

Image Sensor Market with COVID-19 Impact Analysis by Technology (CMOS Image Sensors), Processing Technique (3D Image Sensors), Spectrum, Array Type, Resolutions End User (Automotive, Consumer Electronics), and Geography - Global Forecast to 2025

<https://marketpublishers.com/r/I140B576FA7EN.html>

Date: August 2020

Pages: 195

Price: US\$ 4,950.00 (Single User License)

ID: I140B576FA7EN

Abstracts

“Increase in incorporation of high-resolution cameras equipped with image sensors in mobile devices, growth in adoption of image cameras for automotive applications, and rise in use of image sensors in improved medical imaging solutions to drive the growth of image sensor market”

The image sensor market is projected to grow from USD 18.5 billion in 2020 to USD 28.0 billion by 2025, recording a CAGR of 8.6% between 2020 and 2025. Major factors driving the growth of the image sensor market include increase in incorporation of high-resolution cameras equipped with image sensors in mobile devices, growth in adoption of image cameras for automotive applications, and rise in use of image sensors in improved medical imaging solutions.

“Based on technology, CMOS image sensor to be the fastest-growing technology segment between 2020 and 2025”

In 2019, the CMOS image sensors segment accounted for the largest size of the image sensor market. This segment is projected to grow at the highest CAGR of 9.0% from 2020 to 2025. The key factors contributing to the growth of the CMOS image sensor segment are the advantages offered by these sensors. CMOS image sensors have replaced CCD image sensors in a wide range of applications owing to their low costs, less power consumption, ease of integration, and high-quality image output. Companies present in the market are developing CMOS image sensors with high resolution and

built-in artificial intelligence (AI) capabilities to create new revenue streams for them.

“Based on processing technique, 2D image sensor to hold the largest market share in 2025”

The key factor contributing to the growth of the 2D image sensors segment is the increased adoption of these sensors in consumer electronics, automotive, industrial, and medical applications. These image sensors use hyperspectral imaging to detect, recognize, and identify objects.

“Based on array type, area image sensors to be the fastest-growing application between 2020 and 2025”

The area image sensors segment is projected to lead the image sensor market from 2020 to 2025. The growth of this segment can be attributed to the increased adoption of area image sensors in smartphones, tablets, automobile cameras, and surveillance cameras. These imager sensors have low power consumption and offer features such as color noise reduction (CNR), high-dynamic range (HDR), and backside illumination (BSI).

“Based on spectrum, non-visible segment to be the fastest-growing application between 2020 and 2025”

The non-visible segment of the image sensor market is projected to grow at a higher CAGR than the visible segment during the forecast period. The key factor contributing to the growth of this segment is rise in demand for infrared image sensors for use in automotive applications. These sensors capture light from the infrared spectrum, which enables their use in night vision and low-light imaging applications. They offer visibility to drivers in dark conditions. Autonomous vehicles employ a large number of image sensors, including infrared image sensors for visibility in the dark, which is expected to drive the growth of the non-visible segment of the market.

“Based on end user, automotive segment to be the fastest-growing application between 2020 and 2025”

The automotive segment of the market is projected to grow at the highest CAGR from 2020 to 2025. The key factor contributing to the growth of this segment is the increasing safety concerns among automobile manufacturers. In automobiles, image sensors are

used in ADAS, driver monitoring systems, night vision systems, eMirrors, blind-spot detection systems, cabin monitoring systems, surrounding view systems, and parking assistance systems. These systems make the whole driving experience safe and comfortable. Moreover, the development of autonomous vehicles and their dependency on image sensors are expected to drive the growth of the image sensor market in near future.

In-depth interviews have been conducted with chief executive officers (CEOs), marketing directors, other innovation and technology directors, and executives from various key organizations operating in the image sensor marketplace.

By Company Type: Tier 1 – 52%, Tier 2 – 25%, and Tier 3 – 23%

By Designation: C-Level Executives – 55%, Directors – 27%, and Managers – 18%

By Region: North America – 40%, Europe – 20%, APAC – 28%, and RoW – 12%

Sony Corporation (Japan), Samsung Electronics Co., Ltd. (South Korea), OmniVision Technologies, Inc. (US), STMicroelectronics (Switzerland), ON Semiconductor Corporation (US), Panasonic Corporation (Japan), Canon Inc. (Japan), SK hynix Inc. (South Korea), PixArt Imaging Inc. (Taiwan), and Hamamatsu Photonics K.K. (Japan) are some of the key players in the image sensor market.

The study includes an in-depth competitive analysis of these key players in the image sensor market, with their company profiles, recent developments, and key market strategies.

Research Coverage

The report defines, describes, and forecasts the image sensor market based on technology, processing technique, spectrum, array type, resolution, end user, and region. It provides detailed information regarding factors such as drivers, restraints, opportunities, and challenges influencing the growth of the image sensor market. It also analyzes product launches and developments, partnerships, collaborations, expansions, acquisitions, and technology developments carried out by the key players to grow in the market.

Key Benefits of Buying the Report

This report will help market leaders/new entrants in this industry with information on the closest approximations of the revenue numbers for the overall image sensor market and the subsegments. The report will help stakeholders understand the competitive landscape and gain more insights to better position their businesses and plan suitable go-to-market strategies. The report will also help stakeholders to understand the pulse of the market and provide them with information on key market drivers, restraints, challenges, and opportunities.

