*The information and statistics set out in this section and other sections of this document were extracted from a report prepared by Frost & Sullivan, which was commissioned by us, and from various official government publications and other publicly available publications. We engaged Frost & Sullivan Limited ("**Frost & Sullivan**") to prepare the Frost & Sullivan report ("**Frost & Sullivan Report**"), an independent industry report, in connection with the* [**REDACTED**]. *The information from official government sources has not been independently verified by us, the Joint Sponsors,* [**REDACTED**]*, any of their respective directors, employees, agents or advisors, or any other persons or parties involved in the* [**REDACTED**]*, and no representation is given as to its accuracy. For a discussion of the risks relating to our industry, see "Risk Factors." Our Directors confirm that, after making reasonable enquiries, there is no adverse change in the market information since the date of the Frost & Sullivan Report that would qualify, contradict or have a material impact on the information in this section.*

OVERVIEW OF GLOBAL OPTICAL COMMUNICATION INDUSTRY

Background of Optical Communication Industry

Optical communication is a method of transmitting information using light waves as the carrier signal, primarily relying on optical fibers as the transmission medium to facilitate communication between users. Optical communication is the dominant mode of information transmission worldwide, supporting the foundation of modern digital infrastructure and enabling high-speed, high-volume data exchange across various sectors. Globally, the optical communication industry is experiencing accelerated growth, underpinned by increasing demand for high-speed connectivity and digital infrastructure. As AI and cloud computing advance, the need for high-speed, low-latency, and highly reliable network infrastructure continues to grow. Massive growth in data center construction exemplifies this trend, with the number of data center racks worldwide projected to reach 139.8 million units by 2029, representing a compound annual growth rate (CAGR) of 32.8% from 2024. In parallel, global computing power is expected to increase from 2,207.0 EFLOPS in 2024 to 12,817.4 EFLOPS in 2029 at a CAGR of 42.2%. These trends will drive continuous upgrades in optical communication technologies, reinforcing their critical role as the backbone of next-generation digital infrastructure and global intelligent connectivity.

OVERVIEW OF GLOBAL OPTICAL COMMUNICATION CORE PRODUCTS INDUSTRY

Overview of Optical Communication Core Products Industry

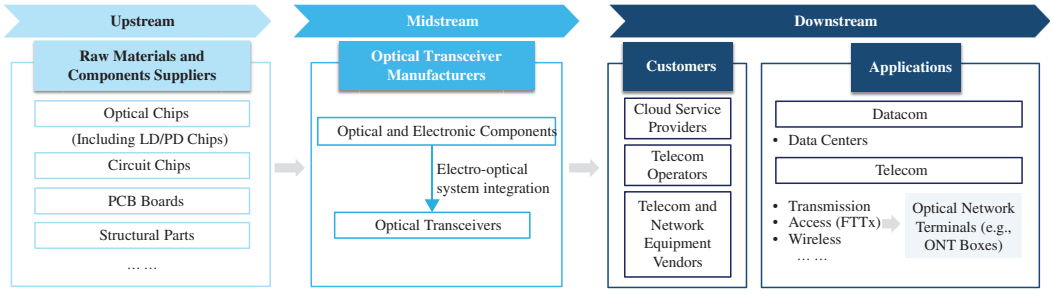
The core products of the optical communication industry include optical chips, optical transceivers, and optical network terminals, which together form an integrated value chain supporting high-performance optical connectivity. Among them, optical transceivers play a central role, enabling high-rate, high-reliability, and low-latency data transmission across increasingly complex datacom and telecom networks. The global market size of optical

transceivers, as a percentage of the overall optical communication core products industry (the aggregate sales revenue of optical chips, optical transceivers and optical network terminals), reached approximately 24.3% in 2024 and is expected to increase to approximately 35.3% in 2029. The performance of optical transceivers is fundamentally driven by the optical chips, which provide key optoelectronic functions such as signal generation, modulation, and detection. Optical transceivers can be integrated into ONT boxes, which not only function as network edge access points but also serve as critical gateways for edge computing. Optical network terminals not only connect end-users to high-bandwidth networks, but also act as vital enablers of edge computing across end-use scenarios. Together, the three tightly-interconnected core products form the foundation of modern optical communication systems.

Value Chain Analysis of Optical Communication Core Products Industry

The figure below illustrates the value chain of optical communication core products industry:

Value Chain of Optical Communication Core Products Industry



Source: Frost & Sullivan

Introduction to Optical Transceivers

An optical transceiver is an optoelectronic module that converts between optical signals and electrical signals. This conversion is necessary because optical fiber enables high-speed, long-distance data transmission, while switches and other network devices operate using electrical signals. By bridging this gap, optical transceivers enable switches and other devices to communicate over fiber optic networks, serving as a critical transmission medium that supports high-speed, reliable data exchange. An optical transceiver mainly consists of optical components, circuit chips, and PCBs.

Transmission rate is one of the key performance indicators of optical transceivers, typically measured in gigabits per second (Gbps). Based on different transmission rates, optical transceivers can be classified into models such as 1G-100G, 200G, 400G, 800G and 1.6T optical transceivers.

