

Global Military Electro-optical and Infrared Systems Market Size Study, by Platform, Application, Imaging Technology, Cooling Technology, Sensor Technology, Component, and Regional Forecasts 2022-2032

<https://marketpublishers.com/r/G669E5C23D26EN.html>

Date: February 2025

Pages: 285

Price: US\$ 3,218.00 (Single User License)

ID: G669E5C23D26EN

Abstracts

The Global Military Electro-optical and Infrared (EO/IR) Systems Market was valued at approximately USD 8.25 billion in 2023 and is projected to expand at a CAGR of 4.20% over the forecast period 2024-2032. As modern warfare evolves, the integration of EO/IR systems into defense operations has become indispensable. These advanced sensor technologies enable superior situational awareness, surveillance, target acquisition, and reconnaissance capabilities, enhancing operational effectiveness across multiple military domains. The increasing emphasis on battlefield intelligence, coupled with the demand for high-precision targeting and threat detection, is propelling the adoption of EO/IR systems in land, air, and naval defense applications.

The growing geopolitical tensions and escalating defense budgets worldwide are fueling substantial investments in next-generation EO/IR technologies. Key military forces are integrating these systems into unmanned aerial vehicles (UAVs), combat aircraft, naval vessels, and ground-based platforms to reinforce reconnaissance, intelligence gathering, and missile guidance capabilities. Additionally, advancements in sensor fusion, artificial intelligence (AI)-powered image processing, and infrared (IR) countermeasure technologies are revolutionizing military EO/IR applications. However, challenges such as high procurement costs, sensor calibration complexities, and the need for continuous system upgrades may pose constraints on widespread adoption.

Regionally, North America dominates the military EO/IR systems market, owing to its extensive defense spending, technological leadership, and strong presence of defense contractors. The European market is experiencing steady growth, primarily driven by

NATO's modernization initiatives and increasing procurement of advanced surveillance and targeting systems. Meanwhile, Asia Pacific is witnessing the fastest expansion, as countries like China, India, and Japan enhance their military intelligence and reconnaissance capabilities in response to regional security threats. The Middle East & Africa and Latin America are also emerging as key markets, with growing investments in border surveillance and counterterrorism operations.

The competitive landscape of the Global Military EO/IR Systems Market is shaped by continuous technological advancements, defense modernization programs, and strategic partnerships between government agencies and private defense contractors. Leading players are focused on developing AI-driven targeting systems, high-resolution thermal imaging sensors, and multi-spectral surveillance solutions to meet evolving military requirements. As defense forces prioritize real-time intelligence and precision targeting, the demand for EO/IR systems is expected to surge, reinforcing their role as a critical enabler of modern military operations.

Major Market Players Included in This Report:

Lockheed Martin Corporation

Raytheon Technologies Corporation

BAE Systems PLC

L3Harris Technologies, Inc.

Northrop Grumman Corporation

Thales Group

FLIR Systems, Inc. (Teledyne FLIR)

Leonardo S.p.A.

Safran Group

Elbit Systems Ltd.

Rheinmetall AG

ASELSAN A.?.

Hensoldt AG

Israel Aerospace Industries Ltd. (IAI)

General Dynamics Corporation

The Detailed Segments and Sub-Segments of the Market Are Explained Below:

By Platform:

Airborne

- o Unmanned Aerial Vehicles (UAVs)

- o Fighter Jets

- o Helicopters

Land-Based

- o Armored Vehicles

- o Soldier Systems

- o Ground-based Surveillance

Naval

- o Submarines

- o Surface Ships

o Coastal Surveillance

By Application:

Targeting & Tracking

Intelligence, Surveillance & Reconnaissance (ISR)

Missile Guidance

Navigation & Situational Awareness

Electronic Warfare

By Imaging Technology:

Thermal Imaging

Hyperspectral Imaging

Multispectral Imaging

By Cooling Technology:

Cooled Infrared Systems

Uncooled Infrared Systems

By Sensor Technology:

Staring Sensors

Scanning Sensors

By Component:

Cameras & Sensors

Infrared Detectors

Laser Range Finders

Image Intensifiers

Control Electronics

Others

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

Rest of Europe

Asia Pacific

China

India

Japan

Australia

South Korea

Rest of Asia Pacific

Latin America

Brazil

Mexico

Rest of Latin America

Middle East & Africa

Saudi Arabia

UAE

South Africa

Rest of Middle East & Africa

Years Considered for the Study:

Historical Year: 2022

Base Year: 2023

Forecast Period: 2024-2032

Key Takeaways:

Market Estimates & Forecasts for 10 years from 2022 to 2032.

