

# **Low Light Imaging Market by Technology (CMOS and CCD), Application (Photography, Monitoring, Inspection & Detection, and Security & Surveillance), Vertical (Automotive, Consumer Electronics, Medical & Lifesciences) and Region - Global Forecast to 2027**

<https://marketpublishers.com/r/L7AA302FEADEN.html>

Date: November 2022

Pages: 209

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

ID: L7AA302FEADEN

## **Abstracts**

The global low light imaging market is estimated at USD 12.1 billion in 2022 and is projected to reach USD 19.9 billion by 2027, registering a CAGR of 10.4% during the forecast period. One of the factors driving the growth of low light imaging market include increasing deployment of advanced driver-assistance systems (ADASs) in automobiles, and growing use of low light image sensors in advanced medical imaging applications.

The demand for low light image sensors is rising in various automobile devices, such as dash cameras, back cameras, rear video mirrors, and 360° surround-view camera systems. Driver monitoring systems, driver recording systems, night vision systems, eMirrors, blind-spot detection systems, cabin monitoring systems, surrounding view systems, and parking assistance systems are few systems where low light imaging can be used. These systems use low light image sensors to ensure the safety of drivers, offer parking assistance, carry out collision avoidance, and issue lane departure warnings.

“Security & surveillance application is the second-fastest growing segment of low light imaging market during forecasted period”

The security and surveillance application are the second fastest segment during forecasted period. Low light imaging cameras are used in various residential, commercial, and industrial buildings for security and surveillance. The military and defense vertical also employ low light imaging cameras for security and surveillance

applications. These cameras have proven to be useful for security and surveillance applications as they provide clear images even in low light environments. IP cameras, CCTV cameras, doorbell cameras, home security cameras, baby cameras, and body cameras are a few of the cameras in which low light imaging sensors are used for security and surveillance applications.

“Europe is the second fastest growing market for low light imaging market during the forecast period”

Germany is one of the major contributors to the growth of the low light imaging market in Europe, mainly due to the high demand for low light imaging devices from the automotive vertical in the country. The automotive, and industrial, commercial, and residential infrastructure verticals foster the growth of the European low light imaging market. Europe is home to many major automobile manufacturing companies, such as Porsche (Germany), BMW (Germany), Mercedes-Benz (Germany), Volvo (Sweden), and Audi (Germany), and automotive ADAS, being the major application area of low light imaging devices, positively impacts the market growth.

Breakdown of the profiles of primary participants:

By Company Type: Tier 1 - 40%, Tier 2 - 30%, and Tier 3 - 30%

By Designation: C-level Executives - 40%, Directors - 40%, and Others - 20%

By Region: North America - 40%, Europe - 30%, Asia Pacific - 20%, and RoW - 10%

The low light imaging market is dominated by a few globally established players such as Sony Group (Japan), Samsung Electronics Co., Ltd. (South Korea), OMNIVISION Technologies (US), STMicroelectronics N.V. (Switzerland), ON Semiconductor Corporation (US), Panasonic Holdings Corporation (Japan), Canon Inc. (Japan), PixArt Imaging Inc. (Taiwan), Hamamatsu Photonics K.K. (Japan), and Teledyne Technologies Incorporated (US).

## Research Coverage

The report segments the low light imaging market and forecasts its size, by value and volume, based on region (Asia Pacific, Europe, North America, and RoW), application

(CMOS, CCD), application (photography, monitoring, inspection & detection, security & surveillance), vertical (consumer electronics, automotive, industrial, commercial & residential infrastructure, military & defense, medical & life sciences).

The report also provides a comprehensive review of market drivers, restraints, opportunities, and challenges in the low light imaging market. The report also covers qualitative aspects in addition to the quantitative aspects of these markets.

#### Key Benefits of Buying the Report:

The report will help the leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall market and the sub-segments. This 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 also helps stakeholders understand the pulse of the low light imaging market and provides them information on key market drivers, restraints, challenges, and opportunities.

