

Image Sensor Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Technology (Complementary Metal-Oxide-Semiconductor (CMOS), Charge-Coupled Device (CCD) and Others), By Processing Type (2D, 3D), By Vertical (Automotive, Industrial, Commercial, Consumer Electronics and Aerospace, Defense, & Homeland Security), By Region, and By Competition, 2020-2030F

Market Report | 2025-11-24 | 180 pages | TechSci Research

AVAILABLE LICENSES:

- Single User License \$4500.00
- Multi-User License \$5500.00
- Custom Research License \$8000.00

Report description:

Market Overview

The Global Image Sensor Market, valued at USD 27.02 Billion in 2024, is projected to grow at a CAGR of 9.17% to reach USD 45.74 Billion by 2030. Image sensors are semiconductor devices that convert light into electrical signals for capturing images in a wide range of electronic applications. Market growth is strongly supported by expanding demand for advanced imaging capabilities in consumer electronics, especially multi-camera smartphones, as well as increasing adoption of vision systems in automotive ADAS technologies. Industrial automation, security, and surveillance systems also substantially contribute to demand.

Key Market Drivers

The widespread proliferation of advanced consumer electronics is a major catalyst for the image sensor market. Modern smartphones increasingly rely on multi-camera arrays requiring high-performance sensors to enable advanced computational photography, improved zoom, low-light imaging, and enhanced video capabilities. This trend extends to AR/VR devices, drones, and wearables. According to PetaPixel reporting on Sony forecasts in June 2024, the average image sensor size for smartphone main cameras is expected to increase by more than 200% by 2030 versus 2019 levels, demonstrating rapid advancement in imaging requirements.

Key Market Challenges

High manufacturing costs associated with advanced sensor technologies remain a substantial barrier to market expansion. Producing high-resolution and 3D image sensors requires complex fabrication processes, specialized materials, and expensive

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scott-international.com

www.scott-international.com

semiconductor equipment. These elevated costs directly increase unit prices, limiting mass-market adoption, particularly in cost-sensitive consumer electronics and emerging markets. According to SEMI, global semiconductor manufacturing equipment sales increased to \$117.1 billion in 2024 from \$106.3 billion in 2023, reflecting the capital-intensive nature of advanced semiconductor production. These high investments expand operational expenses and compress manufacturer margins, which can slow the development and rollout of next-generation sensors.

Key Market Trends

AI-Driven Smart Imaging Integration is transforming image sensors into intelligent devices capable of performing real-time analysis, pattern recognition, and automated adjustments directly on-sensor. This reduces bandwidth needs, enhances processing efficiency, and supports advanced automation applications. According to the Association for Advancing Automation, 50.23% of its members in 2024 were considering the implementation of AI-enabled vision technologies. A notable example is Sony Semiconductor Solutions' IMX500 sensor, used in over 500 convenience stores in Japan as of April 2024 for edge-based AI analytics that evaluate advertising effectiveness without collecting personally identifiable data.

Key Market Players

- Sony Semiconductor Solutions Corporation
- Samsung Electronics Co., Ltd.
- OmniVision Technologies, Inc.
- STMicroelectronics International N.V
- GalaxyCore Shanghai Limited Corporation
- Semiconductor Components Industries, LLC
- Panasonic Group
- Canon Inc.
- SK hynix Inc.
- PixArt Imaging Inc.

Report Scope:

In this report, the Global Image Sensor Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

- Image Sensor Market, By Technology:
 - o Complementary Metal-Oxide-Semiconductor (CMOS)
 - o Charge-Coupled Device (CCD)
 - o Others
- Image Sensor Market, By Processing Type:
 - o 2D
 - o 3D
- Image Sensor Market, By Vertical:
 - o Automotive
 - o Industrial
 - o Commercial
 - o Consumer Electronics
 - o Aerospace, Defense, & Homeland Security
- Image Sensor Market, By Region:
 - o North America
 - United States
 - Canada
 - Mexico
 - o Europe
 - France
 - United Kingdom

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- Italy
- Germany
- Spain
- o South America
- Brazil
- Argentina
- Colombia
- o Middle East & Africa
- South Africa
- Saudi Arabia
- UAE
- o Asia Pacific
- China
- India
- Japan
- Australia
- South Korea

Competitive Landscape

Company Profiles: Detailed analysis of the major companies presents in the Global Image Sensor Market.

