

# Time-of-Flight (ToF) Sensor Market by Resolution (QQVGA, HQVGA, QVGA, & VGA), Application (Augmented Reality & Virtual Reality, LIDAR, Machine Vision, 3D Imaging & Scanning, and Robotics & Drone), Product Type, Vertical and Geography - Global Forecast to 2025

https://marketpublishers.com/r/T40F79A3D578EN.html

Date: February 2020

Pages: 176

Price: US\$ 5,650.00 (Single User License)

ID: T40F79A3D578EN

# **Abstracts**

"Time-of-flight (ToF) sensor market to grow at CAGR of 20.0% from 2020 to 2025"

The ToF sensor market is expected to grow from USD 2.8 billion in 2020 to USD 6.9 billion by 2025, at a CAGR of 20.0%. The growth of this market is mainly driven by the increasing demand for ToF sensors from the automotive industry and the growing adoption of 3D cameras in smartphones and increasing use of such smartphones. The increasing adoption of 3D machine vision systems in industries such as healthcare, aerospace & defense, and consumer electronics and the rising deployment of Industry 4.0 are expected to provide major opportunities to the players in the ToF sensor market. However, extra costs associated with sensor solutions restrains the market growth.

"Consumer electronics vertical to hold largest share of ToF sensor market by 2025"

The ToF sensor market for the consumer electronics vertical is expected to grow at the highest CAGR from 2020 to 2025. Rising demand for 3D-enabled devices in consumer electronics and increasing users of smartphones are the key factors for the growth of the ToF sensor market for consumer electronics. Intelligence, reliability, low power consumption, low cost, and high integration are the drivers for the integration of ToF technology in consumer electronics such as computers, televisions, gaming consoles, cameras, camcorders, and smartphones. The rising demand for these devices is



creating the demand for ToF sensors, which, in turn, would give an impetus to further advancements in the ToF technology.

"APAC to be largest market for ToF sensors by 2025"

APAC is expected to hold the largest share of the ToF sensor market during the forecast period owing to the rapid industrialization and high adoption of consumer electronics including gaming consoles, PCs, and laptops in the region. Additionally, the easy availability of low-cost labor has led to increased manufacturing of different electronic components and devices in this region, thereby leading to the emergence of APAC as a global manufacturing hub. This, in turn, has led to increased demand for ToF sensors for monitoring and inspection applications in the manufacturing industry of the region. All these factors are expected to drive the growth of the time-of-flight (ToF) sensors market in APAC.

Breakdown of Profiles of Primary Participants:

By Company Type: Tier 1 - 45%, Tier 2 - 30%, and Tier 3 - 25%

By Designation: C-level Executives - 30%, Directors - 25%, and Others - 45%

By Region: North America - 45%, Europe - 30%, APAC - 20%, and RoW - 5%

Major Players Profiled:

Texas Instruments Incorporated (US)

STMicroelectronics NV (Switzerland)

Infineon Technologies AG (Germany)

Panasonic Corporation (Japan)

Teledyne Technologies Incorporated (US)

Keyence Corporation (Japan)

pmd Technologies AG (Germany)



Sharp Corporation (Japan)

Sony Corporation (Japan)

Melexis NV (Belgium)

# Research Coverage

This report offers detailed insights into the ToF sensor market by product type, which is further classified into RF-modulated light sources with phase detectors, range-gated imagers, and direct time-of-flight imagers. Based on display resolution, the market is segmented into QQVGA, HQVGA, QVGA, and VGA. By application, the time-of-flight (ToF) sensor market is segmented into AR & VR, LiDAR, machine vision, 3D imaging and scanning, and robotics and drone. By vertical, the ToF sensor market is classified into automotive, consumer electronics, gaming & entertainment, industrial, healthcare, and aerospace & defense. The study also forecasts the size of the market based on 4 regions—North America, Europe, APAC, and RoW.

Reasons to Buy the Report

The report would help market leaders/new entrants in the following ways:

- 1. This report segments the ToF sensor market comprehensively and provides the closest approximations of the overall and segment-based market sizes across different product types, display resolutions, applications, verticals, and regions.
- 2. The report would help stakeholders understand the pulse of the market and provide them with information on key drivers, restraints, challenges, and opportunities influencing the market growth.
- 3. This report would help stakeholders understand their competitors better and gain more insights to enhance their market position. The Competitive Landscape section includes the competitive analysis of top players, as well as strategies such as product launches and developments, acquisitions, collaborations, agreements, partnerships, and expansions adopted by major market players.



