

## Infrared Imaging Market by Technology (Cooled & Uncooled Infrared Imaging), Wavelength (Near, Shortwave, Mid-wave, & Long-wave Infrared), Application (Security & Surveillance, Monitoring & Inspection, Detection), Vertical - Global Forecast to 2028

Market Report | 2023-07-06 | 213 pages | MarketsandMarkets

#### **AVAILABLE LICENSES:**

- Single User \$4950.00
- Multi User \$6650.00
- Corporate License \$8150.00
- Enterprise Site License \$10000.00

### Report description:

The infrared imaging market is projected to reach USD 9.6 billion by 2028 from USD 6.7 billion in 2023, at a CAGR of 7.3% from 2023 to 2028. Penetration of infrared cameras in the consumer electronics industry and emerging infrared imaging applications in the automotive sector are the major opportunities in the market.

The Rise of Cool Infrared Imaging by technology to propel market growth.

Cool infrared imaging technology has revolutionized security systems, enabling efficient surveillance in low-light conditions and improved threat detection capabilities. In the healthcare sector, it aids in early disease detection, vascular issue identification, and non-invasive diagnostics. Moreover, it optimizes energy usage, identifies insulation gaps, and enhances energy efficiency in buildings and industrial processes. Additionally, it facilitates accurate detection of forest fires, climate pattern mapping, and wildlife conservation efforts in environmental monitoring.

Increased use of NIR imaging in food quality and safety inspection to drive market.

NIR imaging finds utility in the industrial sector for quality control, material analysis, and identifying defects, contributing to enhanced product manufacturing. The versatility, non-destructive nature, and cost-effectiveness of NIR imaging have propelled its remarkable growth in various industries, empowering innovation and driving progress.

Demand for infrared imaging in inspection application to fuel market growth.

Infrared imaging can identify defects, irregularities, or anomalies in various materials and products. It is particularly useful in manufacturing, automotive, and electronics industries, where it can detect hidden defects, assess structural integrity, and ensure product quality.

Scotts International, EU Vat number: PL 6772247784

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

North America is expected to account for largest market share during the forecast period.

The market in North America accounted for the largest share of the infrared imaging market in 2023. The North American infrared imaging market has grown substantially due to increasing demand across various industries, such as defense and security, healthcare, and industrial automation. Factors driving this growth include technological advancements, rising awareness about the benefits of infrared imaging, and the need for enhanced efficiency, safety, and quality control in these sectors.

The break-up of profile of primary participants in the infrared imaging market-

- -□By Company Type: Tier 1 38%, Tier 2 28%, Tier 3 34%
- By Designation Type: C Level 40%, Director Level 30%, Others 30%
- By Region Type: North America 35%, Europe 35%, Asia Pacific 20%, Rest of the World 10%

The major players of infrared imaging market are Teledyne FLIR LLC (US), Fluke Corporation (US), Raytheon Technologies Corporation (US), Leonardo DRS (US), Axis Communications AB (Sweden), among others.

Research Coverage

The report segments the infrared market and forecasts its size based on Technology; Wavelength; Application; Vertical and Region. The report also provides a comprehensive review of drivers, restraints, opportunities, and challenges influencing market growth. The report also covers qualitative aspects in addition to the quantitative aspects of the market.

Reasons to buy the report:

The report will help the market leaders/new entrants in this market with information on the closest approximate revenues for the overall infrared imaging market and related segments. This report will help stakeholders understand the competitive landscape and gain more insights to strengthen their position in the market and plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the market and provides them with information on key market drivers, restraints, opportunities, and challenges.

The report provides insights on the following pointers:

- Market Dynamics: Analysis of key drivers (Increased adoption of infrared imaging products in security & surveillance application; Increasing use of infrared cameras in quality control and inspection application; Growing popularity of uncooled infrared cameras; Rise in use of SWIR cameras in machine vision applications), restraints (Stringent import and export regulations limit growth of infrared imaging market; Limitations associated with image resolution and sensitivity of infrared cameras), opportunities (Emerging infrared imaging applications in automotive sector; Increase in application areas for infrared cameras; Penetration of infrared cameras in consumer electronics industry), and challenges (High cost of infrared cameras to challenge adoption; Need of improving accuracy of infrared cameras; Integration and compatibility challenges in infrared imaging technologies).
- Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product launches in the infrared imaging market
- Market Development: Comprehensive information about lucrative markets the report analyses the infrared imaging market across varied regions
- Market Diversification: Exhaustive information about new products, untapped geographies, recent developments, and investments in the infrared imaging market
- Competitive Assessment: In-depth assessment of market shares, growth strategies and product offerings of leading players like Teledyne FLIR LLC (US), Fluke Corporation (US), Raytheon Technologies Corporation (US), Leonardo DRS (US), Axis Communications AB (Sweden), L3Harris Technologies (US), Inc, Xenics nv (Belgium), Zhejiang Dali Technology Co., Ltd. (China), OPGAL Optronics Industries Ltd (Israel) and Allied Vision Technologies GmbH (Germany) among others.