## Contents

### 1 INTRODUCTION

#### 1.1 STUDY OBJECTIVES

#### 1.2 MARKET DEFINITION

##### 1.2.1 INCLUSIONS AND EXCLUSIONS

#### 1.3 STUDY SCOPE

#### FIGURE 1 LOW LIGHT IMAGING MARKET SEGMENTATION

##### 1.3.1 YEARS CONSIDERED

#### 1.4 CURRENCY CONSIDERED

#### 1.5 STAKEHOLDERS

#### 1.6 SUMMARY OF CHANGES

### 2 RESEARCH METHODOLOGY

#### 2.1 RESEARCH DATA

#### FIGURE 2 LOW LIGHT IMAGING MARKET: RESEARCH DESIGN

##### 2.1.1 SECONDARY DATA

###### 2.1.1.1 Key data from secondary sources

##### 2.1.2 PRIMARY DATA

###### 2.1.2.1 Key data from primary sources

###### 2.1.2.2 Breakdown of primary interviews

##### 2.1.3 SECONDARY AND PRIMARY RESEARCH

#### FIGURE 3 PROCESS FLOW: LOW LIGHT IMAGING MARKET SIZE ESTIMATION

###### 2.1.3.1 Key industry insights

#### 2.2 MARKET SIZE ESTIMATION

##### 2.2.1 BOTTOM-UP APPROACH

#### FIGURE 4 LOW LIGHT IMAGING MARKET: BOTTOM-UP APPROACH

##### 2.2.2 TOP-DOWN APPROACH

#### FIGURE 5 LOW LIGHT IMAGING MARKET: TOP-DOWN APPROACH

##### 2.2.3 MARKET PROJECTIONS

2.2.3.1 Specific factors considered while estimating and forecasting market size

#### 2.3 MARKET BREAKDOWN AND DATA TRIANGULATION

#### FIGURE 6 LOW LIGHT IMAGING MARKET: DATA TRIANGULATION

#### 2.4 RESEARCH ASSUMPTIONS AND LIMITATIONS

##### 2.4.1 ASSUMPTIONS

##### 2.4.2 LIMITATIONS

### **3 EXECUTIVE SUMMARY**

FIGURE 7 CMOS TECHNOLOGY TO ACCOUNT FOR LARGER MARKET SIZE IN 2027

FIGURE 8 PHOTOGRAPHY APPLICATION TO HOLD LARGEST SIZE OF LOW LIGHT IMAGING MARKET BY 2027

FIGURE 9 CONSUMER ELECTRONICS VERTICAL TO ACCOUNT FOR LARGEST MARKET SIZE DURING FORECAST PERIOD

FIGURE 10 ASIA PACIFIC CAPTURED LARGEST SHARE OF LOW LIGHT IMAGING MARKET DURING FORECAST PERIOD

### **4 PREMIUM INSIGHTS**

4.1 ATTRACTIVE GROWTH OPPORTUNITIES FOR LOW LIGHT IMAGING MARKET PLAYERS

FIGURE 11 INCREASING ADOPTION OF LOW LIGHT IMAGING PRODUCTS IN ASIA PACIFIC TO DRIVE MARKET GROWTH

4.2 LOW LIGHT IMAGING MARKET, BY TECHNOLOGY

FIGURE 12 CMOS TECHNOLOGY SEGMENT TO REGISTER HIGHER CAGR DURING FORECAST PERIOD

4.3 LOW LIGHT IMAGING MARKET, BY APPLICATION

FIGURE 13 MONITORING, INSPECTION & DETECTION APPLICATION TO EXHIBIT HIGHEST CAGR IN LOW LIGHT IMAGING MARKET DURING FORECAST PERIOD

4.4 LOW LIGHT IMAGING MARKET, BY VERTICAL

FIGURE 14 AUTOMOTIVE SEGMENT TO REGISTER HIGHEST CAGR IN LOW LIGHT IMAGING MARKET DURING FORECAST PERIOD

4.5 LOW LIGHT IMAGING MARKET, BY REGION

FIGURE 15 ASIA PACIFIC TO HOLD LARGEST SHARE OF LOW LIGHT IMAGING MARKET IN 2022

### **5 MARKET OVERVIEW**

5.1 INTRODUCTION

5.2 MARKET DYNAMICS

FIGURE 16 LOW LIGHT IMAGING MARKET: DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES

5.2.1 DRIVERS

5.2.1.1 Integration of low light imaging sensors into cameras of smartphones and

tablets

5.2.1.2 Increasing deployment of advanced driver-assistance systems (ADAS) in automobiles

5.2.1.3 Growing use of low light image sensors in advanced medical imaging applications

FIGURE 17 ANALYSIS OF IMPACT OF DRIVERS ON LOW LIGHT IMAGING MARKET

5.2.2 RESTRAINTS

5.2.2.1 Declining demand for digital still cameras

FIGURE 18 GLOBAL SHIPMENTS OF DIGITAL STILL CAMERAS, 2011–2021

FIGURE 19 ANALYSIS OF IMPACT OF RESTRAINTS ON LOW LIGHT IMAGING MARKET

5.2.3 OPPORTUNITIES

5.2.3.1 Rising innovations and advancements in light imaging sensors

FIGURE 20 ANALYSIS OF IMPACT OF OPPORTUNITIES ON LOW LIGHT IMAGING MARKET

5.2.4 CHALLENGES

5.2.4.1 Short time-to-market of smartphones

FIGURE 21 ANALYSIS OF IMPACT OF CHALLENGES ON LOW LIGHT IMAGING MARKET

5.3 SUPPLY CHAIN ANALYSIS

FIGURE 22 LOW LIGHT IMAGING MARKET: SUPPLY CHAIN ANALYSIS

TABLE 1 LOW LIGHT IMAGING MARKET: ECOSYSTEM ANALYSIS

5.4 ECOSYSTEM ANALYSIS

FIGURE 23 LOW LIGHT IMAGING MARKET: ECOSYSTEM ANALYSIS

5.5 AVERAGE SELLING PRICE ANALYSIS

5.5.1 AVERAGE SELLING PRICE OF CMOS IMAGE SENSORS OFFERED BY KEY PLAYERS

FIGURE 24 AVERAGE SELLING PRICE OF CMOS IMAGE SENSORS OFFERED BY KEY PLAYERS

TABLE 2 AVERAGE SELLING PRICE OF CMOS IMAGE SENSORS OFFERED BY KEY PLAYERS (USD)

5.5.2 AVERAGE SELLING PRICE TREND

TABLE 3 AVERAGE SELLING PRICE OF LOW LIGHT IMAGING PRODUCTS, BY INDUSTRY (USD)

FIGURE 25 AVERAGE SELLING PRICE OF LOW LIGHT IMAGING PRODUCTS, BY INDUSTRY

5.6 TRENDS/DISRUPTIONS IMPACTING CUSTOMER BUSINESS

FIGURE 26 REVENUE SHIFTS FOR LOW LIGHT IMAGING MARKET

## 5.7 TECHNOLOGY TRENDS

### 5.7.1 LIDAR TECHNOLOGY

### 5.7.2 THERMAL IMAGING TECHNOLOGY

## 5.8 PORTER'S FIVE FORCES ANALYSIS

TABLE 4 LOW LIGHT IMAGING MARKET: PORTER'S FIVE FORCES ANALYSIS

FIGURE 27 LOW LIGHT IMAGING MARKET: PORTER'S FIVE FORCES ANALYSIS

### 5.8.1 THREAT OF NEW ENTRANTS

### 5.8.2 THREAT OF SUBSTITUTES

### 5.8.3 BARGAINING POWER OF SUPPLIERS

### 5.8.4 BARGAINING POWER OF BUYERS

### 5.8.5 INTENSITY OF COMPETITIVE RIVALRY

## 5.9 KEY STAKEHOLDERS AND BUYING CRITERIA

### 5.9.1 KEY STAKEHOLDERS IN BUYING PROCESS

FIGURE 28 INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR TOP THREE VERTICALS