# **Contents**

### 1 INTRODUCTION

- 1.1 STUDY OBJECTIVES
- 1.2 MARKET DEFINITION AND SCOPE
- 1.2.1 INCLUSIONS AND EXCLUSIONS
- 1.3 STUDY SCOPE
  - 1.3.1 GEOGRAPHIC SCOPE
- 1.4 YEARS CONSIDERED
- 1.5 CURRENCY
- 1.6 LIMITATIONS
- 1.7 STAKEHOLDERS

### 2 RESEARCH METHODOLOGY

- 2.1 RESEARCH DATA
  - 2.1.1 SECONDARY DATA
    - 2.1.1.1 Major secondary sources
    - 2.1.1.2 Secondary sources
  - 2.1.2 PRIMARY DATA
    - 2.1.2.1 Primary interviews with experts
    - 2.1.2.2 Key data from primary sources
    - 2.1.2.3 Key industry insights
    - 2.1.2.4 Breakdown of primaries
  - 2.1.3 SECONDARY AND PRIMARY RESEARCH
- 2.2 MARKET SIZE ESTIMATION
  - 2.2.1 BOTTOM-UP APPROACH
- 2.2.1.1 Approach for capturing market size by bottom-up analysis (demand side)
  - 2.2.2 TOP-DOWN APPROACH
- 2.2.2.1 Approach for capturing market size by top-down analysis (supply side)
- 2.3 MARKET BREAKDOWN AND DATA TRIANGULATION
- 2.4 RESEARCH ASSUMPTIONS

### **3 EXECUTIVE SUMMARY**

# **4 PREMIUM INSIGHTS**



- 4.1 ATTRACTIVE OPPORTUNITIES IN TIME-OF-FLIGHT SENSOR MARKET
- 4.2 TIME-OF-FLIGHT SENSOR MARKET, BY RESOLUTION
- 4.3 TIME-OF-FLIGHT SENSOR MARKET, BY APPLICATION
- 4.4 TIME-OF-FLIGHT SENSOR MARKET IN APAC, BY VERTICAL AND COUNTRY
- 4.5 TIME-OF-FLIGHT SENSOR MARKET, BY COUNTRY

### **5 MARKET OVERVIEW**

- 5.1 INTRODUCTION
- 5.2 MARKET DYNAMICS
  - 5.2.1 DRIVERS
    - 5.2.1.1 Increasing adoption of ToF sensors in automobile applications
  - 5.2.1.2 Increasing demand for smartphones enabled with 3D cameras
  - 5.2.2 RESTRAINTS
    - 5.2.2.1 Extra costs associated with sensor solutions
  - 5.2.3 OPPORTUNITIES
    - 5.2.3.1 Increasing adoption of 3D machine vision systems across various industries
    - 5.2.3.2 Growing deployment of Industry 4.0
  - 5.2.4 CHALLENGES
    - 5.2.4.1 Fluctuations in raw material prices
- 5.3 VALUE CHAIN ANALYSIS

# 6 TIME-OF-FLIGHT SENSOR MARKET, BY DEVICE TYPE

- **6.1 INTRODUCTION**
- 6.2 RF-MODULATED LIGHT SOURCES WITH PHASE DETECTORS
- 6.3 RANGE-GATED IMAGERS
- 6.4 DIRECT TIME-OF-FLIGHT IMAGERS

# 7 TIME-OF-FLIGHT SENSOR MARKET, BY RESOLUTION

- 7.1 INTRODUCTION
- 7.2 QUARTER QUARTER VIDEO GRAPHICS ARRAY
  - 7.2.1 APTNESS OF QQVGA TOF SENSORS FOR HANDHELD DEVICES
- 7.3 HALF QUARTER VIDEO GRAPHICS ARRAY
- 7.3.1 EMERGENCE OF HQVGA TOF SENSORS IN SMARTPHONE AND GAMING APPLICATIONS
- 7.4 QUARTER VIDEO GRAPHICS ARRAY



- 7.4.1 HIGH ADOPTTION OF QVGA TOF SENSORS IN ELECTRONIC DEVICES 7.5 VIDEO GRAPHICS ARRAY
  - 7.5.1 VGA HOLDS SECOND-LARGEST MARKET FOR TOF SENSORS

### 8 TIME-OF-FLIGHT SENSOR MARKET, BY APPLICATION

- 8.1 INTRODUCTION
- 8.2 AR AND VR
- 8.2.1 INCREASING USE OF AR AND VR TECHNOLOGY-BASED SYSTEMS IN EDUCATION, HEALTHCARE, AND ENTERTAINMENT APPLICATIONS DRIVES DEMAND FOR TOF SENSORS
- 8.3 LIDAR
- 8.3.1 INCREASING ADOPTION OF LIDAR TECHNOLOGY IN AUTOMOBILES, RETAIL STORES, AND MANUFACTURING PLANTS TO SURGE DEMAND FOR TOF SENSORS
- 8.4 MACHINE VISION
- 8.4.1 GROWING DEPLOYMENT OF TIME-OF-FLIGHT SENSORS IN 3D MACHINE VISION SYSTEMS PROPEL TOF SENSOR MARKET GROWTH
- 8.5 3D IMAGING AND SCANNING
- 8.5.1 RISING DEPLOYMENT OF TOF SENSORS IN 3D IMAGING AND SCANNING APPLICATIONS WOULD ENABLE THIS APPLICATION TO ACCOUNT FOR LARGEST MARKET SIZE
- **8.6 ROBOTICS AND DRONE**
- 8.6.1 ENGAGING PARTICIPATION OF COMPANIES IN DEVELOPING AND PROMOTING 3D TOF SENSOR-BASED INDUSTRIAL ROBOTICS DRIVING ADOPTION OF TOF SENSORS FOR ROBOTICS AND DRONE APPLICATIONS

