

Global Semiconductor Memory Market Size study & Forecast, by Type (Static Random-Access Memory, Magnetoresistive Random-Access Memory, Dynamic Random-Access Memory, Flash Read-Only Memory, Others), by Application (Consumer Electronics, IT & Telecommunication, Automotive, Industrial, Aerospace & Defence, Medical, Others) and Regional Analysis, 2023-2030

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Abstracts

Global Semiconductor Memory Market is valued at approximately USD 101.26 billion in 2022 and is anticipated to grow with a CAGR of more than 5.90% over the forecast period 2023-2030. Semiconductor memory refers to a type of electronic memory that is implemented using semiconductor devices, such as transistors. It is a crucial component of modern computing systems, including computers, smartphones, and other electronic devices. Semiconductor memory stores digital information in the form of binary data (0s and 1s) and provides fast access to this data for read and write operations. It is commonly used to store program instructions, data, and other information that needs to be accessed quickly by the central processing unit (CPU) of a computer. Moreover, the growing electronics market and increasing frontier technology market are anticipated as the market drivers. Furthermore, increasing data centre facilities and growing concerned towards automation emerged as growth opportunities in the market during the forecasted year 2023-2030.

According to India Brand Equity Foundation (IBEF) in 2023, the Indian electronics manufacturing industry is expected to reach a market size of USD 520 billion by 2025. The demand for electronic products is expected to rise to USD 400 billion by 2025, with



a 2.3-fold increase in the electronics system market, reaching USD 160 billion by FY25. Notably, IT/OA shows the highest CAGR at 54% in the Electronic System Design and Manufacturing (ESDM) sector. This reflects the strong growth potential and emerging opportunities in India's electronics manufacturing industry. According to United Nations Conference on Trade and Development (UNCTAD) in 2023, the frontier technology market is projected to experience significant growth by 2030, reaching an estimated market size of around USD 9,469 billion. This market encompasses advanced technologies such as the Internet of Things (IoT) and Artificial Intelligence (AI), which play crucial roles in driving the expansion of the global frontier technology sector. Specifically, the IoT and AI sectors are expected to contribute approximately USD 4,422 billion and USD 1,582 billion, respectively, accounting for 47% and 17% of the total market size. These substantial contributions highlight the substantial impact of these innovative and advanced technologies, which ultimately contribute to the overall growth and advancement of the industry. However, complex manufacturing processes and a limited supply of raw materials may hamper the growth of the market over the forecast period 2023-2030.

The key regions considered for the Global Semiconductor Memory Market study includes Asia Pacific, North America, Europe, Latin America, and Middle East & Africa. Asia Pacific region dominates the semiconductor memory market due to several key factors. It boasts significant investments in data centers, particularly in countries such as India, Singapore, and Indonesia, driving the demand for memory solutions. The region's strong manufacturing ecosystem, with countries such as China, Japan, and South Korea, ensures cost-effective production and easy availability of raw materials. Additionally, the growing demand for consumer electronics, digitization efforts, technological advancements, and the presence of major industry players further solidify the Asia Pacific region's dominance in the semiconductor memory market. North America is the fastest-growing region in the semiconductor memory market due to increased investments in advanced technologies such as AI, ML, and IoT, a strong presence of leading technology companies, a robust research and development ecosystem, and substantial investments in data centers and cloud services.

Major market player included in this report are: Integrated Silicon Solution Inc. Micron Technology Inc. Macronix International Co., Ltd Samsung Electronics Co Ltd SK Hynix Inc. Taiwan Semiconductor Manufacturing Company Limited



Texas Instruments Inc. Toshiba Corporation Cypress Semiconductor Corporation International Business Machines Corporation

Recent Developments in the Market:

In October 2021, Micron Technology, a memory manufacturer based in the United States, announced plans to invest over USD 150 billion globally in the next ten years. This investment focuses on advanced memory manufacturing, research, and development, with the possibility of expanding their fabrication facilities within the United States.

In December 2021, Micron Technology revealed an expanded business partnership with United Microelectronics Corporation (UMC), which enables Micron to ensure a stable supply for mobile, automotive, and crucial customers in the foreseeable future.

Global Semiconductor Memory Market Report Scope:

Historical Data – 2020 - 2021

Base Year for Estimation – 2022

Forecast period - 2023-2030

Report Coverage - Revenue forecast, Company Ranking, Competitive Landscape,

Growth factors, and Trends

Segments Covered - Type, Application, Region

Regional Scope - North America; Europe; Asia Pacific; Latin America; Middle East & Africa

Customization Scope - Free report customization (equivalent up to 8 analyst's working hours) with purchase. Addition or alteration to country, regional & segment scope*

The objective of the study is to define market sizes of different segments & countries in recent years and to forecast the values to the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within countries involved in the study.

The report also caters detailed information about the crucial aspects such as driving factors & challenges which will define the future growth of the market. Additionally, it also incorporates potential opportunities in micro markets for stakeholders to invest along with the detailed analysis of competitive landscape and product offerings of key players. The detailed segments and sub-segment of the market are explained below:

By Type:



Static Random-Access Memory Magnetoresistive Random-Access Memory Dynamic Random-Access Memory Flash Read-Only Memory Others

By Application: Consumer Electronics IT & Telecommunication Automotive Industrial Aerospace & Defence Medical Others

By Region:

North America U.S. Canada

Europe UK Germany

France

Spain

Italy

ROE

Asia Pacific China India Japan Australia South Korea RoAPAC

Latin America Brazil



Mexico

Middle East & Africa Saudi Arabia South Africa Rest of Middle East & Africa



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