Contents

1 INTRODUCTION

1.1 STUDY OBJECTIVES

1.2 MARKET DEFINITION AND SCOPE

1.2.1 INCLUSIONS AND EXCLUSIONS

1.3 MARKETS COVERED

FIGURE 1 IMAGE SENSOR MARKET SEGMENTATION

1.3.1 GEOGRAPHIC SCOPE

1.3.2 YEARS CONSIDERED

1.4 CURRENCY

1.5 LIMITATIONS

1.6 MARKET STAKEHOLDERS

1.7 SUMMARY OF CHANGES

2 RESEARCH METHODOLOGY

2.1 RESEARCH DATA

FIGURE 2 IMAGE SENSOR MARKET: RESEARCH DESIGN

2.1.1 SECONDARY DATA

2.1.1.1 List of key secondary sources

2.1.1.2 Secondary sources

2.1.2 PRIMARY DATA

2.1.2.1 Primary Interviews

2.1.2.2 Breakdown of primaries

2.1.2.3 Key data from primary sources

2.2 FACTOR ANALYSIS

FIGURE 3 IMAGE SENSOR MARKET SIZE ESTIMATION METHODOLOGY:
APPROACH 1 (SUPPLY SIDE): REVENUE GENERATED BY COMPANIES FROM
SALES OF IMAGE SENSORS

FIGURE 4 MARKET SIZE ESTIMATION METHODOLOGY: APPROACH 2 – BOTTOM-
UP (SUPPLY SIDE): ILLUSTRATIVE EXAMPLE OF COMPANY OPERATING IN
IMAGE SENSOR MARKET

FIGURE 5 MARKET SIZE ESTIMATION METHODOLOGY: APPROACH 3 – BOTTOM-
UP APPROACH FOR ESTIMATION OF SIZE OF IMAGE SENSOR MARKET BASED
ON END USER

2.2.1 BOTTOM-UP APPROACH

2.2.1.1 Approach for capturing market size using bottom-up analysis (demand side)

FIGURE 6 MARKET SIZE ESTIMATION METHODOLOGY: BOTTOM-UP APPROACH**2.2.2 TOP-DOWN APPROACH****2.2.2.1 Approach for capturing market size using top-down analysis**

(supply side)

FIGURE 7 MARKET SIZE ESTIMATION METHODOLOGY: TOP-DOWN APPROACH**2.3 MARKET BREAKDOWN AND DATA TRIANGULATION****FIGURE 8 DATA TRIANGULATION****2.4 RESEARCH ASSUMPTIONS****3 EXECUTIVE SUMMARY**

FIGURE 9 CMOS IMAGE SENSOR MARKET TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

FIGURE 10 3D IMAGE SENSOR MARKET TO GROW AT HIGH CAGR FROM 2020 TO 2025

FIGURE 11 AUTOMOTIVE SEGMENT OF IMAGE SENSOR MARKET TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

FIGURE 12 APAC TO ACCOUNT FOR LARGEST SHARE OF IMAGE SENSOR MARKET IN 2025

4 PREMIUM INSIGHTS**4.1 ATTRACTIVE OPPORTUNITIES IN IMAGE SENSOR MARKET**

FIGURE 13 INCREASED INCORPORATION OF HIGH-RESOLUTION CAMERAS EQUIPPED WITH IMAGE SENSORS IN MOBILE DEVICES TO DRIVE GROWTH OF IMAGE SENSOR MARKET

4.2 IMAGE SENSOR MARKET, BY PROCESSING TECHNIQUE

FIGURE 14 2D IMAGE SENSORS SEGMENT TO ACCOUNT FOR LARGE SHARE OF IMAGE SENSOR MARKET IN 2025

4.3 COUNTRY-WISE IMAGE SENSOR MARKET GROWTH RATE

FIGURE 15 IMAGE SENSOR MARKET IN CHINA TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

4.4 IMAGE SENSOR MARKET, BY END USER AND REGION

FIGURE 16 CONSUMER ELECTRONICS AND APAC TO ACCOUNT FOR LARGEST SHARES OF IMAGE SENSOR MARKET IN 2025

5 MARKET OVERVIEW**5.1 INTRODUCTION**

5.2 MARKET DYNAMICS

FIGURE 17 INCREASED INCORPORATION OF HIGH-RESOLUTION CAMERAS EQUIPPED WITH IMAGE SENSORS IN MOBILE DEVICES

5.2.1 DRIVERS

5.2.1.1 Increase in incorporation of high-resolution cameras equipped with image sensors in mobile devices

5.2.1.2 Growth in adoption of image cameras for automotive applications

5.2.1.3 Rise in use of image sensors in improved medical imaging solutions

FIGURE 18 IMAGE SENSOR DRIVERS AND THEIR IMPACT

5.2.2 RESTRAINTS

5.2.2.1 High manufacturing costs of large chip image sensors

5.2.2.2 Easy availability of LiDAR solutions for autonomous vehicles

FIGURE 19 IMAGE SENSOR MARKET RESTRAINTS AND THEIR IMPACT

5.2.3 OPPORTUNITIES

5.2.3.1 Increased adoption of image sensor cameras in autonomous vehicles

5.2.3.2 Innovations and advancements in image sensors

FIGURE 20 IMAGE SENSOR MARKET OPPORTUNITIES AND THEIR IMPACT

5.2.4 CHALLENGES

5.2.4.1 Supply chain disruptions caused by COVID-19

FIGURE 21 IMAGE SENSOR MARKET CHALLENGES AND THEIR IMPACT

5.3 REVENUE SHIFT AND NEW REVENUE POCKETS FOR IMAGE SENSOR MARKET

FIGURE 22 REVENUE SHIFT FOR IMAGE SENSOR MARKET

5.4 IMAGE SENSOR ECOSYSTEM

FIGURE 23 IMAGE SENSOR ECOSYSTEM

5.5 AVERAGE SELLING PRICE ANALYSIS

TABLE 1 AVERAGE SELLING PRICES OF IMAGE SENSORS FROM 2018 TO 2019

5.6 VALUE CHAIN ANALYSIS

5.6.1 IMAGE SENSOR VALUE CHAIN

FIGURE 24 IMAGE SENSOR VALUE CHAIN: MAJOR VALUE ADDED BY IMAGE SENSOR MANUFACTURERS AND SYSTEM INTEGRATORS

5.7 TECHNOLOGY TRENDS

5.7.1 KEY TECHNOLOGIES

5.7.1.1 CMOS technology

5.7.1.2 CCD technology

5.7.1.3 sCMOS technology

5.7.2 COMPLEMENTARY TECHNOLOGIES

5.7.2.1 Quantum dot CMOS technology

5.7.3 ADJACENT TECHNOLOGIES

5.7.3.1 LiDAR technology

5.7.3.2 Thermal imaging technology

5.8 CASE STUDIES

5.8.1 LABSPHERE, INC. USED IMAGE SENSORS TO PROVIDE UNIFORM IRRADIANCE FOR HIGH-UNIFORMITY CALIBRATIONS OF CAMERA SENSORS

