
INDUSTRY OVERVIEW

The information and statistics set out in this section and other sections of this document were extracted from the report prepared by CIC, which was commissioned by us, and from various official government publications and other publicly available publications. We engaged CIC to prepare the CIC 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], [REDACTED], [REDACTED], [REDACTED], the [REDACTED], [REDACTED], [REDACTED], any of their respective directors and advisors, or any other persons or parties involved in the [REDACTED], and no representation is given as to its accuracy.

OVERVIEW OF THE GLOBAL SEMICONDUCTOR MEMORY MARKET

Memory Demand Driven by AI-enabled Data Processing

The global semiconductor memory market is entering a new growth cycle, driven not only by the continued expansion of global data volume, but more importantly, by the structural shift in how data is generated, processed and accessed in the AI era.

Before the current AI wave, the proliferation of internet services, smart devices, 5G, cloud computing and data centers had already expanded the scale and frequency of data creation, transmission and processing, laying the infrastructure foundation for more memory-intensive applications.

Since late 2022, the emergence of large language models has become the most important new driver of memory demand. Particularly, since the third quarter of 2025, supported by the substantial memory demand from AI-related applications and data center infrastructure construction, the semiconductor memory market has entered a period of rapid expansion, with demand for memory products outpacing available supply. On the cloud side, AI model training and inference require intensive data read and write, driving demand for high-capacity, high-bandwidth and high-reliability memory products in AI servers and data centers. On the edge side, the rollout of AI smartphones, AI PCs, smart vehicles, AI wearables and embodied intelligence devices is increasing local data generation, model execution and real-time interaction, creating new requirements for memory performance, power efficiency and form factor.

Against this backdrop, memory is evolving from a passive storage medium into a critical infrastructure layer for data-intensive AI workloads. Effective memory solutions are increasingly essential to support fast data access, reliable storage, secure data management and system-level cost efficiency across a widening range of AI-driven applications.

Semiconductor Memory Overview

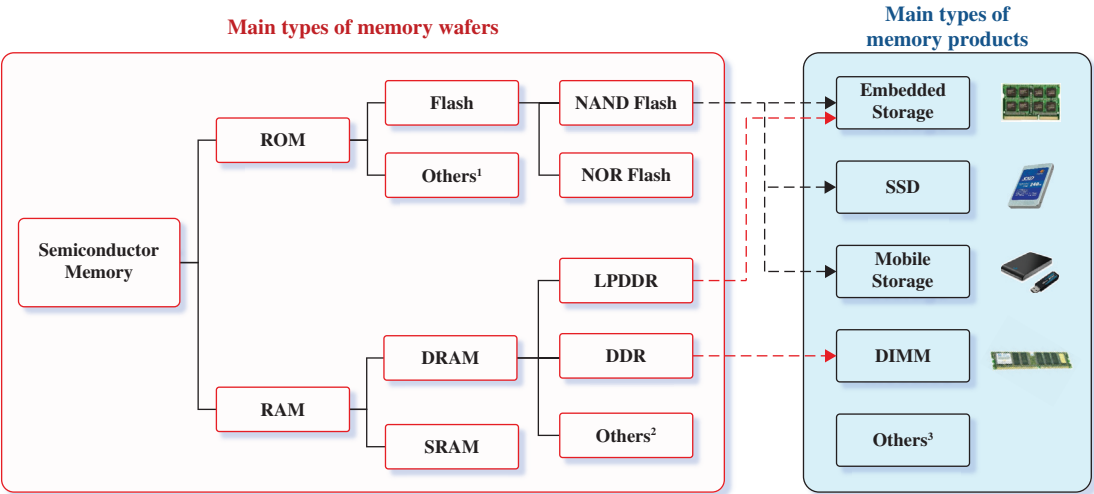
Semiconductor memory is a core segment of the integrated circuit industry. According to CIC, the global integrated circuit market is projected to reach nearly US\$700 billion in 2025, with semiconductor memory accounting for over 30% of this market. Memory wafers are the fundamental building blocks of semiconductor memory, and are generally categorized into non-volatile memory, such as NAND Flash, and volatile memory, such as DRAM, depending on whether data can be retained after power-off.

