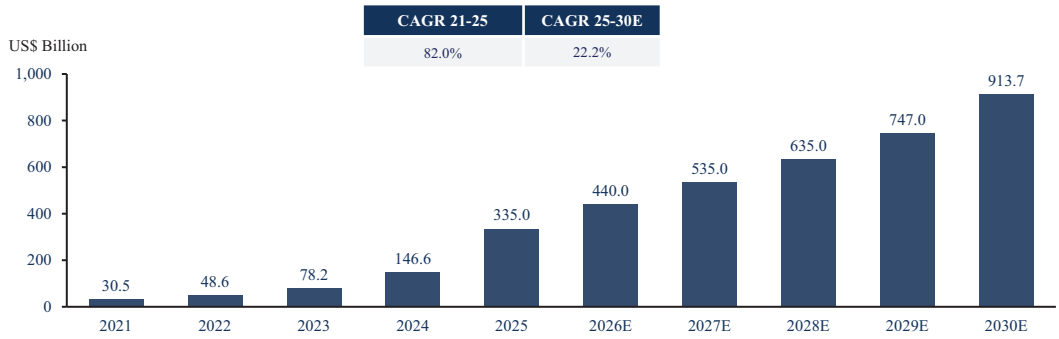
*The information contained in this section, unless otherwise indicated, has been derived from various official government publications and other publications and the market research report prepared by Frost & Sullivan which we commissioned (the "**F&S Report**"). We engaged Frost & Sullivan for preparing the F&S Report in respect of the* **[REDACTED]**. *We have taken reasonable care in extracting and reproducing such information. We have no reason to believe that such information is false or misleading in any material respect or that any fact has been omitted that would render such information false or misleading in any material respect. We have not, nor have any of the Joint Sponsors, the* **[REDACTED]**, *or any of their respective directors, officers or representatives or any other parties involved in the* **[REDACTED]**, *independently verified the information in the various official government publications nor give any representation as to the accuracy or completeness of such information. As of the Latest Practicable Date, our Directors confirm that, after taking reasonable care, there had been no material adverse change in the market information presented in this section.*

AI Infrastructure Investment Surge Driving Optical Interconnect Demand

The global AI industry is experiencing an explosive growth, propelling AI infrastructure investment into a trillion-dollar capital expenditure cycle. Driven by the widespread adoption of large language models and the development of multi-modal applications, demand for computing power is expanding exponentially. Global tech giants and cloud service providers continue to invest heavily in construction of data centers, high-speed interconnect computing power networks, and other sectors, leading to a substantial year-on-year expansion in investment scale.

Global AI infrastructure investment has increased from US$30.5 billion in 2021 to US$335.0 billion in 2025, representing a CAGR of 82.0%. This growth momentum is expected to persist, underpinned by a structural shift in computing demand towards inference and the continuous expansion of cloud-based AI services. The total investment is projected to reach US$913.7 billion by 2030, representing a CAGR of 22.2% from 2025 to 2030.

AI Infrastructure Investment*, Global, 2021-2030E

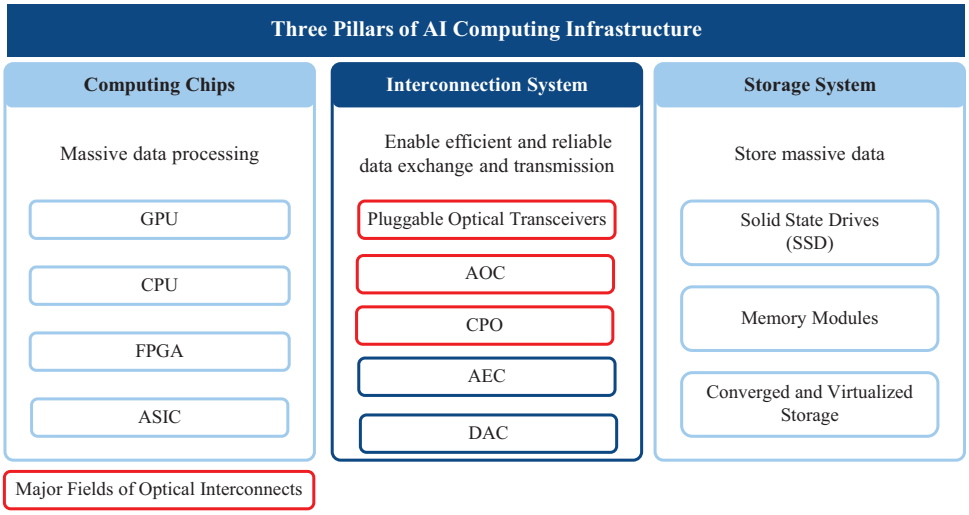


Source: Expert Interviews, Frost & Sullivan

* AI infrastructure investment includes AI computing power investment and other data center construction investment.