TABLE 5 INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR TOP THREE VERTICALS (%)

### 5.9.2 BUYING CRITERIA

FIGURE 29 KEY BUYING CRITERIA FOR TOP THREE VERTICALS

TABLE 6 KEY BUYING CRITERIA FOR TOP THREE VERTICALS

## 5.10 CASE STUDY ANALYSIS

5.10.1 ONSEMI PYTHON SERIES OF CMOS IMAGE SENSORS USED IN CAMERA SYSTEMS DURING MARS 2020 MISSION

5.10.2 LABSPHERE, INC. DEPLOYED HIGH-END IMAGE SENSORS IN ITS SPHERE UNIFORM LIGHT SOURCE SYSTEMS

5.10.3 IMAGE SENSOR-ENABLED VISION SYSTEMS USED TO INSPECT HEAD-UP DISPLAYS (HUDS) DEPLOYED IN JET PLANES

## 5.11 TRADE ANALYSIS

### 5.11.1 IMPORT SCENARIO

TABLE 7 IMPORT DATA, BY COUNTRY, 2017–2021 (USD MILLION)

### 5.11.2 EXPORT SCENARIO

TABLE 8 EXPORT DATA, BY COUNTRY, 2017–2021 (USD MILLION)

## 5.12 PATENT ANALYSIS

FIGURE 30 NUMBER OF PATENTS RELATED TO LOW LIGHT IMAGING PRODUCTS, 2012–2022

TABLE 9 LIST OF SOME PATENTS PERTAINING TO LOW LIGHT IMAGING MARKET, 2020–2021

## 5.13 KEY CONFERENCES AND EVENTS, 2022–2023

TABLE 10 LOW LIGHT IMAGING MARKET: DETAILED LIST OF CONFERENCES

## AND EVENTS

### 5.14 TARIFF ANALYSIS

TABLE 11 MFN TARIFFS FOR HS CODE 854239-COMPLIANT PRODUCTS EXPORTED

BY US

TABLE 12 MFN TARIFFS FOR HS CODE 854239-COMPLIANT PRODUCTS EXPORTED

BY CHINA

TABLE 13 MFN TARIFFS FOR HS CODE 854239-COMPLIANT PRODUCTS EXPORTED

BY JAPAN

### 5.15 STANDARDS AND REGULATORY LANDSCAPE

5.15.1 REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 14 NORTH AMERICA: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 15 EUROPE: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 16 ASIA PACIFIC: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 17 ROW: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

#### 5.15.2 GOVERNMENT REGULATIONS

5.15.2.1 Canada

5.15.2.2 US

5.15.2.3 Europe

5.15.2.4 India

## 6 LOW LIGHT IMAGING MARKET, BY TECHNOLOGY

### 6.1 INTRODUCTION

FIGURE 31 LOW LIGHT IMAGING MARKET, BY TECHNOLOGY

FIGURE 32 CMOS TECHNOLOGY TO CONTINUE TO DOMINATE LOW LIGHT IMAGING MARKET DURING FORECAST PERIOD

TABLE 18 LOW LIGHT IMAGING MARKET, BY TECHNOLOGY, 2018–2021 (USD MILLION)

TABLE 19 LOW LIGHT IMAGING MARKET, BY TECHNOLOGY, 2022–2027 (USD MILLION)

TABLE 20 LOW LIGHT IMAGING MARKET, BY TECHNOLOGY, 2018–2021 (MILLION)



UNIT)

TABLE 21 LOW LIGHT IMAGING MARKET, BY TECHNOLOGY, 2022–2027 (MILLION UNIT)

6.2 COMPLEMENTARY METAL-OXIDE-SEMICONDUCTOR (CMOS)

6.2.1 HIGH DEMAND FOR LOW LIGHT PHOTOGRAPHY APPLICATIONS TO BOOST GROWTH OF CMOS IMAGING MARKET

6.3 CHARGE-COUPLED DEVICE (CCD)

6.3.1 ADVANTAGES OF CMOS OVER CCD TECHNOLOGY TO RESULT IN DECLINE IN DEMAND FOR CCD TECHNOLOGY-BASED LOW LIGHT IMAGING DEVICES

## **7 LOW LIGHT IMAGING MARKET, BY APPLICATION**

7.1 INTRODUCTION

FIGURE 33 LOW LIGHT IMAGING MARKET, BY APPLICATION

FIGURE 34 MONITORING, INSPECTION, AND DETECTION SEGMENT TO GROW AT HIGHEST CAGR DURING FORECAST PERIOD

TABLE 22 LOW LIGHT IMAGING MARKET, BY APPLICATION, 2018–2021 (USD MILLION)

TABLE 23 LOW LIGHT IMAGING MARKET, BY APPLICATION, 2022–2027 (USD MILLION)

TABLE 24 LOW LIGHT IMAGING MARKET, BY APPLICATION, 2018–2021 (MILLION UNITS)

TABLE 25 LOW LIGHT IMAGING MARKET, BY APPLICATION, 2022–2027 (MILLION UNITS)

