

Optical Sensing Market by Industry (Aerospace & Defense, Utilities, Oil & Gas, Medical, Construction, and Consumer Electronics), Application, Method, and Geography - Global Forecast to 2023

https://marketpublishers.com/r/OFF31EAB7C7EN.html

Date: June 2017 Pages: 160 Price: US\$ 5,650.00 (Single User License) ID: OFF31EAB7C7EN

Abstracts

"The aerospace & defense industry is the largest contributor towards the optical sensing market."

The optical sensing market size, in terms of value, is projected to grow from USD 1.12 billion in 2016 to USD 3.46 billion by 2023, at a CAGR of 15.47% between 2017 and 2023. Optical sensing devices have good accuracy and can withstand harsh environments. These factors make them a suitable to be deployed in major industries such as aerospace & defense; utilities; and oil & gas. The rising investments to develop more reliable sensing devices would significantly impact the growth of the market. On the other hand, the availability of cheaper non-optical sensors with lesser sensing capabilities would be a major restraint for the market growth. Rising applications in the medical industry are expected to boost the market growth.

'Biochemical sensing application is being adopted across different industries at a fast rate.'

The reducing prices and form factor of optical biochemical sensing devices are expected to boost the growth of the market. The increasing performance due to increased R&D spending in biochemical sensing applications is also expected to drive the growth of this subsegment. These devices have applications across different industries in varying capacities.

"Asia-Pacific market for optical sensing devices to grow at the highest rate during the



forecast period."

The Asia-Pacific region is expected to grow at the highest CAGR in the optical sensing market. Growing urbanization and fast-growing economies in the region is expected to boost the market growth. Increasing investments to upgrade the infrastructure in key industries such as utilities and oil & gas would drive the market growth in the region.

In the process of determining and verifying the market size for several segments and subsegments gathered through secondary research, extensive primary interviews have been conducted with key people. The break-up of the profiles of primary participants is given below:

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

By Designation: C-Level Executives – 45%, Directors – 35%, and Others – 20%

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

Most companies have adopted the strategy of innovating new products to increase their market share. The companies have sought to improve the features of their products through extensive research. Some major players have also tried to strengthen their market position through mergers & acquisitions. Apart from these dominant strategies, some players focus on forging alliances in the value chain to expand their business in the optical sensing market.

The key players in the optical sensing market profiled in the report are as follows:

- 1. ROHM Semiconductor (Japan)
- 2. ABB (Switzerland)
- 3. Hamamatsu Photonics K.K. (Japan)
- 4. ams AG (Austria)
- 5. Fairchild Semiconductor (U.S.)
- 6. Analog Devices Inc. (U.S.)
- 7. Texas Instruments Inc. (U.S.)
- 8. STMicroelectronics N.V. (Switzerland)
- 9. Vishay Intertechnology, Inc. (U.S.)
- 10. Alphasense (U.K.)
- 11. Teledyne DALSA, Inc. (Canada)

Optical Sensing Market by Industry (Aerospace & Defense, Utilities, Oil & Gas, Medical, Construction, and Cons...



12. Oxsensis, Ltd. (U.K.)
 13. RJC Enterprises, LLC. (U.S.)

Research Coverage

The geographic segmentation in the report covers the four major regions of the world, namely, North America, Europe, Asia-Pacific, and RoW. The industry segment covers the market for aerospace & defense; utilities; oil & gas; medical; construction; consumer electronics; and others. The application segment covers pressure and strain sensing; temperature sensing; geological survey; biochemical sensing; biometric and ambience sensing; and others. The optical sensing market by methods is segmented into extrinsic and intrinsic.

Key Benefits of Buying the Report

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

1. This report segments the optical sensing market comprehensively and provides the closest approximations of the overall market size and that of the subsegments across the different verticals and regions.

2. The report helps stakeholders to understand the market and provides information on key market drivers, restraints, challenges, and opportunities.