AI computing infrastructure (e.g. AI computing clusters and data centers) serves as the foundation for AI applications. As model parameters continue to scale, the scale of AI computing clusters has expanded rapidly, driving a surge in datacom demand across chips, server clusters and artificial intelligence data center (AIDC) facilities. Optical interconnects, by leveraging photonic transmission, offer definitive advantages over traditional electrical interconnects, delivering superior bandwidth, lower signal latency and reduced power consumption, and serve as a critical enabler for overcoming bandwidth and energy-efficiency bottlenecks in AI infrastructure.

AI Computing Infrastructure



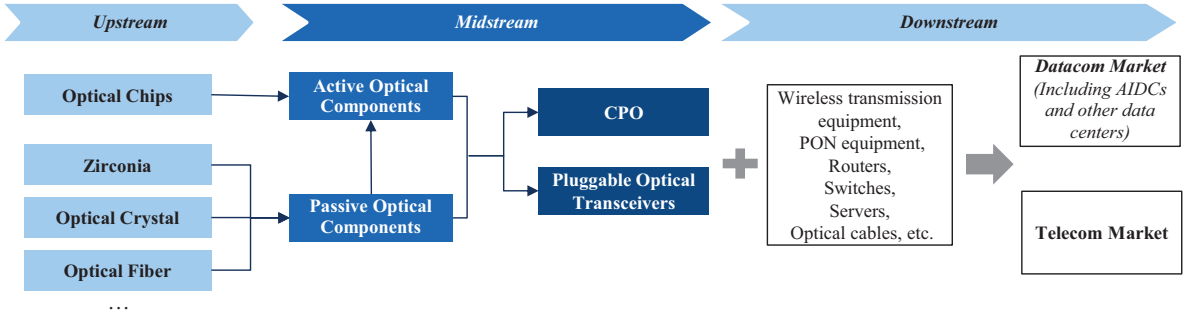
Source: Frost & Sullivan

ANALYSIS OF THE GLOBAL OPTICAL INTERCONNECT INDUSTRY

In the optical interconnect industry chain, optical chips enable electro-optical/optoelectronic conversion, and optical transceivers integrate discrete components into compact products. As a critical midstream segment, optical components represent the highest value concentration and the most significant technical barriers within the industry, accounting for over 45% of the total cost of optical transceivers. These components integrate optical chips and subassemblies with micron-level precision to facilitate signal modulation, beam splitting, and other complex functions. Their performance directly determines the bandwidth and power consumption limits of optical transceivers. The high technical thresholds of these components stem from ultra-precise manufacturing processes and advanced materials science. Furthermore, developers must overcome significant physical challenges, such as heat dissipation and high-frequency coupling, at microscopic scales.

Optical interconnects is primarily used in the datacom (e.g., AIDCs and other data centers) and telecom sectors. The global optical interconnect market surged from US$10.9 billion in 2021 to US$22.7 billion in 2025, representing a CAGR of 20.3%. The market is projected to reach US$99.1 billion by 2030, with a CAGR of 34.2% from 2025 to 2030. Fueled by the AI computing power boom, datacom has become the most dynamic and fastest-growing segment, accounting for approximately 71% of the total optical interconnect market in 2025 and is expected to reach approximately 90% by 2030.

Value Chain of Optical Interconnects



Source: Frost & Sullivan

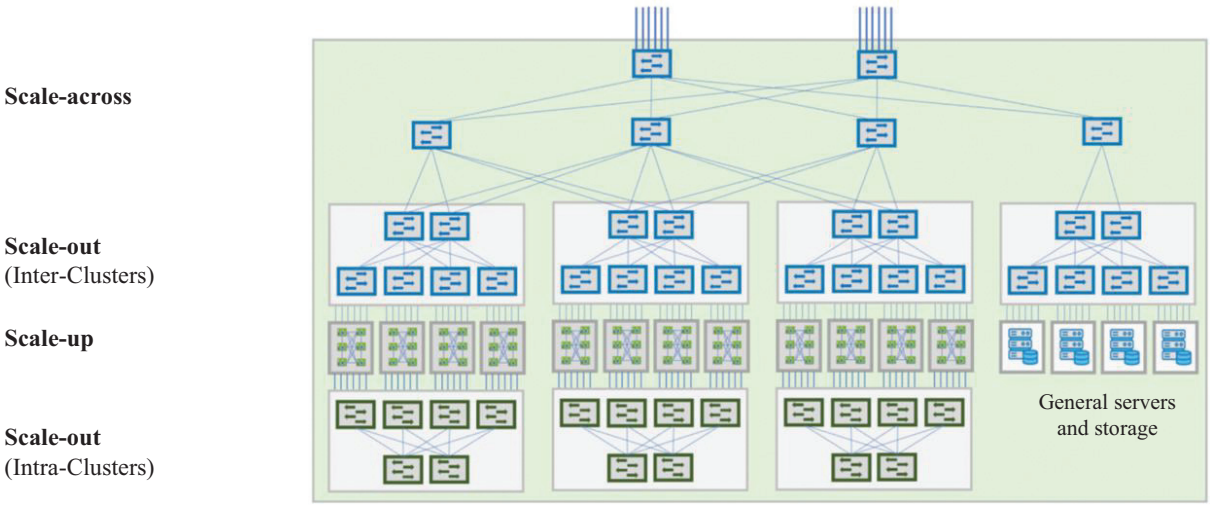
Nowadays, optical interconnects is emerging as the core foundation for the large-scale expansion of AI computing power, providing comprehensive support across three dimensions:

Scale-out: Optical interconnects enables horizontal intra- and inter-cluster connectivity between GPU servers via pluggable optical transceivers, CPO and high-speed switching chips, serving as a critical enabler of current AI training clusters.

