

Varadis Radiation Detection Sensors to be Aboard Mission to Explore Asteroid

JAXA will use Varadis radiation detection sensor to measure absorbed ionizing radiation aboard DESTINY+ mission, which will explore Phaethon asteroid.

CORK, IRELAND, October 11, 2023 /EINPresswire.com/ -- <u>Varadis</u>, the leading provider of high-energy radiation detection sensors, is excited to announce that JAXA (Japan Aerospace Exploration Agency) will use the company's VT06 radiation detection sensor to measure absorbed ionizing radiation aboard the DESTINY+ mission, which will launch in 2024. This mission will explore the Phaethon asteroid to conduct scientific observations of cosmic dust.



Varadis VT06 Radiation Detection Sensors will measure absorbed ionizing radiation aboard the DESTINY+ mission, which will launch in 2024

The Varadis RADFET devices will be included in a next-generation dosimeter in development at <u>Nippi</u> (www.nippi.co.jp). The dosimeter will contribute not only to the analysis of radiation degradation of the state-of-the-art IMM3J space solar cells, but also to the investigation of the cause of any problems with the spacecraft and the acquisition of knowledge about the space radiation environment.

The Varadis VT06 RADFET selected by JAXA has been proven to pass the NASA <u>Level 3</u> Screening Process, as required by JAXA and defined in NASA EEE-INST-002 S1 Level 3 (<u>https://nepp.nasa.gov/npsl/npsl_UsePolicy.htm</u>).

"At the JAXA Institute of Space and Astronautical Science, we needed to implement a dosimeter design, within a limited time and budget, that would provide accurate radiation measurements throughout the Destiny+ mission," says Hiroyuki Toyota, Assistant Professor, Dept of Spacecraft Engineering, DESTINY+ Project Team. "When we researched the potential options, we found the Varadis VT06 RADFET to be the ideal solution to use at the core of our dosimeter. Within a very short period of time our team was able to build the dosimeter, which will give us exactly what we needed in terms of output information."

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Hiroyuki Toyota, Asst Prof, Dept of Spacecraft Engineering Due to the Varadis RADFET's ability to accurately measure significant doses of absorbed ionizing radiation (up to 10 kGy/1 Mrad) without requiring power, Varadis radiation detection sensors are currently about the International Space Station and a multitude of agency satellites.

In addition to their use in space communications and exploration, Varadis radiation detection sensors are used in physics research, medical, security and public safety applications.

"We are yet again honored to be working with the Japan Aerospace Exploration Agency in their space exploration

programs," says Brad Wrigley, CEO of Varadis. "The mission to explore the Phaethon asteroid is the first of its kind. All at Varadis are looking forward to supporting Destiny+ and the flyby of the Geminids meteor shower."

About Varadis

Varadis, the leading provider of high-energy radiation detection sensors, provides RADFETs to some of the globe's most recognized organizations. The company's RADFETs circle Earth at 17,000 mph in the International Space Station as well as measure radiation doses during radiotherapy procedures and levels created by particles travelling at 300,000 kilometres per second 220 miles below on Earth around CERN's Large Hadron Collider.

Based in Cork, Ireland, Varadis leverages over 30 years of technology development in the radiation monitoring space to bring the Varadis RADFET range to global markets.

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