## **Table of Contents:**

1 INTRODUCTION 28

- 1.1 STUDY OBJECTIVES 28
- 1.2□DEFINITION□28
- 1.2.1 □INCLUSIONS AND EXCLUSIONS □ 29
- 1.3 STUDY SCOPE 29
- 1.3.1 MARKETS COVERED 29

Scotts International, EU Vat number: PL 6772247784

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

FIGURE 1 INFRARED IMAGING MARKET SEGMENTATION 30

- 1.3.2 REGIONAL SCOPE 30
- 1.3.3 YEARS CONSIDERED 31
- 1.4 CURRENCY CONSIDERED 31
- 1.5 LIMITATIONS 31
- 1.6 SUMMARY OF CHANGES 31
- 1.7∏STAKEHOLDERS∏32
- 1.7.1 RECESSION IMPACT 32
- 2 RESEARCH METHODOLOGY 33
- 2.1 RESEARCH DATA 33

FIGURE 2∏INFRARED IMAGING MARKET: RESEARCH DESIGN∏34

- 2.1.1 SECONDARY AND PRIMARY RESEARCH 35
- 2.1.2 SECONDARY DATA 35
- 2.1.2.1 Major secondary sources 36
- 2.1.2.2 Secondary sources 36
- 2.1.3 PRIMARY DATA □ 37
- 2.1.3.1 Breakdown of primaries 37
- 2.1.3.2 Key data from primary sources 37
- 2.1.3.3 Key industry insights 38
- 2.2∏MARKET SIZE ESTIMATION∏38

FIGURE 3 PROCESS FLOW OF MARKET SIZE ESTIMATION 38

- 2.2.1 | BOTTOM-UP APPROACH | 39
- 2.2.1.1 ☐ Estimating market size using bottom-up approach (demand side) ☐ 39

FIGURE 4 INFRARED IMAGING MARKET: BOTTOM-UP APPROACH 40

2.2.2 TOP-DOWN APPROACH 40

FIGURE 5∏INFRARED IMAGING MARKET: TOP-DOWN APPROACH∏40

FIGURE 6 MARKET SIZE ESTIMATION METHODOLOGY: APPROACH (SUPPLY SIDE)-REVENUE GENERATED FROM SALE OF INFRARED IMAGING PRODUCTS 11

2.3□MARKET BREAKDOWN AND DATA TRIANGULATION□42

FIGURE 7∏DATA TRIANGULATION∏42

2.4 ASSUMPTIONS FOR RESEARCH STUDY 43

?

2.5⊓RESEARCH ASSUMPTIONS AND LIMITATIONS□43

TABLE 1 RESEARCH ASSUMPTIONS 43

- 2.5.1 RESEARCH LIMITATIONS 44
- 2.6 RISK ASSESSMENT 44
- 2.7 PARAMETERS CONSIDERED TO ANALYZE IMPACT OF RECESSION ON INFRARED IMAGING MARKET 44

3 EXECUTIVE SUMMARY 45

FIGURE 8∏UNCOOLED INFRARED IMAGING SEGMENT TO HOLD MAJORITY OF MARKET SHARE IN 2023 AND 2028∏45

FIGURE 9 LONG-WAVE INFRARED SEGMENT TO HOLD LARGEST MARKET SHARE IN 2023 46

FIGURE 10∏SECURITY & SURVEILLANCE SEGMENT TO COMMAND INFRARED IMAGING MARKET IN 2023∏46

FIGURE 11 NON-INDUSTRIAL SEGMENT TO HOLD LARGER SHARE OF INFRARED IMAGING MARKET IN 2028 47

FIGURE 12 ASIA PACIFIC TO BE FASTEST-GROWING MARKET FOR INFRARED IMAGING DURING FORECAST PERIOD 48 4 PREMIUM INSIGHTS 49

4.1∏ATTRACTIVE GROWTH OPPORTUNITIES FOR PLAYERS IN INFRARED IMAGING MARKET∏49

FIGURE 13 INCREASING ADOPTION OF INFRARED IMAGING TECHNOLOGY IN ASIA PACIFIC TO DRIVE MARKET GROWTH 49

4.2□INFRARED IMAGING MARKET, BY APPLICATION□49

Scotts International, EU Vat number: PL 6772247784

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

FIGURE 14 MONITORING & INSPECTION TO REGISTER HIGHEST CAGR IN INFRARED IMAGING MARKET, BY APPLICATION, DURING FORECAST PERIOD 149

4.3∏INFRARED IMAGING MARKET, BY WAVELENGTH∏50

FIGURE 15∏NEAR INFRARED SEGMENT DOMINATED INFRARED IMAGING MARKET IN 2022∏50

4.4∏INFRARED IMAGING MARKET IN NORTH AMERICA, BY COUNTRY AND APPLICATION ☐50

FIGURE 16 US AND SECURITY & SURVEILLANCE APPLICATIONS TO HOLD LARGEST SHARE OF NORTH AMERICAN MARKET IN 2028 50

4.5□INFRARED IMAGING MARKET, BY VERTICAL□51

FIGURE 17 NON-INDUSTRIAL SEGMENT TO RECORD HIGHER CAGR FROM 2023 TO 2028 51

4.6 INFRARED IMAGING MARKET, BY COUNTRY 51

FIGURE 18∏CHINA TO REGISTER HIGHEST CAGR IN INFRARED IMAGING MARKET DURING FORECAST PERIOD∏51

5∏MARKET OVERVIEW∏52

5.1∏INTRODUCTION∏52

5.2 MARKET DYNAMICS 52

FIGURE 19∏DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES: INFRARED IMAGING MARKET∏53

5.2.1 DRIVERS 54

FIGURE 20 | ANALYSIS OF IMPACT OF DRIVERS ON INFRARED IMAGING MARKET | 54

5.2.1.1∏Increasing use of infrared imaging products in security & surveillance applications ☐54

