

Photonic Integrated Circuit Market: By Component (Lasers, Modulators, Photodetectors, Attenuators and Optical amplifiers), By Raw Material (Lithium Niobate, Silicon on Insulator, Indium Phosphide and Allium Arsenide), By Integration Process (Module, Hybrid and Monolithic), And Region – Global Analysis of Market Size, Share & Trends for 2019–2020 And Forecasts To 2031

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Abstracts

Photonic Integrated Circuit Market: By Component (Lasers, Modulators, Photodetectors, Attenuators and Optical amplifiers), By Raw Material (Lithium Niobate, Silicon on Insulator, Indium Phosphide and Allium Arsenide), By Integration Process (Module, Hybrid and Monolithic), And Region – Global Analysis of Market Size, Share & Trends for 2019–2020 And Forecasts To 2031

PRODUCT OVERVIEW

PIC (photonic integrated circuit) is a cutting-edge technology that simplifies optical system design, decreases size and power consumption, and enhances reliability. The notion of a photonic integrated circuits is quite similar to that of an electronic integrated circuit. With the emergence of smaller, less expensive optical interconnects, it is on the cutting edge of computing, with applications ranging from communications & security to medical and entertainment. The most common example of photonic integrated circuits is optical fiber communication

MARKET HIGHLIGHTS

Global Photonic Integrated Circuit market is expected to project a notable CAGR of 30% in 2031.

Global Photonic Integrated Circuit to surpass USD 77.6 billion by 2031 from USD 5.6 billion in 2021 at a CAGR of 30% in the coming years, i.e., 2021-31. The rapid growth of internet users worldwide is expected to increase demand for high-speed internet connectivity, boosting the demand for photonic IC component in the telecommunications industry. Apart from that, one of the primary market factors for photonic integrated circuits is the expanding creation of data centers.

GLOBAL PHOTONIC INTEGRATED CIRCUIT MARKET: SEGMENTS

Laser segment to grow with the highest CAGR during 2021-31

Lasers, modulator, photodetectors, attenuator, and optical amplifiers are the components that make up the photonic integrated circuits market. Due to its widespread use in industries such as tele-communication and data center sectors, the laser photonic IC industry accounted for the largest share of the industry share & is predicted to develop at a rapid rate. Lasers enable a broad working temperature range, increased optical power, and spectrum purity.

Indium Phosphide segment to grow with the highest CAGR during 2021-31

Lithium Niobate, Silicon on Insulators, Indium Phosphide, and allium Arsenide are some of the raw materials utilized to make PICs. Due to the growing demand for high-speed data transmission, the indium phosphide sector accounted for the biggest proportion of the photonic IC market. The capacity to incorporate both active and passive devices, as well as the ability to mass produce at a low cost, has resulted in an increase in demand. Due to features such as reduced component sizes and high efficiency, the silicon based photonics IC market is growing rapidly. The segment's expansion will be aided by increased computing and processing capabilities of silicon-based components.

MARKET DYNAMICS

Drivers

Rise in demand for PIC in telecommunication

Increasing inventions and improvements in Photonics

Restraint

Lack of digitization and awareness

GLOBAL PHOTONIC INTEGRATED CIRCUIT MARKET:

Key Players

Agilent Technologies

Company Overview, Business Strategy, Key Product Offerings, Financial Performance, Key Performance Indicators, Risk Analysis, Recent Development, Regional Presence, SWOT Analysis

Broadcom Inc.

Ciena Corporation

Enablence Technologies, Inc.

Infinera Corporation

Intel Corporation

Lumentum Operations LLC

NeoPhotonics Corporation

Nokia Networks

NeoPhotonics Corporation

Other Prominent Players

GLOBAL PHOTONIC INTEGRATED CIRCUIT REPORT ALSO CONTAINS ANALYSIS

Photonic Integrated Circuit Market: By Component (Lasers, Modulators, Photodetectors, Attenuators and Optical...

ON:

Photonic Integrated Circuit Market Segments:

By Component

Lasers

Modulators

Photodetectors

Attenuators

Optical amplifiers

By Raw Material

Lithium Niobate

Silicon on Insulator

Indium Phosphide

Allium Arsenide

By Integration Process

Module

Hybrid

Monolithic

Photonic Integrated Circuit Market Dynamics

Photonic Integrated Circuit Market Size

Supply & Demand

Current Trends/Issues/Challenges

Competition & Companies Involved in the Market

Value Chain of the Market

Market Drivers and Restraints

Reasons to Purchase this Report

Qualitative and quantitative analysis of the market based on segmentation involving both economic as well as non-economic factors

Provision of market value (USD Billion) data for each segment and sub-segment

Indicates the region and segment that is expected to witness the fastest growth as well as to dominate the market

Analysis by geography highlighting the consumption of the product/service in the region as well as indicating the factors that are affecting the market within each region

Competitive landscape which incorporates the market ranking of the major players, along with new service/product launches, partnerships, business expansions, and acquisitions in the past five years of companies profiled

Extensive company profiles comprising of company overview, company insights, product benchmarking, and SWOT analysis for the major market players

The current as well as the future market outlook of the industry with respect to recent developments which involve growth opportunities and drivers as well as challenges and restraints of both emerging as well as developed regions

Includes in-depth analysis of the market of various perspectives through Porter's five forces analysis

Provides insight into the market through Value Chain

Market dynamics scenario, along with growth opportunities of the market in the years to come

3-month post-sales analyst support.

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**The above given segmentations and companies could be subjected to further modification based on in-depth feasibility studies conducted for the final deliverable.

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