

Tactical Inertial Systems - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

Market Report | 2025-04-28 | 120 pages | Mordor Intelligence

AVAILABLE LICENSES:

- Single User License \$4750.00
- Team License (1-7 Users) \$5250.00
- Site License \$6500.00
- Corporate License \$8750.00

Report description:

The Tactical Inertial Systems Market is expected to register a CAGR of 7.62% during the forecast period.

Key Highlights

- The growth in the tactical inertial systems market is majorly driven by the increasing pressure on contract manufacturers to reduce the size of the inertial systems to make them suitable for a broad range of tactical applications.
- MEMS greatly supports the rapid increase in portable devices, as they offer enhanced capabilities within small unit sizes. The tactical inertial MEMS market forecast predicts a dramatic rise in the volume of inertial MEMS devices over the next five years.
- Also, recent years have seen an increasing deployment of aircraft that do not have a manned pilot on board, often termed unmanned aerial vehicles (UAV). These vehicles are finding widespread applications in the aerospace and defense sector. The inertial navigation system forms an essential component of such vehicles.
- However, inertial navigation systems tend to have high failure rates and repair costs, resulting in high maintenance costs for these systems. Such factors might restrict the growth of the market.
- The Covid-19 pandemic had a significant impact on the aerospace and defense industries, with many companies in commercial aviation experiencing disruption in production and slowing demand owing to the lockdowns imposed during the pandemic. However, the inclination of growth toward defense and aerospace post-pandemic, combined with the technological advancements in navigation systems, is expected to create a positive outlook for the market in the coming years.

Tactical Inertial Systems Market Trends

The Accelerometer Segment is Expected to Hold the Highest Market Share

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- Traditional accelerometers were built on the principle of mechanical vibration. The principal components of an accelerometer are mass supported by springs. With the use of silicon-based products and miniaturization techniques, the accelerometer structure has shrunk rapidly.
- MEMS accelerometers sold in the current market scenario contain microscopic crystal structures with a mass attached to the top that gets stressed by accelerative forces, which causes a voltage to be generated.
- Over the years, low-g accelerators have gained traction for their applications. With the 3D MEMS technology, the companies offer accelerators assembled in a dual-in-line or dual-in-flat-line plastic package with pins for surface mount and re-flow soldering. They are environmentally protected with silicone gel, resulting in excellent performance and reliability in a humid environment and at temperature cycling.
- The rising military and defense expenditures worldwide also act as a critical driving force for the segment owing to the widespread use of accelerometers in this industry. For instance, accelerometers have been commonly used to measure explosions' power. They are also incorporated into soldier-worn and armored vehicle-mounted devices that can quantify the effects of explosive forces.
- Moreover, in March 2022, Honeywell launched a new accelerometer - its MV60 micro-electro-mechanical system (MEMS) - primarily designed for aerospace and defense but also has potential uses for industrial and marine applications that need high-precision, navigation-grade accelerometers that are small, lightweight and require little power to operate.

Asia-Pacific Accounts for the Largest Market Share

- Asia-Pacific is the largest market for tactical inertial systems in the current market scenario. The large production volume in countries such as China, Japan, and India keeps a constant demand for tactical inertial systems in the region.
- In addition, this growth is due to increased investment in the defense sector from growing economies, such as India and China. The defense sectors in China and India are increasing the defense spending and procurement of advanced remotely operated vehicles for military applications.
- Also, in October last year, the Ministry of Defence, Government of India revealed plans to procure 106 Inertial Navigation Systems through Fast Track Procedure under Buy (Indian) category and sought participation in the procurement process from prospective. Such instances are also expected to provide significant growth momentum to the market.
- Moreover, many regional players are expanding their product line due to the market's huge growth potential. For instance, in November last year, Japan-based Seiko Epson Corporation expanded its lineup of inertial measurement units (IMU) equipped with high-performance six-axis sensors by adding a newly developed standard model called the M-G366PDG (M-G366) and a basic model called the M-G330PDG (M-G330).
- The M-G366 and M-G330 are expected to allow the users to select an accelerometer output range of either ± 8 G or ± 16 G. Additionally, they offer 0.05% non-linearity in all output ranges of the gyroscopic sensors, enabling accurate measurement of movements.

Tactical Inertial Systems Industry Overview

The Tactical Inertial Systemes market is moderately competitive. Increasing applications, technological advancements, and rising aerospace and defense budgets primarily fuel the market's growth. Furthermore, the growth can be attributed to the increasing demand for accuracy and calibration in guidance, control and targeting, precision-guided armaments, and other weaponry.