FIGURE 21 MILITARY EXPENDITURE IN US, 2021 VS. 2022 (USD BILLION) 55

5.2.1.2 Rising adoption of infrared cameras in quality control and inspection applications 55

5.2.1.3 Growing popularity of uncooled infrared cameras 56

5.2.1.4 Boosting demand for SWIR cameras in machine vision applications 57

5.2.2 RESTRAINTS ☐ 57

FIGURE 22 ANALYSIS OF IMPACT OF RESTRAINTS ON INFRARED IMAGING MARKET 57

5.2.2.1 Stringent import and export regulations for selling infrared cameras in US 58

5.2.2.2 Limitations associated with image resolution and sensitivity of infrared cameras [] 58

5.2.3 OPPORTUNITIES 59

FIGURE 23∏ANALYSIS OF IMPACT OF OPPORTUNITIES ON INFRARED IMAGING MARKET∏59

5.2.3.1 Emerging applications of IR imaging technology in automotive sector 59

5.2.3.2 Newer application areas of SWIR cameras 59

5.2.3.3∏Integration of infrared imaging technology into consumer electronics∏60

5.2.4 CHALLENGES 61

FIGURE 24∏ANALYSIS OF IMPACT OF CHALLENGES ON INFRARED IMAGING MARKET∏61

5.2.4.1 High cost associated with infrared cameras 61

5.2.4.2 Designing highly accurate IR imaging products 61

5.2.4.3∏Integration and compatibility challenges pertaining to infrared imaging technology∏62

5.3 VALUE CHAIN ANALYSIS 63

FIGURE 25 VALUE CHAIN ANALYSIS: INFRARED IMAGING MARKET 63

5.4 INFRARED IMAGING ECOSYSTEM 64

FIGURE 26∏INFRARED IMAGING ECOSYSTEM∏64

5.5 REVENUE SHIFT AND NEW REVENUE POCKETS FOR PLAYERS IN INFRARED IMAGING MARKET 65

FIGURE 27 REVENUE SHIFT IN INFRARED IMAGING MARKET 65

5.6 PRICING ANALYSIS 65

TABLE 2 | AVERAGE SELLING PRICE OF INFRARED CAMERAS OFFRED BY TOP COMPANIES (USD) | 66

5.6.1∏AVERAGE SELLING PRICE OF INFRARED IMAGING PRODUCTS OFFERED BY KEY PLAYERS∏66

FIGURE 28 AVERAGE SELLING PRICE OF LWIR CAMERA, BY KEY PLAYER 66

5.7 TECHNOLOGY TRENDS 67

5.7.1 USE OF IR IMAGING TECHNOLOGY TO ANALYZE ORGANIC COMPOST 67

Scotts International, EU Vat number: PL 6772247784

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

- 5.7.2 IMPLEMENTATION OF VIBRATIONAL SPECTROSCOPIC TECHNIQUES TO ANALYZE TEA QUALITY AND SAFETY 67
- 5.7.3 ADOPTION OF THERMAL CAMERAS IN SECURITY AND INSPECTION APPLICATIONS 67
- 5.7.4 TRANSFORMATION IN INFRARED IMAGING TECHNOLOGY WITH CLOUD INTEGRATION 67
- 5.7.5 ADVANCEMENTS IN AI-BASED INFRARED IMAGING 68
- 5.8 PORTER'S FIVE FORCES ANALYSIS 68

TABLE 3 | IMPACT OF FORCES ON INFRARED IMAGING MARKET | 68

FIGURE 29 PORTER'S FIVE FORCES ANALYSIS 69

- 5.8.1 THREAT OF NEW ENTRANTS 69
- 5.8.2 THREAT OF SUBSTITUTES 70
- 5.8.3 BARGAINING POWER OF SUPPLIERS 170
- 5.8.4 BARGAINING POWER OF BUYERS 70
- 5.8.5 | INTENSITY OF COMPETITIVE RIVALRY | 70
- 5.9 KEY STAKEHOLDERS IN BUYING PROCESS AND BUYING CRITERIA 71
- 5.9.1 TKEY STAKEHOLDERS IN BUYING PROCESS 171

FIGURE 30∏INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS, BY APPLICATION∏71

TABLE 4 INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR APPLICATIONS (%) IT

5.9.2 BUYING CRITERIA 72

FIGURE 31 KEY BUYING CRITERIA FOR APPLICATIONS 72

TABLE 5 KEY BUYING CRITERIA FOR APPLICATIONS 72

- 5.10 CASE STUDY ANALYSIS 73
- 5.10.1 ROCKWOOL GROUP USED TELEDYNE FLIR'S THERMAL IMAGING TECHNOLOGY TO EVALUATE INSULATION EFFECTIVENESS AND PROVIDE COMPREHENSIVE BUILDING ANALYSIS 73
- 5.10.2 VICENZA COURT RESOLVED CONSTRUCTION DISPUTE BY HIRING SERVICES OF THERMAL IMAGING EXPERTS FROM MULTITES SRL 73
- 5.10.3∏HIGHLAND HELICOPTERS DEPLOYED THERMAL CAMERAS FROM INFRATEC TO COMBAT WILDFIRES∏73
- 5.11 TRADE ANALYSIS 74
- 5.11.1 IMPORT SCENARIO OF MAGNETIC OR OPTICAL READERS 174

TABLE 6∏IMPORT DATA OF PRODUCTS COVERED UNDER HS CODE 847190, BY COUNTRY, 2018-2022 (USD MILLION)∏74

5.11.2 EXPORT SCENARIO OF MAGNETIC OR OPTICAL READERS 75

TABLE 7 EXPORT DATA OF PRODUCTS COVERED UNDER HS CODE 902750, BY COUNTRY, 2018-2022 (USD MILLION) 75

5.12 PATENT ANALYSIS 76

TABLE 8 PATENTS PERTAINING TO INFRARED IMAGING MARKET, 2020-2022 77

5.13 TKEY CONFERENCES AND EVENTS. 2023-2024 T79

TABLE 9 INFRARED IMAGING MARKET: LIST OF CONFERENCES AND EVENTS 79

5.14 TARIFF ANALYSIS 79

TABLE 10 MFN TARIFF FOR HS CODE 902750-COMPLIANT PRODUCTS EXPORTED BY US 80

TABLE 11 MFN TARIFF FOR HS CODE 902750-COMPLIANT PRODUCTS EXPORTED BY CHINA 80

TABLE 12∏MFN TARIFF FOR HS CODE 902750-COMPLIANT PRODUCTS EXPORTED BY INDIA∏80

?