Optical transceivers are mainly used in datacom and telecom sectors. In the datacom sector, optical transceivers are critical components that connect servers, switches, storage devices, and other infrastructure to support high-speed data transmission. In telecom networks, optical transceivers serve as key enablers across transmission, access (FTTx), and wireless segments. They are deployed in metropolitan area networks (MAN) and wide area networks (WAN) networks for long-distance backbone transmission; in PON systems to support broadband access for home and businesses; and in wireless front-haul and back-haul links to ensure reliable, low-latency connectivity between base stations.

Introduction to Optical Chips

Optical chips are miniaturized components that use photons to transmit and process signals. They are primarily made from III/V compound semiconductor-based materials such as indium phosphide (InP) and gallium arsenide (GaAs), and silicon (Si). As one of the core components of optical communication networks, optical chips are responsible for optoelectronic signal conversion, and their performance determines the transmission efficiency of optical communication systems. Optical chips can be further processed into optical components, which are then integrated into optical transceivers. Among them, LD chips are primarily used for signal transmission by converting electrical signals into optical signals, while PD chips are mainly used for signal reception by converting optical signals back into electrical signals. To reach the stringent performance parameters, LD and PD chips raise extremely high requirements for raw material usage, structural design, and precision in manufacture process. As such, optical chips have the highest technical entry barrier within the optical communication value chain.

Optical chips are advancing toward higher speed and greater integration. 100G/200G per lane high-rate optical chips have become the mainstream of technological evolution in the industry, while 400G per lane chips are expected to lead the next generation. 100G/200G per lane chips serve as fundamental building blocks, and combining multiple lanes of these speeds, enable the aggregation necessary for 800G and 1.6T optical transceivers. Among them, EML chips are emerging as a key category in the technological iteration of optical chips, thanks to their excellent modulation bandwidth, high linearity and low driving voltage. Meanwhile, high-power CW-DFB laser chips, which provide greater optical output to enable more optical lanes, are also gaining importance as demand grows from data centers. Furthermore, silicon photonics (SiPh) chips enable optical signal modulation, transmission, and processing on silicon-based fabrication platforms. Their advantages include but are not limited to low cost, high integration, compatibility with complementary metal oxide semiconductor (CMOS) manufacturing, and potential for large-scale production. These unique features make SiPh chips well-suited for next-generation data centers, high-performance computing, and optical communication systems.

Introduction to Optical Network Terminals

An ONT box is a key optical network terminal device located at the user end of a fiber-optic access network, typically within a PON architecture. ONT boxes serve as the interface between the optical fiber infrastructure and the customer's local area network (LAN), converting optical signals transmitted over fiber into electrical signals for end-user devices.

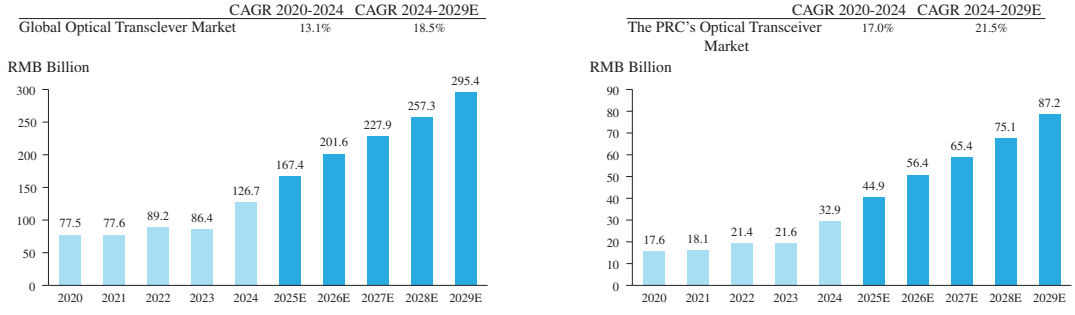
In addition to ONT boxes, optical network terminals also include wireless gateways and home routers, and multimedia set-top boxes, as these products serve as key endpoints that connect optical communication networks to end-user applications by enabling data distribution, wireless access, or content delivery within home and businesses.

Market Size of Optical Communication Core Products Industry

The market size by sales revenue of the global optical transceiver industry grew from RMB77.5 billion in 2020 to RMB126.7 billion in 2024 at a CAGR of 13.1%. Demand from customers for product may fluctuate from time to time for various factors. For example, in 2023, the optical transceiver market experienced a downturn due to an industry-wide destocking cycle, following elevated stockpiling by many cloud service providers and telecom and network equipment vendors and operators during COVID-19 outbreaks in prior years to prepare for potential supply chain disruptions. Due in part to this factor, while the sales revenue of the global datacom optical transceiver market increased from 2022 to 2023, the sales volume of this market decreased in 2023. In addition, the sales revenue of the global telecom optical transceiver market declined from 2022 to 2023. Despite these challenges, optical transceivers remain a critical enabler of digital and intelligent transformation, and therefore are poised for long-term growth. With the rapid iteration and ongoing development of optical communication technologies, the global optical transceiver market is projected to reach RMB295.4 billion by 2029, representing a CAGR of 18.5% from 2024.

In parallel, the PRC's optical transceiver market by sales revenue expanded from RMB17.6 billion in 2020 to RMB32.9 billion in 2024, achieving a CAGR of 17.0%. Looking ahead, the market is expected to reach RMB87.2 billion by 2029, with a CAGR of 21.5% from 2024. The PRC's share of the global optical transceiver market reached 26.0% in 2024 and is expected to rise further to nearly 30% by 2029.