3. This report would help stakeholders to better understand their competitors and gain more insights to enhance their position in the business. The competitive landscape section includes DIVE analysis of 25 industry players which are also benchmarked for their respective business strategy and product portfolio.



Contents

1 INTRODUCTION

1.1 STUDY OBJECTIVES

- 1.2 MARKET DEFINITION
- 1.3 STUDY SCOPE
- 1.3.1 MARKETS COVERED
- 1.3.2 YEARS CONSIDERED FOR STUDY
- 1.4 CURRENCY
- **1.5 LIMITATIONS**
- **1.6 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 Breakdown of primaries
 - 2.1.2.3 Key data from primary sources
 - 2.1.2.4 Key industry insights
- 2.2 SECONDARY AND PRIMARY RESEARCH
- 2.3 MARKET SIZE ESTIMATION
 - 2.3.1 BOTTOM-UP APPROACH

2.3.1.1 Approach for capturing the market share by bottom-up analysis (demand side)

2.3.2 TOP-DOWN APPROACH

2.3.2.1 Approach for capturing the market share by top-down analysis (supply side) 2.4 MARKET BREAKDOWN AND DATA TRIANGULATION

2.5 RESEARCH ASSUMPTIONS

3 EXECUTIVE SUMMARY

4 PREMIUM INSIGHTS

4.1 ATTRACTIVE OPPORTUNITIES IN OPTICAL SENSING MARKET

Optical Sensing Market by Industry (Aerospace & Defense, Utilities, Oil & Gas, Medical, Construction, and Cons...



4.2 OPTICAL SENSING MARKET IN APAC4.3 OPTICAL SENSING MARKET, BY APPLICATION4.4 OPTICAL SENSING MARKET, BY GEOGRAPHY

5 MARKET OVERVIEW

- 5.1 INTRODUCTION
- 5.2 MARKET EVOLUTION
- 5.3 MARKET DYNAMICS
- 5.3.1 DRIVERS
 - 5.3.1.1 Physical properties suitable for sensing in harsh environments
 - 5.3.1.2 Constant technological developments in optical sensors
- 5.3.2 RESTRAINTS
 - 5.3.2.1 Cheaper substitutes to optical sensors
- **5.3.3 OPPORTUNITIES**
 - 5.3.3.1 Promising industrial IoT applications
 - 5.3.3.2 Rising applications in healthcare
- 5.3.4 CHALLENGES
 - 5.3.4.1 Need for developing cost-effective sensors

6 INDUSTRY TRENDS

- 6.1 INTRODUCTION
- 6.2 VALUE CHAIN ANALYSIS
- 6.2.1 RESEARCH AND PRODUCT DEVELOPMENT
- 6.2.2 MANUFACTURING AND ASSEMBLY
- 6.2.3 DISTRIBUTION/MARKETING
- 6.2.4 POST-SALES SERVICES
- 6.3 KEY INDUSTRY TRENDS

7 OPTICAL SENSING MARKET, BY INDUSTRY

- 7.1 INTRODUCTION
 7.2 AEROSPACE AND DEFENSE
 7.3 UTILITIES
 7.4 OIL AND GAS
 7.5 MEDICAL
 7.6 CONSTRUCTION
- 7.7 CONSUMER ELECTRONICS



7.8 OTHERS

8 OPTICAL SENSING MARKET, BY APPLICATION

- 8.1 INTRODUCTION8.2 PRESSURE AND STRAIN SENSING
- 8.3 TEMPERATURE SENSING
- 0.3 TEMPERATURE SENSIN
- 8.4 GEOLOGICAL SURVEY
- 8.5 BIOCHEMICAL
- 8.6 BIOMETRIC AND AMBIENCE
- 8.7 OTHERS

9 METHODS USED IN OPTICAL SENSING

- 9.1 INTRODUCTION
- 9.2 EXTRINSIC
 - 9.2.1 OPTICAL COHERENCE TOMOGRAPHY
 - 9.2.2 ENCODERS
 - 9.2.3 LASER DOPPLER VELOCIMETRY
 - 9.2.4 PYROMETERS
 - 9.2.5 FABRY-PEROT INTERFEROMETERS
 - 9.2.6 SPECTROSCOPY