- 5.15 STANDARDS AND REGULATORY LANDSCAPE 181
- 5.15.1 REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS 81

TABLE 13 NORTH AMERICA: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS 181

TABLE 14 | EUROPE: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS | 82

TABLE 15  $\square$  ASIA PACIFIC: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS  $\square$  82

TABLE 16∏ROW: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS∏83

 $5.15.2 \square GOVERNMENT REGULATIONS \square 83$ 

5.15.3 REGULATORY LANDSCAPE 83

Scotts International, EU Vat number: PL 6772247784

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

5.15.4 GOVERNMENT REGULATIONS 84

5.15.4.1 US 84

5.15.4.2∏Europe∏84

5.15.4.3 India 84

6□INFRARED IMAGING DEVICES□85

6.1∏INTRODUCTION∏85

6.2∏PORTABLE∏85

6.2.1 USE OF PORTABLE CAMERAS FOR CONVENIENCE AND EFFORTLESS IMAGING 85

6.2.2∏AERIAL∏85

6.2.2.1 Deployment of aerial cameras for thermographic view and improved visibility of objects to be monitored or inspected 85

6.2.3 | HANDHELD | 86

6.2.3.1∏Implementation of handheld cameras in buildings to inspect heat loss and detect insulation issues ☐86

6.3∏FIXED∏86

6.3.1∏ADOPTION OF FIXED CAMERAS TO ENSURE CONSISTENT AND RELIABLE IMAGING OUTPUT∏86

7□INFRARED IMAGING MARKET, BY TECHNOLOGY□87

7.1 INTRODUCTION 88

FIGURE 32∏INFRARED IMAGING MARKET, BY TECHNOLOGY∏88

FIGURE 33 UNCOOLED INFRARED IMAGING TECHNOLOGY TO DOMINATE MARKET THROUGHOUT FORECAST PERIOD 88

TABLE 17 INFRARED IMAGING MARKET, BY TECHNOLOGY, 2019-2022 (USD MILLION) 88

TABLE 18 INFRARED IMAGING MARKET, BY TECHNOLOGY, 2023-2028 (USD MILLION) 89

7.2 COOLED INFRARED IMAGING 89

7.2.1 LIMITED APPLICATIONS DUE TO HIGH COST AND LONG STARTUP TIME 189

TABLE 19 $\square$ COOLED INFRARED IMAGING: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION) $\square$ 90 TABLE 20 $\square$ COOLED INFRARED IMAGING: INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION) $\square$ 90

7.3 UNCOOLED INFRARED IMAGING 90

7.3.1∏INCREASED USE IN HIGH-VOLUME APPLICATIONS OWING TO LOW COST AND EASY INSTALLATION∏90

TABLE 21 UNCOOLED INFRARED IMAGING: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION) 191

TABLE 22 UNCOOLED INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 91

8∏INFRARED IMAGING MARKET, BY WAVELENGTH∏92

8.1 INTRODUCTION 93

FIGURE 34∏INFRARED IMAGING MARKET, BY WAVELENGTH∏93

FIGURE 35 SHORT-WAVE INFRARED SEGMENT TO WITNESS HIGHEST CAGR IN INFRARED IMAGING MARKET DURING FORECAST PERIOD 93

TABLE 23∏INFRARED IMAGING MARKET, BY WAVELENGTH, 2019-2022 (USD MILLION)∏93

TABLE 24  $\square$  INFRARED IMAGING MARKET, BY WAVELENGTH, 2023-2028 (USD MILLION)  $\square$  94

8.2 NEAR INFRARED (NIR) 94

8.2.1 HIGH ADOPTION OF NIR CCTV CAMERAS FOR SECURITY & SURVEILLANCE TO DRIVE MARKET 94

TABLE 25 NEAR INFRARED: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION) 95

TABLE 26 NEAR INFRARED: INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 95

TABLE 27 | NEAR INFRARED: INFRARED IMAGING MARKET, BY VERTICAL, 2019-2022 (USD MILLION) | 195

TABLE 28 NEAR INFRARED: INFRARED IMAGING MARKET, BY VERTICAL, 2023-2028 (USD MILLION) 95

8.3∏SHORT-WAVE INFRARED (SWIR)∏96

8.3.1∏INCREASED USE OF SWIR IMAGING TECHNOLOGY IN NON-DESTRUCTIVE TESTING TO DRIVE MARKET∏96

TABLE 29∏SHORT-WAVE INFRARED: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION)∏96

TABLE 30 SHORT-WAVE INFRARED: INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 97

TABLE 31 SHORT-WAVE INFRARED: INFRARED IMAGING MARKET, BY VERTICAL, 2019-2022 (USD MILLION) 97

Scotts International, EU Vat number: PL 6772247784

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

```
TABLE 32 SHORT-WAVE INFRARED: INFRARED IMAGING MARKET, BY VERTICAL, 2023-2028 (USD MILLION) 97 8.4 MID-WAVE INFRARED (MWIR) 97
```

8.4.1 ⊓RAPID TECHNOLOGICAL ADVANCEMENTS IN MWIR TO BOOST SEGMENTAL GROWTH □97

FIGURE 36 SECURITY & SURVEILLANCE APPLICATIONS TO ACCOUNT FOR LARGEST SHARE OF MID-WAVE INFRARED IMAGING MARKET IN 2028 98

TABLE 33[MID-WAVE INFRARED: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION)[]98

TABLE 34□MID-WAVE INFRARED: INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION)□99

TABLE 35 MID-WAVE INFRARED: INFRARED IMAGING MARKET, BY VERTICAL, 2019-2022 (USD MILLION) 99

TABLE 36  $\square$  MID-WAVE INFRARED: INFRARED IMAGING MARKET, BY VERTICAL, 2023-2028 (USD MILLION)  $\square$  99

8.5 \( LONG-WAVE INFRARED (LWIR) \( \preceq 99 \)