5.8.2 INDUSTRIAL VISION SYSTEMS LIMITED USED IMAGE SENSOR-ENABLED VISION SYSTEMS TO INSPECT HUD USED IN JET PLANES

5.8.3 PANASONIC CORPORATION DEPLOYED ITS IMAGE SENSOR EQUIPPED CAMERA SYSTEMS IN SLOVAKIA

6 IMPACT OF COVID-19 ON IMAGE SENSOR MARKET

FIGURE 25 GLOBAL PROPAGATION OF COVID-19

FIGURE 26 PROPAGATION OF COVID-19 IN SELECT COUNTRIES

FIGURE 27 PRE- AND POST-COVID-19 SCENARIO OF IMAGE SENSOR MARKET

FIGURE 28 PRE- AND POST-COVID-19 SCENARIO OF IMAGE SENSOR MARKET, BY REGION

FIGURE 29 PRE- AND POST-COVID-19 SCENARIO OF 2D IMAGE SENSOR MARKET, BY PROCESSING TECHNIQUE

FIGURE 30 PRE- AND POST-COVID-19 SCENARIO OF CCD IMAGE SENSOR MARKET, BY TECHNOLOGY

7 IMAGE SENSOR MARKET, BY TECHNOLOGY

7.1 INTRODUCTION

FIGURE 31 IMAGE SENSOR MARKET, BY TECHNOLOGY

FIGURE 32 CMOS IMAGE SENSOR MARKET TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

TABLE 2 IMAGE SENSOR MARKET, BY TECHNOLOGY, 2017–2025 (USD MILLION)

TABLE 3 IMAGE SENSOR MARKET, BY TECHNOLOGY, 2017–2025 (MILLION UNITS)

7.2 CMOS IMAGE SENSORS

7.2.1 CMOS IMAGE SENSORS SEGMENT TO LEAD IMAGE SENSOR MARKET FROM 2020 TO 2025

7.3 CCD IMAGE SENSORS

7.3.1 CCD IMAGE SENSORS USE GLOBAL SHUTTER FUNCTION TO CAPTURE COMPLETE IMAGE AT ONCE

7.4 OTHERS

8 IMAGE SENSOR MARKET, BY PROCESSING TECHNIQUE

8.1 INTRODUCTION

FIGURE 33 IMAGE SENSOR MARKET, BY PROCESSING TECHNIQUE

FIGURE 34 3D IMAGE SENSORS SEGMENT OF IMAGE SENSOR MARKET

PROJECTED TO GROW AT HIGH CAGR FROM 2020 TO 2025

TABLE 4 IMAGE SENSOR MARKET, BY PROCESSING TECHNIQUE, 2017–2025
(USD MILLION)

8.2 2D IMAGE SENSORS

8.2.1 HIGH DEMAND FOR 2D IMAGE SENSORS FOR IMPROVED SITUATIONAL
AWARENESS

TABLE 5 2D IMAGE SENSOR MARKET, BY END USER, 2017–2025 (USD MILLION)

8.3 3D IMAGE SENSORS

8.3.1 3D IMAGE SENSORS USE TIME OF MEASUREMENT METHOD FOR DEPTH-
SENSING APPLICATIONS

FIGURE 35 AUTOMOTIVE SEGMENT OF 3D IMAGE SENSOR MARKET

PROJECTED TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

TABLE 6 3D IMAGE SENSOR MARKET, BY END USER, 2017–2025 (USD MILLION)

9 IMAGE SENSOR MARKET, BY SPECTRUM

9.1 INTRODUCTION

FIGURE 36 IMAGE SENSOR MARKET, BY SPECTRUM

FIGURE 37 NON-VISIBLE SEGMENT OF IMAGE SENSOR MARKET TO GROW AT
HIGH CAGR FROM 2020 TO 2025

TABLE 7 IMAGE SENSOR MARKET, BY SPECTRUM, 2017–2025 (USD MILLION)

9.2 VISIBLE SPECTRUM

9.2.1 RISING INCORPORATION OF VISIBLE SPECTRUM IMAGE SENSORS IN
CONSUMER ELECTRONICS

TABLE 8 IMAGE SENSOR MARKET FOR VISIBLE SPECTRUM, BY END USER,
2017–2025 (USD MILLION)

9.3 NON-VISIBLE SPECTRUM

TABLE 9 IMAGE SENSOR MARKET FOR NON-VISIBLE SPECTRUM, BY END USER,
2017–2025 (USD MILLION)

9.3.1 INFRARED RAYS

9.3.1.1 Increasing use of IR image sensors in surveillance, automotive, and machine
vision applications

9.3.2 X-RAYS

9.3.2.1 Surging demand for X-ray image sensors in dental and surgical radiography

applications

10 IMAGE SENSOR MARKET, BY ARRAY TYPE

10.1 INTRODUCTION

FIGURE 38 IMAGE SENSOR MARKET, BY ARRAY TYPE

FIGURE 39 AREA IMAGE SENSORS SEGMENT OF IMAGE SENSOR MARKET TO GROW AT HIGH CAGR FROM 2020 TO 2025

TABLE 10 IMAGE SENSOR MARKET, BY ARRAY TYPE, 2017–2025 (USD MILLION)