INDUSTRY OVERVIEW

Memory products primarily fall into four broad categories: embedded storage, SSDs, mobile storage and DIMM:

- **Embedded Storage:** Embedded storage is memory module integrated within small, low-power devices. It can be made from NAND and LPDDR memory to form non-volatile and volatile memory, respectively. In addition, NAND and LPDDR can be packaged together to create highly integrated embedded storage.
- **SSDs:** SSDs are non-volatile memory primarily used in devices with regular size and power consumption, such as servers and personal computers, and are made from NAND Flash memory. They have largely replaced traditional mechanical hard disk drives in key applications such as PCs and laptops.
- **Mobile Storage:** Mobile storage refers to portable and removable memory, mainly including USB flash drives, memory cards and portable SSDs and is typically made using NAND Flash memory.
- **DIMM:** DIMM is volatile memory primarily used in devices with regular size and power consumption, such as servers and personal computers, and is made using DDR memory.

The following diagram illustrates the major types of semiconductor memory wafers and their corresponding types of memory products:



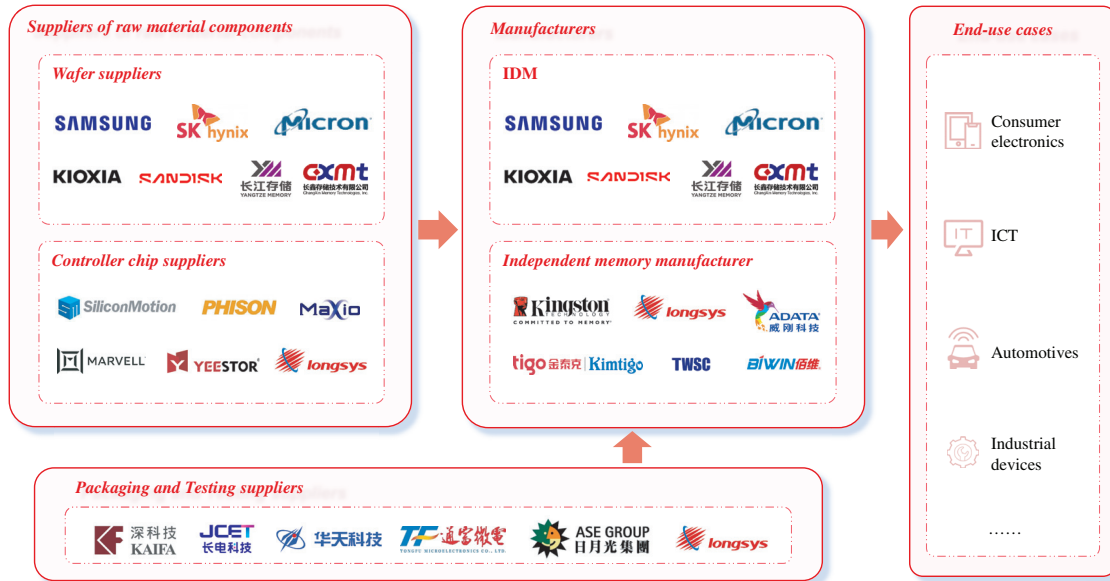
Notes:

1. Other ROM types include Mask ROM, programmable ROM (PROM), etc.
2. Other DRAM types mainly include graphics double data rate.
3. Other memory products mainly include HBM.

INDUSTRY OVERVIEW

Semiconductor Memory Value Chain

The following diagram illustrates the relationships among the key players along the semiconductor memory value chain — suppliers of key components and services, manufacturers and end-use cases:



Note: Longsys’ controller chips and packaging services are primarily provided for its own memory products.