8.5.1 SIGNIFICANT USE OF LWIR CAMERAS IN WEARABLES, DRONES, AND HANDHELD DEVICES TO FUEL SEGMENTAL GROWTH 99

TABLE 37 LONG-WAVE INFRARED: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION) 100

TABLE 38∏LONG-WAVE INFRARED: INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION)∏100

TABLE 39∏LONG-WAVE INFRARED: INFRARED IMAGING MARKET, BY VERTICAL, 2019-2022 (USD MILLION)∏100

TABLE 40 LONG-WAVE INFRARED: INFRARED IMAGING MARKET, BY VERTICAL, 2023-2028 (USD MILLION) 101

9□INFRARED IMAGING MARKET, BY APPLICATION□102

9.1∏INTRODUCTION∏103

FIGURE 37 INFRARED IMAGING MARKET, BY APPLICATION 103

FIGURE 38 MONITORING & INSPECTION SEGMENT TO WITNESS HIGHEST CAGR IN INFRARED IMAGING MARKET, BY APPLICATION, DURING FORECAST PERIOD 103

TABLE 41∏INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION)∏103

TABLE 42 INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 104

9.2□SECURITY & SURVEILLANCE□104

 $9.2.1 \\ \square SURGING \ DEMAND \ FOR \ INFRARED \ IMAGING \ CAMERAS \ DUE \ TO \ INCREASED \ TERRORISM \ TO \ DRIVE \ MARKET \\ \\ \square 104$ 

TABLE 43□SECURITY & SURVEILLANCE: INFRARED IMAGING MARKET, BY TECHNOLOGY, 2019-2022 (USD MILLION)□105

TABLE 44 SECURITY & SURVEILLANCE: INFRARED IMAGING MARKET, BY TECHNOLOGY, 2023-2028 (USD MILLION) 105

TABLE 45 SECURITY & SURVEILLANCE: INFRARED IMAGING MARKET, BY WAVELENGTH, 2019-2022 (USD MILLION) 105

TABLE 46∏SECURITY & SURVEILLANCE: INFRARED IMAGING MARKET, BY WAVELENGTH, 2023-2028 (USD MILLION)∏106

TABLE 47 SECURITY & SURVEILLANCE: INFRARED IMAGING MARKET, BY REGION, 2019-2022 (USD MILLION) 106

TABLE 48 SECURITY & SURVEILLANCE: INFRARED IMAGING MARKET, BY REGION, 2023-2028 (USD MILLION) 106 9.3 MONITORING & INSPECTION 107

TABLE 49∏MONITORING & INSPECTION: INFRARED IMAGING MARKET, BY TECHNOLOGY, 2019-2022 (USD MILLION)∏107

TABLE 50∏MONITORING & INSPECTION: INFRARED IMAGING MARKET. BY TECHNOLOGY. 2023-2028 (USD MILLION)∏107

TABLE 51∏MONITORING & INSPECTION: INFRARED IMAGING MARKET, BY WAVELENGTH, 2019-2022 (USD MILLION)∏107

TABLE 52∏MONITORING & INSPECTION: INFRARED IMAGING MARKET, BY WAVELENGTH, 2023-2028 (USD MILLION)∏108

TABLE 53∏MONITORING & INSPECTION: INFRARED IMAGING MARKET, BY REGION, 2019-2022 (USD MILLION)∏108

TABLE 54 MONITORING & INSPECTION: INFRARED IMAGING MARKET, BY REGION, 2023-2028 (USD MILLION) 108

9.3.1 CONDITION MONITORING 109

 $9.3.1.1 \\ \square Increased use of IR cameras to detect faults in electrical and mechanical equipment to drive segmental growth \\ \square 109$ 

9.3.2∏STRUCTURAL HEALTH MONITORING∏109

9.3.2.1 High adoption of early warning systems to monitor potentially risky structures to drive market 109

9.3.3 QUALITY CONTROL 109

9.3.3.1 Significant demand for high-quality and high-performance products to promote use of infrared imaging cameras 0.4 DETECTION 0.4

TABLE 55∏DETECTION: INFRARED IMAGING MARKET, BY TECHNOLOGY, 2019-2022 (USD MILLION)∏110

TABLE 56 DETECTION: INFRARED IMAGING MARKET, BY TECHNOLOGY, 2023-2028 (USD MILLION) 110

TABLE 57 DETECTION: INFRARED IMAGING MARKET, BY WAVELENGTH, 2019-2022 (USD MILLION) 110

Scotts International, EU Vat number: PL 6772247784

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

TABLE 58 DETECTION: INFRARED IMAGING MARKET, BY WAVELENGTH, 2023-2028 (USD MILLION) 111

TABLE 59 DETECTION: INFRARED IMAGING MARKET, BY REGION, 2019-2022 (USD MILLION) 111 TABLE 60 DETECTION: INFRARED IMAGING MARKET, BY REGION, 2023-2028 (USD MILLION) 111

9.4.1 GAS DETECTION 112

9.4.1.1 Use of infrared imaging cameras to monitor gas leaks and emissions in real time to fuel market growth 112

9.4.2 | FIRE/FLARE DETECTION | 112

9.4.2.1 Rising adoption of infrared imaging cameras to detect smoke and temperature differences during firefighting to drive market 112

9.4.3 BODY TEMPERATURE MEASUREMENT 113

9.4.3.1 Growing use of IR-enabled body temperature detectors owing to increased international travel and migration to boost segmental growth 113