9.3 INTRINSIC

- 9.3.1 SCATTERING BASED
 - 9.3.1.1 Raman scattering
 - 9.3.1.2 Rayleigh scattering
- 9.3.1.3 Brillouin scattering
- 9.3.2 FIBER BRAGG GRATING BASED
 - 9.3.2.1 Point FBG based
 - 9.3.2.2 Spatially continuous based

10 GEOGRAPHIC ANALYSIS

10.1 INTRODUCTION 10.2 NORTH AMERICA 10.2.1 US 10.2.2 CANADA 10.2.3 MEXICO 10.3 EUROPE

Optical Sensing Market by Industry (Aerospace & Defense, Utilities, Oil & Gas, Medical, Construction, and Cons...



10.3.1 GERMANY 10.3.2 FRANCE 10.3.3 UK 10.3.4 ITALY 10.3.5 RUSSIA 10.3.6 SPAIN 10.3.7 REST OF EUROPE 10.4 APAC 10.4.1 CHINA 10.4.2 JAPAN 10.4.3 INDIA 10.4.4 SOUTH KOREA 10.4.5 REST OF APAC 10.5 ROW 10.5.1 MIDDLE EAST AND AFRICA 10.5.2 LATIN AMERICA

11 COMPETITIVE LANDSCAPE

11.1 INTRODUCTION

11.2 MARKET RANKING OF PLAYERS IN OPTICAL SENSING MARKET, 2016

11.3 VENDOR DIVE OVERVIEW

11.3.1 VANGUARDS

11.3.2 DYNAMIC

11.3.3 INNOVATORS

11.3.4 EMERGING

11.4 COMPETITIVE BENCHMARKING

11.4.1 OPTICAL SENSING MARKET BUSINESS STRATEGY ANALYSIS (25 COMPANIES)

11.4.2 OPTICAL SENSING MARKET PRODUCT OFFERING ANALYSIS (25 COMPANIES)

*Top 25 companies analyzed for this study are -ROHM Semiconductor, ABB, Hamamatsu Photonics K.K., ams AG, Fairchild Semiconductor, Analog Devices, Inc., Texas Instruments, Inc., Vishay Intertechnology, Inc., Micron Optics, Inc., Cementys, STMicroelectronics N.V., Opsens Inc., Newport Corporation, Alphasense, Teledyne DALSA Inc., Oxsensis Ltd., Silixa Ltd., Optasense Ltd., Intelligent Fiber Optic Systems Corporation, Fotech Solutions Ltd., OPTEK Technology, Inc., Sharp Corporation, Broadcom, Fiso Technologies Inc., RJC Enterprises LLC,



12 COMPANY PROFILES

(OVERVIEW, PRODUCTS AND SERVICES, FINANCIALS, STRATEGY & DEVELOPMENT)*

- 12.1 INTRODUCTION
- 12.2 ROHM SEMICONDUCTOR
- 12.3 ABB
- 12.4 HAMAMATSU PHOTONICS K.K.
- 12.5 AMS AG
- 12.6 FAIRCHILD SEMICONDUCTOR
- 12.7 ANALOG DEVICES, INC.
- 12.8 TEXAS INSTRUMENTS INC.
- 12.9 STMICROELECTRONICS N.V.
- 12.10 VISHAY INTERTECHNOLOGY, INC.
- 12.11 ALPHASENSE
- 12.12 TELEDYNE DALSA INC.
- 12.13 OXSENSIS LTD.
- 12.14 RJC ENTERPRISES, LLC
- 12.15 KEY INNOVATORS

*Details on Overview, Products and Services, Financials, Strategy & Development might not be Captured in case of Unlisted Companies.