Scale-up: Optical interconnects is gradually challenging traditional electrical interconnects. Conventional scale-up relies on copper cables or board-level serializer deserializer (SerDes) for point-to-point or ring connectivity between GPUs. However, as transmission rates rise, electrical interconnects encounter physical bottlenecks such as signal attenuation, surging power consumption, and interference from dense wiring. Leveraging technologies such as CPO and SiPh integration, optical interconnects shifts electro-optical conversion to the chip or packaging edge, replacing high-speed copper wires with optical fibers to achieve low-loss connectivity at longer distance, full-mesh or quasi-full-mesh topologies with higher bandwidth density, reduced power consumption and optimized thermal management.

Scale-across: Optical interconnects facilitates cross-campus and cross-data center computing power scheduling via coherent optical transceivers and data center interconntection (DCI) systems, supporting collaborative training across multiple data centers and the pooling of computing power resources. This drives the evolution of AI infrastructure from a single-cluster architecture toward a distributed computing power network.

Three Paths for Optical Interconnects to Boost AI Computing Power

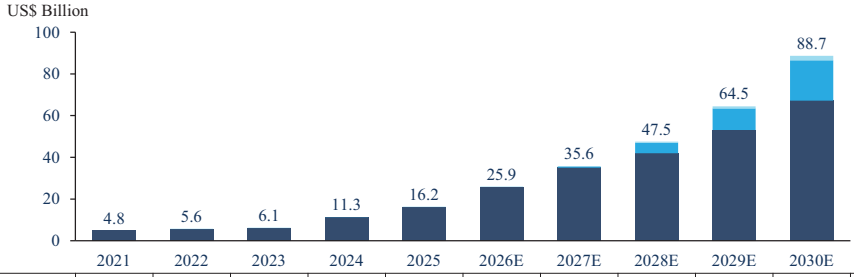


Source: Frost & Sullivan

Driven by the demand for AI computing power, the global datacom optical interconnect market has continued to expand, growing from US$4.8 billion in 2021 to US$16.2 billion in 2025, representing a CAGR of 35.3%. Scale-out is a core segment supporting horizontal data center expansion where pluggable optical transceivers play a critical role, serving as a stable source of both existing and incremental demand. From 2021 to 2025, the scale-out market achieved a CAGR of 35.2%, reaching US$16.1 billion in 2025, holding a predominant position in the datacom optical interconnect industry. It is projected to reach US$67.1 billion by 2030 with a CAGR of 33.0% from 2025 to 2030, remaining the core segment within this industry. Furthermore, with the gradual maturity of CPO, SiPh, and super-node architectures, coupled with robust demand for high bandwidth, low latency, and high-density computing power for large-scale AI model training, scale-up is transitioning from electrical interconnects to optical interconnects and will become one of the most important growth engines for the industry. Its CAGR is expected to reach 269.7% from 2025 to 2030, with its market size projected to surge to US$19.3 billion by 2030.

Meanwhile, underpinned by 1.6T and higher-speed coherent modules and all-optical switching technologies, scale-across is expected to achieve gradual commercialization in the next 2-3 years, with the corresponding market size reaching US$2.2 billion by 2030. Together, scale-out, scale-up and scale-across will constitute three primary growth engines of the datacom optical interconnect market.

Market Size* of Datacom Optical Interconnects (in Terms of Sales Value, by Scale-out/Scale-up/ Scale-across), Global, 2021-2030E



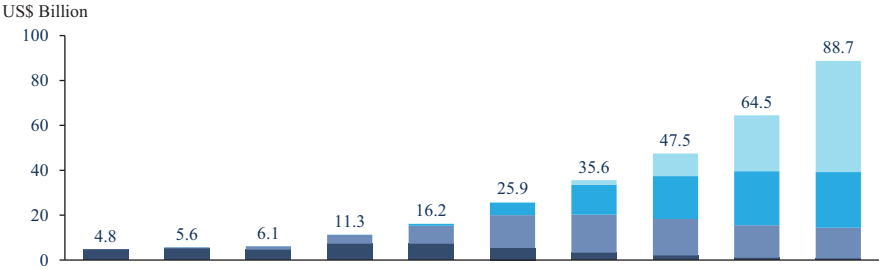
	2021	2022	2023	2024	2025	2026E	2027E	2028E	2029E	2030E	CAGR (21-25)	CAGR (25-30E)
Scale-across	-	-	-	-	-	-	-	0.5	1.0	2.2	N/A	N/A
Scale-up	-	0.0	0.0	0.0	0.0	0.0	0.6	5.0	10.4	19.3	N/A	269.7%
Scale-out	4.8	5.6	6.1	11.3	16.1	25.8	35.0	42.0	53.1	67.1	35.2%	33.0%
Total	**4.8**	**5.6**	**6.1**	**11.3**	**16.2**	**25.9**	**35.6**	**47.5**	**64.5**	**88.7**	**35.3%**	**40.5%**

Source: Expert Interviews, Frost & Sullivan

* The market size of the optical interconnect industry does not include wireless transmission equipment, PON equipment, routers, switches, servers, and optical cables.