10∏INFRARED IMAGING MARKET, BY VERTICAL∏114

10.1□INTRODUCTION□115

FIGURE 39∏INFRARED IMAGING MARKET, BY VERTICAL 115

FIGURE 40 NON-INDUSTRIAL SEGMENT TO COMMAND INFRARED IMAGING MARKET DURING FORECAST PERIOD 115

TABLE 61 INFRARED IMAGING MARKET, BY VERTICAL, 2019-2022 (USD MILLION) 115

TABLE 62 INFRARED IMAGING MARKET, BY VERTICAL, 2023-2028 (USD MILLION) 116

10.2 INDUSTRIAL 116

TABLE 63 INDUSTRIAL: INFRARED IMAGING MARKET, BY WAVELENGTH, 2019-2022 (USD MILLION) 116

TABLE 64∏INDUSTRIAL: INFRARED IMAGING MARKET, BY WAVELENGTH, 2023-2028 (USD MILLION)∏117

 $10.2.1 \square AUTOMOTIVE \square 117$ 

10.2.1.1 Integration of infrared imaging technology into ADAS to drive market 117

10.2.2∏AEROSPACE∏118

10.2.2.1 □Utilization of advanced vision systems in aerospace industry to boost demand for IR imaging technology □118

10.2.3 ☐ ELECTRONICS & SEMICONDUCTOR ☐ 118

10.2.3.1 Growing use of SWIR cameras to inspect semiconductor materials to fuel market growth 118

10.2.4 □ OIL & GAS □ 119

10.2.4.1 Growing focus of oil & gas companies on predictive maintenance to boost demand for IR imaging products 119

10.2.5 FOOD & BEVERAGES 119

10.2.5.1∏Increasing adoption of hyperspectral imaging to identify potential food safety risks to boost demand for IR products∏119

10.2.6 GLASS 120

10.2.6.1 High adoption of SWIR cameras by glass manufacturers to minimize scrap to drive market 120

10.2.7⊓OTHERS⊓120

10.3 NON-INDUSTRIAL 120

TABLE 65∏NON-INDUSTRIAL: INFRARED IMAGING MARKET, BY WAVELENGTH, 2019-2022 (USD MILLION)∏120

TABLE 66∏NON-INDUSTRIAL: INFRARED IMAGING MARKET, BY WAVELENGTH, 2023-2028 (USD MILLION)∏121

10.3.1 MILITARY & DEFENSE 121

10.3.1.1 Rising demand for vision enhancement technology in battlefield environments to contribute to market growth 121

10.3.2□CIVIL INFRASTRUCTURE□121

10.3.2.1 Deployment of infrared imaging cameras in residential and commercial buildings and transportation infrastructure to drive market 121

 $10.3.3 \verb||MEDICAL|| 122$ 

10.3.3.1 Adoption of infrared imaging cameras in newer medical applications to fuel market growth 122

10.3.4□SCIENTIFIC RESEARCH□122

10.3.4.1 Temerging applications of spectroscopy in scientific research to support market growth 122

11 GEOGRAPHIC ANALYSIS 123

11.1 INTRODUCTION 124

Scotts International, EU Vat number: PL 6772247784

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

```
FIGURE 41 ASIA PACIFIC TO WITNESS HIGHEST CAGR IN INFRARED IMAGING MARKET DURING FORECAST PERIOD 124
TABLE 67 INFRARED IMAGING MARKET, BY REGION, 2019-2022 (USD MILLION) 124
TABLE 68∏INFRARED IMAGING MARKET, BY REGION, 2023-2028 (USD MILLION)∏125
11.2 NORTH AMERICA 125
FIGURE 42 NORTH AMERICA: INFRARED IMAGING MARKET SNAPSHOT 126
TABLE 69∏NORTH AMERICA: INFRARED IMAGING MARKET, BY COUNTRY, 2019-2022 (USD MILLION)∏126
TABLE 70 NORTH AMERICA: INFRARED IMAGING MARKET, BY COUNTRY, 2023-2028 (USD MILLION) 127
TABLE 71 NORTH AMERICA: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION) 127
TABLE 72 NORTH AMERICA: INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 127
11.2.1∏US∏127
11.2.1.1∏Increased utilization of infrared imaging in civil infrastructure projects to fuel market growth ☐ 127
TABLE 73∏US: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION)∏128
TABLE 74∏US: INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION)∏128
11.2.2 CANADA 128
11.2.2.1∏Increasing use of infrared imaging cameras in security & surveillance to support market growth ☐ 128
TABLE 75 CANADA: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION) 129
TABLE 76∏CANADA: INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION)∏129
11.2.3 MEXICO 129
11.2.3.1∏Enhanced focus on adopting security measures to boost demand for infrared imaging technology∏129
TABLE 77 MEXICO: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION) 129
TABLE 78 MEXICO: INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 130
11.2.4 NORTH AMERICA: RECESSION IMPACT 130
11.3□EUROPE□131
FIGURE 43 EUROPE: INFRARED IMAGING MARKET SNAPSHOT 131
TABLE 79∏EUROPE: INFRARED IMAGING MARKET, BY COUNTRY, 2019-2022 (USD MILLION)∏132
TABLE 80∏EUROPE: INFRARED IMAGING MARKET, BY COUNTRY, 2023-2028 (USD MILLION)∏132
TABLE 81∏EUROPE: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION)∏132
TABLE 82 EUROPE: INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 132
11.3.1 | GERMANY | 133
11.3.1.1 Booming automotive sector to accelerate infrared imaging technology demand 133
TABLE 83∏GERMANY: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION)∏133
TABLE 84⊓GERMANY: INFRARED IMAGING MARKET. BY APPLICATION. 2023-2028 (USD MILLION)⊓133
11.3.2∏UK∏134
11.3.2.1 Medical and pharmaceutical companies to contribute most to market growth 134
TABLE 85∏UK: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION)∏134
TABLE 86⊓UK: INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION) □134
11.3.3 FRANCE 135
11.3.3.1 Technology advancements in automotive sector to propel market growth 135
TABLE 87 FRANCE: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION) 135
TABLE 88 | FRANCE: INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION) | 135
```

