

Global Silicon Photonics Market (2009 - 2014)

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Abstracts

Increasing need of more sophisticated means of communication is driving the demand for products and devices with high-speed and large bandwidth in data transfer along with low cost and high efficiency. However, the adoption of optical fibers and other optoelectronic components in the high end devices and applications involved high cost. This fueled the search for a cheaper base material and ended with silicon that began to be used for photonic applications. The advances in silicon electronics and photonics gave rise to the concept of silicon photonics.

When compared with conventional electronics, silicon photonics provide 90% of its efficiency with one-third of power consumption, at one-tenth of the cost and no requirement of additional manufacturing technology. This makes it attractive for customers and lucrative for manufacturers.

Technological advancements, low power consumptions, high bandwidth, high speed, low cost, large application areas, and greener outlook are the main factors that are driving the demand of silicon photonics market. However, high R&D cost, integration and packaging issues and limited commercialization are restraining the growth of the market. The reduction in the cost of devices, performance improvement and development of new products will increase the market size of silicon photonics and create plenty of opportunities for early entrants into this market.

Scope of the report

This report, aims to identify and analyze silicon photonic products that use silicon photonics technology. The report has segmented silicon photonics market as follows:

Silicon photonics product market

Silicon waveguides, silicon modulators, silicon interconnects, wavelength division

multiplexer filters, silicon LED and silicon photo detector.

Silicon photonic device market

Silicon optical transceivers, silicon optical switches, silicon optical ic, silicon photovoltaic cells, silicon photovoltaic cells and emerging products such as silicon lasers and silicon photonic amplifiers.

Silicon photonics applications market

telecommunication and data transfer, information processing, sensing, metrology, displays, consumer electronics, others

Silicon photonics technology market

Silicon submount technology, passive waveguide technology, passive optical alignment

Each section will provide market data, market drivers, trends and opportunities, top-selling products, key players, and competitive outlook. This report will also provide more than 50 market tables for various geographic regions covering the sub-segments and micro-markets. In addition, the report also provides 20 company profiles for each of its sub-segments.

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- 15 pages of high level analysis including benchmarking strategies, best practices and the market's cash cows (BCG matrix). We conduct detailed market positioning, product

positioning and competitive positioning. Entry strategies, gaps and opportunities are identified for all the stakeholders.

- Comprehensive market analysis for the following sectors: Pharmaceuticals, medical devices, biotechnology, semiconductor and electronics, energy and power supplies, food and beverages, chemicals, advanced materials, industrial automation, and telecom and it. we also analyze retailers and super-retailers, technology providers, and research and development (R&D) companies.

Key questions answered

- Which are the high-growth segments/cash cows and how is the market segmented in terms of applications, products, services, ingredients, technologies, and stakeholders?
- What are market estimates and forecasts; which markets are doing well and which are not?
- Where are the gaps and opportunities; what is driving the market?
- Which are the key playing fields? Which are the winning edge imperatives?
- How is the competitive outlook; who are the main players in each of the segments; what are the key selling products; what are their strategic directives, operational strengths and product pipelines? Who is doing what?

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