

Semiconductor (Silicon) Intellectual Property - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts 2019 - 2029

Market Report | 2024-02-17 | 173 pages | Mordor Intelligence

AVAILABLE LICENSES:

- Single User License \$4750.00
- Team License (1-7 Users) \$5250.00
- Site License \$6500.00
- Corporate License \$8750.00

Report description:

The semiconductor (silicon) intellectual property market was valued at USD 6.26 billion in the previous year and is expected to register a CAGR of 7.38% during the forecast period to become USD 9.6 billion by the next five years.

Key Highlights

- The semiconductor IP (SIP) market is witnessing rapid growth, with growing semiconductor sales. The market studied is entirely dependent on the semiconductor industry. The semiconductor business has experienced significant growth in the last two decades. The SIP business practices include elements similar to those in traditional semiconductor or application-specific integrated circuits (ASIC), electronic design automation (EDA), and design services markets. However, unlike the well-established business models in the ASIC and EDA industries, SIP business models tend to be more complex, as several parties in the supply chain are involved with successfully deploying commercial SIP in an IC design.
- Although business practices and SIP business models have become somewhat uniform, the industry still needs to achieve standardization due to the wide variety of SIP product types, customer needs, and frequent changes in EDA tools and process technologies. Rising design costs and increasing market pressures are forcing companies to seek the services of semiconductor IP manufacturers. The various applications of this market include automobiles, smart devices (mobiles and tablets), computers, and peripherals. The significant growth driver of the market studied includes the emerging global adoption of consumer devices and the demand for advanced SOC designs and connected devices. Emerging technologies such as embedded and programmable DSP-IP are expected to further boost the market.
- According to SEMI's latest quarterly World Fab Forecast report, the worldwide semiconductor industry will invest more than USD 500 billion between 2021 and 2023 in building 84 large-scale chip manufacturing facilities, including automotive and high-performance computing (HPC), fueling the spending increases. The source also states that the global semiconductor materials market generated revenues of USD 72.69 billion in 2022, of which USD 20.13 billion was made in Taiwan. A further USD

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

12.97 billion was generated in China, a 7 percent increase from 2021.

-The complexity of system-on-chip (SoC) designs is outpacing systems engineering capabilities. Increasing design complexity has given rise to growing data size and, thus, making semiconductor development more challenging than before. This is expected to restrain the growth of the market.

-The COVID-19 pandemic impacted the entire semiconductor manufacturing market on both the demand and supply sides. Additionally, global lockdowns and semiconductor factory closures have exacerbated supply shortages. The impact was also reflected in the studied market. However, many of these effects may be short-term in nature. Measures by governments around the world to support the automotive and semiconductor sectors could stimulate industry growth.

Semiconductor (Silicon) Intellectual Property Market Trends

Consumer Electronics to be the Largest End-user Vertical

- Semiconductor intellectual property cores are widely used in consumer electronics like smartphones, gaming consoles, microwaves, refrigerators, etc. The consumer electronics industry is evolving by leaps and bounds, and consumer demand pressures are forcing vendors to offer differentiated products and be ahead of the market. Semiconductors are incorporated into communication devices such as mobile phones and home appliances such as game consoles, televisions, and home appliances.
- The invention of integrated circuits (ICs) is one of the main drivers of the development of the consumer electronics industry, such as broadband and increasingly mobile applications.
- The market is anticipated to witness robust growth driven by increased tablet and communications market smartphone sales. For instance, according to Ericsson, the number of smartphone mobile network subscriptions worldwide was estimated to increase from 6.42 billion units in 2022 to 7.74 billion units in 2028. China, India, and the United States have the highest number of smartphone mobile network subscriptions.
- Today, smart products consist of complex electronic systems that require error-free operation. Increasing data speeds, miniaturizing devices, supporting multiple wireless technologies, and extending battery life require detailed analysis. Additionally, the requirement to integrate various functions into one device complicated PCB design.
- The market for multi-core processors is growing significantly with advancements in personal computing for consumer electronics and the advent of octa-core processors for smartphones. The growth in multi-core processors is anticipated to offer robust growth opportunities for the market studied.

North America to Hold Major Market Share

- The United States is one of the major markets in the overall semiconductor market, from vendors' and end-user perspectives. The growing need for intelligent command and control in many industries in the United States presents essential market opportunities for many semiconductor manufacturers.
- Most of the market vendors are expanding their presence in the region. Furthermore, many market vendors are US-based, which provides a competitive advantage to the regional market. The US government is also playing a significant role in developing the regional semiconductor business, supporting the semiconductor silicon intellectual property (IP) market.
- The Canadian semiconductor IP industry includes a variety of products and services that benefit a number of sectors, including consumer electronics, healthcare, transportation, and telecommunication. Semiconductor development has faced a gap in access to domestic sources of capital, especially in pre-seed, seed, and early-stage rounds and later stages across the country. This led to a significant percentage of foreign ownership across Canadian companies. At the same time, a lack of funding created an unfavorable environment for Canadian companies to exit too early.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- The market in Canada is experiencing development and innovation in areas like IoT connection, 5G, and artificial intelligence/ machine learning (AI/ML) acceleration due to prominent players like CMC Microsystems and LSI Computer Systems, Inc. driving the pace. It is anticipated that industry-academia collaboration would further solidify Canada's position in the global semiconductor IP environment, advancing technology and boosting the industry as a whole.