Regarding the evolution of transmission speed, the explosive expansion of global data centers and AI computing power is driving structural growth in the high-speed optical interconnect products market, with particularly strong momentum in 800G-and-above products. As the most advanced solution currently available, 800G optical interconnect products achieved a high CAGR of 155.8% from 2021 to 2025, with the market size rapidly rising from US$0.2 billion in 2021 to US$8.0 billion in 2025. Looking ahead, the growth of 800G optical interconnect products is expected to remain strong over the next three years. Its CAGR from 2025 to 2028 is expected to reach 26.7%, and the market size will hit US$16.2 billion in 2028, remaining one of the mainstream deployment solutions in the datacom optical interconnect market. Furthermore, with the increasing maturity of the 1.6T industry chain, the gradual mass production of CPO, and the continuous demand for higher bandwidth density from hyperscale AI computing centers, ultra-high-speed optical interconnect solutions such as 1.6T, 3.2T and above are poised for explosive growth. Their CAGRs from 2025 to 2030 are projected to reach as high as 97.7% and 256.1%, respectively, as they will gradually become mainstream while replacing traditional 400G, 800G and lower-speed products. This evolution will drive a structural upgrade of the global datacom optical interconnect market from mid-low to ultra-high speeds, continuously lifting the overall bandwidth and value proposition of the industry.

Market Size of Datacom Optical Interconnects (in Terms of Sales Value, by Transmission Rate), Global, 2021-2030E



	2021	2022	2023	2024	2025	2026E	2027E	2028E	2029E	2030E	CAGR (21-25)	CAGR (25-28E)	CAGR (25-30E)
3.2T and above	-	-	-	0.0	0.1	0.4	2.0	10.1	24.9	49.5	N/A	389.4%	256.1%
1.6T	-	0.0	0.0	0.1	0.8	5.5	13.4	19.1	24.1	24.8	N/A	185.3%	97.7%
800G	0.2	0.5	1.5	3.9	8.0	14.6	16.9	16.2	14.5	13.7	155.8%	26.7%	11.5%
400G and below	4.6	5.2	4.6	7.3	7.3	5.4	3.3	2.0	1.0	0.7	12.0%	-34.5%	-38.1%
Total	**4.8**	**5.6**	**6.1**	**11.3**	**16.2**	**25.9**	**35.6**	**47.5**	**64.5**	**88.7**	**35.3%**	**43.2%**	**40.5%**

Source: Expert Interviews, Frost & Sullivan

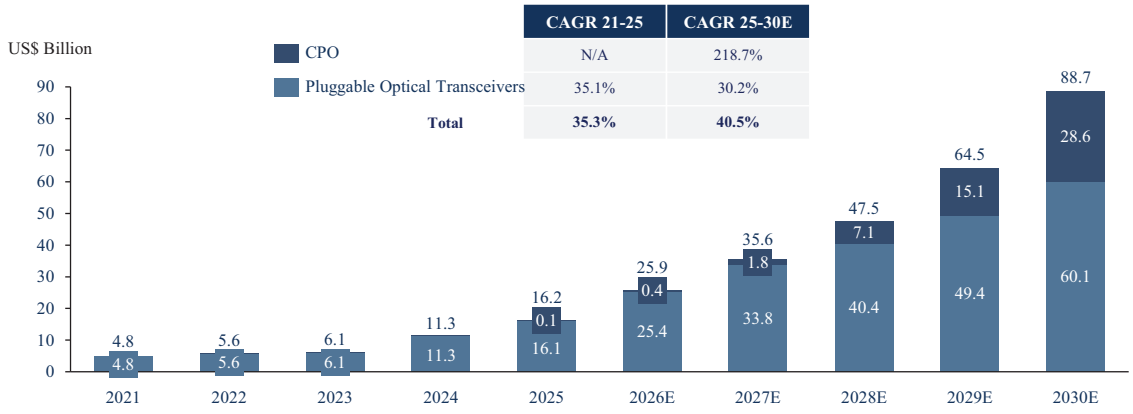
Additionally, as data transmission rates surpass 800G and advance toward 1.6T and above, traditional pluggable optical transceivers face mounting challenges in areas such as power consumption control, signal attenuation control, and port density. On one hand, at higher data rates, excessively long electrical traces lead to a sharp degradation in signal integrity, with high-frequency signal attenuation and crosstalk escalating exponentially. Even with optimized interface designs, physical transmission limits remain insurmountable, making it difficult to meet the increasingly stringent requirements for low bit-error rates in AI computing clusters. On the other hand, pluggable optical transceivers occupy substantial rack space, severely restricting the number of ports that a single switch can support. Amid surging demand for port density in AI clusters and hyperscale data centers, the density bottleneck of pluggable solutions becomes a physical constraint increasingly difficult to resolve, driving the industry toward highly integrated, low-power solutions. CPO technology has brought about a fundamental transformation in optical transceiver architecture by directly integrating optical engine onto the switch application-specific integrated circuits (ASIC). This integration drastically reduces power consumption by shortening electrical traces and minimizing signal loss, while boosting port density significantly, effectively addressing the performance bottlenecks faced by next-generation AI clusters and hyperscale data centers.