Sales Revenue of Optical Transceivers (Global and the PRC), 2020-2029E

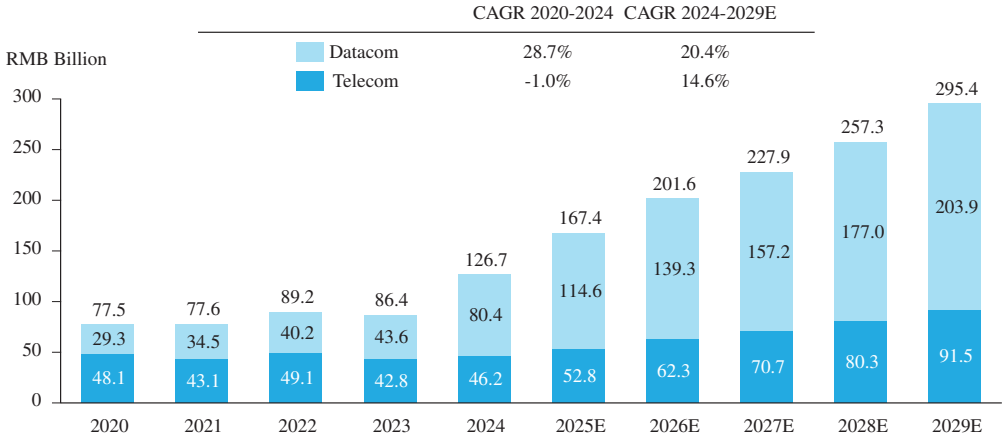


Source: LightCounting, Interviews with industry experts by Frost & Sullivan, Frost & Sullivan

In 2024, the datacom optical transceiver market reached approximately RMB80.4 billion, driven by the rapid expansion of data centers and advancements in AI. This segment is expected to grow significantly, reaching RMB203.9 billion by 2029, representing a CAGR of 20.4% from 2024.

Meanwhile, the telecom optical transceiver market reached approximately RMB46.2 billion in 2024. Although the segment experienced slight declines in 2023 due to post-pandemic demand normalization, it is projected to recover, supported by the rollout of 6G networks and the development of next-generation optical communication technologies (e.g., 25G/50G PON). By 2029, the telecom segment is expected to reach RMB91.5 billion, with a CAGR of 14.6% from 2024.

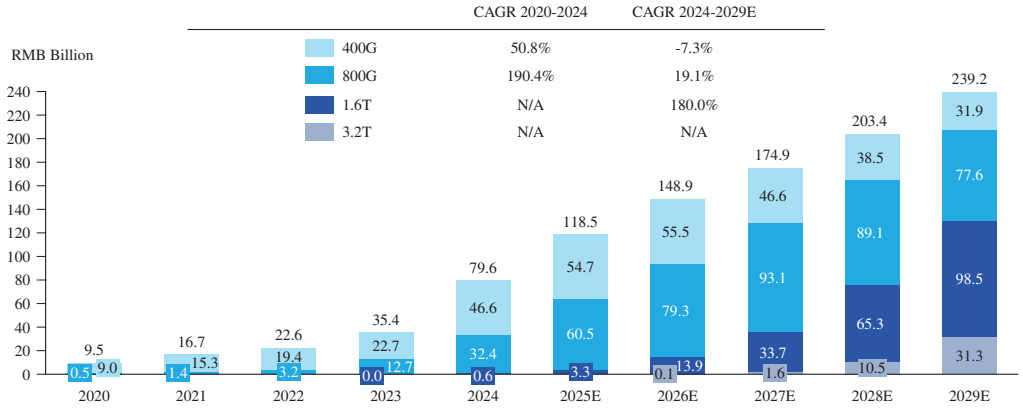
Sales Revenue of Optical Transceivers by Application Segment (Global), 2020-2029E



Source: LightCounting, Interviews with industry experts by Frost & Sullivan, Frost & Sullivan

After the mass production of new optical transceiver products, their market share often grows quickly driven by rising demand, while the share of existing products correspondingly declines. Globally, 400G and higher-rate optical transceivers are becoming the mainstream of optical transceivers. Driven by the rapid expansion of data centers and cloud computing, high-speed optical transceivers, particularly those with transmission rate of 800G and above, are experiencing accelerated growth. The sales revenue of 800G optical transceivers achieved a CAGR of 190.4% from 2020 to 2024, and is projected to maintain strong growth momentum at a CAGR of 19.1% from 2024 to 2029. Meanwhile, 1.6T optical transceivers, representing the next-generation technology, are poised for rapid growth. From 2024 to 2029, sales revenue of 1.6T optical transceivers is expected to grow at a CAGR of 180.0%. As hyperscale infrastructure continues to scale, 1.6T optical transceivers are on track to become mainstream, while 3.2T technology is already beginning to emerge on the horizon.