13 APPENDIX

13.1 INSIGHTS OF INDUSTRY EXPERTS
13.2 DISCUSSION GUIDE
13.3 KNOWLEDGE STORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL
13.4 INTRODUCING RT: REAL-TIME MARKET INTELLIGENCE
13.5 AVAILABLE CUSTOMIZATIONS
13.6 RELATED REPORTS
13.7 AUTHOR DETAILS



List Of Tables

LIST OF TABLES

Table 1 OPTICAL SENSING MARKET, BY INDUSTRY, 2014–2023 (USD MILLION) Table 2 OPTICAL SENSING MARKET FOR AEROSPACE AND DEFENSE INDUSTRY, BY REGION, 2014-2023 (USD MILLION) Table 3 OPTICAL SENSING MARKET FOR AEROSPACE AND DEFENSE INDUSTRY, BY APPLICATION, 2014–2023 (USD MILLION) Table 4 OPTICAL SENSING MARKET FOR UTILITIES INDUSTRY, BY REGION, 2014–2023 (USD MILLION) Table 5 OPTICAL SENSING MARKET FOR UTILITIES INDUSTRY, BY APPLICATION, 2014-2023 (USD MILLION) Table 6 OPTICAL SENSING MARKET FOR OIL AND GAS INDUSTRY, BY REGION, 2014-2023 (USD MILLION) Table 7 OPTICAL SENSING MARKET FOR OIL AND GAS INDUSTRY, BY APPLICATION, 2014–2023 (USD MILLION) Table 8 OPTICAL SENSING MARKET FOR MEDICAL INDUSTRY, BY REGION, 2014-2023 (USD MILLION) Table 9 OPTICAL SENSING MARKET FOR MEDICAL INDUSTRY, BY APPLICATION, 2014-2023 (USD MILLION) Table 10 OPTICAL SENSING MARKET FOR CONSTRUCTION INDUSTRY, BY REGION, 2014–2023 (USD MILLION) Table 11 OPTICAL SENSING MARKET FOR CONSTRUCTION INDUSTRY, BY APPLICATION, 2014–2023 (USD MILLION) Table 12 OPTICAL SENSING MARKET FOR CONSUMER ELECTRONICS INDUSTRY, BY REGION, 2014–2023 (USD MILLION) Table 13 OPTICAL SENSING MARKET FOR CONSUMER ELECTRONICS INDUSTRY, BY APPLICATION, 2014–2023 (USD MILLION) Table 14 OPTICAL SENSING MARKET FOR OTHER INDUSTRIES, BY REGION, 2014–2023 (USD MILLION) Table 15 OPTICAL SENSING MARKET FOR OTHER INDUSTRIES, BY APPLICATION, 2014–2023 (USD MILLION) Table 16 OPTICAL SENSING MARKET, BY APPLICATION, 2014–2023 (USD MILLION) Table 17 OPTICAL SENSING MARKET, BY APPLICATION, 2014–2023 (THOUSAND UNITS) Table 18 OPTICAL SENSING MARKET FOR PRESSURE AND STRAIN

APPLICATION, BY REGION, 2014–2023 (USD MILLION)



Table 19 OPTICAL SENSING MARKET FOR AEROSPACE AND DEFENSE INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 20 OPTICAL SENSING MARKET FOR UTILITIES INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 21 OPTICAL SENSING MARKET FOR OIL AND GAS INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 22 OPTICAL SENSING MARKET FOR MEDICAL INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 23 OPTICAL SENSING MARKET FOR CONSTRUCTION INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 24 OPTICAL SENSING MARKET FOR CONSUMER ELECTRONICS INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 25 OPTICAL SENSING MARKET FOR OTHER INDUSTRIES, BY REGION, 2014–2023 (USD MILLION)

Table 26 OPTICAL SENSING MARKET FOR TEMPERATURE APPLICATION, BY REGION, 2014–2023 (USD MILLION)