# 9 TIME-OF-FLIGHT SENSOR MARKET, BY VERTICAL

- 9.1 INTRODUCTION
- 9.2 AUTOMOTIVE
- 9.2.1 ADOPTION OF TOF SENSORS TO ENHANCE IN-CAB APPLICATIONS
- 9.3 CONSUMER ELECTRONICS
- 9.3.1 CONSUMER ELECTRONICS VERTICAL TO WITNESS HIGHEST GROWTH RATE DURING FORECAST PERIOD
  - 9.3.1.1 Smartphones and tablets
  - 9.3.1.2 Wearables
- 9.4 GAMING & ENTERTAINMENT
- 9.4.1 USE OF GAMING CONSOLES ENABLED WITH GESTURE AND MOTION



TRACKING SENSORS TO ACCELERATE TOF SENSOR MARKET GROWTH 9.5 INDUSTRIAL

9.5.1 IMPLEMENTATION OF TOF SENSORS IN INDUSTRIAL AUTOMATION PROCESSES TO FUEL TOF SENSOR MARKET GROWTH DURING FORECAST PERIOD

9.6 HEALTHCARE

9.6.1 DEPLOYMENT OF HIGH-RESOLUTION 3D CAMERAS IN INCREASING NUMBER OF TREATMENTS AND PROCEDURES TO FOSTER TOF SENSOR MARKET GROWTH

9.7 AEROSPACE & DEFENSE

9.7.1 NEED FOR 3D MACHINE VISION SYSTEMS IN AEROSPACE & DEFENSE VERTICAL BOOSTS ADOPTION OF TOF SENSORS

### 10 GEOGRAPHIC ANALYSIS

10.1 INTRODUCTION

10.2 NORTH AMERICA

10.2.1 US

10.2.1.1 US to remain largest market for ToF sensors in North America

10.2.2 CANADA

10.2.2.1 Manufacturing and automotive industries likely to fuel demand for ToF sensors in Canada

10.2.3 MEXICO

10.2.3.1 Improvement in manufacturing infrastructure in Mexico create demand for ToF sensors

10.3 EUROPE

10.3.1 UK

10.3.1.1 Automotive industry and industrial automation to drive growth of

ToF sensor market in UK

**10.3.2 GERMANY** 

10.3.2.1 Germany held largest share of European ToF sensor market in 2019

**10.3.3 FRANCE** 

10.3.3.1 Automotive and healthcare companies to drive growth of ToF sensor market in France

10.3.4 REST OF EUROPE

**10.4 APAC** 

10.4.1 CHINA

10.4.1.1 China held largest share of ToF sensor market in APAC in 2019

10.4.2 JAPAN



10.4.2.1 Presence of well-established automotive and consumer electronics industries projected to augment growth of ToF sensor market in Japan

10.4.3 SOUTH KOREA

10.4.3.1 Flourished consumer electronics industry in country to propel growth of ToF sensor market in South Korea

10.4.4 INDIA

10.4.4.1 ToF sensor market in India expected to grow at highest rate from 2020 to 2025

10.4.5 REST OF APAC

10.5 ROW

10.5.1 MIDDLE EAST AND AFRICA

10.5.1.1 ToF sensor market in Middle East and Africa projected to grow at higher CAGR than that of in South America from 2020 to 2025