Suppliers of key components and services mainly provide memory wafers, controller chips and packaging and testing services. Memory wafers are the most crucial components and are supplied by wafer suppliers. The global supply of NAND Flash memory wafers is highly concentrated, with the top five foundries controlling approximately 90% of the market. DRAM wafer supply is even more concentrated, with the top three foundries accounting for more than 90% of the market. As memory products become more application-specific, controller chips are becoming increasingly important to product differentiation. Together with firmware, they coordinate NAND Flash, manage data read and write operations, support error correction, wear leveling, diagnostics and repair, and directly affect product performance, reliability and lifespan. In the AI era, their role is further expanding from basic storage control to system-level data management. As local AI workloads increase pressure on DRAM capacity, latency, power consumption and device cost, controller chips and firmware are increasingly used to optimize cache hierarchy, classify hot and cold data, manage data placement across DRAM and NAND Flash, improve prefetching and compression efficiency, and enhance workload-aware storage performance. As a result, controller chips, firmware algorithms and system-level optimization are becoming key sources of product differentiation, rather than merely auxiliary components. Packaging and testing help ensure product performance and quality in real-world applications and enable precise control over product dimensions, a critical factor for products with specific performance, power and size requirements.

Significant application-specific development is required to transform standardized wafers into finished memory products. Such development is generally undertaken by memory product enterprises. Memory product enterprises primarily include IDMs and independent memory product enterprises. Holding approximately 80% of the market share in the semiconductor memory product market, IDMs produce both wafers and memory products, but primarily focus on standardized products manufactured at scale. Independent memory product enterprises, on the other hand, source wafers from wafer suppliers and focus on the production of memory products. Compared to the

INDUSTRY OVERVIEW

IDMs, independent memory product enterprises are generally better positioned to address the diverse, customized demands of the market. The chart below illustrates the main differences between the independent memory product enterprises and IDMs:

Key Processes / Capabilities	IDMs	Independent Memory Enterprises
Memory Product Design	✓	✓
Memory Wafer Design*	✓	✗
Memory Wafer Fabrication	✓	✗
Firmware Development	✓	✓
Packaging & Testing	✓	✓
SMT & Assembly	✓	✓

*: Independent memory enterprises generally do not have design capabilities for mainstream memory wafers. Some independent memory enterprises may be able to design small-capacity memory wafers (e.g. SLC NAND wafers).

Memory products serve a wide range of end applications, each with unique requirements, resulting in diverse product specifications. For example, consumer electronics demand highly miniaturized designs and low power consumption; data centers prioritize storage capacity, data transfer speed and data security; and automotive and industrial applications typically require a wide operating temperature range and reliable performance under harsh conditions, including in the presence of high humidity, vibration and electromagnetic interference.

GLOBAL SEMICONDUCTOR MEMORY PRODUCTS MARKET

Market Size

According to CIC, the global semiconductor memory product market size was US\$275.4 billion in 2025, with independent memory product enterprises accounting for around 20% of the market share. Between 2021 and 2023, the demand for memory products decreased due to reduction in remote work, slowing global economic growth, U.S. interest rate hikes and the Russia-Ukraine conflict, as well as inventory clearance by IDMs and other memory enterprises. Since late 2023, as electronic companies had largely cleared their inventories and began restocking for upcoming product launches, demand rebounded. Consequently, the semiconductor memory product industry exhibited an upward trend. The market is expected to grow significantly to US\$528.2 billion in 2026, primarily driven by the rapid expansion of AI-related workloads. In particular, the accelerated build-out of AI data centers has led to strong demand for enterprise-grade memory products, while the supply of advanced memory products has remained relatively constrained, resulting in a supply-demand imbalance and significant increases in memory product prices. From 2027 to 2030, although shipment volume is expected to continue growing, the overall market size is expected to remain relatively stable as memory product prices gradually normalize from their elevated levels. The global semiconductor memory product market is expected to reach US\$875.6 billion by 2030, representing a CAGR of 26.0% from 2025 to 2030.