Table 27 OPTICAL SENSING MARKET FOR AEROSPACE AND DEFENSE INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 28 OPTICAL SENSING MARKET FOR UTILITIES INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 29 OPTICAL SENSING MARKET FOR OIL AND GAS INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 30 OPTICAL SENSING MARKET FOR MEDICAL INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 31 OPTICAL SENSING MARKET FOR CONSTRUCTION INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 32 OPTICAL SENSING MARKET FOR CONSUMER ELECTRONICS INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 33 OPTICAL SENSING MARKET FOR OTHER INDUSTRIES, BY REGION, 2014–2023 (USD MILLION)

Table 34 OPTICAL SENSING MARKET FOR GEOLOGICAL SURVEY APPLICATION, BY REGION, 2014–2023 (USD MILLION)

Table 35 OPTICAL SENSING MARKET FOR AEROSPACE AND DEFENSE INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 36 OPTICAL SENSING MARKET FOR UTILITIES INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 37 OPTICAL SENSING MARKET FOR OIL AND GAS INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 38 OPTICAL SENSING MARKET FOR CONSTRUCTION INDUSTRY, BY



REGION, 2014–2023 (USD MILLION)

Table 39 OPTICAL SENSING MARKET FOR OTHER INDUSTRIES, BY REGION, 2014–2023 (USD MILLION)

Table 40 OPTICAL SENSING MARKET FOR BIOCHEMICAL APPLICATION, BY REGION, 2014–2023 (USD MILLION)

Table 41 OPTICAL SENSING MARKET FOR AEROSPACE AND DEFENSE INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 42 OPTICAL SENSING MARKET FOR UTILITIES INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 43 OPTICAL SENSING MARKET FOR OIL AND GAS INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 44 OPTICAL SENSING MARKET FOR MEDICAL INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 45 OPTICAL SENSING MARKET FOR CONSTRUCTION INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 46 OPTICAL SENSING MARKET FOR CONSUMER ELECTRONICS INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 47 OPTICAL SENSING MARKET FOR OTHER INDUSTRIES, BY REGION, 2014–2023 (USD MILLION)

Table 48 OPTICAL SENSING MARKET FOR BIOMETRIC AND AMBIENCEAPPLICATION, BY REGION, 2014–2023 (USD MILLION)

Table 49 OPTICAL SENSING MARKET FOR AEROSPACE AND DEFENSE INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 50 OPTICAL SENSING MARKET FOR UTILITIES INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 51 OPTICAL SENSING MARKET FOR OIL AND GAS INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 52 OPTICAL SENSING MARKET FOR MEDICAL INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 53 OPTICAL SENSING MARKET FOR CONSTRUCTION INDUSTRY, BYREGION, 2014–2023 (USD MILLION)

Table 54 OPTICAL SENSING MARKET FOR CONSUMER ELECTRONICS INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 55 OPTICAL SENSING MARKET FOR OTHER INDUSTRIES, BY REGION, 2014–2023 (USD MILLION)

Table 56 OPTICAL SENSING MARKET FOR OTHER APPLICATIONS, BY REGION, 2014–2023 (USD MILLION)

Table 57 OPTICAL SENSING MARKET FOR AEROSPACE AND DEFENSEINDUSTRY, BY REGION, 2014–2023 (USD MILLION)



Table 58 OPTICAL SENSING MARKET FOR UTILITIES INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 59 OPTICAL SENSING MARKET FOR OIL AND GAS INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 60 OPTICAL SENSING MARKET FOR CONSTRUCTION INDUSTRY, BY REGION, 2014–2023 (USD MILLION)

Table 61 OPTICAL SENSING MARKET FOR OTHER INDUSTRIES, BY REGION, 2014–2023 (USD MILLION)

Table 62 OPTICAL SENSING MARKET, BY REGION, 2014–2023 (USD MILLION) Table 63 OPTICAL SENSING MARKET, BY REGION, 2014–2023 (THOUSAND UNITS)

Table 64 OPTICAL SENSING MARKET IN NORTH AMERICA, BY APPLICATION, 2014–2023 (USD MILLION)