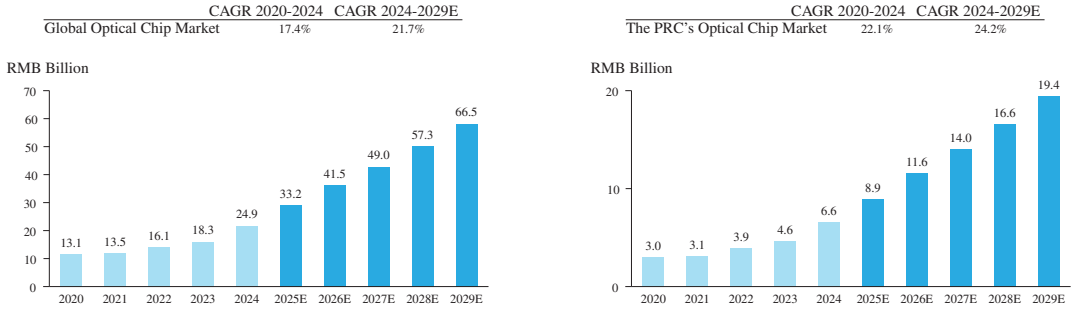
Sales Revenue of Major High-speed Optical Transceivers by Rate (Global), 2020-2029E



Source: LightCounting, Interviews with industry experts by Frost & Sullivan, Frost & Sullivan

The market size by sales revenue of the global optical chip industry increased from RMB13.1 billion in 2020 to RMB24.9 billion in 2024 at a CAGR of 17.4%. This surge has been fueled by the exponential growth of global data traffic, accelerated digital transformation across industries, and the widespread adoption of AI, 5G, and cloud computing. With emerging technologies pushing the limits of speed, integration, and energy efficiency, optical chips are expected to remain a foundational enabler of next-generation optical communication. The global optical chip market by sales revenue is expected to maintain strong momentum, reaching RMB66.5 billion in 2029, with a CAGR of 21.7% from 2024. The PRC's optical chip market by sales revenue expanded from RMB3.0 billion in 2020 to RMB6.6 billion in 2024, achieving a CAGR of 22.1%. Looking ahead, the market is expected to reach RMB19.4 billion by 2029, representing a CAGR of 24.2% from 2024.

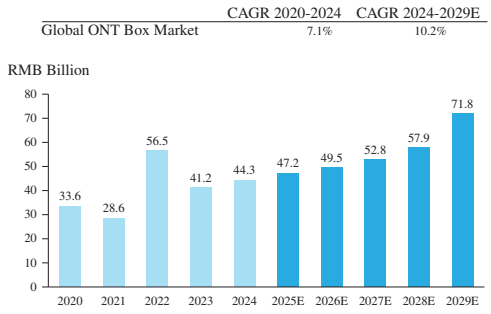
Sales Revenue of Optical Chips (Global and the PRC), 2020-2029E

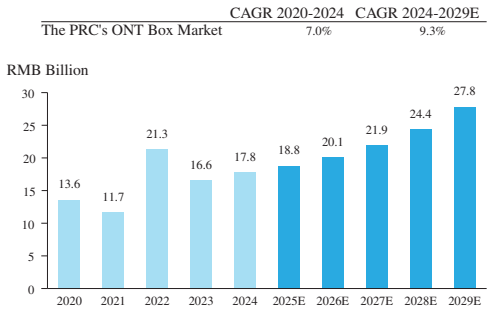


Source: LightCounting, Interviews with industry experts by Frost & Sullivan, Frost & Sullivan

Driven by rapid global deployment of FTTx networks and increasing demand for high-speed and stable connectivity, the global market size by sales revenue of the ONT box segment increased from RMB33.6 billion in 2020 to RMB44.3 billion in 2024, with a CAGR of 7.1%. The ONT box market saw relatively low demand in 2021, mainly because of supply chain disruptions and telecom operators' cautious investments during the COVID-19 pandemic. A notable peak occurred in 2022, driven by the post-pandemic recovery in infrastructure construction, government stimulus programs, and accelerated fiber network rollouts. The market later experienced a slight decline in 2023 due to the normalization of demand. Looking ahead, the global ONT box market is expected to keep an upward trend, reaching RMB71.8 billion in 2029, representing a CAGR of 10.2% from 2024. This sustained growth is underpinned by the global shift toward gigabit and 10G broadband, and the continued expansion of smart home and IoT applications. The PRC's ONT box market by sales revenue expanded from RMB13.6 billion in 2020 to RMB17.8 billion in 2024, achieving a CAGR of 7.0%. Looking ahead, the market is expected to reach RMB27.8 billion by 2029, with a CAGR of 9.3% from 2024.

Sales Revenue of ONT Boxes (Global and the PRC), 2020-2029E





Source: Interviews with industry experts by Frost & Sullivan, Frost & Sullivan

Market Drivers and Developing Trends Analysis

Policy-Driven Expansion of FTTx and AI Infrastructure

Governments worldwide are actively promoting the development of broadband and AI infrastructure through strategic policy support, accelerating demand for optical communication products. Large-scale deployment of FTTx networks, driven by initiatives of different countries and regions, has boosted the adoption of ONT boxes, enabling high-speed access across residential and enterprise settings. For example, the PRC is actively advancing the "Gigabit Optical Network" initiative and the "Eastern Data, Western Computing" project, aiming to achieve universal gigabit access capabilities by 2025. In the United States, the Infrastructure Investment and Jobs Act passed in 2021 allocated US$1.2 trillion for various infrastructure projects, including US$65 billion specifically for improving broadband access and quality. At the same time, global efforts to build AI-related infrastructure, including data centers and cloud computing platforms, are generating strong demand for high-performance optical transceivers. For instance, the announcement of the Stargate Project in January 2025 intends to invest US$500 billion over the next four years building new AI infrastructure in the U.S. The PRC government strongly supports the rapid development of optical communication and AI technology through a series of policies, such as the "Guidance on the Construction of National Data Infrastructure" and the "Guideline for the Establishment of the National Comprehensive Standardization System for the AI Industry (2024 Version)." These policies encourage increased construction of optical fiber networks and support the construction of data centers and cloud computing infrastructure.