INDUSTRY OVERVIEW

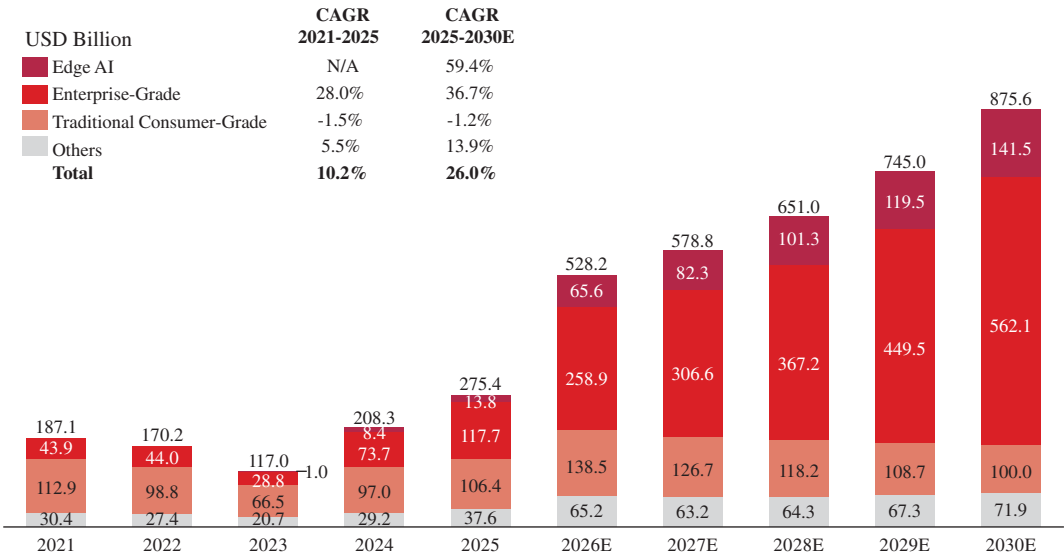
By application, the market is increasingly shaped by the coordinated development of enterprise-grade and edge AI segments, while complemented by traditional consumer-grade and other applications. Edge AI, primarily including AI smartphones, AI tablets, AI PCs and AI-enabled vehicles¹, and other AI-enabled consumer devices, is emerging as a key incremental growth driver for semiconductor memory products. The shipments edge AI devices are expected to accelerate — for example, global shipments of AI smartphones are projected to increase from 30% to 80% market penetration, and AI PCs from 40% to 80%, between 2025 and 2030. Smart wearables such as AI glasses and smart watches are also increasingly embedding sensing, voice interaction, image capture and on-device AI functions. In smart vehicles, the increasing adoption of intelligent cockpits, ADAS and autonomous driving functions is driving higher requirements for local data processing, storage capacity, reliability and real-time responsiveness. These edge AI applications are expected to drive incremental demand for semiconductor memory solutions that can better balance capacity, performance-per-watt, power consumption, form factor, reliability and system-level cost.

The enterprise-grade segment is projected to experience the second-fastest growth, driven by the recent surge in AI server deployments. Recent breakthroughs in LLMs have driven a surge in demand for model training and inference, resulting in a greater than 30% increase in global AI server shipments in 2023. Shipments grew more than 40% in 2024 and approximately 25% in 2025, reaching approximately 2.1 million units, and are projected to maintain a nearly 20% CAGR over the next five years. As a critical component in the data processing lifecycle for increasingly multimodal LLMs and agents, memory directly impacts data capacity, training and computation speeds, data reliability and data security, fueling strong growth in related product markets. Memory product enterprises have continued to innovate to enhance product performance, with high-performance DDR5 DIMM, HBM, high-capacity SSDs and CXL memory expansion modules being particularly popular.

Traditional consumer-grade and other applications provide a broad and stable demand base for semiconductor memory products. Traditional consumer-grade applications continue to drive demand for higher memory capacity and faster data access. Other applications, including industrial-grade applications and non-smart vehicles, typically require long product lifecycles, high reliability and stable performance under demanding operating environments, creating opportunities for memory product enterprises with strong customization, packaging and testing, and quality control capabilities.

The following diagram illustrates the global semiconductor memory market size by application.

