

# Global Infrared Detector Market Size Study & Forecast, by Type (Thermal, Photodetectors), By Application (Motion Sensing, Temperature Measurement, Security and Surveillance, Fire Detection, Medical, Others), and Regional Analysis, 2023-2030

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## Abstracts

Global Infrared Detector Market is valued approximately at USD 516.2 million in 2022 and is anticipated to grow with a healthy growth rate of more than 7% over the forecast period 2023-2030.

An infrared detector is a specialized device capable of sensing and detecting infrared radiation, which encompasses wavelengths longer than those of visible light. These detectors are vital across numerous applications, including thermal imaging, night vision technology and industrial processes. In various industries, from military and defense to consumer electronics and healthcare, infrared detectors play a crucial role. They enable the detection of heat signatures, facilitate night vision capabilities and contribute to monitoring and control processes in industrial settings. Ongoing advancements in sensor technology and materials continuously enhance the sensitivity and efficiency of these detectors. The increasing demand for advanced surveillance systems and heightened security concerns further drive the adoption of infrared detectors, ensuring their pivotal position in modern technology and industry. The market is positioned for sustained expansion, sustained by continuous technological evolution and expanding integration across diverse sectors. The Infrared Detector Market is expanding because of factors such as the surge in demand for infrared detectors in industrial and manufacturing sectors and growing popularity of uncooled infrared detectors.

In addition, the rising inclination towards industrial automation and manufacturing advancements is acting as a catalyzing factor for market growth across the globe. According to Statista, in 2020, the industrial automation sector accounted for USD 175 billion, which is projected to reach USD 265 billion by 2025. Infrared detectors are valuable tools for non-contact temperature measurement in various industrial processes, ensuring product quality and optimizing production efficiency. Thus, these aforementioned factors are propelling the growth of the Infrared Detector Market during the estimated period. Moreover, the rising demand for infrared detectors in emerging economies, as well as the growing adoption of infrared spectroscopy present various lucrative opportunities over the forecast years. However, the stringent regulations pertaining to import and export of cameras and the availability of substitute technologies for chemical and petrochemical plants are challenging the market growth throughout the forecast period of 2023-2030.

The key regions considered for the Global Infrared Detector Market study include Asia Pacific, North America, Europe, Latin America, and Middle East & Africa. North America dominated the market in 2022 owing to the extensive integration of infrared (IR) technology across diverse sectors such as security, defense, healthcare, and automotive. The regional market dominance is further propelled by robust research and development endeavors and a well-established industrial infrastructure. Ongoing innovation initiatives by key players in the region contribute to continuous advancements in IR detectors. Additionally, government initiatives, particularly in defense and surveillance, are anticipated to bolster the demand for these products. Whereas, Asia Pacific is expected to grow at the highest CAGR over the forecast years. The surge in security concerns, along with rapid industrialization, urbanization is significantly propelling the market demand across the region. The region experiences a surge in the demand for infrared detectors, particularly from the military and defense sectors, as well as temperature measurement and industrial applications.

Major market players included in this report are:

Hamamatsu Photonics K.K. (Japan)

Murata Manufacturing Co., Ltd. (Japan)

Excelitas Technologies (U.S.)

Texas Instruments Incorporated (U.S.)

Teledyne Technologies (U.S.)

InfraTec GmbH (Germany)

Nippon Ceramic (Japan)

Lynred (France)

Wuhan Guide Infrared Co., Ltd. (China)

Raytheon Technologies (U.S.)

#### Recent Developments in the Market:

In January 2023, Lynred, a leading French manufacturer of infrared sensors launched the HEROIC project in collaboration with Xenics and AIM Infrarot-Module. The project aims to enhance Europe's defense systems by developing advanced infrared devices, thereby strengthening the region's technological independence supported by a USD 19.3 million grant from the European Defense Fund.

In December 2022, General Atomics Aeronautical Systems Inc., in partnership with Lockheed Martin and Tactical Air Support, conducted a flight demonstration featuring multi-platform infrared sensing capabilities. The test utilized GA-ASI's MQ-20 Avenger aircraft system along with two F-5 Advanced Tigers equipped with Lockheed's cutting-edge tactical infrared and track sensors.

In November 2022, Excelitas Technologies Corp. introduced the TPIS 1T1386 L5.5H Thermopile Sensor, specifically designed for medical applications. This sensor offers improved temperature accuracy, customizable 'Threshold' functions, and low power consumption. Ideal for remote skin-temperature measurement and temperature regulation of liquids and gases in medical environments, it serves as a reliable solution for various medical needs.

#### Global Infrared Detector Market Report Scope:

Historical Data – 2020 - 2021

Base Year for Estimation – 2022

Forecast period - 2023-2030

Report Coverage - Revenue forecast, Company Ranking, Competitive Landscape, Growth factors, and Trends

Segments Covered - Type, Application, Region

Regional Scope - North America; Europe; Asia Pacific; Latin America; Middle East & Africa

Customization Scope - Free report customization (equivalent up to 8 analyst's working hours) with purchase. Addition or alteration to country, regional & segment scope\*

The objective of the study is to define market sizes of different segments & countries in recent years and to forecast the values to the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within countries involved in the study.

The report also caters detailed information about the crucial aspects such as driving factors & challenges which will define the future growth of the market. Additionally, it also incorporates potential opportunities in micro markets for stakeholders to invest along with the detailed analysis of competitive landscape and product offerings of key players. The detailed segments and sub-segment of the market are explained below:

By Type:

Thermal

Photodetectors

By Application:

Motion Sensing

Temperature Measurement

Security and Surveillance

Fire Detection

Medical

Others

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

ROE

Asia Pacific

China

India

Japan

Australia

South Korea

RoAPAC

Latin America

Brazil

Mexico

Middle East & Africa

Saudi Arabia

South Africa

Rest of Middle East & Africa

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