

**Semiconductor Foundry Market By Node Size (180nm, 130nm, 90nm, 65nm, 45/40nm, 32/28nm, 22/20nm, 16/14nm, 10/7nm, 7/5nm, 5nm), By Applications (Telecommunication, Defense and Military, Industrial, Consumer Electronics, Automotive, Others): Global Opportunity Analysis and Industry Forecast, 2023-2032**

Market Report | 2023-09-01 | 289 pages | Allied Market Research

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**Report description:**

A semiconductor foundry is a specialized manufacturing facility that creates integrated circuits (ICs) or chips on behalf of other companies. These foundries are integral components of the semiconductor industry as they provide the production capabilities for firms that design chips but lack their own fabrication facilities. This outsourcing model allows for increased flexibility, cost-effectiveness, and access to state-of-the-art technology for chip design companies.

The significance of semiconductor foundries for the future of the semiconductor industry cannot be overstated. Firstly, they play a pivotal role in propelling innovation and technological advancement. Foundries allocate substantial resources to research and development, pushing the boundaries of semiconductor technology and resulting in continual enhancements in process nodes. As the size of nodes decreases, more transistors can be integrated onto a chip, leading to heightened performance, energy efficiency, and smaller physical dimensions. This technological progress is essential for meeting the demands of emerging applications in fields like artificial intelligence, 5G telecommunications, and autonomous vehicles.

Furthermore, foundries enable a wide range of industries to tap into advanced semiconductor technology. Numerous companies, particularly smaller ones or those with specialized focuses, may lack the means to establish and maintain their own fabrication facilities. Semiconductor foundries present a cost-effective solution by providing manufacturing services, allowing these companies to concentrate on chip design and application development. This accessibility fuels innovation across diverse sectors, spanning from consumer electronics to healthcare, automotive, and industrial automation.

Finally, foundries bolster the resilience of the global supply chain. The semiconductor industry has encountered challenges in its supply chain, including shortages and disruptions. By dispersing manufacturing capabilities across multiple foundries around the world, the industry can mitigate risks tied to geopolitical tensions, natural disasters, and unforeseen events. This ensures a more

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dependable and stable supply of semiconductors, which is crucial for the ongoing growth and innovation in today's technology-driven landscape. In summary, semiconductor foundries stand at the forefront of the semiconductor industry's future, propelling innovation, enabling a wide array of applications, and enhancing the stability of the global supply chain.

The semiconductor foundry market analysis is expected to expand significantly during the forecast period owing to increase in utilization of consumer electronics, and surge in internet of things (IoT) technology. In addition, during the forecast period, the semiconductor foundry market is anticipated to benefit from increase in investments in semiconductor wafer fabrication equipment and materials. On the contrary, the complexities in manufacturing associated with semiconductor foundries restrains semiconductor foundry market growth during the forecast period.

The semiconductor foundry market is segmented on the basis of node size, application, and region. By node size, it is divided into 180nm, 130nm, 90nm, 65nm, 45/40nm, 32/28nm, 22/20nm, 16/14nm, 10/7nm, 7/5nm, and 5nm. In 2022, the 7/5nm segment dominated the market, and it is expected to acquire a major market share by 2032. By application, it is segmented into telecommunication, defense and military, industrial, consumer electronics, automotive, and others. In 2022, the consumer electronics segment dominated the market, and it is expected to acquire a major market share by 2032.

On the basis of region, the semiconductor foundry Market trends are analyzed across North America (the U.S., Canada, and Mexico), Europe (the UK, Germany, France, and rest of Europe), Asia-Pacific (China, Japan, India, South Korea, and rest of Asia-Pacific), and LAMEA (Latin America, Middle East, and Africa).

Competitive analysis and profiles of the major global semiconductor foundry market players that have been provided in the report include Globalfoundries Inc., Hua Hong Semiconductor Limited, Intel Corporation, Micron Technology, Inc., Samsung Electronics Co. Ltd, Semiconductor Manufacturing International Corporation (SMIC), Taiwan Semiconductor Manufacturing Company Limited, Texas Instruments Incorporated, United Microelectronics Corporation, and X-FAB Silicon Foundries SE. The key strategies adopted by the major players of the Semiconductor foundry market are product launch and business expansion.

#### Key Benefits For Stakeholders

- This report provides a quantitative analysis of the market segments, current trends, estimations, and dynamics of the semiconductor foundry market analysis from 2022 to 2032 to identify the prevailing semiconductor foundry market opportunities.
- The market research is offered along with information related to key drivers, restraints, and opportunities.
- Porter's five forces analysis highlights the potency of buyers and suppliers to enable stakeholders make profit-oriented business decisions and strengthen their supplier-buyer network.
- In-depth analysis of the semiconductor foundry market segmentation assists to determine the prevailing market opportunities.
- Major countries in each region are mapped according to their revenue contribution to the global market.
- Market player positioning facilitates benchmarking and provides a clear understanding of the present position of the market players.
- The report includes the analysis of the regional as well as global semiconductor foundry market trends, key players, market segments, application areas, and market growth strategies.

Additional benefits you will get with this purchase are:

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Possible Customization with this report (with additional cost and timeline, please talk to the sales executive to know more)

- Manufacturing Capacity
- Regulatory Guidelines
- Additional company profiles with specific to client's interest
- Brands Share Analysis
- Import Export Analysis/Data
- Key player details (including location, contact details, supplier/vendor network etc. in excel format)
- List of customers/consumers/raw material suppliers- value chain analysis

#### Key Market Segments

##### By Node Size

- 180nm
- 130nm
- 90nm
- 65nm
- 45/40nm
- 32/28nm
- 22/20nm
- 16/14nm
- 10/7nm
- 7/5nm
- 5nm

##### By Applications

- Telecommunication
- Defense and Military
- Industrial
- Consumer Electronics
- Automotive
- Others

##### By Region

- North America
- U.S.
- Canada
- Mexico
- Europe
- France
- Germany
- UK
- Rest of Europe
- Asia-Pacific
- China
- Japan
- India
- South Korea
- Rest of Asia-Pacific
- LAMEA
- Latin America
- Middle East

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- Africa
- Key Market Players
- GLOBALFOUNDRIES Inc.
- Intel Corporation
- Samsung Electronics Co. Ltd
- TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED
- Texas Instruments Incorporated
- United Microelectronics Corporation
- Micron Technology, Inc.
- Hua Hong Semiconductor Limited
- X-FAB Silicon Foundries SE
- Semiconductor Manufacturing International Corporation (SMIC)

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