Annualized revenue projections and regional-level analysis for each market segment.

Comprehensive insights into the geographical landscape with country-level analysis.

Competitive analysis of major market players and their strategic developments.

In-depth analysis of market dynamics, challenges, trends, and growth opportunities.

Recommendations on business strategies to capitalize on emerging market trends.

Contents

CHAPTER 1. GLOBAL MILITARY ELECTRO-OPTICAL AND INFRARED SYSTEMS MARKET EXECUTIVE SUMMARY

- 1.1. Global Military Electro-optical and Infrared Systems Market Size & Forecast (2022–2032)
- 1.2. Regional Summary
- 1.3. Segmental Summary
 - 1.3.1. By Platform
 - 1.3.2. By Application
 - 1.3.3. By Imaging Technology
 - 1.3.4. By Cooling Technology
 - 1.3.5. By Sensor Technology
 - 1.3.6. By Component
- 1.4. Key Trends
- 1.5. Recession Impact
- 1.6. Analyst Recommendation & Conclusion

CHAPTER 2. GLOBAL MILITARY ELECTRO-OPTICAL AND INFRARED SYSTEMS MARKET DEFINITION AND RESEARCH ASSUMPTIONS

- 2.1. Research Objective
- 2.2. Market Definition
- 2.3. Research Assumptions
 - 2.3.1. Inclusion & Exclusion
 - 2.3.2. Limitations
 - 2.3.3. Supply Side Analysis
 - 2.3.3.1. Availability
 - 2.3.3.2. Infrastructure
 - 2.3.3.3. Regulatory Environment
 - 2.3.3.4. Market Competition
 - 2.3.3.5. Economic Viability (Consumer's Perspective)
 - 2.3.4. Demand Side Analysis
 - 2.3.4.1. Regulatory Frameworks
 - 2.3.4.2. Technological Advancements
 - 2.3.4.3. Environmental Considerations
 - 2.3.4.4. Consumer Awareness & Acceptance
- 2.4. Estimation Methodology

2.5. Years Considered for the Study

2.6. Currency Conversion Rates

CHAPTER 3. GLOBAL MILITARY ELECTRO-OPTICAL AND INFRARED SYSTEMS MARKET DYNAMICS

3.1. Market Drivers

3.1.1. Increasing Emphasis on Battlefield Intelligence

3.1.2. Rising Demand for High-Precision Targeting & Threat Detection

3.1.3. Growing Geopolitical Tensions

3.2. Market Challenges

3.2.1. High Procurement & Maintenance Costs

3.2.2. Sensor Calibration Complexities & Continuous Upgrade Requirements

3.2.3. Potential Regulatory & Export Constraints

3.3. Market Opportunities

3.3.1. Advancements in Sensor Fusion & AI-Powered Image Processing

3.3.2. Expansion of Border Surveillance & Counterterrorism Operations

3.3.3. Increasing Demand for Multi-Spectral & Hyperspectral Imaging

CHAPTER 4. GLOBAL MILITARY ELECTRO-OPTICAL AND INFRARED SYSTEMS MARKET INDUSTRY ANALYSIS

4.1. Porter's 5 Force Model

4.1.1. Bargaining Power of Suppliers

4.1.2. Bargaining Power of Buyers

4.1.3. Threat of New Entrants

4.1.4. Threat of Substitutes

4.1.5. Competitive Rivalry

4.1.6. Futuristic Approach to Porter's 5 Force Model

4.1.7. Porter's 5 Force Impact Analysis

4.2. PESTEL Analysis

4.2.1. Political

4.2.2. Economical

4.2.3. Social

4.2.4. Technological

4.2.5. Environmental

4.2.6. Legal

4.3. Top Investment Opportunity

4.4. Top Winning Strategies

- 4.5. Disruptive Trends
- 4.6. Industry Expert Perspective
- 4.7. Analyst Recommendation & Conclusion

