

Semiconductor Chips: Applications and Impact of Shortage

Market Research Report | 2022-12-21 | 190 pages | BCC Research

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Report description:

Description

Report Scope:

In this report, the semiconductor chip market has been segmented based on type, end user and geography. The report provides an overview of the global semiconductor chip market and analyzes market trends. Using 2021 as the base year, the report provides estimated market data for the forecast period, 2022-2027. Revenue forecasts for this period are segmented based on type, end user and geography. Market values have been estimated based on the total revenue of semiconductor chip providers.

The report covers the market for semiconductor chips with regards to 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 marketing analytics in 2021 and provides projections of the expected market size through 2027.

Note: A large part of the report focuses on the global semiconductor chip shortage of 2021. The report analyzes the impact of this shortage across various end users and key countries.

The terms semiconductor chips, computer chip, microchip and integrated circuits are used interchangeably.

Report Includes:

- 25 data tables and 49 additional tables
- A detailed overview and an up-to-date analysis of the global markets for semiconductor chips and their commercial applications
- Analyses of the global market trends, with market revenue (sales figures) for 2021, estimates for 2022 and 2023, and projections of compound annual growth rates (CAGRs) through 2027

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- Estimation of the actual market size and revenue forecast for global semiconductor chips market in USD billions, and corresponding market share analysis by type, end-user and region
- Highlights of the upcoming market opportunities with respect to regions and applications of the semiconductor chip market, and major issues and trends affecting the shortage
- Insight into the semiconductor chips market through an assessment of the current market size and forecast of market development in the coming five years, and an understanding of the reasons behind the present shortage of chips
- Insight into the value chain analysis, demand-supply gap, and factors driving the shortage of semiconductor chips in 2021/2022, and analysis of the impact of this shortage across various end users and key countries
- Identification of the major stakeholders and analysis of the competitive landscape based on recent developments, financial performance, and segmental revenues
- Updated information on recent mergers, acquisitions, collaborations, agreements, partnerships, product launches, and expansions in the global semiconductor chips market
- Descriptive company profiles of the leading global players, including SMIC, Advanced Micro Devices Inc., MediaTek Inc., Kioxia Holding Corp., Texas Instruments Inc., and Samsung Electronics Co Ltd.

Executive Summary

Summary:

Semiconductor chips are omnipresent and essential components of digital and digital products, devices and infrastructure, from smartphones and automobiles to healthcare, energy, communications and industrial equipment. With the advent of digital transformation and highly automated vehicles, the Internet of Things (IoT), artificial intelligence (AI), cloud, edge and quantum computing, supercomputers, industrial production automation, space and defense applications and economic and chips as strategic assets will only become more important. With the relentless expansion of computing capacities, AI and connectivity, including the need to manage ever-growing data volumes and the widening digitization of electrical devices, industrial machines and vehicles, the market for semiconductors is expected to reach over \$REDACTED by 2030.

The global market for semiconductor chips was valued at \$REDACTED in 2021. The global semiconductor chips market is estimated to grow at a CAGR (compound annual growth rate) of REDACTED% and is forecast to reach \$REDACTED by 2027. This growth rate directly results in a sharp increase in the data volume, adoption of databases across industries and rising adoption of IoT devices.

The biggest problem for the semiconductor industry in 2021 was the supply and demand scarcity. This imbalance has led to chip shortages, impacting traditional chip-end markets (data centers and smartphones) and less dependent markets such as automobiles. By the end of 2023, the severity of the chip shortage and its economic impact is expected to reduce through initiatives by chip manufacturers, distributors and end customers to increase production capacity and improve supply chain processes. Governments are also funding development of semiconductor industries.

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