10.2 LINEAR IMAGE SENSORS

10.2.1 LINEAR IMAGE SENSORS OFFER FAST SCANNING

10.3 AREA IMAGE SENSORS

10.3.1 AREA IMAGE SENSORS SEGMENT TO LEAD IMAGE SENSOR MARKET FROM 2020 TO 2025

11 IMAGE SENSOR MARKET, BY RESOLUTION

11.1 INTRODUCTION

FIGURE 40 IMAGE SENSOR MARKET, BY RESOLUTION

FIGURE 41 12 MP TO 16 MP SEGMENT OF IMAGE SENSOR MARKET TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

TABLE 11 IMAGE SENSOR MARKET, BY RESOLUTION, 2017–2025 (USD MILLION)

11.2 VGA

11.2.1 INCREASE IN DEMAND FOR IR IMAGE SENSORS WITH VGA RESOLUTION

11.3 1.3 MP TO 3 MP

11.3.1 SURGE IN ADOPTION OF IMAGE SENSORS WITH 1.3 MP TO 3 MP RESOLUTION IN AUTOMOTIVE AND MACHINE VISION APPLICATIONS

11.4 5 MP TO 10 MP

11.4.1 IMAGE SENSORS WITH 5 MP TO 10 MP RESOLUTION HAVE LOW POWER CONSUMPTION AND SMALL FOOTPRINT

11.5 12 MP TO 16 MP

11.5.1 12 MP TO 16 MP SEGMENT OF IMAGE SENSOR MARKET TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

11.6 MORE THAN 16 MP

11.6.1 FOCUS OF CONSUMERS ON SMARTPHONE PHOTOGRAPHY TO FUEL DEMAND FOR MORE THAN 16 MP RESOLUTION IMAGE SENSORS

12 IMAGE SENSOR MARKET, BY END USER

12.1 INTRODUCTION

FIGURE 42 IMAGE SENSOR MARKET, BY END USER

FIGURE 43 AUTOMOTIVE SEGMENT OF IMAGE SENSOR MARKET TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

TABLE 12 IMAGE SENSOR MARKET, BY END USER, 2017–2025 (USD MILLION)

12.2 AEROSPACE, DEFENSE, AND HOMELAND SECURITY

12.2.1 HIGH DEMAND FOR CMOS IMAGE SENSORS FOR ENVIRONMENT OBSERVATION

TABLE 13 IMAGE SENSOR MARKET FOR AEROSPACE, DEFENSE, AND HOMELAND SECURITY, BY PROCESSING TECHNIQUE, 2017–2025 (USD MILLION)

TABLE 14 IMAGE SENSOR MARKET FOR AEROSPACE, DEFENSE, AND HOMELAND SECURITY, BY SPECTRUM, 2017–2025 (USD MILLION)

TABLE 15 IMAGE SENSOR MARKET FOR AEROSPACE, DEFENSE, AND HOMELAND SECURITY, BY REGION, 2017–2025 (USD MILLION)

TABLE 16 IMAGE SENSOR MARKET IN APAC FOR AEROSPACE, DEFENSE, AND HOMELAND SECURITY, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 17 IMAGE SENSOR MARKET IN NORTH AMERICA FOR AEROSPACE, DEFENSE, AND HOMELAND SECURITY, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 18 IMAGE SENSOR MARKET IN EUROPE FOR AEROSPACE, DEFENSE, AND HOMELAND SECURITY, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 19 IMAGE SENSOR MARKET IN ROW FOR AEROSPACE, DEFENSE, AND HOMELAND SECURITY, BY REGION, 2017–2025 (USD MILLION)

12.3 AUTOMOTIVE

TABLE 20 IMAGE SENSOR MARKET FOR AUTOMOTIVE, BY PROCESSING TECHNIQUE, 2017–2025 (USD MILLION)

TABLE 21 IMAGE SENSOR MARKET FOR AUTOMOTIVE, BY SPECTRUM, 2017–2025 (USD MILLION)

TABLE 22 IMAGE SENSOR MARKET FOR AUTOMOTIVE, BY REGION, 2017–2025 (USD MILLION)

TABLE 23 IMAGE SENSOR MARKET IN APAC FOR AUTOMOTIVE, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 24 IMAGE SENSOR MARKET IN NORTH AMERICA FOR AUTOMOTIVE, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 25 IMAGE SENSOR MARKET IN EUROPE FOR AUTOMOTIVE, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 26 IMAGE SENSOR MARKET IN ROW FOR AUTOMOTIVE, BY REGION, 2017–2025 (USD MILLION)

FIGURE 44 IN-CABIN ADAS SEGMENT OF IMAGE SENSOR MARKET FOR AUTOMOTIVE TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

TABLE 27 IMAGE SENSOR MARKET FOR AUTOMOTIVE, BY END-USE APPLICATION, 2017–2025 (USD MILLION)

12.3.1 REAR- AND SIDE-VIEW CAMERAS

12.3.1.1 Image sensors offer HDR and IR vision required for rear- and side-view cameras

TABLE 28 IMAGE SENSOR MARKET FOR REAR- AND SIDE-VIEW CAMERAS, BY REGION, 2017–2025 (USD MILLION)

12.3.2 FORWARD-LOOKING ADAS

12.3.2.1 Image sensors help forward-looking ADAS in ensuring safety of onboard passengers

TABLE 29 IMAGE SENSOR MARKET FOR FORWARD-LOOKING ADAS, BY REGION, 2017–2025 (USD MILLION)

12.3.3 IN-CABIN ADAS

12.3.3.1 High demand for in-cabin ADAS equipped with image sensors for various safety features

TABLE 30 IMAGE SENSOR MARKET FOR IN-CABIN ADAS, BY REGION, 2017–2025 (USD MILLION)

