

Global Memory Chip Market

Market Research Report | 2023-04-13 | 163 pages | BCC Research

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Report description:

Description

Report Scope:

The market for memory chips is segmented into the following categories -

- By type: Volatile memory chips, which include DRAM and SRAM; nonvolatile memory chips, which include flash (NOR and NAND) and ROM (PROM, EPROM, and EEPROM); and emerging/next-generation nonvolatile memory chips (MRAM, FRAM, RRAM, 3D Xpoint, NRAM, and others).
- By Interface: PCIe and I2C, SATA, SAS, DDR, and others (USB and OTG.)
- By application: Consumer electronics, industrial, telecommunications, automotive, home automation, and others.
- By region: North America, Asia-Pacific, Europe, Middle East and Africa.

In addition to an industry and competitive analysis of the market for memory chips, this report also exhaustively covers patents and company profiles of key players active in the global market.

In this report, the memory chip market is segmented based on type, interface, application, and geography. The report provides an overview of the global memory chip market and analyzes market trends. Using 2021 as the base year, the report provides estimated market data for the forecast period 2022 through 2027. Market values have been estimated based on the total revenue of memory chip providers.

The report covers the market for memory chips with regards to their user base across different regions. It also focuses on the major trends and challenges that affect the market and the vendor landscape. The report estimates the global market for 2021 and provides projections of the expected market size through 2027.

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Note: The terms memory chips and memory are used interchangeably.

Report Includes:

- 38 data tables
- An up-to-date overview and analysis of the global markets for memory chips
- Analyses of the global market trends, with historic market revenue data (sales figures) for 2021, estimates for 2022, forecasts for 2023, and projections of compound annual growth rates (CAGRs) through 2027
- Highlights of the current and upcoming potential for the memory chips market, growth driving factors, and areas of focus to forecast this market into various segments and sub-segments
- Estimation of the actual market size and revenue forecast for the global memory chip market, and corresponding market share analysis based on memory type, interface, application, and region
- Discussion of the major growth drivers, industry-specific challenges, regulatory aspects and technology updates that will shape the market for memory chips as a basis for projecting demand in the next few years (2022-2027)
- A look at the major growth strategies adopted by leading players operating in the market, recent developments, strategic alliances, and competitive benchmarking
- Patent review and new developments, ongoing research (R&D) activities, recent industry structure, and current state and innovations in the market for memory technologies
- Assessment of the company competitive landscape comprising key market participants, their global value share analysis, product portfolio and operational integration
- Company profiles of the leading global players, including Broadcom Inc., Intel Corp., Micron Technology Inc., Samsung Electronics, SK Hynix Inc., and Transcend Information, Inc.

Executive Summary

Summary:

Memory chips used for storing any data or information are available in different shapes and sizes based on application. The data are stored either temporarily through random-access memory (RAM) or permanently through read-only memory (ROM). The processor can read but cannot modify the permanent stored data. The rising penetration of smartphone and laptops are driving the market rapidly. With the introduction of smart households and smart cities, the demand for memory chips is at an all-time high.

Memory is a significant revenue generator for the semiconductor industry, accounting for around REDACTED% of overall sales. The memory chip industry, known for its boom-and-bust cycles, has altered its ways. The memory chip business has seen supply and demand swings in recent years due to a variety of variables such as the COVID-19 epidemic, geopolitical tensions, and changes in consumer behaviors. Furthermore, technological improvements have resulted in changes in the demand for various forms of memory.

The memory industry has been experiencing declining sales since the beginning of 2022. Memory chip sales dropped due to a variety of issues including oversupply, lower demand, higher product prices, and increased competition from alternative storage technologies. This unprecedented crisis is not only draining cash from memory industry leaders such as SK Hynix and Micron, but it is also destabilizing their suppliers, harming Asian economies that rely on technology exports, and forcing the few remaining memory players to form alliances or even consider mergers.

It's been a fast decline from the industry's sales surge during the pandemic, which was powered by buyers installing home offices and picking up PCs, tablets and smartphones. As a result of rising prices and interest rates, consumers and businesses are

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deferring large purchases. The manufacturers of those consumer electronic products, who are the primary customers of memory chips, have suddenly found themselves with component stockpiles and no need for large new orders. This decline in demand is predicted to last through the first half of 2023. Already, companies such as Samsung and its competitors are losing money on every chip they manufacture.

Additionally, the memory industry is suffering from a unique combination of circumstances - a pandemic hangover, the war in Ukraine, historic inflation, and supply-chain disruptions - that have made this decline much worse than a regular cyclical downturn. For instance, in December 2022, U.S. memory chipmaker Micron responded aggressively to plummeting demand. Micron said that it would cut its budget for new plants and equipment in addition to reducing output. In addition, SK Hynix has also slashed investments and scaled back output. Its inventory glut is partly the result of its acquisition of Intel's flash memory business - a deal struck before the industry's decline.

Emerging technologies such as 5G, AI and IoT, on the other hand, have been boosting demand for greater performance and more efficient memory solutions. DRAM prices have fallen due to overstock, although NAND flash prices are likely to rise following a period of surplus. Meanwhile, emerging memory technologies such as MRAM and RRAM are gaining traction as potential replacements for older memory solutions. Overall, it is projected that the memory chip business will continue to evolve and adapt to changing market conditions and technological advancements.

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CORSAIR GAMING, INC.

CROSSBAR INC.

DELL TECHNOLOGIES INC.

EVERSPIN TECHNOLOGIES INC.

FUJITSU LTD.

G.SKILL INTERNATIONAL ENTERPRISE CO., LTD.

HEWLETT PACKARD ENTERPRISE (HPE)

INFINEON TECHNOLOGIES AG

INTEL CORP.

KINGSTON TECHNOLOGY CORP.

KIOXIA HOLDINGS CORP.

MICRON TECHNOLOGY, INC.

NANYA TECHNOLOGY CORP.

RENESAS ELECTRONICS CORP.

SAMSUNG ELECTRONICS CO., LTD.

SK HYNIX INC.

TEXAS INSTRUMENTS INC.

TRANSCEND INFORMATION INC.

WESTERN DIGITAL CORP.

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