Table 65 OPTICAL SENSING MARKET IN NORTH AMERICA, BY APPLICATION, 2014–2023 (THOUSAND UNITS)

Table 66 OPTICAL SENSING MARKET IN NORTH AMERICA, BY COUNTRY,2014–2023 (USD MILLION)

Table 67 OPTICAL SENSING MARKET IN EUROPE, BY APPLICATION, 2014–2023 (USD MILLION)

Table 68 OPTICAL SENSING MARKET IN EUROPE, BY APPLICATION, 2014–2023 (THOUSAND UNITS)

Table 69 OPTICAL SENSING MARKET IN EUROPE, BY COUNTRY, 2014–2023 (USD MILLION)

Table 70 OPTICAL SENSING MARKET IN APAC, BY APPLICATION, 2014–2023 (USD MILLION)

Table 71 OPTICAL SENSING MARKET IN APAC, BY APPLICATION, 2014–2023 (THOUSAND UNITS)

Table 72 OPTICAL SENSING MARKET IN APAC, BY COUNTRY, 2014–2023 (USD MILLION)

Table 73 OPTICAL SENSING MARKET IN ROW, BY APPLICATION, 2014–2023 (USD MILLION)

Table 74 OPTICAL SENSING MARKET IN ROW, BY APPLICATION, 2014–2023 (THOUSAND UNITS)

Table 75 OPTICAL SENSING MARKET IN ROW, BY REGION, 2014–2023 (USD MILLION)

Table 76 MARKET RANKING OF TOP 5 PLAYERS IN OPTICAL SENSING MARKET (2016)





List Of Figures

LIST OF FIGURES

Figure 1 OPTICAL SENSING MARKET SEGMENTATION Figure 2 OPTICAL SENSING 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 AEROSPACE AND DEFENSE INDUSTRY HAS THE LARGEST SHARE OF THE TOTAL OPTICAL SENSING MARKET IN 2016 Figure 7 OPTICAL SENSING MARKET FOR PRESSURE AND STRAIN APPLICATION EXPECTED TO DOMINATE DURING THE FORECAST PERIOD Figure 8 NORTH AMERICA EXPECTED TO DOMINATE OPTICAL SENSING MARKET DURING THE FORECAST PERIOD Figure 9 OPTICAL SENSING MARKET OFFERS LUCRATIVE OPPORTUNITIES OWING TO INCREASED INVESTMENTS TO DEVELOP INNOVATIVE PRODUCTS DURING THE FORECAST PERIOD Figure 10 CHINA HOLDS THE LARGEST SHARE OF OPTICAL SENSING MARKET IN APAC Figure 11 PRESSURE AND STRAIN APPLICATION EXPECTED TO DOMINATE OPTICAL SENSING MARKET DURING THE FORECAST PERIOD Figure 12 OPTICAL SENSING MARKET IN APAC EXPECTED TO GROW AT THE HIGHEST RATE DURING THE FORECAST PERIOD Figure 13 DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES FOR **OPTICAL SENSING MARKET** Figure 14 OPTICAL SENSING MARKET: VALUE CHAIN ANALYSIS Figure 15 PRODUCT INNOVATION—KEY TREND IN THE OPTICAL SENSING MARKET Figure 16 OPTICAL SENSING MARKET, BY INDUSTRY Figure 17 AEROSPACE AND DEFENSE INDUSTRY EXPECTED TO DOMINATE OPTICAL SENSING MARKET DURING THE FORECAST PERIOD Figure 18 OPTICAL SENSING MARKET FOR OIL AND GAS INDUSTRY IN ROW EXPECTED TO GROW AT THE HIGHEST CAGR DURING THE FORECAST PERIOD Figure 19 PRESSURE AND STRAIN SENSORS EXPECTED TO DOMINATE OPTICAL SENSING MARKET FOR CONSTRUCTION INDUSTRY DURING THE FORECAST PERIOD Figure 20 OPTICAL SENSING MARKET, BY APPLICATION Figure 21 PRESSURE AND STRAIN APPLICATION EXPECTED TO DOMINATE