	Pluggable Optical Transceivers	CPO（Co-Packaged Optics）
Definition	Standardized, independently packaged and hot-pluggable optoelectronic conversion assemblies that interface with the device motherboard via gold-plated edge connectors to complete electrical-optical-electrical signal conversion.	Integration of the optical engine with the switch/compute chip on a common substrate, achieving optoelectronic conversion through ultra-short electrical interconnects.
Transmission Rate	Mainstream rates: 400G/800G; 1.6T is gradually becoming commercially available.	Targeting at 1.6T/3.2T and above ultra-high-speed scenarios to address the bandwidth density limitations of traditional solutions, serving as a core solution for next-generation hyperscale data center interconnection.

	Pluggable Optical Transceivers	CPO（Co-Packaged Optics）
Signal Integrity	Due to long copper traces on the PCB, connector insertion loss, and high-frequency dispersion, a certain degree of signal attenuation occurs.	By leveraging millimeter-level ultra-short interconnects, ultra-low signal attenuation can be achieved, with total signal attenuation reduced by over 80%, significantly improving the level of signal integrity.
Integration Level	Independently packaged, requiring significant front panel space, with port density limited by module size and thermal constraints.	Integrated on a common substrate, with the chip and optical engine co-packaged, increasing port density by over 50%.
Latency	Several microseconds, affected by copper cable transmission and on-module DSP processing.	Sub-microsecond; with extremely short interconnect distances.
Maintenance Cost	A single port fault only affects the faulty port, with a Mean Time to Repair (MTTR) of less than 15 minutes.	A single port fault affects the entire board, with a Mean Time to Repair (MTTR) exceeding 24 hours.

The clear roadmaps of global leading AI infrastructure providers are accelerating the large-scale commercialization of CPO technology. The CPO market size is expected to witness explosive growth in the future, reaching US$28.6 billion by 2030, with a projected CAGR of 218.7% from 2025 to 2030.

Market Size of Datacom Optical Interconnects (in Terms of Sales Value, by Product), Global, 2021-2030E

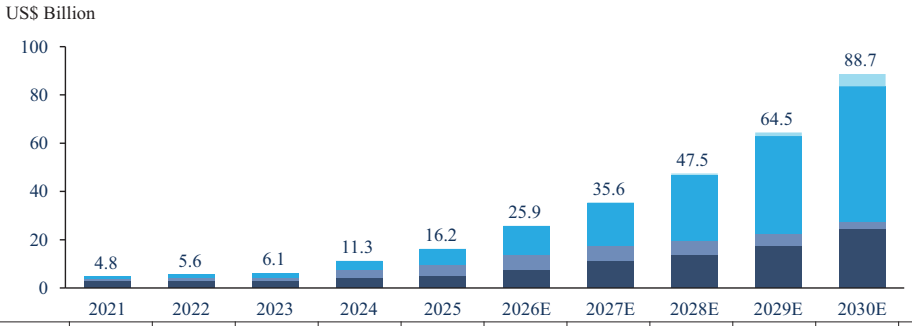


Source: Expert Interviews, Frost & Sullivan

Driven by the surge in AI computing power and the ongoing transition of data centers toward high-density, low-latency, and low-power consumption architectures, the global datacom optical interconnect industry is undergoing a technological migration toward SiPh and TFLN. With the rapid maturity of SiPh integration technology, its advantages — including complementary metal-oxide-semiconductor, or CMOS, compatibility, high integration, and cost efficiency — have become prominent. Its penetration rate in 800G and 1.6T products continues to rise, making it a core technology route for high-speed optical interconnection. In 2025, the SiPh market reached US$6.5 billion, representing a CAGR of 64.8% from 2021 to 2025. It is expected to reach US$56.0 billion by 2030, maintaining a robust CAGR of 54.0% between 2025 and 2030. Meanwhile, as an emerging material, TFLN has achieved rapid breakthroughs in ultra-high-speed modulation and long-haul transmission scenarios, leveraging its characteristics of

ultra-high bandwidth, low insertion loss, and low driving voltage. It is expected to achieve a CAGR of 176.4% from 2025 to 2030, with the market size reaching US$5.2 billion by 2030, demonstrating immense growth potential.