10.5.2 SOUTH AMERICA

10.5.2.1 South America held smaller share of ToF sensor market in 2019 than that of Middle East and Africa

### 11 COMPETITIVE LANDSCAPE

11.1 INTRODUCTION

11.2 MARKET PLAYER RANKING ANALYSIS

11.3 COMPETITIVE LEADERSHIP MAPPING

11.3.1 VISIONARY LEADERS

11.3.2 DYNAMIC DIFFERENTIATORS

11.3.3 INNOVATORS

11.3.4 EMERGING COMPANIES

11.4 COMPETITIVE BENCHMARKING

11.4.1 STRENGTH OF PRODUCT PORTFOLIO (25 COMPANIES)

11.4.2 BUSINESS STRATEGY EXCELLENCE (25 COMPANIES)

11.5 COMPETITIVE SCENARIO

11.6 COMPETITIVE SITUATIONS AND TRENDS

11.6.1 PRODUCT LAUNCHES AND DEVELOPMENTS

11.6.2 ACQUISITIONS

11.6.3 COLLABORATIONS/AGREEMENTS/PARTNERSHIPS

11.6.4 EXPANSIONS

### 12 COMPANY PROFILES

(Business Overview, Products Offered, Recent Developments, SWOT Analysis, and



### MnM View)\*

- 12.1 KEY PLAYERS
  - 12.1.1 TEXAS INSTRUMENTS INCORPORATED
  - 12.1.2 STMICROELECTRONICS N.V.
  - 12.1.3 INFINEON TECHNOLOGIES
  - 12.1.4 PANASONIC CORPORATION
  - **12.1.5 MELEXIS**
  - 12.1.6 TELEDYNE TECHNOLOGIES INCORPORATED
  - 12.1.7 PMD TECHNOLOGIES AG
  - 12.1.8 KEYENCE CORPORATION
  - 12.1.9 SHARP CORPORATION
  - 12.1.10 SONY CORPORATION
- 12.2 RIGHT TO WIN
  - 12.2.1 STMICROELECTRONICS (SWITZERLAND)
  - 12.2.2 TEXAS INSTRUMENTS (US)
  - 12.2.3 INFINEON TECHNOLOGIES (GERMANY)
  - 12.2.4 PANASONIC CORPORATION (JAPAN)
  - 12.2.5 MELEXIS (BELGIUM)
- 12.3 OTHER COMPANIES
  - 12.3.1 AMS AG
  - 12.3.2 BROADCOM INC. (AVAGO)
  - 12.3.3 OMRON CORPORATION
  - 12.3.4 RENESAS ELECTRONICS
  - 12.3.5 ESPROS PHOTONICS
  - 12.3.6 ADAFRUIT INDUSTRIES
  - 12.3.7 SPARKFUN ELECTRONICS
  - **12.3.8 TERABEE**
  - 12.3.9 CHIRP MICROSYSTEMS, INC. (TDK CORPORATION)
  - 12.3.10 LUCID VISION LABS, INC.
- \*Details on Business Overview, Products Offered, Recent Developments, SWOT Analysis, and MnM View might not be captured in case of unlisted companies.

# **13 APPENDIX**

- 13.1 DISCUSSION GUIDE
- 13.2 KNOWLEDGE STORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL
- 13.3 AVAILABLE CUSTOMIZATIONS
- 13.4 RELATED REPORTS
- 13.5 AUTHOR DETAILS





# **List Of Tables**

### LIST OF TABLES

TABLE 1 TIME-OF-FLIGHT SENSOR MARKET, BY DEVICE TYPE, 2017–2025 (USD MILLION)

TABLE 2 TIME-OF-FLIGHT SENSOR MARKET, BY RESOLUTION, 2017–2025 (USD MILLION)

TABLE 3 TIME-OF-FLIGHT SENSOR MARKET, BY APPLICATION, 2017–2025 (USD MILLION)

TABLE 4 TIME-OF-FLIGHT SENSOR MARKET FOR AR AND VR APPLICATIONS, BY REGION, 2017–2025 (USD MILLION)

TABLE 5 TIME-OF-FLIGHT SENSOR MARKET IN NORTH AMERICA FOR AR AND VR APPLICATIONS, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 6 TIME-OF-FLIGHT SENSOR MARKET IN EUROPE FOR AR AND VR APPLICATIONS, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 7 TIME-OF-FLIGHT SENSOR MARKET IN APAC FOR AR AND VR APPLICATIONS, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 8 TIME-OF-FLIGHT SENSOR MARKET IN ROW FOR AR AND VR APPLICATIONS, BY REGION, 2017–2025 (USD MILLION)

TABLE 9 TIME-OF-FLIGHT SENSOR MARKET FOR LIDAR APPLICATIONS, BY REGION, 2017–2025 (USD MILLION)

TABLE 10 TIME-OF-FLIGHT SENSOR MARKET IN NORTH AMERICA FOR LIDAR APPLICATIONS, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 11 TIME-OF-FLIGHT SENSOR MARKET IN EUROPE FOR LIDAR APPLICATION, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 12 TIME-OF-FLIGHT SENSOR MARKET IN APAC FOR LIDAR APPLICATIONS, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 13 TIME-OF-FLIGHT SENSOR MARKET IN ROW FOR LIDAR APPLICATIONS, BY REGION, 2017–2025 (USD MILLION)

TABLE 14 TIME-OF-FLIGHT SENSOR MARKET FOR MACHINE VISION APPLICATIONS, BY REGION, 2017–2025 (USD MILLION)

TABLE 15 TIME-OF-FLIGHT SENSOR MARKET IN NORTH AMERICA FOR MACHINE VISION APPLICATIONS, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 16 TIME-OF-FLIGHT OF SENSOR MARKET IN EUROPE FOR MACHINE

VISION APPLICATIONS, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 17 TIME-OF-FLIGHT SENSOR MARKET IN APAC FOR MACHINE VISION APPLICATIONS, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 18 TIME-OF-FLIGHT SENSOR MARKET IN ROW FOR MACHINE VISION



APPLICATIONS, BY REGION, 2017–2025 (USD MILLION)

TABLE 19 TIME-OF-FLIGHT SENSOR MARKET FOR 3D IMAGING AND SCANNING APPLICATIONS, BY REGION, 2017–2025 (USD MILLION)