OPTICAL SENSING MARKET DURING THE FORECAST PERIOD Figure 22 SHIPMENTS FOR BIOCHEMICAL SENSORS EXPECTED TO GROW AT THE HIGHEST CAGR DURING THE FORECAST PERIOD

Figure 23 NORTH AMERICA EXPECTED TO DOMINATE OPTICAL SENSING MARKET FOR PRESSURE AND STRAIN APPLICATION DURING THE FORECAST PERIOD

Figure 24 OPTICAL SENSING MARKET FOR TEMPERATURE APPLICATION IN APAC EXPECTED TO GROW AT THE HIGHEST CAGR DURING THE FORECAST PERIOD

Figure 25 APAC EXPECTED TO DEMONSTRATE SIGNIFICANT GROWTH FOR TEMPERATURE APPLICATION IN OPTICAL SENSING MARKET FOR OTHER INDUSTRIES

Figure 26 OPTICAL SENSING MARKET FOR GEOLOGICAL SURVEY APPLICATION IN APAC EXPECTED TO GROW AT THE HIGHEST CAGR DURING THE FORECAST PERIOD

Figure 27 NORTH AMERICA EXPECTED TO DOMINATE OPTICAL SENSING MARKET FOR BIOCHEMICAL APPLICATION DURING THE FORECAST PERIOD Figure 28 NORTH AMERICA EXPECTED TO DOMINATE OPTICAL SENSING MARKET FOR BIOMETRIC AND AMBIENCE APPLICATION DURING THE FORECAST PERIOD

Figure 29 NORTH AMERICA ACCOUNTED FOR THE LARGEST SHARE OF THE TOTAL OPTICAL SENSING MARKET FOR OTHER APPLICATIONS DURING THE FORECAST PERIOD

Figure 30 METHODS USED IN OPTICAL SENSING

Figure 31 OPTICAL SENSING MARKET, BY GEOGRAPHY

Figure 32 INDIA AND LATIN AMERICA EXPECTED TO WITNESS SIGNIFICANT GROWTH IN OPTICAL SENSING MARKET DURING THE FORECAST PERIOD Figure 33 NORTH AMERICA: OPTICAL SENSING MARKET SNAPSHOT

Figure 34 EUROPE: OPTICAL SENSING MARKET SNAPSHOT

Figure 35 APAC: OPTICAL SENSING MARKET SNAPSHOT

Figure 36 ROW: OPTICAL SENSING MARKET SNAPSHOT

Figure 37 KEY GROWTH STRATEGIES ADOPTED BY TOP COMPANIES BETWEEN 2014 AND 2016

Figure 38 DIVE CHART

Figure 39 GEOGRAPHIC REVENUE MIX OF TOP 5 MARKET PLAYERS

Figure 40 ROHM SEMICONDUCTOR: COMPANY SNAPSHOT

Figure 41 ABB: COMPANY SNAPSHOT

Figure 42 HAMAMATSU PHOTONICS K.K.: COMPANY SNAPSHOT

Figure 43 AMS AG: COMPANY SNAPSHOT



Figure 44 ANALOG DEVICES, INC.: COMPANY SNAPSHOT Figure 45 TEXAS INSTRUMENTS, INC.: COMPANY SNAPSHOT Figure 46 STMICROELECTRONICS N.V.: COMPANY SNAPSHOT Figure 47 VISHAY INTERTECHNOLOGY, INC.: COMPANY SNAPSHOT



I would like to order

Product name: Optical Sensing Market by Industry (Aerospace & Defense, Utilities, Oil & Gas, Medical, Construction, and Consumer Electronics), Application, Method, and Geography - Global Forecast to 2023

Product link: https://marketpublishers.com/r/OFF31EAB7C7EN.html

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

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <u>https://marketpublishers.com/r/OFF31EAB7C7EN.html</u>

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

Custumer signature __

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

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