12.3.4 CAMERA MIRROR SYSTEMS

12.3.4.1 Increased adoption of camera mirror systems to replace side mirrors in automobiles

TABLE 31 IMAGE SENSOR MARKET FOR CAMERA MIRROR SYSTEMS, BY REGION, 2017–2025 (USD MILLION)

12.4 CONSUMER ELECTRONICS

TABLE 32 IMAGE SENSOR MARKET FOR CONSUMER ELECTRONICS, BY PROCESSING TECHNIQUE, 2017–2025 (USD MILLION)

TABLE 33 IMAGE SENSOR MARKET FOR CONSUMER ELECTRONICS, BY SPECTRUM, 2017–2025 (USD MILLION)

TABLE 34 IMAGE SENSOR MARKET FOR CONSUMER ELECTRONICS, BY REGION, 2017–2025 (USD MILLION)

TABLE 35 IMAGE SENSOR MARKET IN APAC FOR CONSUMER ELECTRONICS, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 36 IMAGE SENSOR MARKET IN NORTH AMERICA FOR CONSUMER ELECTRONICS, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 37 IMAGE SENSOR MARKET IN EUROPE FOR CONSUMER ELECTRONICS, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 38 IMAGE SENSOR MARKET IN ROW FOR CONSUMER ELECTRONICS, BY REGION, 2017–2025 (USD MILLION)

FIGURE 45 WEARABLES SEGMENT OF IMAGE SENSOR MARKET FOR CONSUMER ELECTRONICS TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

TABLE 39 IMAGE SENSOR MARKET FOR CONSUMER ELECTRONICS, BY END-USE APPLICATION, 2017–2025 (USD MILLION)

12.4.1 SMARTPHONES AND TABLETS

12.4.1.1 High demand for cameras equipped with image sensors for use in smartphones and tablets

TABLE 40 IMAGE SENSOR MARKET FOR SMARTPHONES AND TABLETS, BY REGION, 2017–2025 (USD MILLION)

12.4.2 DESKTOPS AND LAPTOPS

12.4.2.1 Desktops and laptops use both CCD and CMOS image sensors

TABLE 41 IMAGE SENSOR MARKET FOR DESKTOPS AND LAPTOPS, BY REGION, 2017–2025 (USD MILLION)

12.4.3 COMMERCIAL COPIERS AND SCANNERS

12.4.3.1 Offices, enterprises, and educational institutions drive demand for commercial copiers and scanners equipped with image sensors

TABLE 42 IMAGE SENSOR MARKET FOR COMMERCIAL COPIERS AND SCANNERS, BY REGION, 2017–2025 (USD MILLION)

12.4.4 PHOTOGRAPHY AND VIDEOGRAPHY SOLUTIONS

12.4.4.1 Continuous improvements in cameras used in smartphones

TABLE 43 IMAGE SENSOR MARKET FOR PHOTOGRAPHY AND VIDEOGRAPHY SOLUTIONS, BY REGION, 2017–2025 (USD MILLION)

12.4.5 RESIDENTIAL SURVEILLANCE SYSTEMS

12.4.5.1 Increased demand for image sensors used in CCTV cameras, video door phones, and CCD box cameras

TABLE 44 IMAGE SENSOR MARKET FOR RESIDENTIAL SURVEILLANCE SYSTEMS, BY REGION, 2017–2025 (USD MILLION)

12.4.6 WEARABLES

12.4.6.1 Growth in demand for compact image sensors used in wearables

TABLE 45 IMAGE SENSOR MARKET FOR WEARABLES, BY REGION, 2017–2025 (USD MILLION)

12.4.7 COMMERCIAL DRONES

12.4.7.1 Increased adoption of image sensors in commercial drones to improve business efficiency

TABLE 46 IMAGE SENSOR MARKET FOR COMMERCIAL DRONES, BY REGION, 2017–2025 (USD MILLION)

12.4.8 SERVICE ROBOTS

12.4.8.1 Service robots use image sensor-based cameras to track objects and identify their movements

TABLE 47 IMAGE SENSOR MARKET FOR SERVICE ROBOTS, BY REGION, 2017–2025 (USD MILLION)

12.5 MEDICAL AND LIFE SCIENCES

TABLE 48 IMAGE SENSOR MARKET FOR MEDICAL AND LIFE SCIENCES, BY PROCESSING TECHNIQUE, 2017–2025 (USD MILLION)

TABLE 49 IMAGE SENSOR MARKET FOR MEDICAL AND LIFE SCIENCES, BY SPECTRUM, 2017–2025 (USD MILLION)

TABLE 50 IMAGE SENSOR MARKET FOR MEDICAL AND LIFE SCIENCES, BY REGION, 2017–2025 (USD MILLION)

TABLE 51 IMAGE SENSOR MARKET IN APAC FOR MEDICAL AND LIFE SCIENCES, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 52 IMAGE SENSOR MARKET IN NORTH AMERICA FOR MEDICAL AND LIFE SCIENCES, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 53 IMAGE SENSOR MARKET IN EUROPE FOR MEDICAL AND LIFE SCIENCES, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 54 IMAGE SENSOR MARKET IN ROW FOR MEDICAL AND LIFE SCIENCES, BY REGION, 2017–2025 (USD MILLION)

FIGURE 46 X-RAY IMAGING SEGMENT OF IMAGE SENSOR MARKET FOR MEDICAL AND LIFE SCIENCES TO GROW AT HIGH CAGR FROM 2020 TO 2025

TABLE 55 IMAGE SENSOR MARKET FOR MEDICAL AND LIFE SCIENCES, BY END-USE APPLICATION, 2017–2025 (USD MILLION)

12.5.1 X-RAY IMAGING

12.5.1.1 X-ray image sensors offer high-quality images

TABLE 56 IMAGE SENSOR MARKET FOR X-RAY IMAGING, BY REGION, 2017–2025 (USD MILLION)

