

# Silicon Photomultiplier (SiPM) Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

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## Abstracts

The global silicon photomultiplier (SiPM) market size reached US\$ 130.8 Million in 2022. Looking forward, IMARC Group expects the market to reach US\$ 190.5 Million by 2028, exhibiting a growth rate (CAGR) of 6.24% during 2023-2028.

The silicon photomultiplier (SiPM) refers to a solid-state photodetector device with single-photon sensitivity, photon counting capability, and quick response. It is a semiconductor device that generates an output current pulse in response to the absorption of a photon. It is widely used for sensing, timing, and quantifying low-light signals down to the single-photon level. It also offers advantages, such as low-voltage operation, excellent response uniformity, mechanical robustness, insensitivity to magnetic fields, high gain, and temperature stability. In recent years, SiPM has gained traction as an alternative to the traditional photomultiplier tube (PMT) due to its compact size and higher efficiency across numerous industries, including electronics, automotive, healthcare, IT and telecommunication, oil and gas, industrial, and aerospace.

### Silicon Photomultiplier (SiPM) Market Trends:

SiPM is extensively employed in medical imaging, biophotonics, hazard and threat detection, high energy physics, light detection and ranging (LiDAR), and 3D mapping technology. As a result, the increasing product applications and significant growth in the end use sectors represent the primary factors driving the market growth. Additionally, the growing need for accurate diagnosis in the healthcare industry and the rising adoption of LiDAR technology in the aerospace and automotive sectors are augmenting the demand for silicon photomultiplier. Besides this, the widespread usage of the advanced driver assistance system (ADAS) and the surging sales of high-end vehicles

are accelerating product adoption rates. Furthermore, the leading players are engaging in research and development (R&D) activities to launch innovative product variants to gain a competitive edge and expand their customer base. Other factors, including the shifting inclination toward semi-autonomous vehicles, the increasing number of nuclear power plants, the growing demand for product detection and imaging, and technological advancements, are also creating a positive market outlook.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global silicon photomultiplier (SiPM) market report, along with forecasts at the global, regional and country level from 2023-2028. Our report has categorized the market based on type, device type, application and industry vertical.

#### Breakup by Type:

- NUV SiPM
- RGB SiPM

#### Breakup by Device Type:

- Analog SiPM
- Digital SiPM

#### Breakup by Application:

- LiDAR
- Medical Imaging
- High Energy Physics
- Hazard and Threat Detection
- Others

#### Breakup by Industry Vertical:

- Automotive
- Healthcare
- IT and Telecommunication
- Aerospace
- Oil and Gas
- Others

## Breakup by Region:

North America

United States

Canada

Asia-Pacific

China

Japan

India

South Korea

Australia

Indonesia

Others

Europe

Germany

France

United Kingdom

Italy

Spain

Russia

Others

Latin America

Brazil

Mexico

Others

Middle East and Africa

## Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being AdvanSiD, Berkeley Nucleonics Corporation, Broadcom Inc., Cremat Inc, Dynasil Corporation, Excelitas Technologies Corp., First Sensor AG (TE Connectivity), Hamamatsu Photonics K.K., John Caunt Scientific Ltd., PicoQuant and Semiconductor Components Industries LLC.

## Key Questions Answered in This Report

1. What was the size of the global silicon photomultiplier (SiPM) market in 2022?
2. What is the expected growth rate of the global silicon photomultiplier (SiPM) market

during 2023-2028?

3. What are the key factors driving the global silicon photomultiplier (SiPM) market?

4. What has been the impact of COVID-19 on the global silicon photomultiplier (SiPM) market?

5. What is the breakup of the global silicon photomultiplier (SiPM) market based on the device type?

6. What is the breakup of the global silicon photomultiplier (SiPM) market based on the industry vertical?

7. What are the key regions in the global silicon photomultiplier (SiPM) market?

8. Who are the key players/companies in the global silicon photomultiplier (SiPM) market?

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