Market size of global semiconductor memory industry, by application, 2021-2030E



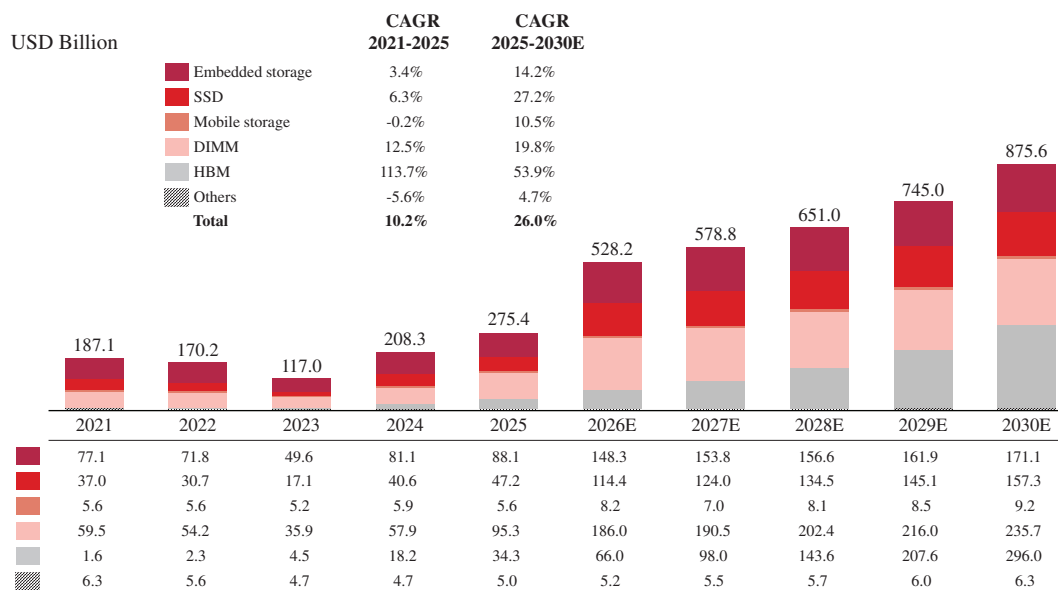
Source: Omdia, TrendForce, Yole, CIC

¹ AI-enabled vehicles refer to vehicles equipped with on-board large model AI computing capabilities, enabling intelligent perception, autonomous decision-making and human-vehicle interaction.

INDUSTRY OVERVIEW

By memory product type, the growth of embedded storage was primarily driven by growth in consumer electronics, smart vehicles, industrial control equipment and other edge devices. As AI functions are increasingly deployed on edge devices, embedded storage is expected to play a more important role in supporting local data capture, model execution and real-time interaction under constraints on power consumption, size and reliability. In terms of growth rate, HBM is expected to show the fastest growth, followed by SSDs and DIMM, primarily driven by demand for enterprise-grade products, especially those used in AI servers within data centers. Between 2021 and 2023, driven by continuous advancements in memory technology, per-GB unit prices declined across all product categories. In 2023-2024, as the market recovered and demand grew, per-GB unit prices rose across the board. Meanwhile, from 2021 to 2025, the growing global demand for storage capacity led to a continued increase in per-GB shipment volumes across all product types. The following diagram illustrates the global semiconductor memory product market size by product type.

Market size of global semiconductor memory industry, by memory type, 2021-2030E



Source: Omdia, TrendForce, Yole, CIC

Market Drivers

Several key factors are shaping the semiconductor memory product market: (i) AI workloads are driving more diversified memory demand, with cloud training and inference requiring high-capacity, high-bandwidth and high-reliability memory products, while edge AI devices such as AI smartphones, AI PCs, smart vehicles, AI wearables and embodied intelligence devices require memory solutions with larger capacity, stronger performance-per-watt, compact form factor and higher customization; (ii) advancements in high-speed and high-capacity memory technologies, such as CXL and 3D NAND, together with improvements in product lifespan, interface speed, packaging options, controller design and firmware optimization, are driving memory products toward stronger performance and broader applicability; (iii) rising emphasis on data privacy, security and localization is increasing demand for localized data storage and management; and (iv) digital transformation, data center construction and consumer electronics adoption in emerging markets are generating incremental demand for semiconductor memory products.

INDUSTRY OVERVIEW

Growth Opportunities for Independent Memory Product Enterprises

The global semiconductor memory product industry has tremendous market space, with independent memory product enterprises accounting for approximately 20% of the overall market share and well-positioned to capitalize on significant growth opportunities. By promptly identifying the diverse and customized needs present in downstream niche markets, independent memory product companies can swiftly respond and engage in differentiated competition with IDMs, thereby achieving rapid business growth.