TABLE 20 TIME-OF-FLIGHT SENSOR MARKET IN NORTH AMERICA FOR 3D IMAGING AND SCANNING APPLICATIONS, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 21 TIME-OF-FLIGHT SENSOR MARKET IN EUROPE FOR 3D IMAGING AND SCANNING APPLICATIONS, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 22 TIME-OF-FLIGHT SENSOR MARKET IN APAC FOR 3D IMAGING AND SCANNING APPLICATIONS, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 23 TIME-OF-FLIGHT SENSOR MARKET IN ROW FOR 3D IMAGING AND SCANNING APPLICATIONS, BY REGION, 2017–2025 (USD MILLION)

TABLE 24 TIME-OF-FLIGHT SENSOR MARKET FOR ROBOTICS AND DRONE APPLICATIONS, BY REGION, 2017–2025 (USD MILLION)

TABLE 25 TIME-OF-FLIGHT SENSOR MARKET IN NORTH AMERICA FOR ROBOTICS AND DRONE APPLICATIONS, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 26 TIME-OF-FLIGHT SENSOR MARKET IN EUROPE FOR ROBOTICS AND DRONE APPLICATIONS, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 27 TIME-OF-FLIGHT SENSOR MARKET IN APAC FOR ROBOTICS AND DRONE APPLICATIONS, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 28 TIME-OF-FLIGHT SENSOR MARKET IN ROW FOR ROBOTICS AND DRONE APPLICATIONS, BY REGION, 2017–2025 (USD MILLION)

TABLE 29 TIME-OF-FLIGHT SENSOR MARKET, BY VERTICAL, 2017–2025 (USD MILLION)

TABLE 30 TIME-OF-FLIGHT SENSOR MARKET FOR AUTOMOTIVE VERTICAL, BY REGION, 2017–2025 (USD MILLION)

TABLE 31 TIME-OF-FLIGHT SENSOR MARKET IN NORTH AMERICA FOR AUTOMOTIVE VERTICAL, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 32 TIME-OF-FLIGHT SENSOR MARKET IN EUROPE FOR AUTOMOTIVE VERTICAL, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 33 TIME-OF-FLIGHT SENSOR MARKET IN APAC FOR AUTOMOTIVE VERTICAL, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 34 TIME-OF-FLIGHT SENSOR MARKET IN ROW FOR AUTOMOTIVE VERTICAL, BY REGION, 2017–2025 (USD MILLION)

TABLE 35 TIME-OF-FLIGHT SENSOR MARKET FOR CONSUMER ELECTRONICS VERTICAL, BY REGION, 2017–2025 (USD MILLION)

TABLE 36 TIME-OF-FLIGHT SENSOR MARKET IN NORTH AMERICA FOR CONSUMER ELECTRONICS VERTICAL, BY COUNTRY, 2017–2025 (USD MILLION)



TABLE 37 TIME-OF-FLIGHT SENSOR MARKET IN EUROPE FOR CONSUMER ELECTRONICS VERTICAL, BY COUNTRY, 2017–2025 (USD MILLION)
TABLE 38 TIME-OF-FLIGHT SENSOR MARKET IN APAC FOR CONSUMER ELECTRONICS VERTICAL, BY COUNTRY, 2017–2025 (USD MILLION)
TABLE 39 TIME-OF-FLIGHT SENSOR MARKET IN ROW FOR CONSUMER ELECTRONICS VERTICAL, BY REGION, 2017–2025 (USD MILLION)
TABLE 40 TIME-OF-FLIGHT SENSOR MARKET FOR GAMING & ENTERTAINMENT VERTICAL, BY REGION, 2017–2025 (USD MILLION)

TABLE 41 TIME-OF-FLIGHT SENSOR MARKET IN NORTH AMERICA FOR GAMING & ENTERTAINMENT VERTICAL, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 42 TIME-OF-FLIGHT SENSOR MARKET IN EUROPE FOR GAMING & ENTERTAINMENT VERTICAL, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 43 TIME-OF-FLIGHT SENSOR MARKET IN APAC FOR GAMING & ENTERTAINMENT VERTICAL, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 44 TIME-OF-FLIGHT SENSOR MARKET IN ROW FOR GAMING & ENTERTAINMENT VERTICAL, BY REGION, 2017–2025 (USD MILLION)

TABLE 45 TIME-OF-FLIGHT SENSOR MARKET FOR INDUSTRIAL VERTICAL, BY REGION, 2017–2025 (USD MILLION)

TABLE 46 TIME-OF-FLIGHT SENSOR MARKET IN NORTH AMERICA FOR INDUSTRIAL VERTICAL, BY COUNTRY, 2017–2025 (USD MILLION)
TABLE 47 TIME-OF-FLIGHT SENSOR MARKET IN EUROPE FOR INDUSTRIAL VERTICAL, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 48 TIME-OF-FLIGHT SENSOR MARKET IN APAC FOR INDUSTRIAL VERTICAL, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 49 TIME-OF-FLIGHT SENSOR MARKET IN ROW FOR INDUSTRIAL VERTICAL, BY REGION, 2017–2025 (USD MILLION)

TABLE 50 TIME-OF-FLIGHT SENSOR MARKET FOR HEALTHCARE VERTICAL, BY REGION, 2017–2025 (USD MILLION)