Application of AI Technology

The rapid advancement of AIGC and other AI technologies is significantly boosting the AI industry, resulting in surging demand for high-performance computing platforms. To meet the massive data processing demands of large-scale data transmission, real-time computing, and AI training, optical transceivers, as core components for data transmission, offer the advantages of higher bandwidth, lower latency, and longer transmission distances. Therefore, optical transceivers will serve as crucial components enabling the development of AI technology.

Development of Advanced PON Technologies

With the acceleration of global digital transformation and the development of emerging technologies, advanced PON technology meets the urgent need for higher bandwidth and lower latency in the market. Meanwhile, with the accelerated application of emerging technologies such as AI and IoT, the industry's demand for higher bandwidth and greater data processing capabilities has increased significantly, driving the emergence of 25G/50G PON technology. In addition, the continuously evolving PON technologies will also lead to upgrades in hardware configurations of optical network terminals by improving transmission speeds and network capacity. The advancement of emerging technologies will also continuously drive the development of optical communication products toward the direction of increasing integration and level of intelligence.

Application of 5G and Emerging 6G Technologies

The rollout of 5G and the development of 6G are accelerating upgrades in wireless communication networks, driving demand for faster, higher-capacity, and more reliable data transmission. Optical transceivers play a key role in ensuring low-latency, high-bandwidth links between different network units. In the future, as 6G moves closer to commercialization, with expectations for even greater speeds and more complex applications such as immersive communication and intelligent sensing, the need for advanced optical transceivers will continue to grow, fueling sustained innovation across the optical communication industry.

Increasing Demand for High-speed Optical Transceivers

The construction of global data centers is entering a period of rapid growth, with surging data traffic driving demand for higher bandwidth and lower-latency communication capabilities. High-speed optical transceivers (such as 400G, 800G, and 1.6T ones), have become key components for interconnecting devices within and between data centers. They not only support high-performance tasks such as large-scale parallel computing and AI training/inference, but also ensure the efficient flow of data across the cloud, edge and terminal layers. At the same time, the iteration of optical transceiver technology is accelerating. The technological leap from 100G to 400G and then to 800G was achieved within just a few years, and 1.6T optical transceivers are entering the large-scale commercial application stage. Along with the rising demand from AI computing, high-performance networking and cloud infrastructure, the optical transceiver industry is rapidly evolving to support higher-speed and lower-power connections. While 400G and 800G optical transceivers have already entered large-scale commercial deployment, the transition to 1.6T optical transceivers is actively progressing. R&D efforts for 1.6T optical transceivers began in around 2020 and 2021, and the relevant technology is currently under rapid development. Mass adoption of these products is expected to start in 2026. Looking further ahead, 3.2T optical transceivers are emerging as a key future direction, though the relevant technology is still in the early research phase and these products' commercialization is likely beyond 2028. Given the long lead time required for development, testing and qualification, early involvement in next-generation optical transceivers positions relevant companies, including the Group, to capture future growth

opportunities as AI infrastructure continues to expand. The launch cycle for each product generation is becoming progressively shorter, signaling the market's entry into a phase of rapid updates. Leading manufacturers are leveraging their technological advantages to accelerate the development of next-generation products, address the growing needs of data centers and AI clusters, and drive innovation and implementation of emerging technologies across the industry.

Evolving Frontier Technologies in Optical Transceivers

Driven by strong downstream demand, companies in the optical transceiver industry are actively advancing R&D in emerging technologies. For example, SiPh-based optical transceiver technology, an advanced solution built on silicon substrates, leverages mature CMOS processes to develop and integrate optical components and transceivers. Optical transceivers embedded with silicon photonic elements are increasingly adopted in high-density, high-speed, and highly-integrated application scenarios such as data centers, and are expected to become a key solution to meet growing bandwidth and energy efficiency demands. In parallel, the development of innovative packaging technologies, such as near-packaged optics (NPO), CPO, linear receive optics (LRO) and linear-drive pluggable optics (LPO), are further enhancing the performance and energy efficiency of optical transceivers. LRO is a half-linear approach yielding high power savings while keeping the DSP only at the transmitter side to maintain flexibility and scalability of a DSP-based transceiver model. LPO, by removing DSP, significantly reduces power consumption and is emerging as a key trend of future optical communications. NPO and CPO shorten the transmission path between the two components, thereby improving electrical signal integrity and reducing energy consumption. As these emerging technologies mature, they are expected to reshape the industry's competitive landscape. Companies that take the lead in deploying cutting-edge optical transceiver technologies will gain a significant first-mover advantage, strengthening their position in an increasingly competitive market.