Market Size of Datacom Optical Interconnects (in Terms of Sales Value, by Technical Route), Global, 2021-2030E



	2021	2022	2023	2024	2025	2026E	2027E	2028E	2029E	2030E	CAGR (21-25)	CAGR (25-30E)
TFLN	-	-	-	0.0	0.0	0.1	0.3	0.6	1.5	5.2	N/A	176.4%
SiPh	0.9	1.4	1.8	3.7	6.5	11.9	17.7	27.2	40.5	56.0	64.8%	54.0%
VCSEL	1.1	1.3	1.6	3.1	4.7	6.2	6.6	5.9	4.8	3.0	45.2%	-8.5%
EML	2.9	2.9	2.7	4.5	5.0	7.6	11.0	13.7	17.6	24.5	14.5%	37.5%
Total	**4.8**	**5.6**	**6.1**	**11.3**	**16.2**	**25.9**	**35.6**	**47.5**	**64.5**	**88.7**	**35.3%**	**40.5%**

Source: Expert Interviews, Frost & Sullivan

ANALYSIS OF THE GLOBAL OPTICAL COMPONENT INDUSTRY

Optical components are key functional units that facilitate transmission, modulation, reception, coupling, beam splitting and interconnection throughout the optical signal transmission process. Based on whether electrical drive and active light emission are required, optical components can be divided into two major categories: passive optical components and active optical components. Passive optical components do not require electrical power or generate optical signals, and are utilized exclusively for the transmission, distribution or isolation of optical signals. They do not participate in electrical-optical conversion, but primarily determine coupling efficiency and loss, thereby affecting system stability and cost. Representative products include FAUs, optical isolators, and optical fiber connectors. Active optical components require electrical power and are capable of generating or modulating optical signals. They participate in electrical-optical conversion and determine transmission rates and power consumption, positioning as critical enablers for bandwidth upgrades. Active optical components primarily consist of optical engines and light sources/lasers.

Optical engines are high-speed electro-optical conversion core units that integrate driver chips, optical coupling structures and other active optical components. They represent a system-level packaging form of highly integrated active optical components.

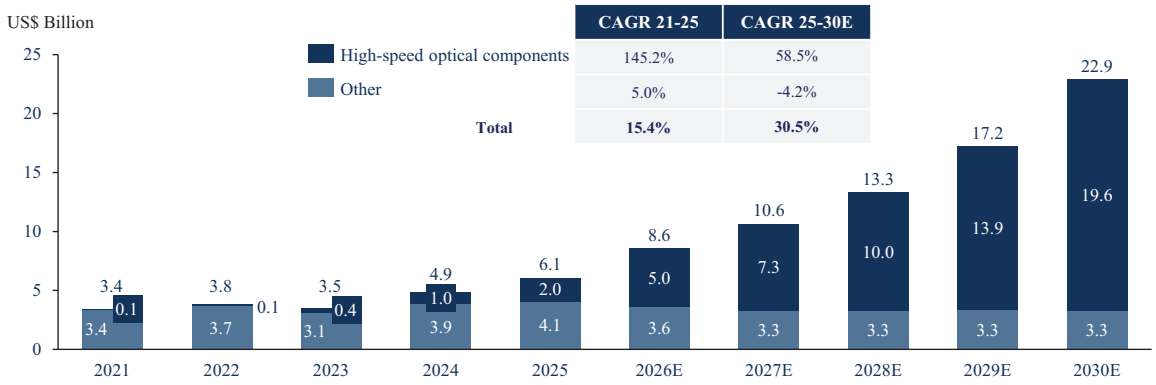
Driven by multiple factors including the boom in AI computing power and the high-density upgrade of data centers, the global optical component market has continued to expand, reaching approximately US$6.1 billion in 2025 with a CAGR of 15.4% from 2021 to 2025, maintaining a robust growth trajectory. In terms of speed iteration, the demand for high-density interconnection in AI computing clusters is driving the industry to rapidly advance toward 800G-and-above solutions.

High-speed optical components refer to optical components used in 800G and higher-speed optical interconnect products. Their core features include high-speed signal processing capability, excellent optical transmission performance, and highly-integrated product architectures. Specifically, they feature high single-channel transmission rate, low optical insertion loss, and superior extinction ratio and responsivity, ensuring the integrity and stability of optical signal transmission. Furthermore, they exhibit miniaturized,

highly integrated physical characteristics and low power consumption, effectively matching the technical requirements for increased bandwidth, reduced latency, higher integration density, and enhanced energy efficiency in high-speed optical interconnect applications.

In 2025, the global high-speed optical component market reached US$2.0 billion, representing an extraordinary CAGR of 145.2% from 2021 to 2025. Its share of the broader market has continued to rise, making it the core growth engine of the industry. Going forward, with the gradual maturity of the 1.6T optical transceiver industry chain and the large-scale deployment of cutting-edge technologies such as CPO and SiPh, high-speed optical components will remain the core driver of market growth, and continue to elevate the overall scale and value proposition of the industry. By 2030, the high-speed optical component market is expected to reach US$19.6 billion, representing a CAGR of 58.5% from 2025 to 2030.