TABLE 51 TIME-OF-FLIGHT SENSOR MARKET IN NORTH AMERICA FOR HEALTHCARE VERTICAL, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 52 TIME-OF-FLIGHT SENSOR MARKET IN EUROPE FOR HEALTHCARE VERTICAL, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 53 TIME-OF-FLIGHT SENSOR MARKET IN APAC FOR HEALTHCARE VERTICAL, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 54 TIME-OF-FLIGHT SENSOR MARKET IN ROW FOR HEALTHCARE VERTICAL, BY REGION, 2017–2025 (USD MILLION)

TABLE 55 TIME-OF-FLIGHT SENSOR MARKET FOR AEROSPACE & DEFENSE VERTICAL, BY REGION, 2017–2025 (USD MILLION)

TABLE 56 TIME-OF-FLIGHT SENSOR MARKET IN NORTH AMERICA FOR



AEROSPACE & DEFENSE VERTICAL, BY COUNTRY, 2017–2025 (USD MILLION) TABLE 57 TIME-OF-FLIGHT SENSOR MARKET IN EUROPE FOR AEROSPACE & DEFENSE VERTICAL, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 58 TIME-OF-FLIGHT SENSOR MARKET IN APAC FOR AEROSPACE & DEFENSE VERTICAL, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 59 TIME-OF-FLIGHT SENSOR MARKET IN ROW FOR AEROSPACE & DEFENSE VERTICAL, BY REGION, 2017–2025 (USD MILLION)

TABLE 60 TIME-OF-FLIGHT SENSOR MARKET, IN TERMS OF VALUE AND VOLUME, 2017–2025

TABLE 61 TIME-OF-FLIGHT SENSOR MARKET, BY REGION, 2017–2025 (USD MILLION)

TABLE 62 TIME-OF-FLIGHT SENSOR MARKET IN NORTH AMERICA, BY APPLICATION, 2017–2025 (USD MILLION)

TABLE 63 TIME-OF-FLIGHT SENSOR MARKET IN NORTH AMERICA, BY VERTICAL, 2017–2025 (USD MILLION)

TABLE 64 TIME-OF-FLIGHT SENSOR MARKET IN NORTH AMERICA, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 65 TIME-OF-FLIGHT SENSOR MARKET IN US, BY APPLICATION, 2017–2025 (USD MILLION)

TABLE 66 TIME-OF-FLIGHT SENSOR MARKET IN US, BY VERTICAL, 2017–2025 (USD MILLION)

TABLE 67 TIME-OF-FLIGHT SENSOR MARKET IN CANADA, BY APPLICATION, 2017–2025 (USD MILLION)

TABLE 68 TIME-OF-FLIGHT SENSOR MARKET IN CANADA, BY VERTICAL, 2017–2025 (USD MILLION)

TABLE 69 TIME-OF-FLIGHT SENSOR MARKET IN MEXICO, BY APPLICATION, 2017–2025 (USD MILLION)

TABLE 70 TIME-OF-FLIGHT SENSOR MARKET IN MEXICO, BY VERTICAL, 2017–2025 (USD MILLION)

TABLE 71 TIME-OF-FLIGHT SENSOR MARKET IN EUROPE, BY APPLICATION, 2017–2025 (USD MILLION)

TABLE 72 TIME-OF-FLIGHT SENSOR MARKET IN EUROPE, BY VERTICAL, 2017–2025 (USD MILLION)

TABLE 73 TIME-OF-FLIGHT SENSOR MARKET IN EUROPE, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 74 TIME-OF-FLIGHT SENSOR MARKET IN UK, BY APPLICATION, 2017–2025 (USD MILLION)

TABLE 75 TIME-OF-FLIGHT SENSOR MARKET IN UK, BY VERTICAL, 2017–2025 (USD MILLION)



TABLE 76 TIME-OF-FLIGHT SENSOR MARKET IN GERMANY, BY APPLICATION, 2017–2025 (USD MILLION)

TABLE 77 TIME-OF-FLIGHT SENSOR MARKET IN GERMANY, BY VERTICAL, 2017–2025 (USD MILLION)

TABLE 78 TIME-OF-FLIGHT SENSOR MARKET IN FRANCE, BY APPLICATION, 2017–2025 (USD MILLION)

TABLE 79 TIME-OF-FLIGHT SENSOR MARKET IN FRANCE, BY VERTICAL, 2017–2025 (USD MILLION)

TABLE 80 TIME-OF-FLIGHT SENSOR MARKET IN REST OF EUROPE, BY APPLICATION, 2017–2025 (USD MILLION)

TABLE 81 TIME-OF-FLIGHT SENSOR MARKET IN REST OF EUROPE, BY VERTICAL, 2017–2025 (USD MILLION)

TABLE 82 TIME-OF-FLIGHT SENSOR MARKET IN APAC, BY APPLICATION, 2017–2025 (USD MILLION)

TABLE 83 TIME-OF-FLIGHT SENSOR MARKET IN APAC, BY VERTICAL, 2017–2025 (USD MILLION)

TABLE 84 TIME-OF-FLIGHT SENSOR MARKET IN APAC, BY COUNTRY, 2017–2025 (USD MILLION)

