

Memory Integrated Circuit (Ic) Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)

Market Report | 2023-01-23 | 110 pages | Mordor Intelligence

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Report description:

The Memory Integrated Circuit market is anticipated to witness a CAGR of 7.6% over the forecast period. Recent technological advancements in this field have been revealing new applications each day. The rising proliferation of smartphones, feature phones, and tablets, growing demand for low-power memory requirements in portable wireless devices, and increasing demand for Solid State Drives (SSD) in big data storage applications are some of the significant factors influencing the growth of the market for memory integrated circuit devices.

Key Highlights

Memory ICs are mainly applied in memory-based electronic devices such as mobile phones, computers, tablets, medical devices, smart cards, digital cameras, communication equipment, and other digital electronic devices.

The application of memory IC is very predominant in smartphones, media players, and USB drives. The demand for sophisticated memory ICs is expected to grow at a high rate owing to increasing adoption and enhancements in smartphone devices. Tablets are one other device with a significant need for memory IC. With the increasing adoption of tablet PCs, the demand for memory ICs is expected to grow over the forecast period.

Moreover, The global economy has been significantly impacted by COVID-19's effects on the manufacturing sector. But post-pandemic, OEM production has increased, and there is a rise in demand for mobile phones and other consumer electronics, which has boosted the growth of the memory IC market. Expanding various capital budgets and ongoing projects in numerous end-user industries will also help to strengthen the world economy.

Additionally, the Healthcare industry is another key application area of memory ICs. The increasing need to provide secure access to emergency medical information creates a scope for memory ICs in the healthcare sector.

Devices with memory ICs can help maintain patient records in various medical equipment like blood analysis devices, electrocardiographs, diagnostic imaging apparatus, medical PCs, and other electronic health record systems. According to the

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National Center for Health Statistics statistics, the market for electronic health record systems is expected to reach USD 40 billion by 2024.

Over the past few years, the sharp rise in demand and supply for cloud computing services and solutions has compelled vendors to set up servers and data centers that are densely packed with computers and storage devices. This is fueling the advancement of memory-integrated circuits. The increasing use of smartphones is also contributing to the growth of the memory IC market. On the other hand, the high cost of manufacturing, increasing costs for new and existing fabrication facilities' construction and operation, and sizable capital investment could pose a problem for the global industry over the forecast years. Manufacturers of memory ICs are anticipated to carry out operational development programs for already-available memory products to address these challenges.

Memory IC Market Trends

Rising Proliferation of Smartphones, Feature Phones, and Tablets

Memory integrated circuits are used in mobile phones' circuits to provide storage for the phone's operating system and customizable features, such as the phone directory. They are used to enable the functions of amplifiers, oscillators, time-counter computer memory, microprocessors, etc.

The integrated circuit market is anticipated to record robust growth, owing to the ongoing developments in the smartphone industry. Intense competition among mobile manufacturers is expected to drive the market's growth further studied over the forecast period. Samsung's recent offering includes a solution that allows phones to have one terabyte of storage with a single flash memory chip. This chip is expected to bring a notebook-like user experience to the next generation of mobile devices. The growth of the smartphone application market is attributed to the popularity of smartphones and the increasing demand for memory ICs in these gadgets. The market for smartphone applications is growing, and the industry that serves this market is prospering as cloud-based applications gain popularity and mobile data usage increases.

According to Ericsson, Over 6.0 billion people subscribe to smartphones, and over the next few years, that number is expected to increase by several hundred million more. The nations with the most smartphone users are China, India, and the United States. Despite stagnant unit sales over the past few years, the global smartphone market's revenue increased because the average selling price of smartphones increased. Such a rise in smartphones will boost the demand for Memory IC in the future. Development in near-field communication (NFC), which leads to the production of dynamic solutions for mobile couponing, mobile ticketing, and access control, is further expected to drive revenue growth.

Asia Pacific to Witness Significant Growth

The Asia-Pacific region is home to more than 60% of the world's current population. The region's population and consumption of consumer electronics are growing at the highest rate today. The region is expected to record substantial growth in the memory ICs market over the forecast period.

The growth is primarily attributed to the rise in demand for high-performance and low-power memory ICs from end users in the Asia Pacific region. The rising use of artificial intelligence (AI) and other cutting-edge technologies, which require large amounts of memory storage, as well as the rising popularity of smart devices, are contributing factors to the rising demand for high-performance and low-power memory ICs.

Large populations in South Asia and the Pacific are driving up demand for consumer electronics. This region has a sizable IT and telecom sector, and cloud adoption is progressing well, enabling it to have the highest CAGR. Due to its high population, China has the highest percentage of smartphone users worldwide. It should be noted that China serves as a major manufacturing hub for a

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number of multinational corporations' electronic product lines.

In addition to international vendors, there is a significant domestic vendor presence inside and outside China. These factors make China an extremely competitive market for memory-integrated circuits.

India has also made a number of advancements in the areas of infrastructure, industrialization, and economic development, demonstrating the efficient use of electronic devices for these developmental objectives. The country's growing economy has given the middle class more purchasing power, which has increased the consumer electronics market.

The presence of prominent semiconductor companies in the region is expected to boost the growth of the market. Besides, the increasing number of suppliers of semiconductor material required to manufacture ICs is boosting the production of memory ICs. Asia-Pacific is closely followed by North America owing to the development of the medical and automobile sector along with consumer electronics.

Memory IC Market Competitor Analysis

The Memory Integrated Circuit (IC) Market is expected to be consolidated over the forecast period. The major players with a prominent share in the market are focusing on product developments and strategic collaborative initiatives to increase their market share and profitability. Microchip Technology Inc., STMicroelectronics, ON Semiconductor Corporation, Maxim Integrated Products, Inc., Fujitsu Ltd., Cypress Semiconductor Corporation, ABLIC Inc., Renesas Electronics Corporation, ROHM Semiconductor Co., Ltd., and Adesto Technologies Corporation are some of the major players present in the current market.

November 2022 - Alliance Memory highlighted its most recent SRAM, DRAM, eMMC, and flash memory ICs for the communications, computing, embedded, Internet of Things (IoT), industrial, and consumer markets when announcing its technology lineup for electronica 2022. The company has also partnered with various distributors for memory ICs.

August 2022 - SABIC unveiled a compound with exceptional thermal conductivity and electrical insulation properties based on LCP (liquid crystal polymer). To meet the demanding requirements of burn-in test sockets (BITS) used to stress-test double-data-rate (DDR) memory integrated circuits, the LNP Konduit 8TF36E compound was created. The new substance is ideal for fixed, structural components in BITS assemblies, such as latches and adaptors.

Additional Benefits:

The market estimate (ME) sheet in Excel format
3 months of analyst support

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