- ***Expansion from Memory Product Manufacturing to System-level Storage Solutions:*** In addition to wafer quality, controller chip design, firmware algorithms, packaging and testing, thermal design and system-level optimization are becoming increasingly important determinants of memory product performance and reliability. This is particularly relevant in the AI era, where downstream customers increasingly need to overcome system-level bottlenecks such as limited DRAM capacity, high memory cost, latency, power consumption and compact device form factors. Against this backdrop, independent memory product enterprises with advanced technology capabilities, including self-developed controller chips, proprietary firmware and in-house packaging and testing capabilities, are better positioned to capture opportunities arising from edge AI and other memory-intensive applications. By combining controller chips, firmware, caching algorithms, data compression, hot and cold data scheduling and system-level tuning, memory product enterprises can help customers improve effective memory capacity, optimize data access efficiency and reduce system-level cost.
- ***Growing Demand for Diverse, Customized and Specialty Memory Solutions:*** IDMs focus their core competencies on innovative wafer design and process improvements. Their resources are increasingly concentrated on enterprise-grade markets and key accounts in areas such as servers and AI infrastructure, while support for consumer-grade applications, especially edge AI, is gradually being deprioritized. This has created significant unmet needs in these fast-growing market segments, creating massive opportunities for independent memory product enterprises to grow. At the same time, as IDMs continue to prioritize higher-density products such as TLC, QLC and PLC and gradually phase out mature, lower-capacity solutions such as SLC Flash, independent memory product enterprises can capture opportunities in applications that prioritize reliability, durability and application-specific performance over storage density.
- ***Diverse Market Needs for Consumer Memory Brands:*** In addition to enterprise customers, individual consumers represent a significant group of end users in the memory market. Consumer needs evolve over time; they are increasingly focused not only on product performance, but also on brand attributes, service quality and overall brand image. Traditional IDM service models often fall short of meeting the diverse needs of the retail market. Independent memory product enterprises, by closely studying consumer preferences, continue to refine and optimize their product lines while emphasizing service quality to build trust and brand reputation. Therefore, independent memory product enterprises are often able to demonstrate a keen understanding of and great agility in building their own distinctive brands, resulting in innovative brands in the retail market that are highly responsive to consumer preferences and demands.

GLOBAL SEMICONDUCTOR MEMORY PRODUCT MARKET COMPETITIVE LANDSCAPE

Market Share Ranking

The global semiconductor memory product market size is US\$275.4 billion in 2025, with independent memory product enterprises accounting for around 20% of the market share. Globally, we are ranked as the ninth largest memory product enterprise and the second largest independent memory product enterprise. In China, we are the third largest memory product enterprise and the largest independent memory product enterprise.

INDUSTRY OVERVIEW

Competitive Landscape of the Global Semiconductor Memory Product Market among Independent Memory Product Enterprises, 2025

Ranking	Company	Revenue in 2025 (US\$ in billion)	Market Share	Country/Region
1	Company A	13.0	4.7%	U.S.
2	Our Company	3.2	1.2%	PRC
3	Company B	1.7	0.6%	Taiwan, China
4	Company C	1.6	0.6%	Taiwan, China
5	Company D	1.5	0.6%	PRC

Source: annual reports, expert interviews, CIC

Notes:

- (1) 1 USD = 31.167 TWD = 7.129 RMB
- (2) Company A was established in 1987 and headquartered in the United States. Its main product categories include memory modules, SSDs, embedded storage, USB drives, and memory cards. It is an unlisted company.
- (3) Company B was established in 2000 and headquartered in Taiwan, China. It specializes in NAND Flash controller ICs and storage solutions. It is listed on the Taiwan Stock Exchange.
- (4) Company C was established in 2001 and is headquartered in Taiwan, China. Its main product categories include DIMM, SSDs, USB drives and memory cards. It is listed on the Taiwan Stock Exchange.
- (5) Company D was established in 2010 and headquartered in China. It focuses on the design, manufacturing, testing and sale of memory products. It is listed on the Shanghai Stock Exchange.

