

Avalanche Photodiode Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

<https://marketpublishers.com/r/ADCEC4B6EFA7EN.html>

Date: November 2023

Pages: 149

Price: US\$ 2,499.00 (Single User License)

ID: ADCEC4B6EFA7EN

Abstracts

The global avalanche photodiode market size reached US\$ 172.6 Million in 2022. Looking forward, IMARC Group expects the market to reach US\$ 207.3 Million by 2028, exhibiting a growth rate (CAGR) of 3.10% during 2022-2028.

Avalanche photodiodes (APDs) are highly sensitive semiconductor devices that rely on the photoelectric effect to convert light into electricity. They are considered suitable for photon counting and extreme low-level light detection. They are compact, portable, lightweight, and can function in severe environmental conditions as opposed to photomultiplier tubes. Besides this, APDs require little or no cooling and are available in silicon, germanium, InGaAs, and other materials. As a result, they find extensive applications in various end use industries, such as defense, healthcare, aerospace, and telecommunication.

Avalanche Photodiode Market Trends:

APDs offer numerous advantages as compared to standard photodiodes, which include affordability, easy installation, higher quantum efficiency, larger active detection area, insensitivity to magnetic fields, and better signal-to-noise ratio and linear response range. This, coupled with the increasing adoption of optics in research and development (R&D) activities, represents one of the key factors strengthening the growth of the market. Moreover, APDs find applications in laser rangefinders, positron emission tomography, long-range fiber-optic telecommunication, and quantum sensing for azid-based control algorithms. Apart from this, the healthcare sector is experiencing advancements to support the diagnosis and treatment of diseases or deformities. This, in confluence with the rising employment of diagnostic devices, is impelling the market growth. Digitization and technological advancements in the telecom sector on account

of the large-scale deployment of fiber optic networks are also positively influencing the sales of APDs around the world. Furthermore, leading companies are focusing on organic growth strategies, such as events and product approvals and launches. They are also engaging in acquisitions, and partnership and collaborations to retain their position in the market and expand their customer base.

Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global avalanche photodiode market report, along with forecasts at the global, regional and country level from 2023-2028. Our report has categorized the market based on material, sales channel and end user.

Breakup by Material:

- Silicon Materials
- Germanium Materials
- InGaAs Materials
- Others

Breakup by Sales Channel:

- OEMs
- Aftermarket

Breakup by End User:

- Aerospace and Defense
- Telecommunication
- Healthcare
- 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 Excelitas Technologies Corp., First Sensor AG (TE Connectivity), Global Communication Semiconductors LLC, Hamamatsu Photonics K.K., Kyoto Semiconductor Co. Ltd., Laser Components (Photona GmbH), Lumentum Operations LLC, Luna Innovations, OSI Systems Inc., Renesas Electronics Corporation and SiFotonics Technologies Co. Ltd.

Key Questions Answered in This Report:

How has the global avalanche photodiode market performed so far and how will it perform in the coming years?

What has been the impact of COVID-19 on the global avalanche photodiode market?

What are the key regional markets?

What is the breakup of the market based on the material?

What is the breakup of the market based on the sales channel?

What is the breakup of the market based on the end user?

What are the various stages in the value chain of the industry?

What are the key driving factors and challenges in the industry?

What is the structure of the global avalanche photodiode market and who are the key players?

What is the degree of competition in the industry?

Contents

1 PREFACE

2 SCOPE AND METHODOLOGY

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
 - 2.3.1 Primary Sources
 - 2.3.2 Secondary Sources
- 2.4 Market Estimation
 - 2.4.1 Bottom-Up Approach
 - 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

3 EXECUTIVE SUMMARY

4 INTRODUCTION

- 4.1 Overview
- 4.2 Key Industry Trends

5 GLOBAL AVALANCHE PHOTODIODE MARKET

- 5.1 Market Overview
- 5.2 Market Performance
- 5.3 Impact of COVID-19
- 5.4 Market Forecast

6 MARKET BREAKUP BY MATERIAL

- 6.1 Silicon Materials
 - 6.1.1 Market Trends
 - 6.1.2 Market Forecast
- 6.2 Germanium Materials
 - 6.2.1 Market Trends
 - 6.2.2 Market Forecast
- 6.3 InGaAs Materials

- 6.3.1 Market Trends
- 6.3.2 Market Forecast
- 6.4 Others
 - 6.4.1 Market Trends
 - 6.4.2 Market Forecast

7 MARKET BREAKUP BY SALES CHANNEL

- 7.1 OEMs
 - 7.1.1 Market Trends
 - 7.1.2 Market Forecast
- 7.2 Aftermarket
 - 7.2.1 Market Trends
 - 7.2.2 Market Forecast