7.2 PHOTOGRAPHY

7.2.1 HIGH DEMAND FROM CONSUMER ELECTRONICS VERTICAL TO DRIVE MARKET

7.3 MONITORING, INSPECTION & DETECTION

7.3.1 USED BY AUTOMOTIVE, MEDICAL, AND LIFE SCIENCES VERTICALS

7.4 SECURITY & SURVEILLANCE

7.4.1 DEMAND FROM INDUSTRIAL, COMMERCIAL, AND RESIDENTIAL END USERS TO BOOST MARKET

## **8 LOW LIGHT IMAGING MARKET, BY VERTICAL**

8.1 INTRODUCTION

FIGURE 35 LOW LIGHT IMAGING MARKET, BY VERTICAL

FIGURE 36 CONSUMER ELECTRONICS VERTICAL TO HOLD LARGEST SIZE OF

## LOW LIGHT IMAGING MARKET DURING FORECAST PERIOD

TABLE 26 LOW LIGHT IMAGING MARKET, BY VERTICAL, 2018–2021 (USD MILLION)

TABLE 27 LOW LIGHT IMAGING MARKET, BY VERTICAL, 2022–2027 (USD MILLION)

TABLE 28 LOW LIGHT IMAGING MARKET, BY VERTICAL, 2018–2021 (MILLION UNIT)

TABLE 29 LOW LIGHT IMAGING MARKET, BY VERTICAL, 2022–2027 (MILLION UNIT)

### 8.2 CONSUMER ELECTRONICS

8.2.1 SMARTPHONE SEGMENT TO DOMINATE LOW LIGHT IMAGING MARKET FOR CONSUMER ELECTRONICS VERTICAL DURING 2022–2027

TABLE 30 CONSUMER ELECTRONICS: LOW LIGHT IMAGING MARKET, BY REGION, 2018–2021 (USD MILLION)

TABLE 31 CONSUMER ELECTRONICS: LOW LIGHT IMAGING MARKET, BY REGION, 2022–2027 (USD MILLION)

TABLE 32 CONSUMER ELECTRONICS: LOW LIGHT IMAGING MARKET IN NORTH AMERICA, BY COUNTRY, 2018–2021 (USD MILLION)

TABLE 33 CONSUMER ELECTRONICS: LOW LIGHT IMAGING MARKET IN NORTH AMERICA, BY COUNTRY, 2022–2027 (USD MILLION)

TABLE 34 CONSUMER ELECTRONICS: LOW LIGHT IMAGING MARKET IN EUROPE, BY COUNTRY, 2018–2021 (USD MILLION)

TABLE 35 CONSUMER ELECTRONICS: LOW LIGHT IMAGING MARKET IN EUROPE, BY COUNTRY, 2022–2027 (USD MILLION)

TABLE 36 CONSUMER ELECTRONICS: LOW LIGHT IMAGING MARKET IN ASIA PACIFIC, BY COUNTRY, 2018–2021 (USD MILLION)

TABLE 37 CONSUMER ELECTRONICS: LOW LIGHT IMAGING MARKET IN ASIA PACIFIC, BY COUNTRY, 2022–2027 (USD MILLION)

TABLE 38 CONSUMER ELECTRONICS: LOW LIGHT IMAGING MARKET IN REST OF THE WORLD, BY REGION, 2018–2021 (USD MILLION)

TABLE 39 CONSUMER ELECTRONICS: LOW LIGHT IMAGING MARKET IN REST OF THE WORLD, BY REGION, 2022–2027 (USD MILLION)

### 8.3 AUTOMOTIVE

8.3.1 ACCELERATED ADOPTION OF ADAS TO AUGMENT DEMAND FOR LOW LIGHT IMAGING DEVICES

TABLE 40 AUTOMOTIVE: LOW LIGHT IMAGING MARKET, BY REGION, 2018–2021 (USD MILLION)

TABLE 41 AUTOMOTIVE: LOW LIGHT IMAGING MARKET, BY REGION, 2022–2027 (USD MILLION)

TABLE 42 AUTOMOTIVE: LOW LIGHT IMAGING MARKET IN NORTH AMERICA, BY COUNTRY, 2018–2021 (USD MILLION)

TABLE 43 AUTOMOTIVE: LOW LIGHT IMAGING MARKET IN NORTH AMERICA, BY COUNTRY, 2022–2027 (USD MILLION)

TABLE 44 AUTOMOTIVE: LOW LIGHT IMAGING MARKET IN EUROPE, BY COUNTRY, 2018–2021 (USD MILLION)

TABLE 45 AUTOMOTIVE: LOW LIGHT IMAGING MARKET IN EUROPE, BY COUNTRY, 2022–2027 (USD MILLION)

TABLE 46 AUTOMOTIVE: LOW LIGHT IMAGING MARKET IN ASIA PACIFIC, BY COUNTRY, 2018–2021 (USD MILLION)

TABLE 47 AUTOMOTIVE: LOW LIGHT IMAGING MARKET IN ASIA PACIFIC, BY COUNTRY, 2022–2027 (USD MILLION)

TABLE 48 AUTOMOTIVE: LOW LIGHT IMAGING MARKET IN REST OF THE WORLD, BY REGION, 2018–2021 (USD MILLION)

TABLE 49 AUTOMOTIVE: LOW LIGHT IMAGING MARKET IN REST OF THE WORLD, BY REGION, 2022–2027 (USD MILLION)

#### 8.4 MEDICAL & LIFE SCIENCES

##### 8.4.1 ENDOSCOPES AND CATHETERS AMONG KEY MEDICAL APPLICATIONS

TABLE 50 MEDICAL & LIFE SCIENCES: LOW LIGHT IMAGING MARKET, BY REGION, 2018–2021 (USD MILLION)

TABLE 51 MEDICAL & LIFE SCIENCES: LOW LIGHT IMAGING MARKET, BY REGION, 2022–2027 (USD MILLION)

