

Global Silicon-on-Insulator Market 2026 by Manufacturers, Regions, Type and Application, Forecast to 2032

<https://marketpublishers.com/r/GDE3F119E1C3EN.html>

Date: February 2026

Pages: 121

Price: US\$ 3,480.00 (Single User License)

ID: GDE3F119E1C3EN

Abstracts

According to our (Global Info Research) latest study, the global Silicon-on-Insulator market size was valued at US\$ 2572 million in 2025 and is forecast to a readjusted size of US\$ 4859 million by 2032 with a CAGR of 9.8% during review period.

Silicon-on-Insulator (SOI) is an engineered substrate in which a thin monocrystalline silicon device layer is electrically isolated from the underlying silicon handle wafer by an insulating layer (most commonly a buried oxide, BOX). This “device silicon / insulator / handle silicon” stack reduces parasitic coupling to the substrate and enables stronger electrostatic control, improved leakage behavior, and robust isolation—attributes that are especially valuable for RF front-end and wireless connectivity (RF-SOI, HR-SOI, RFeSI), as well as for ultra-low-power planar logic platforms such as FD-SOI that leverage ultra-thin silicon and BOX for full depletion and efficient body-biasing. SOI is also extended into application-specific engineered substrates (power, imaging, and photonics). Industrially, SOI wafers can be produced via layer-transfer approaches combining implantation and wafer bonding, yielding a thin single-crystal layer that can be processed by foundries using largely conventional IC manufacturing flows.

In 2025, global Silicon-on-Insulator (SOI) shipments were reasonably estimated at around 3.8–5.2 million wafers; on a manufacturer ex-works basis (FOB-equivalent), mainstream SOI wafers typically priced at about \$500–800 per wafer depending on diameter, device-layer/BOX specs, and RF-SOI/FD-SOI/Power-SOI requirements.

Wireless connectivity and edge computing are pulling SOI into the sweet spot where frequency, power, and reliability intersect. In RF front-end modules, RF-SOI has evolved into a high-volume engineered-substrate choice because RF switches/LNAs

demand low noise, low loss and strong linearity, while 5G and next-generation Wi-Fi standards steadily increase the complexity and performance requirements of the front end. Public disclosures from leading substrate and foundry ecosystems highlight RF-SOI's broad presence in smartphones and continued product iterations aimed at power reduction and signal quality; industry organizations further point to high penetration of RFSOI in premium devices as evidence of a multi-technology future rather than a single "one-size-fits-all" node strategy.

Energy efficiency and robust operation strengthen the case for FD-SOI in edge AI, industrial, and automotive electronics. FD-SOI's ultra-thin silicon channel on BOX improves electrostatics, reduces parasitics and enables efficient body-biasing—creating practical levers to optimize active and standby power, which is highly relevant for always-on edge systems and embedded compute. In parallel, the dielectric isolation inherent to SOI is also discussed in the context of harsh-environment resilience. In this framing, SOI is less about replacing every mainstream platform and more about providing an engineered base layer that delivers a better performance-power-cost trade when applications are power-sensitive, frequency-demanding, or reliability-constrained.

Key risks center on demand swings, qualification cycles, and capital intensity. High-volume handset markets can drive pronounced inventory corrections that ripple through RF-SOI demand and near-term visibility. Meanwhile, engineered substrates often require tight co-development across foundries, PDK/EDA enablement, and lead customers—making adoption pace dependent on platform roadmaps and qualification timelines. On the supply side, sustained process innovation, yield learning, and capacity investment are needed to consistently deliver the promised performance and cost structure at scale.

This report is a detailed and comprehensive analysis for global Silicon-on-Insulator market. Both quantitative and qualitative analyses are presented by manufacturers, by region & country, by Type and by Application. As the market is constantly changing, this report explores the competition, supply and demand trends, as well as key factors that contribute to its changing demands across many markets. Company profiles and product examples of selected competitors, along with market share estimates of some of the selected leaders for the year 2025, are provided.