Strengthening of Vertical Integration Capabilities

In recent years, leading optical transceiver manufacturers in the PRC have been actively enhancing their vertical integration capabilities, building a collaborative, full-industry-chain system that spans optical transceivers, optical chips and optical network terminals. By extending upstream, these companies have begun developing and mass-producing core optical components, achieving notable breakthroughs in optical chips such as EML chips. 100G/200G per-lane EML chips have become the mainstream of high-rate optical technology, serving as fundamental building blocks for higher-speed aggregation in 800G and 1.6T optical transceivers. Global shipments of 100G/200G EML chips began in around 2024. The next-generation 400G per-lane EML chips are currently available in limited quantity and are expected to enter mass production in around 2027, supporting the rollout of 3.2T optical transceivers in AI and high-performance networking applications. By having an early layout in next-generation EML technology, companies, such as the Group, are well positioned to capture emerging demand, and the long lead time for development gives these companies a strategic advantage in securing customer adoption ahead of competitors while managing the transition

from existing products. Meanwhile, these manufacturers are expanding downstream into optical network terminals such as ONT boxes, thereby covering the entire optical network value chain, from data centers to transmission networks, access networks, and terminal applications. By strengthening their industry chain integration, such companies are not only enhancing product compatibility but also improving their responsiveness to evolving market demands and accelerating product iteration, thereby improving customer retention. This, in turn, boosts their overall competitiveness in a rapidly advancing technological landscape.

Industry Barrier Analysis

Technological Research and Development

The majority of optical communication core products are characterized by exceptionally high technical entry barriers. Core technologies span cutting-edge fields such as silicon photonics and low-power, high-speed optical communication. These areas require a deep understanding of multiple fields, including materials science, optoelectronic integration, photonic packaging, and microelectronics. To remain competitive, companies must commit to long-term, sustained R&D investment and continuously adapt to rapid technological iterations. In contrast, firms lacking strong R&D foundations, cross-domain integration capabilities, and iterative R&D mechanisms face significant technological barriers in the market.

Customers

The primary customers of optical transceivers mainly include cloud service providers, telecom operators and telecom and network equipment vendors. These customers demand high standards in product performance, reliability, delivery lead time, and service capability. Due to the large scale and strategic importance of the procurement activities, customers are highly cautious in selecting suppliers. It may take up to several years of verification, pilot deployment, and relationship-building before full-scale orders are placed. High customer stickiness and switching costs create significant entry barriers for new players.

Product Comprehensiveness

The ability to offer a complete product portfolio, from optical chips to optical transceivers and optical network terminals, enables companies to deliver integrated solutions and achieve technical and resource synergies. Leading companies are active in high-speed optical transceivers and advanced optical network terminals, while also investing in the development of high-speed optical chips. This vertical integration enhances their ability to ensure supply chain stability, accelerate iteration, and reduce overall cost. Such comprehensive product portfolios, which are difficult to replicate in a short time, enable companies to lock in customers with one-stop solutions. For new entrants without full-stack capabilities or internal chip R&D, breaking into mid-to-high-end segments remains highly challenging.

Globalization

The optical communication core product industry serves a global customer base, requiring companies to have international R&D, manufacturing, and sales capabilities. Leading industry players build localized service operations and global logistics and sales networks to respond quickly to customer needs, improving delivery efficiency and service satisfaction. Constructing such global infrastructure requires not only significant capital investment but also deep operational expertise, mature internal management systems, and long-term partnerships with global customers. These are capabilities that cannot be built overnight, thus forming a formidable barrier to market entry for emerging companies.

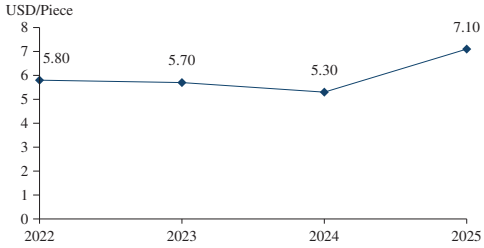
Raw Material Price Analysis

Optical chip is one of the major raw materials of optical transceivers. To meet the growing demand for higher transmission speeds in downstream applications such as data centers and telecom networks, optical chips are continuously evolving toward higher data rates and greater power output. As a result, the overall price level of optical chips has exhibited an upward trend in recent years. However, significant price differences exist among optical chips of different speeds. For a single type of optical chip, as shipment volumes increase, manufacturing technologies mature, and Chinese optical chip manufacturers enhance their localization capabilities, the price of the same model has shown a gradual decline. This trend is expected to continue as next-generation high-speed and high-power optical chips enter large-scale production.

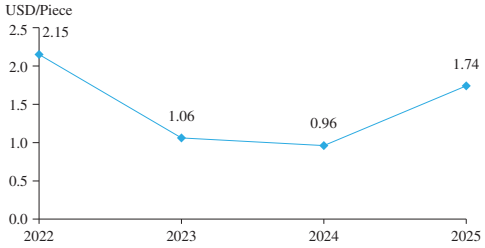
PCB is another essential raw material used in optical transceivers, mainly serving as the substrate for circuit integration and component interconnection. The price of PCB has remained relatively stable over the past few years, supported by mature manufacturing technologies and a well-established supply chain. In 2025, driven by rising copper prices and stronger downstream demand from data centers and AI-related applications, the prices of PCBs used in optical transceivers increased noticeably. Looking ahead to 2026, PCB prices are expected to maintain a relatively fast growth trend, as demand for high-speed and high-performance PCB materials continues to rise.