TABLE 52 MEDICAL & LIFE SCIENCES: LOW LIGHT IMAGING MARKET IN NORTH AMERICA, BY COUNTRY, 2018–2021 (USD MILLION)

TABLE 53 MEDICAL & LIFE SCIENCES: LOW LIGHT IMAGING MARKET IN NORTH AMERICA, BY COUNTRY, 2022–2027 (USD MILLION)

TABLE 54 MEDICAL & LIFE SCIENCES: LOW LIGHT IMAGING MARKET IN EUROPE, BY COUNTRY, 2018–2021 (USD MILLION)

TABLE 55 MEDICAL & LIFE SCIENCES: LOW LIGHT IMAGING MARKET IN EUROPE, BY COUNTRY, 2022–2027 (USD MILLION)

TABLE 56 MEDICAL & LIFE SCIENCES: LOW LIGHT IMAGING MARKET IN ASIA PACIFIC, BY COUNTRY, 2018–2021 (USD MILLION)

TABLE 57 MEDICAL & LIFE SCIENCES: LOW LIGHT IMAGING MARKET IN ASIA PACIFIC, BY COUNTRY, 2022–2027 (USD MILLION)

TABLE 58 MEDICAL & LIFE SCIENCES: LOW LIGHT IMAGING MARKET IN REST OF THE WORLD, BY REGION, 2018–2021 (USD MILLION)

TABLE 59 MEDICAL & LIFE SCIENCES: LOW LIGHT IMAGING MARKET IN REST OF THE WORLD, BY REGION, 2022–2027 (USD MILLION)

#### 8.5 MILITARY & DEFENSE

### 8.5.1 SECURITY AND SURVEILLANCE APPLICATION TO DOMINATE LOW LIGHT IMAGING MARKET FOR MILITARY & DEFENSE DURING 2022–2027

TABLE 60 MILITARY & DEFENSE: LOW LIGHT IMAGING MARKET, BY REGION, 2018–2021 (USD MILLION)

TABLE 61 MILITARY & DEFENSE: LOW LIGHT IMAGING MARKET, BY REGION, 2022–2027 (USD MILLION)

TABLE 62 MILITARY & DEFENSE: LOW LIGHT IMAGING MARKET IN NORTH AMERICA, BY COUNTRY, 2018–2021 (USD MILLION)

TABLE 63 MILITARY & DEFENSE: LOW LIGHT IMAGING MARKET IN NORTH AMERICA, BY COUNTRY, 2022–2027 (USD MILLION)

TABLE 64 MILITARY & DEFENSE: LOW LIGHT IMAGING MARKET IN EUROPE, BY COUNTRY, 2018–2021 (USD MILLION)

TABLE 65 MILITARY & DEFENSE: LOW LIGHT IMAGING MARKET IN EUROPE, BY COUNTRY, 2022–2027 (USD MILLION)

TABLE 66 MILITARY & DEFENSE: LOW LIGHT IMAGING MARKET IN ASIA PACIFIC, BY COUNTRY, 2018–2021 (USD MILLION)

TABLE 67 MILITARY & DEFENSE: LOW LIGHT IMAGING MARKET IN ASIA PACIFIC, BY COUNTRY, 2022–2027 (USD MILLION)

TABLE 68 MILITARY & DEFENSE: LOW LIGHT IMAGING MARKET IN REST OF THE WORLD, BY REGION, 2018–2021 (USD MILLION)

TABLE 69 MILITARY & DEFENSE: LOW LIGHT IMAGING MARKET IN REST OF THE WORLD, BY REGION, 2022–2027 (USD MILLION)

## 8.6 INDUSTRIAL, COMMERCIAL & RESIDENTIAL INFRASTRUCTURE

### 8.6.1 GROWING SECURITY CONCERNS TO DRIVE DEMAND FOR LOW LIGHT IMAGING SOLUTIONS

TABLE 70 INDUSTRIAL, COMMERCIAL & RESIDENTIAL INFRASTRUCTURE: LOW LIGHT IMAGING MARKET, BY REGION, 2018–2021 (USD MILLION)

TABLE 71 INDUSTRIAL, COMMERCIAL & RESIDENTIAL INFRASTRUCTURE: LOW LIGHT IMAGING MARKET, BY REGION, 2022–2027 (USD MILLION)

TABLE 72 INDUSTRIAL, COMMERCIAL & RESIDENTIAL INFRASTRUCTURE: LOW LIGHT IMAGING MARKET IN NORTH AMERICA, BY COUNTRY, 2018–2021 (USD MILLION)

TABLE 73 INDUSTRIAL, COMMERCIAL & RESIDENTIAL INFRASTRUCTURE: LOW LIGHT IMAGING MARKET IN NORTH AMERICA, BY COUNTRY, 2022–2027 (USD MILLION)

TABLE 74 INDUSTRIAL, COMMERCIAL & RESIDENTIAL INFRASTRUCTURE: LOW LIGHT IMAGING MARKET IN EUROPE, BY COUNTRY, 2018–2021 (USD MILLION)

TABLE 75 INDUSTRIAL, COMMERCIAL & RESIDENTIAL INFRASTRUCTURE: LOW LIGHT IMAGING MARKET IN EUROPE, BY COUNTRY, 2022–2027 (USD MILLION)

TABLE 76 INDUSTRIAL, COMMERCIAL & RESIDENTIAL INFRASTRUCTURE:  
LOW LIGHT IMAGING MARKET IN ASIA PACIFIC, BY COUNTRY, 2018–2021 (USD  
MILLION)