Key Features:

Global Silicon-on-Insulator market size and forecasts, in consumption value (\$ Million), sales quantity (K Units), and average selling prices (US\$/Unit), 2021-2032

Global Silicon-on-Insulator market size and forecasts by region and country, in consumption value (\$ Million), sales quantity (K Units), and average selling prices (US\$/Unit), 2021-2032

Global Silicon-on-Insulator market size and forecasts, by Type and by Application, in consumption value (\$ Million), sales quantity (K Units), and average selling prices (US\$/Unit), 2021-2032

Global Silicon-on-Insulator market shares of main players, shipments in revenue (\$ Million), sales quantity (K Units), and ASP (US\$/Unit), 2021-2026

The Primary Objectives in This Report Are:

To determine the size of the total market opportunity of global and key countries

To assess the growth potential for Silicon-on-Insulator

To forecast future growth in each product and end-use market

To assess competitive factors affecting the marketplace

This report profiles key players in the global Silicon-on-Insulator market based on the following parameters - company overview, sales quantity, revenue, price, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include Soitec, Shin-Etsu Handotai Co., Ltd., SUMCO Corporation, GlobalWafers Co., Ltd., Wafer Works Corporation, Okmetic, Ultrasil LLC, IceMOS Technology Ltd, SIEGERT WAFER GmbH, Shanghai Simgui Technology Co., Ltd., etc.

This report also provides key insights about market drivers, restraints, opportunities, new product launches or approvals.

Market Segmentation

Silicon-on-Insulator market is split by Type and by Application. For the period 2021-2032, the growth among segments provides accurate calculations and forecasts for consumption value by Type, and by Application in terms of volume and value. This analysis can help you expand your business by targeting qualified niche markets.

Market segment by Type

300 mm

200 mm

Others (

Contents

1 MARKET OVERVIEW

1.1 Product Overview and Scope

1.2 Market Estimation Caveats and Base Year

1.3 Market Analysis by Type

1.3.1 Overview: Global Silicon-on-Insulator Consumption Value by Type: 2021 Versus 2025 Versus 2032

1.3.2 300 mm

1.3.3 200 mm

1.3.4 Others (

List Of Tables

LIST OF TABLES

Table 1. Global Silicon-on-Insulator Consumption Value by Type, (USD Million), 2021 & 2025 & 2032

Table 2. Global Silicon-on-Insulator Consumption Value by Fabrication Technology, (USD Million), 2021 & 2025 & 2032

Table 3. Global Silicon-on-Insulator Consumption Value by Structure/Thickness, (USD Million), 2021 & 2025 & 2032

Table 4. Global Silicon-on-Insulator Consumption Value by Wafer Type, (USD Million), 2021 & 2025 & 2032

Table 5. Global Silicon-on-Insulator Consumption Value by Application, (USD Million), 2021 & 2025 & 2032

Table 6. Soitec Basic Information, Manufacturing Base and Competitors

Table 7. Soitec Major Business

Table 8. Soitec Silicon-on-Insulator Product and Services

Table 9. Soitec Silicon-on-Insulator Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 10. Soitec Recent Developments/Updates

Table 11. Shin-Etsu Handotai Co., Ltd. Basic Information, Manufacturing Base and Competitors

Table 12. Shin-Etsu Handotai Co., Ltd. Major Business

Table 13. Shin-Etsu Handotai Co., Ltd. Silicon-on-Insulator Product and Services

Table 14. Shin-Etsu Handotai Co., Ltd. Silicon-on-Insulator Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 15. Shin-Etsu Handotai Co., Ltd. Recent Developments/Updates

Table 16. SUMCO Corporation Basic Information, Manufacturing Base and Competitors

Table 17. SUMCO Corporation Major Business

Table 18. SUMCO Corporation Silicon-on-Insulator Product and Services

Table 19. SUMCO Corporation Silicon-on-Insulator Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 20. SUMCO Corporation Recent Developments/Updates

Table 21. GlobalWafers Co., Ltd. Basic Information, Manufacturing Base and Competitors