DRAM chips are widely used in optical network terminals. After a significant price increase in 2021 driven by pandemic-related demand for consumer electronics, DRAM prices entered a downward cycle before rebounding in 2025. Since the fourth quarter of 2025, DRAM prices have shown a clear increase, with the average price of the selected specification in the chart further rising to approximately USD3.68 per piece in December 2025. This increase has been mainly driven by the rapid expansion of AI computing demand and shipment controls by major original manufacturers. Given the continued growth of AI servers and data center infrastructure, DRAM prices are expected to maintain an upward trend in 2026.

Average Price of PCB, 2022-2025



Average Price of DRAM, 2022-2025



Notes: (1) PCB for 400G optical transceivers (2) DRAM DDR3(4Gb(512Mx8), 1600MHz) (3) Due to the price variations among different chip models and types, the selected chip prices above do not represent the industry average.

Competitive Landscape of Optical Communication Core Products Industry

The overall global optical communication industry is highly fragmented, characterized by a vast number of participants operating across different segments of the value chain. The market spans a wide spectrum of technologies and products, such as chips, optical fibers, optical transceivers, network devices and equipment. Companies face intense competition across the optical communication industry's entire value chain, both in China and globally, spanning all product categories and price ranges. This competitive landscape is expected to further intensify as new domestic players actively seek to enter the market.

The global optical transceiver industry is relatively competitive with a total market size of RMB126.7 billion in 2024. The top five specialized optical transceiver manufacturers globally had an aggregate of 44.1% of the market share in terms of global revenue from optical transceivers in 2024. For the same year, we achieved the sales revenue of RMB3.7 billion from sales of optical transceivers globally, ranking 5th among all specialized optical transceiver manufacturers with a market share of 2.9% in the global optical transceiver industry. The total market size by sales revenue of the PRC's optical transceiver industry reached RMB32.9 billion in 2024. In the same year, the top five specialized optical transceiver manufacturers globally had 45.9% of the market share in terms of revenue from optical transceivers sold in China. In 2024, we achieved the sales revenue of RMB2.4 billion from sales of optical transceivers in the PRC market, ranking third with a market share of 7.2%.

Ranking of Specialized Optical Transceiver Manufacturers by Sales Revenue (Global and the PRC), 2024

Global

Ranking	Company	Sales Revenue (RMB Billion)	Market Share
1	Company A	22.9	18.1%
2	Company B	14.0	11.1%
3	Company C	8.6	6.8%
4	Company D	6.7	5.3%
5	The Company	3.7	2.9%
		Subtotal	44.1%

the PRC

Ranking	Company	Sales Revenue (RMB Billion)	Market Share
1	Company D	5.9	17.9%
2	Company E	2.8	8.5%
3	The Company	2.4	7.2%
4	Company A	2.2	6.7%
5	Company C	1.8	5.6%
		Subtotal	45.9%

Source: Annual reports of listed companies, interviews with industry experts by Frost & Sullivan, Frost & Sullivan

Notes: * Companies with multiple product coverage refer to companies that possess in-house manufacturing capabilities for two or more categories of optical communication core products: optical chips, optical transceivers, and optical network terminals.

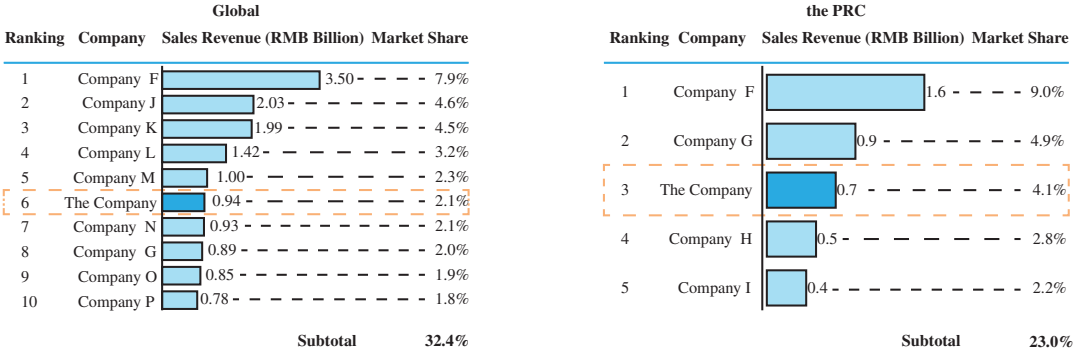
(1) Headquartered in Shandong, China, Company A is a company listed on the Shenzhen Stock Exchange and established in 2005, with a business focus on the development and manufacturing of optical transceivers. The Company's products cover major markets in North America, Europe, and Asia. (2) Headquartered in Pennsylvania, the U.S., Company B is a company listed on the New York Stock Exchange and established in 1966, which is a vertically integrated manufacturer that develops, manufactures, and markets lasers, transceivers, and other optical and optoelectronic devices, modules, and systems, and engineered materials, for use in the communications, industrial, instrumentation and electronics markets. The Company's largest market is North America, followed by Europe and Asia. (3) Headquartered in Sichuan, China, Company C is a company listed on the Shenzhen Stock Exchange and established in 2008, which is a manufacturer of optical transceivers. The Company's products are sold to North America, Europe, Asia, and more than 60 countries and regions worldwide. (4) Headquartered in Hubei, China, Company D is a company listed on the Shenzhen Stock Exchange and established in 2001, which is a developer and manufacturer of optoelectronic components and modules, including optical transceivers. The Company's products cover major markets in China, North America and Europe. (5) Headquartered in Hubei, Company E is a private company established in 2002, which is a developer and manufacturer of optical transceivers. Company E is a subsidiary of a company listed on the Shenzhen Stock Exchange. The Company's products are sold to China, North America, Europe, and Southeast Asia.