TABLE 77 INDUSTRIAL, COMMERCIAL & RESIDENTIAL INFRASTRUCTURE:  
LOW LIGHT IMAGING MARKET IN ASIA PACIFIC, BY COUNTRY, 2022–2027 (USD  
MILLION)

TABLE 78 LOW LIGHT IMAGING MARKET FOR COMMERCIAL & RESIDENTIAL  
INFRASTRUCTURE IN REST OF THE WORLD, BY REGION, 2018–2021 (USD  
MILLION)

TABLE 79 INDUSTRIAL, COMMERCIAL & RESIDENTIAL INFRASTRUCTURE:  
LOW LIGHT IMAGING MARKET IN REST OF THE WORLD, BY REGION, 2022–2027  
(USD MILLION)

## **9 LOW LIGHT IMAGING MARKET, BY REGION**

### 9.1 INTRODUCTION

FIGURE 37 LOW LIGHT IMAGING MARKET TO WITNESS HIGHEST CAGR IN  
NORTH AMERICA DURING FORECAST PERIOD

TABLE 80 LOW LIGHT IMAGING MARKET, BY REGION, 2018–2021 (USD MILLION)

TABLE 81 LOW LIGHT IMAGING MARKET, BY REGION, 2022–2027 (USD MILLION)

### 9.2 NORTH AMERICA

FIGURE 38 NORTH AMERICA: LOW LIGHT IMAGING MARKET SNAPSHOT

TABLE 82 NORTH AMERICA: LOW LIGHT IMAGING MARKET, BY COUNTRY,  
2018–2021 (USD MILLION)

TABLE 83 NORTH AMERICA: LOW LIGHT IMAGING MARKET, BY COUNTRY,  
2022–2027 (USD MILLION)

TABLE 84 NORTH AMERICA: LOW LIGHT IMAGING MARKET, BY VERTICAL,  
2018–2021 (USD MILLION)

TABLE 85 NORTH AMERICA: LOW LIGHT IMAGING MARKET, BY VERTICAL,  
2022–2027 (USD MILLION)

#### 9.2.1 US

9.2.1.1 US to dominate market in North America during forecast period

TABLE 86 US: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2018–2021 (USD  
MILLION)

TABLE 87 US: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2022–2027 (USD  
MILLION)

#### 9.2.2 CANADA

9.2.2.1 Focus on improving security to boost demand for low light image sensors

TABLE 88 CANADA: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2018–2021

(USD MILLION)

TABLE 89 CANADA: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2022–2027

(USD MILLION)

### 9.2.3 MEXICO

9.2.3.1 Fastest-growing country-level market in North America

TABLE 90 MEXICO: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2018–2021

(USD MILLION)

TABLE 91 MEXICO: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2022–2027

(USD MILLION)

## 9.3 EUROPE

FIGURE 39 EUROPE: LOW LIGHT IMAGING MARKET SNAPSHOT

TABLE 92 EUROPE: LOW LIGHT IMAGING MARKET, BY COUNTRY, 2018–2021

(USD MILLION)

TABLE 93 EUROPE: LOW LIGHT IMAGING MARKET, BY COUNTRY, 2022–2027

(USD MILLION)

TABLE 94 EUROPE: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2018–2021

(USD MILLION)

TABLE 95 EUROPE: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2022–2027

(USD MILLION)

### 9.3.1 UK

9.3.1.1 Demand from automotive vertical to accelerate market growth

TABLE 96 UK: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2018–2021 (USD

MILLION)

TABLE 97 UK: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2022–2027 (USD

MILLION)

### 9.3.2 GERMANY

9.3.2.1 Automotive vertical significant contributor to market in Germany

TABLE 98 GERMANY: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2018–2021

(USD MILLION)

TABLE 99 GERMANY: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2022–2027

(USD MILLION)

### 9.3.3 FRANCE

9.3.3.1 Industrial, commercial, and residential infrastructure and automotive verticals to dominate market in France

TABLE 100 FRANCE: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2018–2021

(USD MILLION)

TABLE 101 FRANCE: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2022–2027

(USD MILLION)

### 9.3.4 ITALY

9.3.4.1 High demand for ADAS to lead to significant growth in low light imaging market

TABLE 102 ITALY: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2018–2021 (USD MILLION)

TABLE 103 ITALY: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2022–2027 (USD MILLION)

#### 9.3.5 REST OF EUROPE

TABLE 104 REST OF EUROPE: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2018–2021 (USD MILLION)

TABLE 105 REST OF EUROPE: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2022–2027 (USD MILLION)

#### 9.4 ASIA PACIFIC

FIGURE 40 ASIA PACIFIC: LOW LIGHT IMAGING MARKET SNAPSHOT

TABLE 106 ASIA PACIFIC: LOW LIGHT IMAGING MARKET, BY COUNTRY, 2018–2021 (USD MILLION)

TABLE 107 ASIA PACIFIC: LOW LIGHT IMAGING MARKET, BY COUNTRY, 2022–2027 (USD MILLION)

TABLE 108 ASIA PACIFIC: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2018–2021 (USD MILLION)

TABLE 109 ASIA PACIFIC: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2022–2027 (USD MILLION)

##### 9.4.1 CHINA

9.4.1.1 Presence of manufacturing plants of several leading consumer electronics companies to favor market

TABLE 110 CHINA: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2018–2021 (USD MILLION)

TABLE 111 CHINA: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2022–2027 (USD MILLION)

##### 9.4.2 JAPAN

9.4.2.1 Surging requirement for ADAS to drive market growth

TABLE 112 JAPAN: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2018–2021 (USD MILLION)

TABLE 113 JAPAN: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2022–2027 (USD MILLION)

##### 9.4.3 INDIA

9.4.3.1 Penetration of smartphones to foster market growth

TABLE 114 INDIA: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2018–2021 (USD MILLION)