Table 22. GlobalWafers Co., Ltd. Major Business

Table 23. GlobalWafers Co., Ltd. Silicon-on-Insulator Product and Services

Table 24. GlobalWafers Co., Ltd. Silicon-on-Insulator Sales Quantity (K Units), Average

Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 25. GlobalWafers Co., Ltd. Recent Developments/Updates

Table 26. Wafer Works Corporation Basic Information, Manufacturing Base and Competitors

Table 27. Wafer Works Corporation Major Business

Table 28. Wafer Works Corporation Silicon-on-Insulator Product and Services

Table 29. Wafer Works Corporation Silicon-on-Insulator Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 30. Wafer Works Corporation Recent Developments/Updates

Table 31. Okmetic Basic Information, Manufacturing Base and Competitors

Table 32. Okmetic Major Business

Table 33. Okmetic Silicon-on-Insulator Product and Services

Table 34. Okmetic Silicon-on-Insulator Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 35. Okmetic Recent Developments/Updates

Table 36. Ultrasil LLC Basic Information, Manufacturing Base and Competitors

Table 37. Ultrasil LLC Major Business

Table 38. Ultrasil LLC Silicon-on-Insulator Product and Services

Table 39. Ultrasil LLC Silicon-on-Insulator Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 40. Ultrasil LLC Recent Developments/Updates

Table 41. IceMOS Technology Ltd Basic Information, Manufacturing Base and Competitors

Table 42. IceMOS Technology Ltd Major Business

Table 43. IceMOS Technology Ltd Silicon-on-Insulator Product and Services

Table 44. IceMOS Technology Ltd Silicon-on-Insulator Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 45. IceMOS Technology Ltd Recent Developments/Updates

Table 46. SIEGERT WAFER GmbH Basic Information, Manufacturing Base and Competitors

Table 47. SIEGERT WAFER GmbH Major Business

Table 48. SIEGERT WAFER GmbH Silicon-on-Insulator Product and Services

Table 49. SIEGERT WAFER GmbH Silicon-on-Insulator Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 50. SIEGERT WAFER GmbH Recent Developments/Updates

Table 51. Shanghai Simgui Technology Co., Ltd. Basic Information, Manufacturing Base

and Competitors

Table 52. Shanghai Simgui Technology Co., Ltd. Major Business

Table 53. Shanghai Simgui Technology Co., Ltd. Silicon-on-Insulator Product and Services

Table 54. Shanghai Simgui Technology Co., Ltd. Silicon-on-Insulator Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 55. Shanghai Simgui Technology Co., Ltd. Recent Developments/Updates

Table 56. Zhonghuan Advanced Semiconductor Technology Co., Ltd. Basic Information, Manufacturing Base and Competitors

Table 57. Zhonghuan Advanced Semiconductor Technology Co., Ltd. Major Business

Table 58. Zhonghuan Advanced Semiconductor Technology Co., Ltd. Silicon-on-Insulator Product and Services

Table 59. Zhonghuan Advanced Semiconductor Technology Co., Ltd. Silicon-on-Insulator Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 60. Zhonghuan Advanced Semiconductor Technology Co., Ltd. Recent Developments/Updates

Table 61. SY Silicon Technology Co., Ltd. Basic Information, Manufacturing Base and Competitors

Table 62. SY Silicon Technology Co., Ltd. Major Business

Table 63. SY Silicon Technology Co., Ltd. Silicon-on-Insulator Product and Services

Table 64. SY Silicon Technology Co., Ltd. Silicon-on-Insulator Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 65. SY Silicon Technology Co., Ltd. Recent Developments/Updates

Table 66. Global Silicon-on-Insulator Sales Quantity by Manufacturer (2021-2026) & (K Units)

Table 67. Global Silicon-on-Insulator Revenue by Manufacturer (2021-2026) & (USD Million)

Table 68. Global Silicon-on-Insulator Average Price by Manufacturer (2021-2026) & (US\$/Unit)

Table 69. Market Position of Manufacturers in Silicon-on-Insulator, (Tier 1, Tier 2, and Tier 3), Based on Revenue in 2025