Available Customizations:

Global Image Sensor Market report with the given market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

Company Information

-□Detailed analysis and profiling of additional market players (up to five).

Table of Contents:

1. Product Overview
 - 1.1. Market Definition
 - 1.2. Scope of the Market
 - 1.2.1. Markets Covered
 - 1.2.2. Years Considered for Study
 - 1.2.3. Key Market Segmentations
2. Research Methodology
 - 2.1. Objective of the Study
 - 2.2. Baseline Methodology
 - 2.3. Key Industry Partners
 - 2.4. Major Association and Secondary Sources
 - 2.5. Forecasting Methodology
 - 2.6. Data Triangulation & Validation
 - 2.7. Assumptions and Limitations
3. Executive Summary
 - 3.1. Overview of the Market
 - 3.2. Overview of Key Market Segmentations
 - 3.3. Overview of Key Market Players
 - 3.4. Overview of Key Regions/Countries
 - 3.5. Overview of Market Drivers, Challenges, Trends

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

4. Voice of Customer
5. Global Image Sensor Market Outlook
 - 5.1. Market Size & Forecast
 - 5.1.1. By Value
 - 5.2. Market Share & Forecast
 - 5.2.1. By Technology (Complementary Metal-Oxide-Semiconductor (CMOS), Charge-Coupled Device (CCD), Others)
 - 5.2.2. By Processing Type (2D, 3D)
 - 5.2.3. By Vertical (Automotive, Industrial, Commercial, Consumer Electronics, Aerospace, Defense, & Homeland Security)
 - 5.2.4. By Region
 - 5.2.5. By Company (2024)
 - 5.3. Market Map
6. North America Image Sensor Market Outlook
 - 6.1. Market Size & Forecast
 - 6.1.1. By Value
 - 6.2. Market Share & Forecast
 - 6.2.1. By Technology
 - 6.2.2. By Processing Type
 - 6.2.3. By Vertical
 - 6.2.4. By Country
 - 6.3. North America: Country Analysis
 - 6.3.1. United States Image Sensor Market Outlook
 - 6.3.1.1. Market Size & Forecast
 - 6.3.1.1.1. By Value
 - 6.3.1.2. Market Share & Forecast
 - 6.3.1.2.1. By Technology
 - 6.3.1.2.2. By Processing Type
 - 6.3.1.2.3. By Vertical
 - 6.3.2. Canada Image Sensor Market Outlook
 - 6.3.2.1. Market Size & Forecast
 - 6.3.2.1.1. By Value
 - 6.3.2.2. Market Share & Forecast
 - 6.3.2.2.1. By Technology
 - 6.3.2.2.2. By Processing Type
 - 6.3.2.2.3. By Vertical
 - 6.3.3. Mexico Image Sensor Market Outlook
 - 6.3.3.1. Market Size & Forecast
 - 6.3.3.1.1. By Value
 - 6.3.3.2. Market Share & Forecast
 - 6.3.3.2.1. By Technology
 - 6.3.3.2.2. By Processing Type
 - 6.3.3.2.3. By Vertical
7. Europe Image Sensor Market Outlook
 - 7.1. Market Size & Forecast
 - 7.1.1. By Value
 - 7.2. Market Share & Forecast
 - 7.2.1. By Technology
 - 7.2.2. By Processing Type