Semiconductor (Silicon) Intellectual Property Industry Overview

The semiconductor (Silicon) intellectual property market is fragmented, with large-scale dealers capable of backward and forward integration and many players running the business in national and international territories. The significant players primarily adopt strategies like product innovation and mergers and acquisitions to stay ahead. The players in the market are Faraday Technology Corporation., Synopsys Inc., Fujitsu Ltd., ARM Ltd (SoftBank), LTI, and Mindtree Limited. among others.

In July 2023, Faraday Technology Corporation introduced a complete SerDes (serializer/deserializer) solution that includes SerDes IP design on the UMC 28 nm process node. Additionally, they offer an IP advanced (IPA) service, encompassing IP subsystem integration, PHY hardcore implementation, and thorough signal integrity/power integrity (SI/PI) analysis on the system, incorporating package and PCB design.

In June 2023, Synopsys Inc. extended its partnership with Samsung Foundry to collaborate on creating a range of intellectual property (IP) designed for semiconductor manufacturing. The aim is to minimize design risk and expedite the process of achieving successful silicon outcomes. In the past, Synopsys and Samsung partnered to develop IP solutions for several of Samsung's processes, such as 8LPU, SF5, SF4, and SF3. These offerings included foundation IP, USB, PCI Express, 112 G Ethernet, UCIe, LPDDR, DDR, MIPI, and various other IP components.

Additional Benefits:

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

Table of Contents:

1 INTRODUCTION

- 1.1 Study Assumptions and Market Definition
- 1.2 Scope of the Study

2 RESEARCH METHODOLOGY

3 EXECUTIVE SUMMARY

4 MARKET INSIGHTS

- 4.1 Market Overview
- 4.2 Industry Attractiveness - Porter's Five Forces Analysis
 - 4.2.1 Bargaining Power of Suppliers
 - 4.2.2 Bargaining Power of Buyers
 - 4.2.3 Threat of New Entrants
 - 4.2.4 Threat of Substitute Products
 - 4.2.5 Intensity of Competitive Rivalry
- 4.3 Industry Value Chain Analysis

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

4.4 An Assessment of the Impact of Key Macro Trends

5 MARKET DYNAMICS

5.1 Market Drivers

5.1.1 Growing Demand for Connected Devices

5.1.2 Growing Demand for Modern SoC Designs

5.2 Market Restraints

5.2.1 IP Business Model and Economies of Scale

6 MARKET SEGMENTATION

6.1 By Revenue Type

6.1.1 License

6.1.2 Royalty

6.1.3 Services

6.2 By IP Type

6.2.1 Processor IP

6.2.2 Wired and Wireless Interface IP

6.2.3 Other IP Types

6.3 By End-user Vertical

6.3.1 Consumer Electronics

6.3.2 Computers and Peripherals

6.3.3 Automobile

6.3.4 Industrial

6.3.5 Other End-user Verticals

6.4 By Geography

6.4.1 North America

6.4.1.1 United States

6.4.1.2 Canada

6.4.2 Europe

6.4.2.1 United Kingdom

6.4.2.2 Germany

6.4.2.3 France

6.4.2.4 Rest of Europe

6.4.3 Asia Pacific

6.4.3.1 China

6.4.3.2 Taiwan

6.4.3.3 Japan

6.4.3.4 South Korea

6.4.3.5 India

6.4.3.6 Rest of the Asia Pacific

6.4.4 Rest of the World

7 COMPETITIVE LANDSCAPE

7.1 Company Profiles*

7.1.1 Faraday Technology Corporation

7.1.2 Fujitsu Ltd

7.1.3 LTIMindtree Limited

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 7.1.4 ARM Ltd (SoftBank)
- 7.1.5 Synopsys Inc.
- 7.1.6 Cadence Design Systems Inc.
- 7.1.7 CEVA Inc.
- 7.1.8 Andes Technology Corporation
- 7.1.9 MediaTek Inc.
- 7.1.10 Digital Media Professionals
- 7.1.11 Imagination Technologies Ltd
- 7.1.12 VeriSilicon Holdings Co., Ltd
- 7.1.13 Achronix Semiconductor Corporation
- 7.1.14 Rambus Incorporated
- 7.1.15 eMemory Technology Inc.
- 7.1.16 MIPS Tech, LLC
- 7.2 Vendor Market Share

8 INVESTMENT ANALYSIS

9 FUTURE OF THE MARKET

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Semiconductor (Silicon) Intellectual Property - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts 2019 - 2029

Market Report | 2024-02-17 | 173 pages | Mordor Intelligence

To place an Order with Scotts International:

- ☐ - Print this form
- ☐ - Complete the relevant blank fields and sign
- ☐ - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	\$4750.00
	Team License (1-7 Users)	\$5250.00
	Site License	\$6500.00
	Corporate License	\$8750.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*		Phone*	
First Name*		Last Name*	
Job title*			
Company Name*		EU Vat / Tax ID / NIP number*	
Address*		City*	
Zip Code*		Country*	
		Date	2026-03-05
		Signature	

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com



Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com
www.scotts-international.com