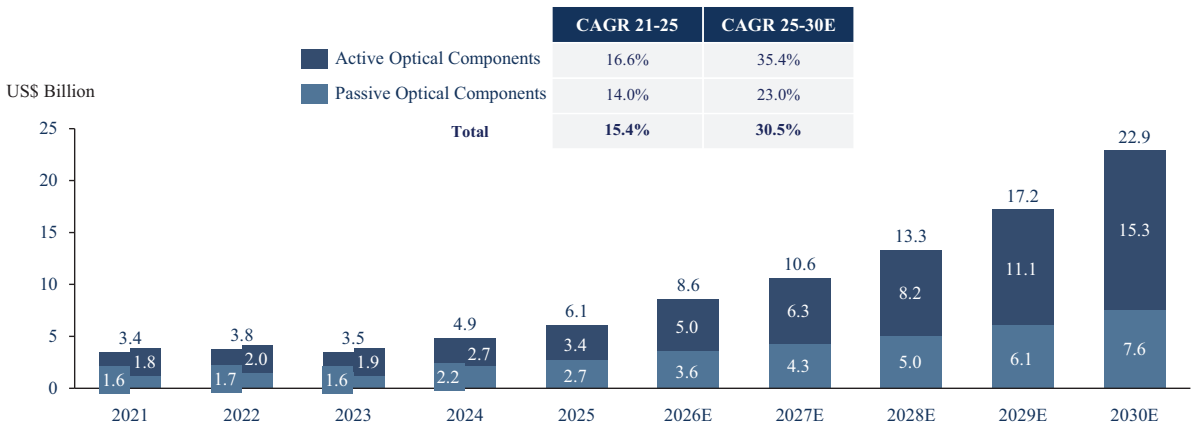
Market Size of Optical Components (in Terms of Sales Value, by Transmission Speed), Global, 2021-2030E



Source: Expert Interviews, Frost & Sullivan

Meanwhile, the active optical component market is projected to grow rapidly from US$3.4 billion in 2025 to US$15.3 billion in 2030, representing a CAGR of 35.4%. This momentum is driven by robust demand for high-bandwidth, low-latency chips and high-speed optical components for AI model training and inference, supported by technological iterations including CPO, SiPh, as well as steady volume ramp-up of 1.6T-and-higher ultra-high-speed products. Additionally, the value proportion of active optical component segment is expected to continue to rise, reaching approximately 67% of the global optical component market by 2030, becoming a key driver of industry growth and the shift toward higher value-added segments.

Market Size of Optical Components (in Terms of Sales Value, by Product Type), Global, 2021–2030E



Source: Expert Interviews, Frost & Sullivan

In 2025, by optical component supply revenue (only including external sales of optical components used in optical interconnect products), the Company ranked first with a revenue of US$711.4 million, representing a market share of 11.7%. The top five global optical component suppliers collectively accounted for 25.4% of the total market share.

Ranking of Optical Component[(1)] Suppliers (by revenue[(2)]), Global, 2025

Rank	Company Name	Revenue (US$ Million)	Market Share
1	**The Company**	**711.4**	**11.7%**
2	Company A[(3)]	307.3	5.1%
3	Company B[(4)]	179.8	3.0%
4	Company C[(5)]	178.1	2.9%
5	Company D[(6)]	162.7	2.7%
	Others	4,515.1	74.6%
	Total	6,054.4	100.0%

Source: Annual Reports, Frost & Sullivan

(1) Including optical components sold externally and used in optical interconnect products only.

(2) Revenue is calculated based on the 2025 average US$/RMB exchange rate of 7.14.

(3) Founded in 2000 and headquartered in Guangdong, China, Company A is a private company specializing in the R&D and manufacturing of optical components, transceivers and subsystems, with its products applied in communication networks and data centers.

(4) Founded in 2000 and headquartered in Guangdong, China, Company B is a company listed on the Shenzhen Stock Exchange. It focuses on the R&D and manufacturing of optical components, with its products applied in optical communications, data centers, and automotive LiDAR.

(5) Founded in 2010 and headquartered in Henan, China, Company C is a company listed on the Shanghai Stock Exchange. It focuses on the R&D and manufacturing of optical chips and components, with a product portfolio including PLC optical splitter chips, arrayed waveguide grating (AWG) chips, DFB laser chips and others.

(6) Founded in 2003 and headquartered in Zhejiang, China, Company D is a company listed on the Shenzhen Stock Exchange. It is a developer and manufacturer of optoelectronic devices in the field of optical communications, with products serving telecom, datacom, consumer electronics, and other sectors.

Entry Barriers of Global Optical Interconnect Market

R&D Barriers for High-performance Optical Interconnect Technologies

High-performance optical interconnects imposes extremely stringent requirements on core technologies including high-speed modulation, precision optical coupling, and low-power consumption packaging. These technologies entail long R&D cycles, substantial capital investment, and continuous iteration to keep pace with increasing bandwidth requirements driven by AI computing power and data centers. Enterprises are

required to have full-stack technological accumulation spanning from materials, components to systems, while keeping pace with cutting-edge technology routes such as SiPh and TFLN. The competitiveness of enterprises with slow technological iteration or insufficient R&D investment will be significantly weakened.