Table 70. Head Office and Silicon-on-Insulator Production Site of Key Manufacturer

Table 71. Silicon-on-Insulator Market: Company Product Type Footprint

Table 72. Silicon-on-Insulator Market: Company Product Application Footprint

Table 73. Silicon-on-Insulator New Market Entrants and Barriers to Market Entry

Table 74. Silicon-on-Insulator Mergers, Acquisition, Agreements, and Collaborations

- Table 75. Global Silicon-on-Insulator Consumption Value by Region (2021-2025-2032) & (USD Million) & CAGR
- Table 76. Global Silicon-on-Insulator Sales Quantity by Region (2021-2026) & (K Units)
- Table 77. Global Silicon-on-Insulator Sales Quantity by Region (2027-2032) & (K Units)
- Table 78. Global Silicon-on-Insulator Consumption Value by Region (2021-2026) & (USD Million)
- Table 79. Global Silicon-on-Insulator Consumption Value by Region (2027-2032) & (USD Million)
- Table 80. Global Silicon-on-Insulator Average Price by Region (2021-2026) & (US\$/Unit)
- Table 81. Global Silicon-on-Insulator Average Price by Region (2027-2032) & (US\$/Unit)
- Table 82. Global Silicon-on-Insulator Sales Quantity by Type (2021-2026) & (K Units)
- Table 83. Global Silicon-on-Insulator Sales Quantity by Type (2027-2032) & (K Units)
- Table 84. Global Silicon-on-Insulator Consumption Value by Type (2021-2026) & (USD Million)
- Table 85. Global Silicon-on-Insulator Consumption Value by Type (2027-2032) & (USD Million)
- Table 86. Global Silicon-on-Insulator Average Price by Type (2021-2026) & (US\$/Unit)
- Table 87. Global Silicon-on-Insulator Average Price by Type (2027-2032) & (US\$/Unit)
- Table 88. Global Silicon-on-Insulator Sales Quantity by Application (2021-2026) & (K Units)
- Table 89. Global Silicon-on-Insulator Sales Quantity by Application (2027-2032) & (K Units)
- Table 90. Global Silicon-on-Insulator Consumption Value by Application (2021-2026) & (USD Million)
- Table 91. Global Silicon-on-Insulator Consumption Value by Application (2027-2032) & (USD Million)
- Table 92. Global Silicon-on-Insulator Average Price by Application (2021-2026) & (US\$/Unit)
- Table 93. Global Silicon-on-Insulator Average Price by Application (2027-2032) & (US\$/Unit)
- Table 94. North America Silicon-on-Insulator Sales Quantity by Type (2021-2026) & (K Units)
- Table 95. North America Silicon-on-Insulator Sales Quantity by Type (2027-2032) & (K Units)
- Table 96. North America Silicon-on-Insulator Sales Quantity by Application (2021-2026) & (K Units)
- Table 97. North America Silicon-on-Insulator Sales Quantity by Application (2027-2032)

& (K Units)

Table 98. North America Silicon-on-Insulator Sales Quantity by Country (2021-2026) & (K Units)

Table 99. North America Silicon-on-Insulator Sales Quantity by Country (2027-2032) & (K Units)

Table 100. North America Silicon-on-Insulator Consumption Value by Country (2021-2026) & (USD Million)

Table 101. North America Silicon-on-Insulator Consumption Value by Country (2027-2032) & (USD Million)

Table 102. Europe Silicon-on-Insulator Sales Quantity by Type (2021-2026) & (K Units)

Table 103. Europe Silicon-on-Insulator Sales Quantity by Type (2027-2032) & (K Units)

Table 104. Europe Silicon-on-Insulator Sales Quantity by Application (2021-2026) & (K Units)

Table 105. Europe Silicon-on-Insulator Sales Quantity by Application (2027-2032) & (K Units)

Table 106. Europe Silicon-on-Insulator Sales Quantity by Country (2021-2026) & (K Units)

Table 107. Europe Silicon-on-Insulator Sales Quantity by Country (2027-2032) & (K Units)