In terms of product types, we have demonstrated strong market competitiveness across multiple categories. We are the sixth-largest embedded storage manufacturer, the fourth-largest mobile storage manufacturer, and the sixth-largest SSD manufacturer globally. Meanwhile, our Foresee brand ranked second among global B2B storage brands, while our Lexar brand ranks fifth among memory products consumer brands. Among independent storage manufacturers, we rank as the largest in embedded storage, the second-largest in mobile storage, and the third-largest in SSD. The table below sets forth our rankings and market share across various end product categories:

Competitive Landscape of the Global Semiconductor Embedded Storage Market among Independent Memory Product Enterprises, 2025

Ranking	Company	Revenue in 2025 (US\$ in billion)	Market Share	Country/Region
1	Our Company	1.4	1.6%	PRC
2	Company A	1.2	1.4%	U.S.
3	Company E	0.6	0.7%	PRC

Source: annual reports, expert interviews, CIC

Note:

- (6) Company E was established in 2018 and headquartered in China. It focuses on the design, manufacturing, testing and sale of memory products. It is an unlisted company.

INDUSTRY OVERVIEW

Competitive Landscape of the Global Semiconductor Mobile Storage Market among Independent Memory Product Enterprises, 2025

Ranking	Company	Revenue in 2025 (US\$ in billion)	Market Share	Country/Region
1	Company A	0.8	14.7%	U.S.
2	Our Company	0.7	12.3%	PRC
3	Company D	0.2	2.9%	Taiwan, China

Source: annual reports, expert interviews, CIC

Competitive Landscape of the Global SSD Market among Independent Memory Product Enterprises, 2025

Ranking	Company	Revenue in 2025 (US\$ in billion)	Market Share	Country/Region
1	Company A	3.8	7.9%	U.S.
2	Company B	1.0	2.1%	Taiwan, China
3	Our Company	0.8	1.7%	PRC

Source: annual reports, expert interviews, CIC

Competitive Barriers of Independent Memory Product Enterprises

The competitive barriers of independent memory product enterprises mainly include: (i) technological expertise and R&D capabilities, controller design, firmware, packaging and testing, and system-level optimization, which are increasingly critical for AI-driven requirements on capacity, bandwidth, latency and power efficiency; (ii) supply chain partnerships, as key inputs such as wafers, controllers and packaging/testing services remain relatively concentrated; (iii) product development capabilities, as diverse downstream applications require tailored memory solutions; (iv) branding and service capabilities, which affect both retail consumer recognition and enterprise customer trust; and (v) capital resources, given the continuous investment required for R&D, capacity expansion, equipment and inventory management.

GLOBAL SEMICONDUCTOR MEMORY WAFER PRICE TREND ANALYSIS

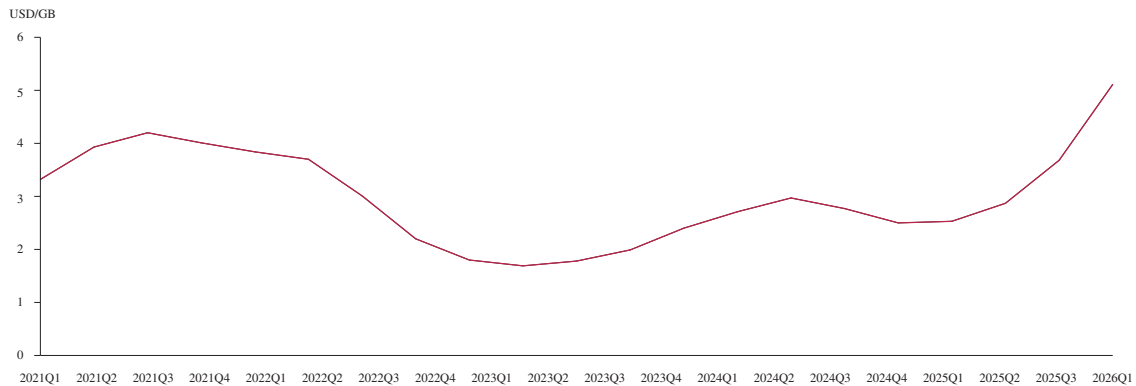
Memory wafers are the main cost of semiconductor memory products, and their price primarily affects the price of semiconductor memory products and the profitability of memory product enterprises. The price of memory wafers exhibits cyclicalities. There is often a mismatch between wafer supply, characterized by relatively long capital expenditure planning time and low supply elasticity, and market demand, which is dispersed and fragmented. This disparity makes it difficult for wafer suppliers to quickly adjust production to align with the current market demand. Moreover, due to the continuous technological iteration, wafer suppliers would need to constantly add or cut production lines, which requires a relatively long time to ramp up or wind down the production. These two factors together have led to the periodic inventory fluctuations of memory wafers.