TABLE 85 TIME-OF-FLIGHT SENSOR MARKET IN CHINA, BY APPLICATION, 2017–2025 (USD MILLION)

TABLE 86 TIME-OF-FLIGHT SENSOR MARKET IN CHINA, BY VERTICAL, 2017–2025 (USD MILLION)

TABLE 87 TIME-OF-FLIGHT SENSOR MARKET IN JAPAN, BY APPLICATION, 2017–2025 (USD MILLION)

TABLE 88 TIME-OF-FLIGHT SENSOR MARKET IN JAPAN, BY VERTICAL, 2017–2025 (USD MILLION)

TABLE 89 TIME-OF-FLIGHT SENSOR MARKET IN SOUTH KOREA, BY APPLICATION, 2017–2025 (USD MILLION)

TABLE 90 TIME-OF-FLIGHT SENSOR MARKET IN SOUTH KOREA, BY VERTICAL, 2017–2025 (USD MILLION)

TABLE 91 TIME-OF-FLIGHT SENSOR MARKET IN INDIA, BY APPLICATION, 2017–2025 (USD MILLION)

TABLE 92 TIME-OF-FLIGHT SENSOR MARKET IN INDIA, BY VERTICAL, 2017–2025 (USD MILLION)

TABLE 93 TIME-OF-FLIGHT SENSOR MARKET IN REST OF APAC, BY APPLICATION, 2017–2025 (USD MILLION)

TABLE 94 TIME-OF-FLIGHT SENSOR MARKET IN REST OF APAC, BY VERTICAL, 2017–2025 (USD MILLION)

TABLE 95 TIME-OF-FLIGHT SENSOR MARKET IN ROW, BY APPLICATION,



2017-2025 (USD MILLION)

TABLE 96 TIME-OF-FLIGHT SENSOR MARKET IN ROW, BY VERTICAL, 2017–2025 (USD MILLION)

TABLE 97 TIME-OF-FLIGHT SENSOR MARKET IN ROW, BY REGION, 2017–2025 (USD MILLION)

TABLE 98 TIME-OF-FLIGHT SENSOR MARKET IN MIDDLE EAST & AFRICA, BY APPLICATION, 2017–2025 (USD MILLION)

TABLE 99 TIME-OF-FLIGHT SENSOR MARKET IN MIDDLE EAST & AFRICA, BY VERTICAL, 2017–2025 (USD MILLION)

TABLE 100 TIME-OF-FLIGHT SENSOR MARKET IN SOUTH AMERICA, BY APPLICATION, 2017–2025 (USD MILLION)

TABLE 101 TIME-OF-FLIGHT SENSOR MARKET IN SOUTH AMERICA, BY VERTICAL, 2017–2025 (USD MILLION)

TABLE 102 PRODUCT LAUNCHES AND DEVELOPMENTS (2016–2019)

TABLE 103 ACQUISITIONS (2017)

TABLE 104 COLLABORATIONS/AGREEMENTS/PARTNERSHIPS (2016–2019)

TABLE 105 EXPANSIONS (2016–2019)



# **List Of Figures**

### LIST OF FIGURES

FIGURE 1 TIME-OF-FLIGHT SENSOR MARKET SEGMENTATION

FIGURE 2 TIME-OF-FLIGHT) SENSOR MARKET: RESEARCH DESIGN

FIGURE 3 MARKET SIZE ESTIMATION METHODOLOGY: BOTTOM-UP APPROACH

FIGURE 4 MARKET SIZE ESTIMATION METHODOLOGY: TOP-DOWN APPROACH

FIGURE 5 DATA TRIANGULATION

FIGURE 6 ASSUMPTIONS FOR RESEARCH STUDY

FIGURE 7 TIME-OF-FLIGHT SENSOR MARKET, 2017–2025 (USD BILLION)

FIGURE 8 TIME-OF-FLIGHT SENSOR MARKET, BY RESOLUTION (2020 VS. 2025)

FIGURE 9 3D IMAGING AND SCANNING APPLICATION TO CAPTURE LARGEST SIZE OF

TIME-OF-FLIGHT SENSOR MARKET IN 2025

FIGURE 10 TIME-OF-FLIGHT SENSOR MARKET FOR CONSUMER ELECTRONICS

VERTICAL TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

FIGURE 11 APAC TO HOLD LARGEST SHARE OF TIME-OF-FLIGHT SENSOR

MARKET IN 2020

FIGURE 12 INCREASING ADOPTION OF 3D CAMERAS IN SMARTPHONES TO BOOST

TIME-OF-FLIGHT SENSOR MARKET DURING FORECAST PERIOD

FIGURE 13 MARKET FOR QVGA TIME-OF-FLIGHT SENSORS TO GROW AT

HIGHEST CAGR FROM 2020 TO 2025

FIGURE 14 3D IMAGING AND SCANNING APPLICATION TO HOLD LARGEST SIZE OF

TIME-OF-FLIGHT SENSOR MARKET IN 2025

FIGURE 15 CONSUMER ELECTRONICS AND CHINA ACCOUNTED FOR LARGEST SHARE OF

TIME-OF-FLIGHT SENSOR MARKET IN APAC IN 2019

FIGURE 16 INDIA TO EXHIBIT HIGHEST CAGR IN TIME-OF-FLIGHT MARKET FROM

### 2020 TO 2025

FIGURE 17 IMPACT OF DRIVERS AND OPPORTUNITIES ON TIME-OF-FLIGHT SENSOR MARKET

FIGURE 18 IMPACT OF CHALLENGES AND RESTRAINTS ON TIME-OF-FLIGHT SENSOR MARKET



FIGURE 19 GLOBAL MOBILE SUBSCRIPTIONS FROM 2011 TO 2017 (BILLION)