11.3.4 REST OF EUROPE 136

TABLE 89 TREST OF EUROPE: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION) 136 TABLE 90 ⊓REST OF EUROPE: INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION) □ 136

11.3.5 EUROPE: RECESSION IMPACT 136

11.4

☐ASIA PACIFIC

☐ 137

FIGURE 44 ASIA PACIFIC: INFRARED IMAGING MARKET SNAPSHOT 137

Scotts International, EU Vat number: PL 6772247784

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

TABLE 91 $\square$ ASIA PACIFIC: INFRARED IMAGING MARKET, BY COUNTRY, 2019-2022 (USD MILLION) $\square$ 138 TABLE 92 $\square$ ASIA PACIFIC: INFRARED IMAGING MARKET, BY COUNTRY, 2023-2028 (USD MILLION) $\square$ 138 TABLE 93 $\square$ ASIA PACIFIC: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION) $\square$ 138 TABLE 94 $\square$ ASIA PACIFIC: INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION) $\square$ 139 11.4.1 $\square$ CHINA $\square$ 139

11.4.1.1 Rising demand for security and surveillance solutions for border control to drive market 139

TABLE 95 CHINA: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION) 139

TABLE 96 CHINA: INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 140

11.4.2∏JAPAN∏140

11.4.2.1 High reliance of consumer electronics, automotive, and healthcare sectors on infrared imaging technology to accelerate market growth  $\square 140$ 

TABLE 97 JAPAN: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION) 140 TABLE 98 JAPAN: INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 141

11.4.3∏INDIA∏141

11.4.3.1 Increasing use of IR imaging technology in predictive maintenance and quality control applications to support market growth 141

TABLE 99[INDIA: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION)[141 TABLE 100[INDIA: INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION)[142

11.4.4 REST OF ASIA PACIFIC 142

TABLE 101□REST OF ASIA PACIFIC: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION)□142 TABLE 102□REST OF ASIA PACIFIC: INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION)□143

11.4.5 ASIA PACIFIC: RECESSION IMPACT 143

11.5 REST OF THE WORLD 143

TABLE 103 ROW: INFRARED IMAGING MARKET, BY REGION, 2019-2022 (USD MILLION) 143
TABLE 104 ROW: INFRARED IMAGING MARKET, BY REGION, 2023-2028 (USD MILLION) 143
TABLE 105 ROW: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION) 144
TABLE 106 ROW: INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 144

11.5.1 $\square$ SOUTH AMERICA $\square$ 144

11.5.1.1 High demand from medical and sports industries to support market growth 144

TABLE 107□SOUTH AMERICA: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION)□144 TABLE 108□SOUTH AMERICA: INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION)□145

11.5.2 $\square$ MIDDLE EAST & AFRICA $\square$ 145

11.5.2.1 Thriving oil & gas industry to contribute to market growth 145

TABLE 109  $\square$  MIDDLE EAST & AFRICA: INFRARED IMAGING MARKET, BY APPLICATION, 2019-2022 (USD MILLION)  $\square$  145

TABLE 110  $\square$  MIDDLE EAST & AFRICA: INFRARED IMAGING MARKET, BY APPLICATION, 2023-2028 (USD MILLION)  $\square$  146

11.5.3 REST OF THE WORLD: RECESSION IMPACT 146

12 COMPETITIVE LANDSCAPE 147

12.1□OVERVIEW□147

12.2 STRATEGIES ADOPTED BY KEY PLAYERS IN INFRARED IMAGING MARKET 147

TABLE 111∏OVERVIEW OF STRATEGIES FOLLOWED BY KEY PLAYERS IN INFRARED IMAGING MARKET∏147

12.3 MARKET SHARE ANALYSIS, 2022 148

TABLE 112 INFRARED IMAGING MARKET: MARKET SHARE ANALYSIS (2022) 149

12.4 REVENUE ANALYSIS OF KEY PLAYERS IN INFRARED IMAGING MARKET 149

FIGURE 45 | FIVE-YEAR REVENUE ANALYSIS OF KEY PLAYERS IN INFRARED IMAGING MARKET | 149

12.4.1 KEY PLAYERS IN INFRARED IMAGING MARKET, 2022 150

12.5 COMPANY EVALUATION MATRIX, 2022 151

Scotts International, EU Vat number: PL 6772247784

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

```
12.5.1 STARS 151
```

12.5.2 PERVASIVE PLAYERS 151

12.5.3 EMERGING LEADERS 151

12.5.4 PARTICIPANTS 151

FIGURE 46∏INFRARED IMAGING MARKET (GLOBAL): COMPANY EVALUATION MATRIX, 2022∏152

12.6 COMPETITIVE BENCHMARKING 153

12.6.1 COMPANY FOOTPRINT, BY VERTICAL 153

12.6.2 COMPANY FOOTPRINT, BY REGION 154

12.6.3 OVERALL COMPANY FOOTPRINT 155

12.7 STARTUPS/SMALL AND MEDIUM-SIZED ENTERPRISES (SMES) EVALUATION MATRIX, 2022 156

12.7.1 PROGRESSIVE COMPANIES 156

12.7.2 RESPONSIVE COMPANIES 156

12.7.3 DYNAMIC COMPANIES □156

12.7.4 STARTING BLOCKS 156

FIGURE 47 INFRARED IMAGING MARKET (GLOBAL): STARTUPS/SMES EVALUATION MATRIX, 2022 157

12.7.5 COMPETITIVE BENCHMARKING OF KEY STARTUPS/SMES 158

TABLE 113 INFRARED IMAGING MARKET: DETAILED LIST OF KEY STARTUPS/SMES 158

TABLE 114 INFRARED IMAGING MARKET: COMPETITIVE BENCHMARKING OF KEY STARTUPS/SMES (VERTICAL FOOTPRINT) 158
TABLE 115 INFRARED IMAGING MARKET: COMPETITIVE BENCHMARKING OF KEY STARTUPS/SMES (REGION FOOTPRINT) 159

