

# **Global Nanophotonics Market Size study & Forecast, by Product (LEDs, OLEDs, Near Field Optics, Photovoltaic Cells, Optical Amplifiers, Optical Switches,), by Ingredients (Plasmonics, Photonic Crystals, Nanotubes, Nanoribbons, Quantum Dots), by Application (Entertainment, Consumer Electronics, Indicators and Signs, Lighting, Telecommunication, Non-visual Applications) and Regional Analysis, 2022-2029**

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## **Abstracts**

Global Nanophotonics Market is valued at approximately USD XX billion in 2021 and is anticipated to grow with a healthy growth rate of more than XX% over the forecast period 2022-2029. A branch of nanotechnology called nanophotonics or nano-optics studies how light behaves at nanoscale scales as well as how nanometer-sized things interact with light. Nanophotonics, a technology that offers excellent thermal resistance, energy efficiency, and extended operational life, was born out of nanotechnology, photonics, and optoelectronics. As a result, businesses are beginning to accept it, which is anticipated to fuel the market. The major driving factor for the market is rising demand for renewable energy, the growing use of consumer electronics. The Increasing demand for nanophotonic switches because of their ability to withstand heat is one of the reasons that is anticipated to boost market growth for nanophotonic during the projected period of 2022–2029.

According to the Government Office for Science, there is an increase in the number of consumers IoT devices in the UK in 2020. For instance, as per the government Office for Science, the number of connected devices in the UK is projected to grow as shown

in the graph above, in 2006 the number was only 13 million and this is projected to grow up to 150 million in the year 2024. Along with this, the market in 2020 witnessed a 3% increase in the usage of renewable energy, while demand for all other fuels has decreased according to International Energy Agency (IEA). The main factor was an increase of roughly 7% in the production of power from renewable sources. Despite decreasing electricity demand, building delays and supply chain issues in many regions of the world, renewable energy growth was supported by long-term contracts, priority access to the floating grid, and continued installation of new plants. As a result, the proportion of renewable energy in the world's electrical generation increased from 27% in 2019 to 29% in 2020. Moreover, growing awareness of nanophotonics is creating lucrative opportunity for the market over the forecast period 2022-2029. However, it is anticipated that high expenditures for equipment and raw materials, as well as for research and development, will prevent the industry from reaching its full potential.

The key regions considered for the Global Nanophotonics Market study includes Asia Pacific, North America, Europe, Latin America, and Rest of the World. North America dominated the market in terms of revenue, owing to the dominance of branded products and the region's increasing demand for consumer electronics. Asia Pacific is expected to grow with the highest CAGR during the forecast period, owing to factors such as rising awareness of nanophotonic, geographic expansion of key players, and active participation of government and nonprofit organizations in the market space.

Major market player included in this report are:

Veeco Instruments Inc.

WITec Wissenschaftliche Instrumente und Technologie GmbH

Anders Electronics Company

Crystalfontz America, Inc.

NovaLED GmbH.

OSRAM Opto Semiconductors GmbH.

SAMSUNG SDI CO.,LTD.

Holland Electronics LLC

Newport Corporation

Schott AG,

Recent Developments in the Market:

IPG Photonics has created the GLPN-500-R laser, which combines a single-mode beam quality, a short wavelength, a short pulse duration, and increased power to enable the investigation of new applications.

Intel announced in February 2022 that it would buy Tower Semiconductor for USD 5.4

billion. The business will increase its foundry manufacturing capacity and add to its worldwide semiconductor manufacturing portfolio. As part of Intel's aggressive aspirations to grow its semiconductor foundry business, Tower Semiconductor is well-recognized for substantial partnerships and collaborations for laser-power applications, photonics, and semiconductor production facilities in Israel.

Global Nanophotonics Market Report Scope:

Historical Data 2019-2020-2021

Base Year for Estimation 2021

Forecast period 2022-2029

Report Coverage Revenue forecast, Company Ranking, Competitive Landscape, Growth factors, and Trends

Segments Covered Product, Ingredients, Application, Region

Regional Scope North America; Europe; Asia Pacific; Latin America; Rest of the World

Customization Scope Free report customization (equivalent up to 8 analyst's working hours) with purchase. Addition or alteration to country, regional & segment scope\*

The objective of the study is to define market sizes of different segments & countries in recent years and to forecast the values to the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within countries involved in the study.

The report also caters detailed information about the crucial aspects such as driving factors & challenges which will define the future growth of the market. Additionally, it also incorporates potential opportunities in micro markets for stakeholders to invest along with the detailed analysis of competitive landscape and product offerings of key players. The detailed segments and sub-segment of the market are explained below:

By Product:

LEDs

OLEDs

Near Field Optics

Photovoltaic Cells

Optical Amplifiers

Optical Switches

By Ingredients:

Plasmonics

Photonic Crystals

Nanotubes

Nanoribbons

Quantum Dots

**By Application:**

Entertainment

Consumer Electronics

Indicators and Signs

Lighting

Telecommunication

Non-visual Applications

**By Region:**

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

ROE

Asia Pacific

China

India

Japan

Australia

South Korea

RoAPAC

Latin America

Brazil

Mexico

Rest of the World

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