FIGURE 20 MAJOR VALUE ADDED BY RAW MATERIAL SUPPLIERS AND

ORIGINAL EQUIPMENT MANUFACTURERS & SYSTEM INTEGRATORS

FIGURE 21 TIME-OF-FLIGHT MARKET, BY DEVICE TYPES

FIGURE 22 QVGA TIME-OF-FLIGHT SENSOR MARKET TO GROW AT HIGHEST CAGR DURING FORECAST PERIOD

FIGURE 23 AR & VR APPLICATIONS TO EXHIBIT HIGHEST CAGR IN TIME-OF-

FLIGHT SENSOR MARKET FROM 2020 TO 2025

FIGURE 24 APAC TO LEAD TIME-OF-FLIGHT SENSOR MARKET FOR 3D

SCANNING AND IMAGING APPLICATIONS FROM 2020 TO 2025

FIGURE 25 CONSUMER ELECTRONICS VERTICAL TO LEAD TIME-OF-FLIGHT SENSOR MARKET FROM 2020 TO 2025

FIGURE 26 APAC TO DOMINATE TIME-OF-FLIGHT SENSOR MARKET FOR

INDUSTRIAL VERTICAL FROM 2020 TO 2025

FIGURE 27 GEOGRAPHIC SNAPSHOT: TIME-OF-FLIGHT SENSOR MARKET IN APAC TO EXHIBIT HIGHEST CAGR FROM 2020 TO 2025

FIGURE 28 APAC TO LEAD OVERALL TIME-OF-FLIGHT SENSOR MARKET DURING FORECAST PERIOD

FIGURE 29 NORTH AMERICA: TIME-OF-FLIGHT SENSOR MARKET SNAPSHOT

FIGURE 30 EUROPE: TIME-OF-FLIGHT SENSOR MARKET SNAPSHOT

FIGURE 31 APAC: TOF SENSOR MARKET SNAPSHOT

FIGURE 32 COMPANIES ADOPTED PRODUCT LAUNCHES AND DEVELOPMENTS AS

**KEY GROWTH STRATEGIES DURING 2016–2019** 

FIGURE 33 RANKING ANALYSIS OF TOP 5 PLAYERS IN TIIME-OF-FLIGHT MARKET, 2018

FIGURE 34 TIME-OF-FLIGHT SENSOR MARKET (GLOBAL) COMPETITIVE LEADERSHIP

MAPPING, 2019

FIGURE 35 EVALUATION FRAMEWORK: TIME-OF-FLIGHT SENSOR MARKET

FIGURE 36 TEXAS INSTRUMENTS INCORPORATED: COMPANY SNAPSHOT

FIGURE 37 STMICROELECTRONICS N.V.: COMPANY SNAPSHOT

FIGURE 38 INFINEON TECHNOLOGIES: COMPANY SNAPSHOT

FIGURE 39 PANASONIC CORPORATION: COMPANY SNAPSHOT

FIGURE 40 MELEXIS: COMPANY SNAPSHOT

FIGURE 41 TELEDYNE TECHNOLOGIES INCORPORATED: COMPANY SNAPSHOT

FIGURE 42 KEYENCE CORPORATION: COMPANY SNAPSHOT

FIGURE 43 SHARP CORPORATION: COMPANY SNAPSHOT

FIGURE 44 SONY CORPORATION: COMPANY SNAPSHOT



## I would like to order

Product name: Time-of-Flight (ToF) Sensor Market by Resolution (QQVGA, HQVGA, QVGA, & VGA),

Application (Augmented Reality & Virtual Reality, LIDAR, Machine Vision, 3D Imaging & Scanning, and Robotics & Drone), Product Type, Vertical and Geography - Global

Forecast to 2025

Product link: <a href="https://marketpublishers.com/r/T40F79A3D578EN.html">https://marketpublishers.com/r/T40F79A3D578EN.html</a>

Price: US\$ 5,650.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer

Service:

info@marketpublishers.com

# **Payment**

First name:

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <a href="https://marketpublishers.com/r/T40F79A3D578EN.html">https://marketpublishers.com/r/T40F79A3D578EN.html</a>

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

Last name:	
Email:	
Company:	
Address:	
City:	
Zip code:	
Country:	
Tel:	
Fax:	
Your message:	
	**All fields are required
	Custumer signature

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



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