TABLE 115 INDIA: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2022–2027 (USD MILLION)

MILLION)

#### 9.4.4 REST OF ASIA PACIFIC

TABLE 116 REST OF ASIA PACIFIC: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2018–2021 (USD MILLION)

TABLE 117 REST OF ASIA PACIFIC: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2022–2027 (USD MILLION)

#### 9.5 REST OF THE WORLD

TABLE 118 REST OF THE WORLD: LOW LIGHT IMAGING MARKET, BY REGION, 2018–2021 (USD MILLION)

TABLE 119 REST OF THE WORLD: LOW LIGHT IMAGING MARKET, BY REGION, 2022–2027 (USD MILLION)

TABLE 120 REST OF THE WORLD: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2018–2021 (USD MILLION)

TABLE 121 REST OF THE WORLD: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2022–2027 (USD MILLION)

#### 9.5.1 SOUTH AMERICA

9.5.1.1 Demand from automobile producers in Brazil to strengthen market

TABLE 122 SOUTH AMERICA: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2018–2021 (USD MILLION)

TABLE 123 SOUTH AMERICA: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2022–2027 (USD MILLION)

#### 9.5.2 MIDDLE EAST & AFRICA

9.5.2.1 Surging adoption of video surveillance cameras to boost market

TABLE 124 MIDDLE EAST & AFRICA: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2018–2021 (USD MILLION)

TABLE 125 MIDDLE EAST & AFRICA: LOW LIGHT IMAGING MARKET, BY VERTICAL, 2022–2027 (USD MILLION)

## 10 COMPETITIVE LANDSCAPE

### 10.1 OVERVIEW

#### 10.2 STRATEGIES ADOPTED BY KEY PLAYERS/RIGHT TO WIN

TABLE 126 OVERVIEW OF STRATEGIES ADOPTED BY KEY COMPANIES

##### 10.2.1 PRODUCT PORTFOLIO

##### 10.2.2 REGIONAL FOCUS

##### 10.2.3 MANUFACTURING FOOTPRINT

##### 10.2.4 ORGANIC/INORGANIC STRATEGIES

### 10.3 MARKET SHARE ANALYSIS, 2021

TABLE 127 LOW LIGHT IMAGING MARKET: MARKET SHARE ANALYSIS (2021)



#### 10.4 FIVE-YEAR COMPANY REVENUE ANALYSIS

FIGURE 41 FIVE-YEAR REVENUE ANALYSIS OF TOP FOUR PLAYERS IN  
LOW LIGHT IMAGING MARKET, 2017–2021

#### 10.5 COMPANY EVALUATION QUADRANT

10.5.1 STARS

10.5.2 EMERGING LEADERS

10.5.3 PERVASIVE PLAYERS

10.5.4 PARTICIPANTS

FIGURE 42 LOW LIGHT IMAGING MARKET: COMPANY EVALUATION QUADRANT,  
2021

#### 10.6 STARTUP/SMALL AND MEDIUM-SIZED ENTERPRISE (SME) EVALUATION QUADRANT

TABLE 128 LOW LIGHT IMAGING MARKET: DETAILED LIST OF KEY  
STARTUPS/SMES

TABLE 129 STARTUPS/SMALL AND MEDIUM-SIZED ENTERPRISES (SME) IN  
LOW LIGHT IMAGING MARKET

TABLE 130 LOW LIGHT IMAGING MARKET: COMPETITIVE BENCHMARKING OF  
KEY STARTUPS/SMES (TECHNOLOGY FOOTPRINT)

TABLE 131 LOW LIGHT IMAGING MARKET: COMPETITIVE BENCHMARKING OF  
KEY STARTUPS/SMES (VERTICAL FOOTPRINT)

TABLE 132 LOW LIGHT IMAGING MARKET: COMPETITIVE BENCHMARKING OF  
KEY START-UPS/SMES (REGIONAL FOOTPRINT)

10.6.1 PROGRESSIVE COMPANIES

10.6.2 RESPONSIVE COMPANIES

10.6.3 DYNAMIC COMPANIES

10.6.4 STARTING BLOCKS

FIGURE 43 LOW LIGHT IMAGING MARKET: STARTUP/SME EVALUATION MATRIX,  
2021

#### 10.7 COMPANY FOOTPRINT

TABLE 133 COMPANY FOOTPRINT

TABLE 134 COMPANY TECHNOLOGY FOOTPRINT

TABLE 135 COMPANY VERTICAL FOOTPRINT

TABLE 136 COMPANY REGIONAL FOOTPRINT

#### 10.8 COMPETITIVE SCENARIOS AND TRENDS

10.8.1 PRODUCT LAUNCHES

TABLE 137 LOW LIGHT IMAGING MARKET: PRODUCT LAUNCHES, 2019–2022

10.8.2 DEALS

TABLE 138 LOW LIGHT IMAGING MARKET: DEALS, MARCH 2019–MAY 2022

## 11 COMPANY PROFILES

(Business Overview, Products Offered, Recent Developments, and MnM View (Key strengths/Right to Win, Strategic Choices Made, and Weaknesses and Competitive Threats))\*