12.5.2 ENDOSCOPY

12.5.2.1 Surged demand for image sensor equipped endoscopes to examine organs

TABLE 57 IMAGE SENSOR MARKET FOR ENDOSCOPY, BY REGION, 2017–2025 (USD MILLION)

TABLE 58 IMAGE SENSOR MARKET FOR INDUSTRIAL, BY PROCESSING TECHNIQUE, 2017–2025 (USD MILLION)

TABLE 59 IMAGE SENSOR MARKET FOR INDUSTRIAL, BY SPECTRUM, 2017–2025 (USD MILLION)

TABLE 60 IMAGE SENSOR MARKET FOR INDUSTRIAL, BY REGION, 2017–2025 (USD MILLION)

TABLE 61 IMAGE SENSOR MARKET IN APAC FOR INDUSTRIAL, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 62 IMAGE SENSOR MARKET IN NORTH AMERICA FOR INDUSTRIAL, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 63 IMAGE SENSOR MARKET IN EUROPE FOR INDUSTRIAL, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 64 IMAGE SENSOR MARKET IN ROW FOR INDUSTRIAL, BY REGION, 2017–2025 (USD MILLION)

FIGURE 47 ROBOTIC VISION SEGMENT OF IMAGE SENSOR MARKET FOR INDUSTRIAL TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

TABLE 65 IMAGE SENSOR MARKET FOR INDUSTRIAL, BY END-USE APPLICATION, 2017–2025 (USD MILLION)

12.6.1 MACHINE VISION

12.6.1.1 Surged adoption of image sensors for analyzing process controls, automatic inspection systems, and robot guidance systems

TABLE 66 IMAGE SENSOR MARKET FOR MACHINE VISION, BY REGION, 2017–2025 (USD MILLION)

12.6.2 ROBOTIC VISION

12.6.2.1 High demand for robot vision image sensors in different industries

TABLE 67 IMAGE SENSOR MARKET FOR ROBOTIC VISION, BY REGION, 2017–2025 (USD MILLION)

12.6.3 INDUSTRIAL SURVEILLANCE AND MONITORING

12.6.3.1 Rise in incidents of raw material thefts lead to increased demand for industrial surveillance and monitoring systems

TABLE 68 IMAGE SENSOR MARKET FOR INDUSTRIAL SURVEILLANCE AND MONITORING, BY REGION, 2017–2025 (USD MILLION)

12.7 COMMERCIAL

TABLE 69 IMAGE SENSOR MARKET FOR COMMERCIAL, BY PROCESSING TECHNIQUE, 2017–2025 (USD MILLION)

TABLE 70 IMAGE SENSOR MARKET FOR COMMERCIAL, BY SPECTRUM, 2017–2025 (USD MILLION)

TABLE 71 IMAGE SENSOR MARKET FOR COMMERCIAL, BY REGION, 2017–2025 (USD MILLION)

TABLE 72 IMAGE SENSOR MARKET IN APAC FOR COMMERCIAL, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 73 IMAGE SENSOR MARKET IN NORTH AMERICA FOR COMMERCIAL, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 74 IMAGE SENSOR MARKET IN EUROPE FOR COMMERCIAL, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 75 IMAGE SENSOR MARKET IN ROW FOR COMMERCIAL, BY REGION, 2017–2025 (USD MILLION)

FIGURE 48 SURVEILLANCE SYSTEMS SEGMENT OF IMAGE SENSOR MARKET FOR COMMERCIAL TO GROW AT HIGH CAGR FROM 2020 TO 2025

TABLE 76 IMAGE SENSOR MARKET FOR COMMERCIAL, BY END-USE APPLICATION, 2017–2025 (USD MILLION)

12.7.1 BARCODE SCANNERS

12.7.1.1 Surged demand for image sensor-based barcode scanners used in retail, manufacturing, healthcare, and logistic applications

TABLE 77 IMAGE SENSOR MARKET FOR BARCODE SCANNERS, BY REGION, 2017–2025 (USD MILLION)

12.7.2 SURVEILLANCE SYSTEMS

12.7.2.1 Increased global demand for image sensor-based surveillance systems from retail and banking sectors

TABLE 78 IMAGE SENSOR MARKET FOR SURVEILLANCE SYSTEMS, BY REGION, 2017–2025 (USD MILLION)

13 GEOGRAPHIC ANALYSIS

13.1 INTRODUCTION

FIGURE 49 IMAGE SENSOR MARKET IN APAC TO GROW AT HIGHEST CAGR FROM

2020 TO 2025

TABLE 79 IMAGE SENSOR MARKET, BY REGION, 2017–2025 (USD MILLION)

13.2 APAC

FIGURE 50 APAC: IMAGE SENSOR MARKET SNAPSHOT

TABLE 80 IMAGE SENSOR MARKET IN APAC, BY END USER, 2017–2025 (USD MILLION)

TABLE 81 IMAGE SENSOR MARKET IN APAC FOR AUTOMOTIVE, BY END-USE APPLICATION, 2017–2025 (USD MILLION)

TABLE 82 IMAGE SENSOR MARKET IN APAC FOR CONSUMER ELECTRONICS, BY END-USE APPLICATION, 2017–2025 (USD MILLION)

TABLE 83 IMAGE SENSOR MARKET IN APAC FOR MEDICAL AND LIFE SCIENCES, BY END-USE APPLICATION, 2017–2025 (USD MILLION)

TABLE 84 IMAGE SENSOR MARKET IN APAC FOR INDUSTRIAL, BY END-USE APPLICATION, 2017–2025 (USD MILLION)

TABLE 85 IMAGE SENSOR MARKET IN APAC FOR COMMERCIAL, BY END-USE APPLICATION, 2017–2025 (USD MILLION)

