

Deep Space Radiation Monitoring Market - Opportunities, Share, Growth and Competitive Analysis and Forecast 2029

The Business Research Company's Deep Space Radiation Monitoring Global Market Report 2025 – Market Size, Trends, And Forecast 2025-2034

LONDON, GREATER LONDON, UNITED KINGDOM, October 27, 2025

/EINPresswire.com/ -- What Is The Forecast For The [Deep Space Radiation Monitoring Market](#) From 2024 To 2029?

In recent years, the market size for monitoring radiation in deep space has experienced robust growth. The market, which is projected to expand from \$1.27 billion in 2024 to \$1.39 billion in 2025, has a compound annual growth rate (CAGR) of 9.5%. Driving factors behind this



Get 20% Off All Global Market Reports With Code ONLINE20 – Stay Ahead Of Trade Shifts, Macroeconomic Trends, And Industry Disruptors

”

The Business Research Company

development in the historical period include the increase in space missions, enhanced safety measures for astronauts, expansion of satellite deployments, advancements in sensor technology, and increased government funding.

In the forthcoming years, the market for deep space radiation monitoring is projected to experience significant expansion. With a compound annual growth rate (CAGR) of 9.2%, the market value is poised to reach \$1.97 billion by 2029. This marked growth can be credited to factors such as an uptick in deep exploration, the rise in infrastructure

investments, enhanced monitoring systems, an increase in satellite launches, and the progression of sensor miniaturization. Key trends expected during the forecast period include AI radiation analysis, the miniaturization of satellite sensors, integration of nanosatellite sensors, the development of multi-sensor platforms, and real-time data.

Download a free sample of the deep space radiation monitoring market report:

<https://www.thebusinessresearchcompany.com/sample.aspx?id=28596&type=smp>

The Business
Research Company

The Business Research Company



What Are The Core Growth Drivers Shaping The Future Of The Deep Space Radiation Monitoring Market?

The surge in commercial space activities is predicted to trigger a significant increase in deep space radiation monitoring. Activities such as satellite launches, space tourism, and resource exploration, conducted by profit-oriented private companies, define commercial space activities. These activities are on the rise due to reduced launch costs and advanced space technologies fueled by increasing private sector investments. The provision of real-time detection and dosimetry solutions by deep space radiation monitoring caters to these needs. These solutions safeguard astronauts, spacecraft electronics, and payloads from detrimental cosmic radiation and solar particle events. As per the Space Foundation, a US non-profit organization that champions space innovation, education, and cooperation, global launch activity saw a continued increase for the third year in a row in January 2024. The organization recorded 223 launch attempts with 212 successful missions, highlighting a 50% increase in commercial launches compared to 2022. Hence, the surge in commercial space activities is fuelling the growth of deep space radiation monitoring.

Which Companies Are Currently Leading In The Deep Space Radiation Monitoring Market?

Major players in the Deep Space Radiation Monitoring Global Market Report 2025 include:

- Airbus Defence and Space GmbH
- Lockheed Martin Corporation
- Northrop Grumman Corporation
- Honeywell International Inc.
- National Aeronautics and Space Administration (NASA)
- Renesas Electronics Corporation
- Teledyne e2v Limited
- Thales Alenia Space S.A.S.
- HORIBA Ltd.
- Mirion Technologies Inc.

What Are The Top Trends In The Deep Space Radiation Monitoring Industry?

Leading players in the deep space radiation monitoring market are partnering to jointly investigate space radiation in order to enhance the safety of astronauts during deep space ventures. These joint studies involve various organizations and countries working together to understand cosmic rays, solar particles, and their impact on spacecraft, technology, and human health in space. For instance, in June 2025, The National Aeronautics and Space Administration (NASA) of the US and The German Aerospace Center (DLR), which is a research hub for aeronautics, space, energy, and more in Germany, renewed their agreement at the Paris Air Show to continue collaborative research on space radiation. The focus was on boosting astronaut security in deep space missions using DLR's advanced M-42 EXT radiation detectors integrated on NASA's Artemis II mission. This initiative is intended to confront the significant health risks presented by space radiation. It involves using advanced instruments that have better energy resolution capabilities and building upon the valuable data obtained from Artemis

I to establish more effective protection protocols for future lunar and exploratory missions.

Comparative Analysis Of Leading [Deep Space Radiation Monitoring Market Segments](#)

The deep space radiation monitoring market covered in this report is segmented as

- 1) By Component: Detectors, Sensors, Software, Services
- 2) By Radiation Type: Galactic Cosmic Rays, Solar Particle Events, Trapped Radiation Belts, Other Radiation Type
- 3) By Platform: Satellites, Spacecraft, Space Stations, Deep Space Probes, Other Platforms
- 4) By Application: Space Missions, Astronaut Safety, Scientific Research, Satellite Operations, Other Applications
- 5) By End-User: Space Agencies, Commercial Space Companies, Research Institutes, Defense, Other End Users

Subsegment:

- 1) By Detectors: Semiconductor Detectors, Scintillation Detectors, Solid-State Detectors, Gas-Filled Detectors
- 2) By Sensors: Particle Sensors, Neutron Sensors, Gamma-Ray Sensors, Dosimetry Sensors
- 3) By Software: Data Acquisition Software, Radiation Modeling And Simulation Software, Monitoring And Control Software, Data Analytics And Visualization Tools
- 4) By Services: Calibration Services, Radiation Testing Services, Data Analysis And Reporting Services, Maintenance And Support Services

View the full deep space radiation monitoring market report:

<https://www.thebusinessresearchcompany.com/report/deep-space-radiation-monitoring-global-market-report>

Which Regions Are Dominating The Deep Space Radiation Monitoring Market Landscape?

In the 2025 report on the global market for deep space radiation monitoring, North America leads as the biggest market as of 2024. The region predicted to see the most rapid growth in the forecast period is Asia-Pacific. The report provides coverage for several regions, namely, Asia-Pacific, Western Europe, Eastern Europe, North America, South America, the Middle East, and Africa.

Browse Through More Reports Similar to the Global Deep Space Radiation Monitoring Market 2025, By [The Business Research Company](#)

Medical Radiation Detection Global Market Report 2025

<https://www.thebusinessresearchcompany.com/report/medical-radiation-detection-global-market-report>

Medical Radiation Detection Monitoring And Safety Global Market Report 2025

<https://www.thebusinessresearchcompany.com/report/medical-radiation-detection-monitoring-and-safety-global-market-report>

X Ray Detectors Global Market Report 2025

<https://www.thebusinessresearchcompany.com/report/x-ray-detectors-global-market-report>

Speak With Our Expert:

Saumya Sahay

Americas +1 310-496-7795

Asia +44 7882 955267 & +91 8897263534

Europe +44 7882 955267

Email: saumyas@tbrc.info

The Business Research Company - www.thebusinessresearchcompany.com

Follow Us On:

• LinkedIn: <https://in.linkedin.com/company/the-business-research-company>

Oliver Guirdham

The Business Research Company

+44 7882 955267

info@tbrc.info

Visit us on social media:

[LinkedIn](#)

[Facebook](#)

[X](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/861134955>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2025 Newsmatics Inc. All Right Reserved.