### 11.1 KEY PLAYERS

#### 11.1.1 SONY

TABLE 139 SONY: COMPANY OVERVIEW

FIGURE 44 SONY: COMPANY SNAPSHOT

#### 11.1.2 SAMSUNG ELECTRONICS

TABLE 140 SAMSUNG ELECTRONICS: COMPANY OVERVIEW

FIGURE 45 SAMSUNG ELECTRONICS: COMPANY SNAPSHOT

#### 11.1.3 STMICROELECTRONICS

TABLE 141 STMICROELECTRONICS: COMPANY OVERVIEW

FIGURE 46 STMICROELECTRONICS: COMPANY SNAPSHOT

#### 11.1.4 OMNIVISION TECHNOLOGIES

TABLE 142 OMNIVISION: COMPANY OVERVIEW

#### 11.1.5 ON SEMICONDUCTOR

TABLE 143 ON SEMICONDUCTOR: COMPANY OVERVIEW

FIGURE 47 ON SEMICONDUCTOR: COMPANY SNAPSHOT

#### 11.1.6 CANON INC.

TABLE 144 CANON INC.: COMPANY OVERVIEW

FIGURE 48 CANON INC.: COMPANY SNAPSHOT

#### 11.1.7 HAMAMATSU PHOTONICS

TABLE 145 HAMAMATSU PHOTONICS: COMPANY OVERVIEW

FIGURE 49 HAMAMATSU PHOTONICS: COMPANY SNAPSHOT

#### 11.1.8 PANASONIC HOLDINGS CORPORATION

TABLE 146 PANASONIC: COMPANY OVERVIEW

FIGURE 50 PANASONIC: COMPANY SNAPSHOT

#### 11.1.9 TELEDYNE TECHNOLOGIES

TABLE 147 TELEDYNE TECHNOLOGIES: COMPANY OVERVIEW

FIGURE 51 TELEDYNE TECHNOLOGIES: COMPANY SNAPSHOT

#### 11.1.10 PIXART IMAGING

TABLE 148 PIXART IMAGING: COMPANY OVERVIEW

FIGURE 52 PIXART IMAGING: COMPANY SNAPSHOT

### 11.2 OTHER PLAYERS

#### 11.2.1 AMS OSRAM AG

#### 11.2.2 SHARP CORPORATION

#### 11.2.3 PHOTONIS TECHNOLOGIES SAS

- 11.2.4 NEW IMAGING TECHNOLOGIES
- 11.2.5 RUIXIN MICROELECTRONICS CO., LTD.
- 11.2.6 PIXELPLUS
- 11.2.7 GALAXYCORE
- 11.2.8 HIMAX TECHNOLOGIES
- 11.2.9 LIGHT
- 11.2.10 COREPHOTONICS
- 11.2.11 GIGAJOT TECHNOLOGY
- 11.2.12 CISTA SYSTEM
- 11.2.13 CLAIRPIXEL CO., LTD.
- 11.2.14 TRIEYE LTD
- 11.2.15 NEWSIGHT IMAGING

\*Details on Business Overview, Products Offered, Recent Developments, and MnM View (Key strengths/Right to Win, Strategic Choices Made, and Weaknesses and Competitive Threats) might not be captured in case of unlisted companies.

## **12 ADJACENT AND RELATED MARKETS**

### 12.1 INTRODUCTION

### 12.2 LIMITATIONS

### 12.3 CAMERA MODULES MARKET, BY PIXEL

#### 12.3.1 UP TO 7 MP

12.3.1.1 Rising deployment of secondary cameras in smartphones to provide opportunities for market growth

#### 12.3.2 8 TO 13 MP

12.3.2.1 Innovations and advancements in image sensors to propel market growth

#### 12.3.3 ABOVE 13 MP

12.3.3.1 Increasing demand for high-quality and high-resolution images by end users to accelerate market growth

TABLE 149 CAMERA MODULES MARKET, BY PIXEL, 2017–2020 (USD MILLION)

TABLE 150 CAMERA MODULES MARKET, BY PIXEL, 2021–2026 (USD MILLION)

### 12.4 CAMERA MODULES MARKET, BY APPLICATION

TABLE 151 CAMERA MODULES MARKET, BY APPLICATION, 2017–2020 (USD MILLION)

TABLE 152 CAMERA MODULES MARKET, BY APPLICATION, 2021–2026 (USD MILLION)

#### 12.4.1 CONSUMER ELECTRONICS

12.4.1.1 Constant technological advancements leading to shorter replacement cycles of consumer electronics

#### 12.4.2 AUTOMOTIVE

12.4.2.1 Technological breakthroughs in automotive to spur market growth

#### 12.4.3 HEALTHCARE

12.4.3.1 Use of medical imaging systems in healthcare industry to augment market growth

#### 12.4.4 INDUSTRIAL

12.4.4.1 Digitalization across industries bolsters growth of camera modules market

#### 12.4.5 SECURITY AND SURVEILLANCE

12.4.5.1 Rising security concerns to boost utilization of security cameras

#### 12.4.6 AEROSPACE & DEFENSE

12.4.6.1 Effective use of camera modules in aerospace and defense applications ensures smooth performance

#### 12.5 CAMERA MODULES MARKET, BY REGION

TABLE 153 CAMERA MODULES MARKET, BY REGION, 2017–2020 (USD MILLION)

TABLE 154 CAMERA MODULES MARKET, BY REGION, 2021–2026 (USD MILLION)

##### 12.5.1 NORTH AMERICA

##### 12.5.2 EUROPE

##### 12.5.3 ASIA PACIFIC

##### 12.5.4 REST OF THE WORLD

### 13 APPENDIX

#### 13.1 DISCUSSION GUIDE

#### 13.2 KNOWLEDGESTORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL

#### 13.3 CUSTOMIZATION OPTIONS

#### 13.4 RELATED REPORTS

#### 13.5 AUTHOR DETAILS

## I would like to order

Product name: Low Light Imaging Market by Technology (CMOS and CCD), Application (Photography, Monitoring, Inspection & Detection, and Security & Surveillance), Vertical (Automotive, Consumer Electronics, Medical & Lifesciences) and Region - Global Forecast to 2027

Product link: <https://marketpublishers.com/r/L7AA302FEADEN.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](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/L7AA302FEADEN.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