8 MARKET BREAKUP BY END USER

- 8.1 Aerospace and Defense
 - 8.1.1 Market Trends
 - 8.1.2 Market Forecast
- 8.2 Telecommunication
 - 8.2.1 Market Trends
 - 8.2.2 Market Forecast
- 8.3 Healthcare
 - 8.3.1 Market Trends
 - 8.3.2 Market Forecast
- 8.4 Others
 - 8.4.1 Market Trends
 - 8.4.2 Market Forecast

9 MARKET BREAKUP BY REGION

- 9.1 North America
 - 9.1.1 United States
 - 9.1.1.1 Market Trends
 - 9.1.1.2 Market Forecast
 - 9.1.2 Canada
 - 9.1.2.1 Market Trends
 - 9.1.2.2 Market Forecast

9.2 Asia-Pacific

9.2.1 China

9.2.1.1 Market Trends

9.2.1.2 Market Forecast

9.2.2 Japan

9.2.2.1 Market Trends

9.2.2.2 Market Forecast

9.2.3 India

9.2.3.1 Market Trends

9.2.3.2 Market Forecast

9.2.4 South Korea

9.2.4.1 Market Trends

9.2.4.2 Market Forecast

9.2.5 Australia

9.2.5.1 Market Trends

9.2.5.2 Market Forecast

9.2.6 Indonesia

9.2.6.1 Market Trends

9.2.6.2 Market Forecast

9.2.7 Others

9.2.7.1 Market Trends

9.2.7.2 Market Forecast

9.3 Europe

9.3.1 Germany

9.3.1.1 Market Trends

9.3.1.2 Market Forecast

9.3.2 France

9.3.2.1 Market Trends

9.3.2.2 Market Forecast

9.3.3 United Kingdom

9.3.3.1 Market Trends

9.3.3.2 Market Forecast

9.3.4 Italy

9.3.4.1 Market Trends

9.3.4.2 Market Forecast

9.3.5 Spain

9.3.5.1 Market Trends

9.3.5.2 Market Forecast

9.3.6 Russia

9.3.6.1 Market Trends

9.3.6.2 Market Forecast

9.3.7 Others

9.3.7.1 Market Trends

9.3.7.2 Market Forecast

9.4 Latin America

9.4.1 Brazil

9.4.1.1 Market Trends

9.4.1.2 Market Forecast

9.4.2 Mexico

9.4.2.1 Market Trends

9.4.2.2 Market Forecast

9.4.3 Others

9.4.3.1 Market Trends

9.4.3.2 Market Forecast

9.5 Middle East and Africa

9.5.1 Market Trends

9.5.2 Market Breakup by Country

9.5.3 Market Forecast

10 SWOT ANALYSIS

10.1 Overview

10.2 Strengths

10.3 Weaknesses

10.4 Opportunities

10.5 Threats

11 VALUE CHAIN ANALYSIS

12 PORTERS FIVE FORCES ANALYSIS

12.1 Overview

12.2 Bargaining Power of Buyers

12.3 Bargaining Power of Suppliers

12.4 Degree of Competition

12.5 Threat of New Entrants

12.6 Threat of Substitutes

13 PRICE ANALYSIS

14 COMPETITIVE LANDSCAPE

14.1 Market Structure

14.2 Key Players

14.3 Profiles of Key Players

14.3.1 Excelitas Technologies Corp.

14.3.1.1 Company Overview

14.3.1.2 Product Portfolio

14.3.2 First Sensor AG (TE Connectivity)

14.3.2.1 Company Overview

14.3.2.2 Product Portfolio

14.3.2.3 Financials

14.3.3 Global Communication Semiconductors LLC

14.3.3.1 Company Overview

14.3.3.2 Product Portfolio

14.3.4 Hamamatsu Photonics K.K.

14.3.4.1 Company Overview

14.3.4.2 Product Portfolio

14.3.4.3 Financials

14.3.4.4 SWOT Analysis

14.3.5 Kyoto Semiconductor Co. Ltd.

14.3.5.1 Company Overview

14.3.5.2 Product Portfolio

14.3.6 Laser Components (Photona GmbH)

14.3.6.1 Company Overview

14.3.6.2 Product Portfolio

14.3.7 Lumentum Operations LLC

14.3.7.1 Company Overview

14.3.7.2 Product Portfolio

14.3.7.3 Financials

14.3.8 Luna Innovations

14.3.8.1 Company Overview

14.3.8.2 Product Portfolio

14.3.8.3 Financials

14.3.9 OSI Systems Inc.

14.3.9.1 Company Overview

14.3.9.2 Product Portfolio

14.3.9.3 Financials

14.3.9.4 SWOT Analysis

14.3.10 Renesas Electronics Corporation

14.3.10.1 Company Overview

14.3.10.2 Product Portfolio

14.3.10.3 Financials

14.3.10.4 SWOT Analysis

14.3.11 SiFotonics Technologies Co. Ltd.

14.3.11.1 Company Overview

14.3.11.2 Product Portfolio

List Of Tables

LIST OF TABLES

Table 1: Global: Avalanche Photodiode Market: Key Industry Highlights, 2022 and 2028