CHAPTER 5. GLOBAL MILITARY ELECTRO-OPTICAL AND INFRARED SYSTEMS MARKET SIZE & FORECASTS BY PLATFORM 2022–2032

- 5.1. Segment Dashboard
- 5.2. Global Military Electro-optical and Infrared Systems Market: By Platform Revenue Trend Analysis, 2022 & 2032 (USD Million/Billion)
 - 5.2.1. Airborne
 - 5.2.1.1. Unmanned Aerial Vehicles (UAVs)
 - 5.2.1.2. Fighter Jets
 - 5.2.1.3. Helicopters
 - 5.2.2. Land-Based
 - 5.2.2.1. Armored Vehicles
 - 5.2.2.2. Soldier Systems
 - 5.2.2.3. Ground-based Surveillance
 - 5.2.3. Naval
 - 5.2.3.1. Submarines
 - 5.2.3.2. Surface Ships
 - 5.2.3.3. Coastal Surveillance

CHAPTER 6. GLOBAL MILITARY ELECTRO-OPTICAL AND INFRARED SYSTEMS MARKET SIZE & FORECASTS BY APPLICATION 2022–2032

- 6.1. Segment Dashboard
- 6.2. Global Military Electro-optical and Infrared Systems Market: By Application Revenue Trend Analysis, 2022 & 2032 (USD Million/Billion)
 - 6.2.1. Targeting & Tracking
 - 6.2.2. Intelligence, Surveillance & Reconnaissance (ISR)
 - 6.2.3. Missile Guidance
 - 6.2.4. Navigation & Situational Awareness
 - 6.2.5. Electronic Warfare

CHAPTER 7. GLOBAL MILITARY ELECTRO-OPTICAL AND INFRARED SYSTEMS MARKET SIZE & FORECASTS BY IMAGING TECHNOLOGY 2022–2032

- 7.1. Segment Dashboard

7.2. Global Military Electro-optical and Infrared Systems Market: By Imaging Technology Revenue Trend Analysis, 2022 & 2032 (USD Million/Billion)

7.2.1. Thermal Imaging

7.2.2. Hyperspectral Imaging

7.2.3. Multispectral Imaging

CHAPTER 8. GLOBAL MILITARY ELECTRO-OPTICAL AND INFRARED SYSTEMS MARKET SIZE & FORECASTS BY COOLING TECHNOLOGY 2022–2032

8.1. Segment Dashboard

8.2. Global Military Electro-optical and Infrared Systems Market: By Cooling Technology Revenue Trend Analysis, 2022 & 2032 (USD Million/Billion)

8.2.1. Cooled Infrared Systems

8.2.2. Uncooled Infrared Systems

CHAPTER 9. GLOBAL MILITARY ELECTRO-OPTICAL AND INFRARED SYSTEMS MARKET SIZE & FORECASTS BY SENSOR TECHNOLOGY 2022–2032

9.1. Segment Dashboard

9.2. Global Military Electro-optical and Infrared Systems Market: By Sensor Technology Revenue Trend Analysis, 2022 & 2032 (USD Million/Billion)

9.2.1. Staring Sensors

9.2.2. Scanning Sensors

CHAPTER 10. GLOBAL MILITARY ELECTRO-OPTICAL AND INFRARED SYSTEMS MARKET SIZE & FORECASTS BY COMPONENT 2022–2032

10.1. Segment Dashboard

10.2. Global Military Electro-optical and Infrared Systems Market: By Component Revenue Trend Analysis, 2022 & 2032 (USD Million/Billion)