FIGURE 51 IMAGE SENSOR MARKET IN CHINA TO GROW AT HIGHEST CAGR FROM

2020 TO 2025

TABLE 86 IMAGE SENSOR MARKET IN APAC, BY COUNTRY, 2017–2025 (USD MILLION)**13.2.1 CHINA**

13.2.1.1 China to lead image sensor market in APAC from 2020 to 2025

13.2.2 INDIA

13.2.2.1 Continuously increasing number of smartphones and tablets driving market in India

13.2.3 JAPAN

13.2.3.1 Presence of key image sensor manufacturers fueling growth of market in Japan

13.2.4 REST OF APAC**13.3 NORTH AMERICA****FIGURE 52 NORTH AMERICA: IMAGE SENSOR MARKET SNAPSHOT****TABLE 87 IMAGE SENSOR MARKET IN NORTH AMERICA, BY END USER, 2017–2025 (USD MILLION)****TABLE 88 IMAGE SENSOR MARKET IN NORTH AMERICA FOR AUTOMOTIVE, BY END-USE APPLICATION, 2017–2025 (USD MILLION)****TABLE 89 IMAGE SENSOR MARKET IN NORTH AMERICA FOR CONSUMER ELECTRONICS, BY END-USE APPLICATION, 2017–2025 (USD MILLION)****TABLE 90 IMAGE SENSOR MARKET IN NORTH AMERICA FOR MEDICAL AND LIFE SCIENCES, BY END-USE APPLICATION, 2017–2025 (USD MILLION)****TABLE 91 IMAGE SENSOR MARKET IN NORTH AMERICA FOR INDUSTRIAL, BY END-USE APPLICATION, 2017–2025 (USD MILLION)****TABLE 92 IMAGE SENSOR MARKET IN NORTH AMERICA FOR COMMERCIAL, BY END-USE APPLICATION, 2017–2025 (USD MILLION)****FIGURE 53 IMAGE SENSOR MARKET IN US TO GROW AT HIGHEST CAGR FROM****2020 TO 2025****TABLE 93 IMAGE SENSOR MARKET IN NORTH AMERICA, BY COUNTRY, 2017–2025 (USD MILLION)****13.3.1 US**

13.3.1.1 US to lead image sensor market in North America from 2020 to 2025

13.3.2 CANADA

13.3.2.1 Increased adoption of electric vehicles and hybrid electric vehicles driving growth of market in Canada

13.3.3 MEXICO

13.3.3.1 High demand for automation solutions from several industries in Mexico fueling demand for image sensors

13.4 EUROPE

FIGURE 54 EUROPE: IMAGE SENSOR MARKET SNAPSHOT

TABLE 94 IMAGE SENSOR MARKET IN EUROPE, BY END USER, 2017–2025 (USD MILLION)

TABLE 95 IMAGE SENSOR MARKET IN EUROPE FOR AUTOMOTIVE, BY END-USE APPLICATION, 2017–2025 (USD MILLION)

TABLE 96 IMAGE SENSOR MARKET IN EUROPE FOR CONSUMER ELECTRONICS, BY END-USE APPLICATION, 2017–2025 (USD MILLION)

TABLE 97 IMAGE SENSOR MARKET IN EUROPE FOR MEDICAL AND LIFE SCIENCES, BY END-USE APPLICATION, 2017–2025 (USD MILLION)

TABLE 98 IMAGE SENSOR MARKET IN EUROPE FOR INDUSTRIAL, BY END-USE APPLICATION, 2017–2025 (USD MILLION)

TABLE 99 IMAGE SENSOR MARKET IN EUROPE FOR COMMERCIAL, BY END-USE APPLICATION, 2017–2025 (USD MILLION)

FIGURE 55 IMAGE SENSOR MARKET IN GERMANY TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

TABLE 100 IMAGE SENSOR MARKET IN EUROPE, BY COUNTRY, 2017–2025 (USD MILLION)

13.4.1 UK

13.4.1.1 Developments in industrial sector are driving market in UK

13.4.2 GERMANY

13.4.2.1 Germany to lead image sensor market in Europe

13.4.3 FRANCE

13.4.3.1 Increased popularity of wearables is fueling growth of market in France

13.4.4 REST OF EUROPE

13.5 ROW

TABLE 101 IMAGE SENSOR MARKET IN ROW, BY END USER, 2017–2025 (USD MILLION)

TABLE 102 IMAGE SENSOR MARKET IN ROW FOR AUTOMOTIVE, BY END-USE APPLICATION, 2017–2025 (USD MILLION)

TABLE 103 IMAGE SENSOR MARKET IN ROW FOR CONSUMER ELECTRONICS, BY END-USE APPLICATION, 2017–2025 (USD MILLION)

TABLE 104 IMAGE SENSOR MARKET IN ROW FOR MEDICAL AND LIFE SCIENCES, BY END-USE APPLICATION, 2017–2025 (USD MILLION)

TABLE 105 IMAGE SENSOR MARKET IN ROW FOR INDUSTRIAL, BY END-USE APPLICATION, 2017–2025 (USD MILLION)

TABLE 106 IMAGE SENSOR MARKET IN ROW FOR COMMERCIAL, BY END-USE APPLICATION, 2017–2025 (USD MILLION)

FIGURE 56 IMAGE SENSOR MARKET IN MIDDLE EAST AND AFRICA TO GROW AT

HIGH CAGR FROM 2020 TO 2025

TABLE 107 IMAGE SENSOR MARKET IN ROW, BY REGION, 2017–2025 (USD MILLION)

13.5.1 MIDDLE EAST AND AFRICA

13.5.1.1 High per capita income of individuals is propelling growth of market in Middle East and Africa

13.5.2 SOUTH AMERICA

13.5.2.1 Large population and increased disposable income expected to create opportunities for image sensor manufacturers in South America