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 7.2.3. By Vertical
- 7.2.4. By Country
- 7.3. Europe: Country Analysis
 - 7.3.1. Germany Image Sensor Market Outlook
 - 7.3.1.1. Market Size & Forecast
 - 7.3.1.1.1. By Value
 - 7.3.1.2. Market Share & Forecast
 - 7.3.1.2.1. By Technology
 - 7.3.1.2.2. By Processing Type
 - 7.3.1.2.3. By Vertical
 - 7.3.2. France Image Sensor Market Outlook
 - 7.3.2.1. Market Size & Forecast
 - 7.3.2.1.1. By Value
 - 7.3.2.2. Market Share & Forecast
 - 7.3.2.2.1. By Technology
 - 7.3.2.2.2. By Processing Type
 - 7.3.2.2.3. By Vertical
 - 7.3.3. United Kingdom Image Sensor Market Outlook
 - 7.3.3.1. Market Size & Forecast
 - 7.3.3.1.1. By Value
 - 7.3.3.2. Market Share & Forecast
 - 7.3.3.2.1. By Technology
 - 7.3.3.2.2. By Processing Type
 - 7.3.3.2.3. By Vertical
 - 7.3.4. Italy Image Sensor Market Outlook
 - 7.3.4.1. Market Size & Forecast
 - 7.3.4.1.1. By Value
 - 7.3.4.2. Market Share & Forecast
 - 7.3.4.2.1. By Technology
 - 7.3.4.2.2. By Processing Type
 - 7.3.4.2.3. By Vertical
 - 7.3.5. Spain Image Sensor Market Outlook
 - 7.3.5.1. Market Size & Forecast
 - 7.3.5.1.1. By Value
 - 7.3.5.2. Market Share & Forecast
 - 7.3.5.2.1. By Technology
 - 7.3.5.2.2. By Processing Type
 - 7.3.5.2.3. By Vertical
- 8. Asia Pacific Image Sensor Market Outlook
 - 8.1. Market Size & Forecast
 - 8.1.1. By Value
 - 8.2. Market Share & Forecast
 - 8.2.1. By Technology
 - 8.2.2. By Processing Type
 - 8.2.3. By Vertical
 - 8.2.4. By Country
 - 8.3. Asia Pacific: Country Analysis

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 8.3.1. China Image Sensor Market Outlook
 - 8.3.1.1. Market Size & Forecast
 - 8.3.1.1.1. By Value
 - 8.3.1.2. Market Share & Forecast
 - 8.3.1.2.1. By Technology
 - 8.3.1.2.2. By Processing Type
 - 8.3.1.2.3. By Vertical
- 8.3.2. India Image Sensor Market Outlook
 - 8.3.2.1. Market Size & Forecast
 - 8.3.2.1.1. By Value
 - 8.3.2.2. Market Share & Forecast
 - 8.3.2.2.1. By Technology
 - 8.3.2.2.2. By Processing Type
 - 8.3.2.2.3. By Vertical
- 8.3.3. Japan Image Sensor Market Outlook
 - 8.3.3.1. Market Size & Forecast
 - 8.3.3.1.1. By Value
 - 8.3.3.2. Market Share & Forecast
 - 8.3.3.2.1. By Technology
 - 8.3.3.2.2. By Processing Type
 - 8.3.3.2.3. By Vertical
- 8.3.4. South Korea Image Sensor Market Outlook
 - 8.3.4.1. Market Size & Forecast
 - 8.3.4.1.1. By Value
 - 8.3.4.2. Market Share & Forecast
 - 8.3.4.2.1. By Technology
 - 8.3.4.2.2. By Processing Type
 - 8.3.4.2.3. By Vertical
- 8.3.5. Australia Image Sensor Market Outlook
 - 8.3.5.1. Market Size & Forecast
 - 8.3.5.1.1. By Value
 - 8.3.5.2. Market Share & Forecast
 - 8.3.5.2.1. By Technology
 - 8.3.5.2.2. By Processing Type
 - 8.3.5.2.3. By Vertical
- 9. Middle East & Africa Image Sensor Market Outlook
 - 9.1. Market Size & Forecast
 - 9.1.1. By Value
 - 9.2. Market Share & Forecast
 - 9.2.1. By Technology
 - 9.2.2. By Processing Type
 - 9.2.3. By Vertical
 - 9.2.4. By Country
 - 9.3. Middle East & Africa: Country Analysis
 - 9.3.1. Saudi Arabia Image Sensor Market Outlook
 - 9.3.1.1. Market Size & Forecast
 - 9.3.1.1.1. By Value

