15.42 billion in 2026 and is

Canada Optical Display Module Market By Type

The Canada Optical Display Module Market shows significant growth potential, driven by technological advancements, increased consumer demand, and evolving regulatory frameworks.

LightCounting :: Demand for optical connectivity continues to surprise

The current demand is exceeding supply by 30%, but the shortages should be going away by the end of 2026. Production of GPUs and other types of accelerators (XPU) is a more critical bottleneck for the

Optical Modules Market Size, Growth Trends & Forecast

Over the next three years, the most notable trend will be the rapid expansion of 5G infrastructure in these regions, creating a substantial demand

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.

Coherent's \$23B Opportunity Lifted by NVIDIA's Optical

Coherent's market on track to reach \$23 billion as NVIDIA's Spectrum-6 and Kyber drive structural demand for co-packaged optics components.

Optical Module Chip Market 2025

The North American optical module chip market is driven by advanced technology adoption, particularly in the U.S., where data center expansion and 5G deployments are fueling demand for high-speed

Optical Modules Market Research Report 2034

The optical modules market was valued at \$14.8 billion in 2025 and is projected to reach \$39.6 billion by 2034, growing at a CAGR of 11.5%.

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,

The Evolution of 400G, 800G, and 1.6T Optical Modules

With the rapid advancement of AI, HPC, and cloud computing, the demand for high-speed optical modules such as 400G, 800G, and even 1.6T is

800G QSFP-DD Optical Module Market Revenue Forecast Driven

The 800G QSFP-DD Optical Module Market is experiencing rapid expansion driven by escalating data center demands, advancements in high-speed optical communications, and the

Optical Modules Ignite Aluminum Nitride Demand: The

Several domestic frontrunners have successfully penetrated the supply chains of top-tier global optical module makers and AI computing giants. This momentum is resonating across the

Understanding Optics Module Trends and Growth

The Optics Module market is expanding rapidly, driven by data center proliferation and 5G deployment. Analyze the 12% CAGR to \$42 billion by

Optical Communication Industry Trends 2026: AI, 800G/1.6T Optical ...

Explore optical communication industry trends in 2026, driven by AI infrastructure, 800G and 1.6T optical modules, silicon photonics, and next-generation data center connectivity solutions.

Analysis Of The Trend Toward Domestic Production Of Optical

Driven by the explosive growth of AI computing power and the large-scale application of 5G, optical modules, as a core component of communication infrastructure, are entering a critical

Camera Modules Optical Image Stabilization OIS Actuator Market

Camera Modules Optical Image Stabilization (OIS) Actuator Market MARKET DRIVERS
Increasing Smartphone Camera Resolution The surge in demand for high-resolution imaging on

What Nokia's ATP Expansion Means for AI Infrastructure

Nokia's Allentown facility is one of only a few in the US providing ATP of photonic chips into optical modules for use in AI and telco infrastructure (Credit: Nokia) Nokia is scaling photonic

Optical Module Industry Statistics 2026

Data centers will keep dominating optical module demand as AI and cloud drive revenue growth through 2030. Optical module demand is being

AI Data Center Optical Transceiver Module Market

The AI-driven demand for optical transceivers represents the most significant growth catalyst in the optical communications industry.

Optical Interconnect

This hybrid demand profile supports incremental revenue across all interconnect levels in the optical interconnect market. Complete Report Scope: By Product Optical Transceivers Active

Optical Module & DCI Market: 16.4% CAGR to \$14.7

The Optical Module and DCI Market is poised for substantial expansion, projected to grow from an estimated \$14.7 billion in 2025 to

Silicon photonics and co-packaged optics at the heart of

While linear-drive pluggable modules remain competitive, CPO is expected to offer unmatched customization and scalability, with large-scale

Understanding Optics Module Trends and Growth

Optics Module demand is primarily driven by data centers, telecommunications (5G infrastructure), and enterprise networking. The shift

Analysis of China's Optical Module Domestic Production Trend: Policy ...

Spurred by the AI computing boom and large-scale 5G deployment, optical modules, the critical backbone of communication infrastructure, are undergoing a significant shift towards domestic

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

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