Table 2: Global: Avalanche Photodiode Market Forecast: Breakup by Material (in Million US\$), 2023-2028

Table 3: Global: Avalanche Photodiode Market Forecast: Breakup by Sales Channel (in Million US\$), 2023-2028

Table 4: Global: Avalanche Photodiode Market Forecast: Breakup by End User (in Million US\$), 2023-2028

Table 5: Global: Avalanche Photodiode Market Forecast: Breakup by Region (in Million US\$), 2023-2028

Table 6: Global: Avalanche Photodiode Market: Competitive Structure

Table 7: Global: Avalanche Photodiode Market: Key Players

List Of Figures

LIST OF FIGURES

Figure 1: Global: Avalanche Photodiode Market: Major Drivers and Challenges

Figure 2: Global: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017-2022

Figure 3: Global: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 4: Global: Avalanche Photodiode Market: Breakup by Material (in %), 2022

Figure 5: Global: Avalanche Photodiode Market: Breakup by Sales Channel (in %), 2022

Figure 6: Global: Avalanche Photodiode Market: Breakup by End User (in %), 2022

Figure 7: Global: Avalanche Photodiode Market: Breakup by Region (in %), 2022

Figure 8: Global: Avalanche Photodiode (Silicon Materials) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 9: Global: Avalanche Photodiode (Silicon Materials) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 10: Global: Avalanche Photodiode (Germanium Materials) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 11: Global: Avalanche Photodiode (Germanium Materials) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 12: Global: Avalanche Photodiode (InGaAs Materials) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 13: Global: Avalanche Photodiode (InGaAs Materials) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 14: Global: Avalanche Photodiode (Other Materials) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 15: Global: Avalanche Photodiode (Other Materials) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 16: Global: Avalanche Photodiode (OEMs) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 17: Global: Avalanche Photodiode (OEMs) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 18: Global: Avalanche Photodiode (Aftermarket) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 19: Global: Avalanche Photodiode (Aftermarket) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 20: Global: Avalanche Photodiode (Aerospace and Defense) Market: Sales

Value (in Million US\$), 2017 & 2022

Figure 21: Global: Avalanche Photodiode (Aerospace and Defense) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 22: Global: Avalanche Photodiode (Telecommunication) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 23: Global: Avalanche Photodiode (Telecommunication) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 24: Global: Avalanche Photodiode (Healthcare) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 25: Global: Avalanche Photodiode (Healthcare) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 26: Global: Avalanche Photodiode (Other End Users) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 27: Global: Avalanche Photodiode (Other End Users) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 28: North America: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 29: North America: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 30: United States: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 31: United States: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 32: Canada: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 33: Canada: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 34: Asia-Pacific: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 35: Asia-Pacific: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 36: China: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 37: China: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 38: Japan: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 39: Japan: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 40: India: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 41: India: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 42: South Korea: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 43: South Korea: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 44: Australia: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 45: Australia: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 46: Indonesia: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 47: Indonesia: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 48: Others: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 49: Others: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 50: Europe: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 51: Europe: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 52: Germany: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 53: Germany: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 54: France: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 55: France: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 56: United Kingdom: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 57: United Kingdom: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 58: Italy: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 59: Italy: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$),

2023-2028

Figure 60: Spain: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 61: Spain: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 62: Russia: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 63: Russia: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 64: Others: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 65: Others: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 66: Latin America: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 67: Latin America: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 68: Brazil: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 69: Brazil: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 70: Mexico: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 71: Mexico: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 72: Others: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 73: Others: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 74: Middle East and Africa: Avalanche Photodiode Market: Sales Value (in Million US\$), 2017 & 2022

Figure 75: Middle East and Africa: Avalanche Photodiode Market: Breakup by Country (in %), 2022

Figure 76: Middle East and Africa: Avalanche Photodiode Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 77: Global: Avalanche Photodiode Industry: SWOT Analysis

Figure 78: Global: Avalanche Photodiode Industry: Value Chain Analysis

Figure 79: Global: Avalanche Photodiode Industry: Porter's Five Forces Analysis

I would like to order

Product name: Avalanche Photodiode Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

Product link: <https://marketpublishers.com/r/ADCEC4B6EFA7EN.html>

Price: US\$ 2,499.00 (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/ADCEC4B6EFA7EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970