12.8 COMPETITIVE SCENARIOS AND TRENDS 159

12.8.1 DEALS 159

TABLE 116 INFRARED IMAGING MARKET: DEALS, 2021-2023 159

TABLE 117 INFRARED IMAGING MARKET: PRODUCT LAUNCHES, 2021-2023 160

13 COMPANY PROFILES 163

13.1 KEY PLAYERS 163

(Business Overview, Products/Services/Solutions Offered, Recent Developments, and MnM View)\*

13.1.1 TELEDYNE FLIR LLC 163

TABLE 118 TELEDYNE FLIR LLC: COMPANY OVERVIEW 163 FIGURE 48 TELEDYNE FLIR LLC: COMPANY SNAPSHOT 164

13.1.2∏FLUKE CORPORATION∏169

TABLE 119 FLUKE CORPORATION: COMPANY OVERVIEW 169 FIGURE 49 FLUKE CORPORATION: COMPANY SNAPSHOT 170 13.1.3 FRAYTHEON TECHNOLOGIES CORPORATION 172

TABLE 120 RAYTHEON TECHNOLOGIES CORPORATION: COMPANY OVERVIEW 172 FIGURE 50 RAYTHEON TECHNOLOGIES CORPORATION: COMPANY SNAPSHOT 173

?

13.1.4 LEONARDO DRS 176

TABLE 121 LEONARDO DRS: COMPANY OVERVIEW 176

13.1.5 AXIS COMMUNICATIONS AB 180

TABLE 122 AXIS COMMUNICATIONS AB: COMPANY OVERVIEW 180 FIGURE 51 AXIS COMMUNICATIONS AB: COMPANY SNAPSHOT 181

 $13.1.6 \square XENICS \ NV. \square 184$ 

TABLE 123 XENICS NV.: COMPANY OVERVIEW 184 13.1.7 OPGAL OPTRONIC INDUSTRIES LTD. 188

TABLE 124 OPTRONIC INDUSTRIES LTD.: COMPANY OVERVIEW 188

13.1.8 NEW IMAGING TECHNOLOGIES 190

TABLE 125 NEW IMAGING TECHNOLOGIES: COMPANY OVERVIEW 190

Scotts International. EU Vat number: PL 6772247784

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

## 13.1.9 ALLIED VISION TECHNOLOGIES GMBH 192

TABLE 126 ALLIED VISION TECHNOLOGIES: COMPANY OVERVIEW 192

13.1.10 L3HARRIS TECHNOLOGIES, INC. 194

TABLE 127 L3HARRIS TECHNOLOGIES, INC.: COMPANY OVERVIEW 194 FIGURE 52 L3HARRIS TECHNOLOGIES, INC.: COMPANY SNAPSHOT 195

- \* Business Overview, Products/Services/Solutions Offered, Recent Developments, and MnM View might not be captured in case of unlisted companies.
- 13.2 OTHER KEY PLAYERS 197
- 13.2.1 LYNRED 197
- 13.2.2∏INTEVAC, INC.∏197
- 13.2.3 ZHEJIANG DALI TECHNOLOGY CO., LTD. 198
- 13.2.4 C-THERMAL 199
- 13.2.5 | IRCAMERAS LLC | 200
- 13.2.6 | HGH | 201
- 13.2.7 RAPTOR PHOTONICS 202
- 13.2.8 EPISENSORS 203
- 13.2.9 INFRATEC GMBH 203
- 13.2.10 PRINCETON INFRARED TECHNOLOGIES, INC. 204
- 13.2.11 SIERRA-OLYMPIA TECH. 205
- 13.2.12 COX CO., LTD. 206
- 13.2.13 TONBO IMAGING 207
- 13.2.14 OPTOTHERM, INC. 208
- 13.2.15 SEEK THERMAL 209
- 13.2.16 INFRARED CAMERAS, INC. 210
- 14 APPENDIX 211
- 14.1 □ DISCUSSION GUIDE □ 211
- 14.2 KNOWLEDGESTORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL 215
- 14.3 CUSTOMIZATION OPTIONS 217
- 14.4 RELATED REPORTS 217
- 14.5∏AUTHOR DETAILS∏218



To place an Order with Scotts International:

 $\hfill \square$  - Complete the relevant blank fields and sign

 $\hfill \square$  - Send as a scanned email to support@scotts-international.com

**Scotts International. EU Vat number: PL 6772247784** tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

☐ - Print this form

# Infrared Imaging Market by Technology (Cooled & Uncooled Infrared Imaging), Wavelength (Near, Shortwave, Mid-wave, & Long-wave Infrared), Application (Security & Surveillance, Monitoring & Inspection, Detection), Vertical - Global Forecast to 2028

Market Report | 2023-07-06 | 213 pages | MarketsandMarkets

Select license	License				Price
	Single User				\$4950.00
	Multi User				\$6650.00
	Corporate License				\$8150.00
	Enterprise Site License				\$10000.00
				VAT	
				Total	
	ant license option. For any questions please It 23% for Polish based companies, individua				
** VAT will be added a	t 23% for Polish based companies, individua	lls and EU based com			
** VAT will be added a	t 23% for Polish based companies, individua				
	t 23% for Polish based companies, individua	lls and EU based com			
** VAT will be added a	t 23% for Polish based companies, individua	lls and EU based com			
** VAT will be added a Email*  First Name*	t 23% for Polish based companies, individua	lls and EU based com	panies who are		

Zip Code*	Country*	
	Date	2025-05-20
	Signature	