Barriers of Industry Experience Accumulation and Engineering Know-how

The yield, reliability, and cost control of optical interconnect products are highly dependent on long-term engineering experience and know-how, including coupling accuracy of high-speed optical engines and consistency of passive optical components. These capabilities cannot be replicated through short-term imitation, but require continuous refinement in large-scale mass production. Even if new entrants master the underlying technical principles, it is difficult for them to achieve stable mass production and cost optimization within a short period of time.

Barriers of Industry Chain Resources and Supply Chain Integration Capabilities

The optical interconnect industrial chain is highly complex, covering multiple segments including optical chips, passive optical components, optical engines and ultra-precision manufacturing, with a highly concentrated supply of high-end components (such as high-speed optical chips). Enterprises need to establish long-term, in-depth cooperation with core upstream suppliers, and possess global supply chain management and risk-hedging capabilities to address challenges such as geopolitical risks and production capacity fluctuations. Enterprises without a stable supply chain will face risks including persistently-high costs and delivery delays.

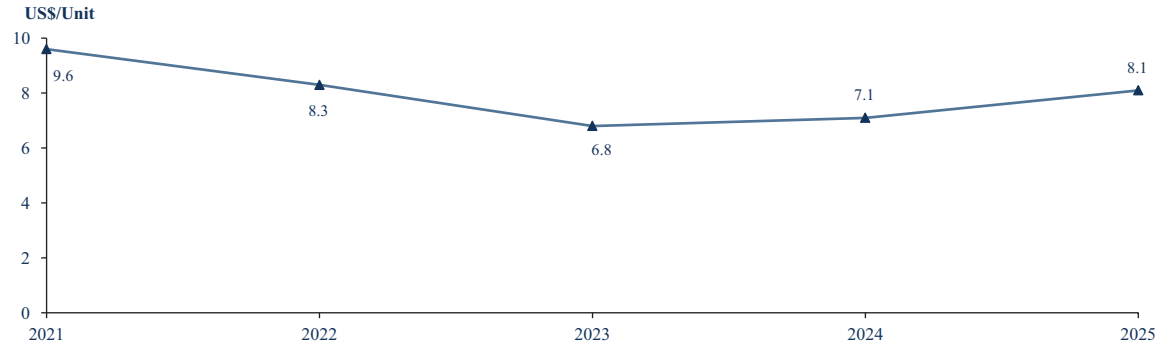
Barriers of Customer Resources and First-mover Advantages

Optical interconnect products are subject to high customer certification barriers. Products must undergo rigorous reliability tests and networking compatibility tests to ensure long-term stability in complex environments, with a qualification cycle typically ranging from one to two years. Once an enterprise is shortlisted on the approved vendor list and commences mass production, customers are unlikely to replace the supplier considering supply chain stability and switching costs. First-mover enterprises often become embedded in customers' next-generation product roadmaps through joint R&D and in-depth customization, forming a strong ecological synergy that significantly raises the threshold.

COST ANALYSIS OF THE GLOBAL OPTICAL INTERCONNECT INDUSTRY

Optical chips are a core raw material for optical component products and represent a significant portion of the cost structure. To meet the growing demand for higher transmission speeds from downstream applications, optical chips are continuously evolving toward higher data transmission rates and greater output power. As a result, the overall price level of optical chips has shown an upward trend in recent years. Nevertheless, there are significant price disparities between optical chips with different transmission speeds. For a specific type of optical chip such as single-channel 100G EML optical chip, its price has gradually declined from 2021 to 2023 due to gradual maturity of the technology and increased shipment volume. Since 2024, robust demand for high-speed optical transceivers has led to supply shortages of single-channel 100G EML optical chips, resulting in a rebound of its average price.

Average Price of Single-Channel 100G EML Optical Chip, Global, 2021-2025



Source: Frost & Sullivan

SOURCE OF INFORMATION AND RESEARCH METHODOLOGY

We engaged Frost & Sullivan for preparing an independent industry report in respect of the global optical interconnect and optical component market. The information from Frost & Sullivan disclosed in this document is extracted from the Frost & Sullivan Report, a report commissioned by us for a fee of RMB500,000, and is disclosed with the consent of Frost & Sullivan. The Frost & Sullivan Report has been prepared by Frost & Sullivan independently without any influence from us or other interested parties. Frost & Sullivan is an independent global consulting firm founded in 1961 in New York. Its services include, among others, industry consulting, market strategic consulting and corporate training. Frost & Sullivan conducted (i) primary research, which involved discussing the status of the industry with certain leading industry participants, and interviews with industry experts on a best-effort basis to collect information in aiding in-depth analysis; and (ii) secondary research, which involved reviewing government statistics, industry association publication, company reports, independent research reports and data based on its own research database.