In the past three years, the price of memory wafers fluctuated significantly. In 2023, NAND Flash and DRAM wafer prices decreased by approximately 45% and 40%, respectively, mainly due to oversupply amid temporarily weak downstream demand. In 2024, NAND Flash and DRAM wafer prices rebounded by approximately 57% and 51%, respectively, driven by manufacturers’ proactive supply adjustments and recovering demand, particularly from the enterprise-grade sector. In 2025, the market remained weak in the first half due to continued inventory destocking in smartphones, PCs and other downstream markets, but improved thereafter as demand recovered and supply management continued. By the third quarter of 2025, accelerated AI data center construction,

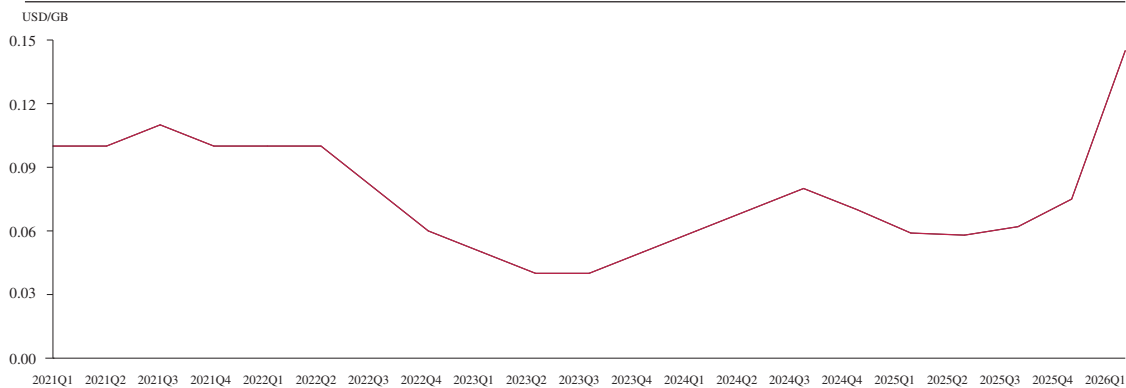
INDUSTRY OVERVIEW

surging enterprise-grade storage demand and HDD supply shortages further tightened market supply, driving a significant increase in memory product and wafer prices. The prices are expected to remain high in the near future. The charts below illustrate the industry average prices of DRAM wafers and NAND wafers during 2021 to the first quarter of 2026:

Historical price of DRAM wafers, 2021-2026Q1



Historical price of NAND wafers, 2021-2026Q1



Source: Omdia, Yole, CIC

Source of Information

CIC was commissioned to conduct research and analysis of, and produce a report on the global semiconductor memory product industry at a fee of RMB1,030,000. The commissioned report has been prepared by CIC independently without the influence from the Company or other interested parties. CIC undertook both primary and secondary research using a variety of resources. Primary research involved interviewing key industry experts and leading industry participants. Secondary research involved analyzing data from various publicly available data sources, including the National Bureau of Statistics of China, Chinese Government releases, annual reports published by relevant industry participants, industry associations, CIC’s own internal database, etc.

The market projections in the commissioned report are based on the following key assumptions: (i) the overall global social, economic, and political environment is expected to maintain a stable trend during the forecast period; (ii) certain key industry drivers are likely to continue to drive market growth during the forecast period; and (iii) there is no extreme force majeure or unforeseen industry regulations in which the market may be affected either dramatically or fundamentally during the forecast period. Except as otherwise noted, all of the data and forecasts contained in this section are derived from the CIC Report. We have also referred to certain information in the “Summary”, “Risk Factors”, “Business” and “Financial Information” sections to provide a more comprehensive presentation of the industry in which we operate. Our Directors confirm that, having exercised reasonable care, there have been no adverse changes in market information, taken as a whole since the date of the CIC Report, that would materially limit, contradict, or adversely affect these data.