10.2.1. Cameras & Sensors

10.2.2. Infrared Detectors

10.2.3. Laser Range Finders

10.2.4. Image Intensifiers

10.2.5. Control Electronics

10.2.6. Others

CHAPTER 11. GLOBAL MILITARY ELECTRO-OPTICAL AND INFRARED SYSTEMS MARKET SIZE & FORECASTS BY REGION 2022–2032

- 11.1. North America Military Electro-optical and Infrared Systems Market
 - 11.1.1. U.S. Military Electro-optical and Infrared Systems Market
 - 11.1.1.1. By Platform Breakdown, 2022–2032
 - 11.1.1.2. By Application Breakdown, 2022–2032
 - 11.1.1.3. By Imaging Technology Breakdown, 2022–2032
 - 11.1.1.4. By Cooling Technology Breakdown, 2022–2032
 - 11.1.1.5. By Sensor Technology Breakdown, 2022–2032
 - 11.1.1.6. By Component Breakdown, 2022–2032
 - 11.1.2. Canada Military Electro-optical and Infrared Systems Market
 - 11.1.2.1. By Platform Breakdown, 2022–2032
 - 11.1.2.2. By Application Breakdown, 2022–2032
 - 11.1.2.3. By Imaging Technology Breakdown, 2022–2032
 - 11.1.2.4. By Cooling Technology Breakdown, 2022–2032
 - 11.1.2.5. By Sensor Technology Breakdown, 2022–2032
 - 11.1.2.6. By Component Breakdown, 2022–2032
- 11.2. Europe Military Electro-optical and Infrared Systems Market
 - 11.2.1. U.K. Military Electro-optical and Infrared Systems Market
 - 11.2.2. Germany Military Electro-optical and Infrared Systems Market
 - 11.2.3. France Military Electro-optical and Infrared Systems Market
 - 11.2.4. Spain Military Electro-optical and Infrared Systems Market
 - 11.2.5. Italy Military Electro-optical and Infrared Systems Market
 - 11.2.6. Rest of Europe Military Electro-optical and Infrared Systems Market
- 11.3. Asia Pacific Military Electro-optical and Infrared Systems Market
 - 11.3.1. China Military Electro-optical and Infrared Systems Market
 - 11.3.2. India Military Electro-optical and Infrared Systems Market
 - 11.3.3. Japan Military Electro-optical and Infrared Systems Market
 - 11.3.4. Australia Military Electro-optical and Infrared Systems Market
 - 11.3.5. South Korea Military Electro-optical and Infrared Systems Market
 - 11.3.6. Rest of Asia Pacific Military Electro-optical and Infrared Systems Market
- 11.4. Latin America Military Electro-optical and Infrared Systems Market
 - 11.4.1. Brazil Military Electro-optical and Infrared Systems Market
 - 11.4.2. Mexico Military Electro-optical and Infrared Systems Market
 - 11.4.3. Rest of Latin America Military Electro-optical and Infrared Systems Market
- 11.5. Middle East & Africa Military Electro-optical and Infrared Systems Market
 - 11.5.1. Saudi Arabia Military Electro-optical and Infrared Systems Market
 - 11.5.2. UAE Military Electro-optical and Infrared Systems Market
 - 11.5.3. South Africa Military Electro-optical and Infrared Systems Market
 - 11.5.4. Rest of Middle East & Africa Military Electro-optical and Infrared Systems

Market

CHAPTER 12. COMPETITIVE INTELLIGENCE

12.1. Key Company SWOT Analysis

12.1.1. Lockheed Martin Corporation

12.1.2. Raytheon Technologies Corporation

12.1.3. BAE Systems PLC

12.2. Top Market Strategies

12.3. Company Profiles

12.3.1. L3Harris Technologies, Inc.

12.3.1.1. Key Information

12.3.1.2. Overview

12.3.1.3. Financial (Subject to Data Availability)

12.3.1.4. Product Summary

12.3.1.5. Market Strategies

12.3.2. Northrop Grumman Corporation

12.3.3. Thales Group

12.3.4. FLIR Systems, Inc. (Teledyne FLIR)

12.3.5. Leonardo S.p.A.

12.3.6. Safran Group

12.3.7. Elbit Systems Ltd.

12.3.8. Rheinmetall AG

12.3.9. ASELSAN A.?.

12.3.10. Hensoldt AG

12.3.11. Israel Aerospace Industries Ltd. (IAI)

12.3.12. General Dynamics Corporation

CHAPTER 13. RESEARCH PROCESS

13.1. Research Process

13.1.1. Data Mining

13.1.2. Analysis

13.1.3. Market Estimation

13.1.4. Validation

13.1.5. Publishing

13.2. Research Attributes

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