

## USD 4.8 Billion Space Semiconductor Market Value Cross by 2032 | Top Players such as -BAE and Honeywell International

The report presents information by the key drivers, restraints, and opportunities of the global space semiconductor market with a detailed impact analysis.

The space semiconductor market has expanded as a result of rise in procurement of naval vessels owing to growing defense budget, and technological advancement."

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Allied Market Research

WILMINGTON, DE, UNITED STATES, February 3, 2025 /EINPresswire.com/ -- Allied Market Research published a report, titled, "<u>Space Semiconductor Market</u> by Type (Radiation Hardened Grade and Radiation Tolerant Grade), Component (Integrated Circuits, Discrete Semiconductors Devices, Optical Devices, Microprocessor, Memory, Sensors, and Others), and Application (Satellite, Launch Vehicles, Deep <u>Space</u> Probe, and Rover and Lander): Global Opportunity Analysis and Industry Forecast, 2023–2032.

According to the report, the global space semiconductor

industry size generated \$2,122.9 million in 2022 and is anticipated to generate \$4,813.8 million by 2032, witnessing a CAGR of 8.8% from 2023 to 2032.

Prime Determinants of Growth

Space semiconductors include the increasing demand for satellite communication and Earth observation, advancements in satellite technology, the rise of satellite constellations, expanding space exploration initiatives, and the need for reliable and radiation-hardened components in space missions. Furthermore, the growing need for global connectivity, internet access, and data transmission drives the demand for satellite communication systems. Additionally, the rise in Earth observation applications for purposes such as weather monitoring, disaster management, agriculture, and urban planning contribute to the demand for space-based sensors and imaging systems, which rely on semiconductor components for data processing and transmission.

Impact of Russia-Ukraine War Scenario on Space Semiconductor Industry

On February 24, 2022, the Russia-Ukraine war led to increased geopolitical tensions, which might have unexpected effects on the space semiconductor industry. International commercial ties may be strained by increased political uncertainty and instability, which could lead to supply chain delays and market volatility.

In addition, large amounts of certain semiconductor materials, like neon gas, are made in Ukraine and are used in the semiconductor manufacturing process. Any disruption to supply chains for semiconductors coming from Ukraine may have an effect on the price and availability of semiconductor components, including those used in space-grade applications. Furthermore, as a result of the conflict, some countries may choose to review their military plans and increase their investments in space-based systems and technology. This could lead to a rise in the market for space-grade semiconductors in order to support military satellite programs, communications systems, and other defense-related applications.

Recent advancements in the space semiconductor sector showcase notable collaborations and innovations:

By October 2023, semiconductor leader Infineon Technologies had expanded its co-innovation hub in Singapore, bolstering support for startups in their product development endeavors. This collaborative effort, in conjunction with Korean SMEs and startup agencies, aims to drive innovation in decarbonization and digitalization. Infineon's expanded facility underscores its dedication to nurturing sustainable innovation for the future.

In September 2023, Northrop Grumman's U.K. division partnered with British startup Space Forge, which endeavors to manufacture semiconductors in space. This strategic alliance promises groundbreaking advancements in space-based semiconductor production.

Teledyne U.K. Limited, a subsidiary of Teledyne Technologies, announced in June 2020 the development of new space-grade semiconductor FPGAs in collaboration with Xilinx, Inc., marking a significant milestone in space electronics technology.

In April 2023, Presto Engineering teamed up with SatixFy to qualify and test radiation-hardened ASICs for deployment in space. These ASICs boast features like error-correcting codes and specialized semiconductor processes, mitigating the risk of radiation-induced errors and enhancing reliability in space missions.

The satellite segment to maintain its leadership status throughout the forecast period

On the basis of application, satellite segment held the highest market share in 2022, accounting for more than one-third of the global space semiconductor market revenue and is estimated to maintain its leadership status throughout the forecast period. This is attributed to the fact that satellites are essential components of modern communication, navigation, Earth observation, and scientific research networks. They serve as critical infrastructure for a wide range of applications, including telecommunications, broadcasting, weather forecasting, navigation, surveillance, and disaster management.

North America to maintain its dominance by 2032

On the basis of region, North America held the highest market share in terms of revenue in 2022, accounting for more than one-third of the global space semiconductor market revenue. This is attributed to the fact that the U.S. is a global leader in semiconductor technology and innovation, with a robust ecosystem of semiconductor manufacturers, research institutions, and technology companies.

North American semiconductor manufacturers are at the forefront of developing advanced semiconductor components tailored for space applications, including radiation-hardened integrated circuits, sensors, and communication chips. However, Asia-Pacific is expected to witness the fastest CAGR of 12.0% from 2023 to 2032. This is attributed to the region's expanding space programs, increasing satellite launches, growing demand for space-based services, and the rise of indigenous semiconductor manufacturing capabilities.

Key Highlights of the Report:

The study of the space semiconductor market encompasses analysis across more than 16 countries, offering insights into each country's segment value (\$million) throughout the forecast period.

This research integrates top-notch data, expert opinions, and rigorous analysis, supplemented by significant independent perspectives. The methodology is designed to present a well-rounded view of the global market landscape, aiding stakeholders in making informed decisions to attain ambitious growth objectives.

A comprehensive review of over 3,700 product literature pieces, annual reports, industry statements, and comparable materials from leading industry players was conducted to deepen the understanding of the market dynamics.

Leading Market Players: -BAE Systems CASE Honeywell International Inc. Infineon Technologies AG Microchip Technology Inc. Solid State Devices STMicroelectronics Teledyne Technologies Incorporated Texas Instruments Incorporated AMD-Xilinx, Inc.

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