14 COMPETITIVE LANDSCAPE

14.1 INTRODUCTION

FIGURE 57 COMPANIES ADOPTED PRODUCT LAUNCHES AND DEVELOPMENTS AS KEY GROWTH STRATEGY FROM MAY 2018 TO JUNE 2020

14.2 MARKET RANKING ANALYSIS, 2019

FIGURE 58 RANKING OF TOP 5 PLAYERS IN IMAGE SENSOR MARKET

14.3 MARKET EVALUATION FRAMEWORK

FIGURE 59 MARKET EVALUATION FRAMEWORK-PRODUCT LAUNCHES AND DEVELOPMENTS FUELED GROWTH AND INNOVATIONS IN IMAGE SENSOR MARKET FROM MAY 2018 TO JUNE 2020

14.3.1 NEW PRODUCT LAUNCHES AND DEVELOPMENTS AND TECHNOLOGY DEVELOPMENTS

TABLE 108 NEW PRODUCT LAUNCHES AND DEVELOPMENTS AND TECHNOLOGY DEVELOPMENTS, MAY 2018–JUNE 2020

14.3.2 ACQUISITIONS

TABLE 109 ACQUISITIONS, JUNE 2019–MARCH 2020

14.3.3 COLLABORATIONS AND PARTNERSHIPS

TABLE 110 COLLABORATIONS AND PARTNERSHIPS, SEPTEMBER 2018–APRIL 2020

14.3.4 EXPANSIONS

TABLE 111 EXPANSIONS, SEPTEMBER 2018– APRIL 2020

14.4 REVENUE ANALYSIS OF TOP MARKET PLAYERS, 2019

TABLE 112 REVENUE ANALYSIS OF TOP MARKET PLAYERS, 2019 (USD BILLION)

15 COMPANY EVALUATION MATRIX AND COMPANY PROFILES

15.1 OVERVIEW

15.2 MARKET SHARE, 2019

FIGURE 60 SONY CORPORATION LED IMAGE SENSOR MARKET IN 2019

15.3 COMPANY EVALUATION MATRIX DEFINITION AND METHODOLOGY

15.3.1 STAR

15.3.2 PERVASIVE

15.3.3 EMERGING LEADERS

15.4 COMPANY EVALUATION MATRIX, 2019

FIGURE 61 COMPANY EVALUATION MATRIX, 2019

15.5 SME EVALUATION MATRIX, 2019

FIGURE 62 COMPANY EVALUATION MATRIX, 2019

15.6 STRENGTH OF PRODUCT PORTFOLIO

FIGURE 63 PRODUCT PORTFOLIO ANALYSIS OF TOP PLAYERS IN IMAGE SENSOR MARKET

15.7 BUSINESS STRATEGY EXCELLENCE

FIGURE 64 BUSINESS STRATEGY EXCELLENCE OF TOP PLAYERS IN IMAGE SENSOR MARKET

16 COMPANY PROFILE

(Business Overview, Products Offered, Recent Developments, SWOT Analysis, MnM View)*

16.1 KEY PLAYERS

16.1.1 SONY CORPORATION

FIGURE 65 SONY CORPORATION: COMPANY SNAPSHOT

16.1.2 SAMSUNG ELECTRONICS CO., LTD.

FIGURE 66 SAMSUNG ELECTRONICS CO., LTD.: COMPANY SNAPSHOT

16.1.3 OMNIVISION TECHNOLOGIES, INC.

16.1.4 STMICROELECTRONICS

FIGURE 67 STMICROELECTRONICS: COMPANY SNAPSHOT

16.1.5 ON SEMICONDUCTOR CORPORATION

FIGURE 68 ON SEMICONDUCTOR CORPORATION: COMPANY SNAPSHOT

16.1.6 PANASONIC CORPORATION

FIGURE 69 PANASONIC CORPORATION: COMPANY SNAPSHOT

16.1.7 CANON INC.

FIGURE 70 CANON INC.: COMPANY SNAPSHOT

16.1.8 SK HYNIX INC.

FIGURE 71 SK HYNIX INC.: COMPANY SNAPSHOT

16.1.9 PIXART IMAGING INC.

FIGURE 72 PIXART IMAGING INC.: COMPANY SNAPSHOT

16.1.10 HAMAMATSU PHOTONICS K.K.

FIGURE 73 HAMAMATSU PHOTONICS K.K.: COMPANY SNAPSHOT**16.2 RIGHT TO WIN****16.3 OTHER KEY PLAYERS**

16.3.1 PIXELPLUS CO., LTD.

16.3.2 AMS AG

16.3.3 HIMAX TECHNOLOGIES, INC.

16.3.4 TELEDYNE TECHNOLOGIES INCORPORATED

16.3.5 SHARP CORPORATION

16.4 STARTUP ECOSYSTEM

16.4.1 GPIXEL INC.

16.4.2 PROPHESEE S.A.

16.4.3 FASTREE3D SA

16.4.4 UNISPECTRAL LTD.

16.4.5 AIRY3D

*Details on Business Overview, Products Offered, Recent Developments, SWOT Analysis, MnM View might not be captured in case of unlisted companies.

17 APPENDIX**17.1 DISCUSSION GUIDE****17.2 KNOWLEDGE STORE: MARKETSandMARKETS' SUBSCRIPTION PORTAL****17.3 AVAILABLE CUSTOMIZATIONS****17.4 RELATED REPORTS****17.5 AUTHOR DETAILS**

I would like to order

Product name: Image Sensor Market with COVID-19 Impact Analysis by Technology (CMOS Image Sensors), Processing Technique (3D Image Sensors), Spectrum, Array Type, Resolutions End User (Automotive, Consumer Electronics), and Geography - Global Forecast to 2025

Product link: <https://marketpublishers.com/r/l140B576FA7EN.html>

Price: US\$ 4,950.00 (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/l140B576FA7EN.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