Table 108. Europe Silicon-on-Insulator Consumption Value by Country (2021-2026) & (USD Million)

Table 109. Europe Silicon-on-Insulator Consumption Value by Country (2027-2032) & (USD Million)

Table 110. Asia-Pacific Silicon-on-Insulator Sales Quantity by Type (2021-2026) & (K Units)

Table 111. Asia-Pacific Silicon-on-Insulator Sales Quantity by Type (2027-2032) & (K Units)

Table 112. Asia-Pacific Silicon-on-Insulator Sales Quantity by Application (2021-2026) & (K Units)

Table 113. Asia-Pacific Silicon-on-Insulator Sales Quantity by Application (2027-2032) & (K Units)

Table 114. Asia-Pacific Silicon-on-Insulator Sales Quantity by Region (2021-2026) & (K Units)

Table 115. Asia-Pacific Silicon-on-Insulator Sales Quantity by Region (2027-2032) & (K Units)

Table 116. Asia-Pacific Silicon-on-Insulator Consumption Value by Region (2021-2026) & (USD Million)

Table 117. Asia-Pacific Silicon-on-Insulator Consumption Value by Region (2027-2032) & (USD Million)

Table 118. South America Silicon-on-Insulator Sales Quantity by Type (2021-2026) & (K Units)

Table 119. South America Silicon-on-Insulator Sales Quantity by Type (2027-2032) & (K Units)

Table 120. South America Silicon-on-Insulator Sales Quantity by Application (2021-2026) & (K Units)

Table 121. South America Silicon-on-Insulator Sales Quantity by Application (2027-2032) & (K Units)

Table 122. South America Silicon-on-Insulator Sales Quantity by Country (2021-2026) & (K Units)

Table 123. South America Silicon-on-Insulator Sales Quantity by Country (2027-2032) & (K Units)

Table 124. South America Silicon-on-Insulator Consumption Value by Country (2021-2026) & (USD Million)

Table 125. South America Silicon-on-Insulator Consumption Value by Country (2027-2032) & (USD Million)

Table 126. Middle East & Africa Silicon-on-Insulator Sales Quantity by Type (2021-2026) & (K Units)

Table 127. Middle East & Africa Silicon-on-Insulator Sales Quantity by Type (2027-2032) & (K Units)

Table 128. Middle East & Africa Silicon-on-Insulator Sales Quantity by Application (2021-2026) & (K Units)

Table 129. Middle East & Africa Silicon-on-Insulator Sales Quantity by Application (2027-2032) & (K Units)

Table 130. Middle East & Africa Silicon-on-Insulator Sales Quantity by Country (2021-2026) & (K Units)

Table 131. Middle East & Africa Silicon-on-Insulator Sales Quantity by Country (2027-2032) & (K Units)

Table 132. Middle East & Africa Silicon-on-Insulator Consumption Value by Country (2021-2026) & (USD Million)

Table 133. Middle East & Africa Silicon-on-Insulator Consumption Value by Country (2027-2032) & (USD Million)

Table 134. Silicon-on-Insulator Raw Material

Table 135. Key Manufacturers of Silicon-on-Insulator Raw Materials

Table 136. Silicon-on-Insulator Typical Distributors

Table 137. Silicon-on-Insulator Typical Customers

List Of Figures

LIST OF FIGURES

Figure 1. Silicon-on-Insulator Picture

Figure 2. Global Silicon-on-Insulator Revenue by Type, (USD Million), 2021 & 2025 & 2032

Figure 3. Global Silicon-on-Insulator Revenue Market Share by Type in 2025

Figure 4. 300 mm Examples

Figure 5. 200 mm Examples

Figure 6. Others (

I would like to order

Product name: Global Silicon-on-Insulator Market 2026 by Manufacturers, Regions, Type and Application, Forecast to 2032

Product link: <https://marketpublishers.com/r/GDE3F119E1C3EN.html>

Price: US\$ 3,480.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/GDE3F119E1C3EN.html>