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 9.3.1.2. Market Share & Forecast
 - 9.3.1.2.1. By Technology
 - 9.3.1.2.2. By Processing Type
 - 9.3.1.2.3. By Vertical
- 9.3.2. UAE Image Sensor Market Outlook
 - 9.3.2.1. Market Size & Forecast
 - 9.3.2.1.1. By Value
 - 9.3.2.2. Market Share & Forecast
 - 9.3.2.2.1. By Technology
 - 9.3.2.2.2. By Processing Type
 - 9.3.2.2.3. By Vertical
- 9.3.3. South Africa Image Sensor Market Outlook
 - 9.3.3.1. Market Size & Forecast
 - 9.3.3.1.1. By Value
 - 9.3.3.2. Market Share & Forecast
 - 9.3.3.2.1. By Technology
 - 9.3.3.2.2. By Processing Type
 - 9.3.3.2.3. By Vertical
- 10. South America Image Sensor Market Outlook
 - 10.1. Market Size & Forecast
 - 10.1.1. By Value
 - 10.2. Market Share & Forecast
 - 10.2.1. By Technology
 - 10.2.2. By Processing Type
 - 10.2.3. By Vertical
 - 10.2.4. By Country
 - 10.3. South America: Country Analysis
 - 10.3.1. Brazil Image Sensor Market Outlook
 - 10.3.1.1. Market Size & Forecast
 - 10.3.1.1.1. By Value
 - 10.3.1.2. Market Share & Forecast
 - 10.3.1.2.1. By Technology
 - 10.3.1.2.2. By Processing Type
 - 10.3.1.2.3. By Vertical
 - 10.3.2. Colombia Image Sensor Market Outlook
 - 10.3.2.1. Market Size & Forecast
 - 10.3.2.1.1. By Value
 - 10.3.2.2. Market Share & Forecast
 - 10.3.2.2.1. By Technology
 - 10.3.2.2.2. By Processing Type
 - 10.3.2.2.3. By Vertical
 - 10.3.3. Argentina Image Sensor Market Outlook
 - 10.3.3.1. Market Size & Forecast
 - 10.3.3.1.1. By Value
 - 10.3.3.2. Market Share & Forecast
 - 10.3.3.2.1. By Technology
 - 10.3.3.2.2. By Processing Type

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 10.3.3.2.3. By Vertical
- 11. Market Dynamics
 - 11.1. Drivers
 - 11.2. Challenges
- 12. Market Trends & Developments
 - 12.1. Merger & Acquisition (If Any)
 - 12.2. Product Launches (If Any)
 - 12.3. Recent Developments
- 13. Global Image Sensor Market: SWOT Analysis
- 14. Porter's Five Forces Analysis
 - 14.1. Competition in the Industry
 - 14.2. Potential of New Entrants
 - 14.3. Power of Suppliers
 - 14.4. Power of Customers
 - 14.5. Threat of Substitute Products
- 15. Competitive Landscape
 - 15.1. Sony Semiconductor Solutions Corporation
 - 15.1.1. Business Overview
 - 15.1.2. Products & Services
 - 15.1.3. Recent Developments
 - 15.1.4. Key Personnel
 - 15.1.5. SWOT Analysis
 - 15.2. Samsung Electronics Co., Ltd.
 - 15.3. OMillioniVision Technologies, Inc.
 - 15.4. STMicroelectronics International N.V
 - 15.5. GalaxyCore Shanghai Limited Corporation
 - 15.6. Semiconductor Components Industries, LLC
 - 15.7. Panasonic Group
 - 15.8. Canon Inc.
 - 15.9. SK hynix Inc.
 - 15.10. PixArt Imaging Inc.
- 16. Strategic Recommendations
- 17. About Us & Disclaimer

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Image Sensor Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Technology (Complementary Metal-Oxide-Semiconductor (CMOS), Charge-Coupled Device (CCD) and Others), By Processing Type (2D, 3D), By Vertical (Automotive, Industrial, Commercial, Consumer Electronics and Aerospace, Defense, & Homeland Security), By Region, and By Competition, 2020-2030F

Market Report | 2025-11-24 | 180 pages | TechSci Research

To place an Order with Scotts International:

- Print this form
- Complete the relevant blank fields and sign
- Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	\$4500.00
	Multi-User License	\$5500.00
	Custom Research License	\$8000.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Address*

City*

Zip Code*

Country*

Date

2026-03-08

Signature

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com