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- December 2022 - Honeywell announced that it had delivered its one millionth tactical-grade inertial measurement unit (IMU) from its manufacturing facility in Minneapolis. These IMUs are used in a wide range of applications, including military equipment and unmanned aerial vehicles.
- September 2022 - Collins Aerospace was awarded a multi-million-pound program as part of the United Kingdom's Weapons Sector Research Framework (WSRF) to develop a navigation grade Inertial Measurement Unit (IMU) for use in future complex weapons platforms. The agreement calls for constructing a tactical grade or 'Class A' IMU using the company's (MEMS) technology.

Additional Benefits:

- The market estimate (ME) sheet in Excel format
- 3 months of analyst support

Table of Contents:

1 INTRODUCTION

- 1.1 Study Assumptions and Market Definition
- 1.2 Scope of the Study

2 RESEARCH METHODOLOGY

- 2.1 Research Methodology
- 2.2 Research Phases

3 MARKET ANALYSIS

- 3.1 Market Overview
- 3.2 Industry Attractiveness - Porter's Five Forces Analysis
 - 3.2.1 Bargaining Power of Suppliers
 - 3.2.2 Bargaining Power of Buyers
 - 3.2.3 Threat of New Entrants
 - 3.2.4 Threat of Substitute Products
 - 3.2.5 Intensity of Competitive Rivalry
- 3.3 Value Chain Analysis

4 MARKET DYNAMICS

- 4.1 Market Drivers
 - 4.1.1 Inclination of Growth in Defense and Aerospace
- 4.2 Market Restraints
 - 4.2.1 Operational Complexity Coupled with High Maintenance Costs

5 TECHNOLOGY SNAPSHOT

6 MARKET SEGMENTATION

- 6.1 End User
 - 6.1.1 Aerospace and Defense
 - 6.1.2 Marine/Naval
- 6.2 Technology
 - 6.2.1 MEMs

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 6.2.2 Fiber Optic Gyro (FOG)
- 6.2.3 Ring Laser Gyro (RLG)
- 6.2.4 Other Technologies
- 6.3 Component
 - 6.3.1 Accelerometers
 - 6.3.2 Magnetometers
 - 6.3.3 Gyroscopes
 - 6.3.4 Other Components
- 6.4 Geography
 - 6.4.1 North America
 - 6.4.1.1 United States
 - 6.4.1.2 Canada
 - 6.4.2 Europe
 - 6.4.2.1 United Kingdom
 - 6.4.2.2 Germany
 - 6.4.2.3 France
 - 6.4.2.4 Rest of Europe
 - 6.4.3 Asia-Pacific
 - 6.4.3.1 China
 - 6.4.3.2 India
 - 6.4.3.3 Japan
 - 6.4.3.4 Rest of Asia-Pacific
 - 6.4.4 Rest of the World
 - 6.4.4.1 Latin America
 - 6.4.4.2 Middle-East and Africa

7 COMPETITIVE LANDSCAPE

- 7.1 Company Profiles
 - 7.1.1 Analog Devices Inc.
 - 7.1.2 Northrop Grumman Corporation
 - 7.1.3 Safran Group (Colibrys Switzerland) Ltd
 - 7.1.4 Rockwell Collins Inc.
 - 7.1.5 Honeywell International Inc.
 - 7.1.6 Invensense Inc. (TDK Corporation)
 - 7.1.7 Ixbluesas
 - 7.1.8 Kearfott Corporation
 - 7.1.9 KVH Industries Inc.
 - 7.1.10 Thales Group
 - 7.1.11 Xsens Technologies BV
 - 7.1.12 Sparton Corporation
 - 7.1.13 Epson Europe Electronic
 - 7.1.14 Vector NAV

8 INVESTMENT ANALYSIS

9 FUTURE OF THE MARKET

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

**Tactical Inertial Systems - Market Share Analysis, Industry Trends & Statistics,
Growth Forecasts (2025 - 2030)**

Market Report | 2025-04-28 | 120 pages | Mordor Intelligence

To place an Order with Scotts International:

- Print this form
- Complete the relevant blank fields and sign
- Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	\$4750.00
	Team License (1-7 Users)	\$5250.00
	Site License	\$6500.00
	Corporate License	\$8750.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>
Address*	<input type="text"/>	City*	<input type="text"/>
Zip Code*	<input type="text"/>	Country*	<input type="text"/>
		Date	<input type="text" value="2026-03-05"/>
		Signature	

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