The global ONT box market is fragmented, with numerous regional and specialized companies. Competition in this market is shaped by technology innovation, product quality, and scalability, as telecom operators accelerate fiber network expansion and upgrade. Growing demand for high-speed connectivity and smart home integration is pushing ONT box manufacturers to enhance product performance, strengthen customization for customers, and ensure smooth evolution to new technologies.

The total market size of the global ONT box industry by sales revenue reached RMB44.3 billion in 2024. The top ten specialized ONT box manufacturers had an aggregate of 32.4% market share in terms of revenue from ONT boxes sold globally in 2024. In 2024, we achieved global sales revenue of RMB0.94 billion from sales of ONT boxes, which ranked 6th with a market share of 2.1% among all manufacturers globally.

The total market size of the PRC's ONT box industry by sales revenue reached RMB17.8 billion in 2024. The top five specialized ONT box manufacturers globally had 23.0% of the market share in terms of revenue from ONT boxes sold in China. In 2024, we achieved the sales revenue of RMB0.7 billion from sales of ONT boxes in the PRC market, which ranked 3rd among all specialized ONT box manufacturers in China with a market share of 4.1%.

Ranking of Specialized ONT Box Manufacturers by Sales Revenue (Global and the PRC), 2024



Source: Annual Reports of Listed Companies, Interviews with industry experts by Frost & Sullivan, Frost & Sullivan

Note: (1) Headquartered in Guangdong, **Company F** is a company listed on the Shenzhen Stock Exchange and established in 1998, with a business focus on the development and manufacturing of network communication products, including ONT boxes. Its products are sold worldwide, with key markets including China, the Americas, Europe, and Southeast Asia. (2) Headquartered in Sichuan, **Company G** is a company listed on the Shenzhen Stock Exchange and established in 2001, which specializes in the design and manufacturing of broadband network terminal equipment, including ONT boxes. The Company's products are sold to over 80 countries, primarily in Asia, North America, and Europe. (3) Headquartered in Guangdong, **Company H** is a private company established in 2009, with a business focus on the development, manufacturing and sales of optical transmission equipment, including ONT boxes. The Company's products are sold to more than 20 countries and regions worldwide, including China, Europe, the Americas, and Southeast Asia. (4) Headquartered in Guangdong, **Company I** is a company listed on the Shenzhen Stock Exchange established in 2002, which is a developer and manufacturer of smart terminals, including broadband terminals and set-top boxes. The Company's products are sold globally, covering countries and regions including China, Europe, Southeast Asia, India, Africa, and Latin America. (5) Established in 2006, **Company J** is a company listed on the Shanghai Stock Exchange and the HKEX, with a business focus on the development and manufacturing of high-speed optical transceivers, wireless and broadband access, carrier Ethernet and edge computing, including ONT boxes. (6) **Company K** is a company listed on the Taiwan Stock Exchange and established in 2003, which specializes in the design and manufacturing of broadband/wireless/multimedia products, including ONT boxes. (7) **Company L** is a company listed on the Taiwan Stock Exchange and established in 1992, whose product portfolio includes FTTx poducts, cable DOCSIS equipment, integrated access devices, small cells, smart home, mobile IoT and SMB products, including ONT boxes. (8) **Company M** is a company listed on the Taiwan Stock Exchange and established in 2003, which specializes in networking products, including ONT boxes. (9) **Company N** is a company listed on the Taiwan Stock Exchange and established in 1988, which primarily engages in the development and manufacture of networking and communication solutions, including ONT boxes. (10) **Company O** is a company listed on the Taiwan Stock Exchange and established in 1989, which has a portfolio of mobile and fixed-line broadband access products, including ONT boxes. (11) **Company P** is a company listed on the Taiwan Stock Exchange and established in 1996, which specializes in the design and manufacturing of communication products, including ONT boxes.

SOURCE OF INFORMATION

We commissioned Frost & Sullivan to conduct market research on the global optical communication industry and prepare the Frost & Sullivan Report. Frost & Sullivan is an independent global consulting firm founded in 1961 in New York that offers industry research and market strategies. We have contracted to pay US$48,000 to Frost & Sullivan for compiling the Frost & Sullivan Report. In preparing the Frost & Sullivan Report, Frost & Sullivan conducted detailed primary research, which involved discussing the status of the industry with certain leading industry participants and conducting interviews with relevant parties. Frost & Sullivan also conducted secondary research, which involved reviewing company reports, independent research reports and data based on its own research database. Frost & Sullivan obtained the figures for estimated total market sizes from historical data analysis plotted against macroeconomic data, and considered the above-mentioned industry key drivers. Its market engineering forecasting methodology integrates several forecasting techniques with the market engineering measurement-based system and relies on the expertise of the analyst team in integrating the critical market elements during the research phase of the project. These elements primarily include the expert-opinion forecasting methodology, integration of market drivers and restraints, integration with the market challenges, integration of the market engineering measurement trends and integration of econometric variables. The Frost & Sullivan Report is compiled based on the following assumptions: (i) the social, economic and political environment of the globe and the PRC is likely to remain stable in the forecast period; and (ii) related industry key drivers are likely to drive the market in the forecast period.