

# Japan's EdgeCortix looks to work with SpaceX on space data center chips

2026/09/24 08:15 Nikkei English News 566ワード

YIFAN YU

PALO ALTO, California -- Japanese government-backed semiconductor startup EdgeCortix has unveiled its latest chip designed for physical AI, with the aim of deploying it not only on factory floors but also in space. Named Raiden, the new processor boasts up to 50 times the performance and 16 times the memory capacity of its previous generation chip, EdgeCortix's CEO Sakyasingha Dasgupta told Nikkei Asia in an exclusive interview. That means it can support the increasingly heavy local computation needed in physical artificial intelligence applications, such as controlling sets of robots on manufacturing lines or onboard computers in rockets, Dasgupta said.

The Tokyo-based startup has signed a multimillion-dollar deal with Kawasaki Heavy Industries, one of Japan's largest aerospace and defense contractors, to build AI-powered aerospace and defense systems based on Raiden.

Backed by funding from Japan's Ministry of Economy, Trade and Industry and the New Energy and Industrial Technology Development Organization, EdgeCortix has launched several chips for edge AI. Unlike Nvidia's GPUs (graphics processing units), which are mostly deployed for cloud computing, the Japanese startup specializes in processors for running AI locally.

In addition to gaining traction in Japan, the company's chips are also being tested by the Pentagon's Defense Innovation Unit, NASA and the U.S. Air Force.

But Dasgupta said the next-generation Raiden will open up a whole new frontier -- in space.

"The space data center is a new market that we expect to grow," Dasgupta said. "We are looking at the space data centers very actively."

The founder and CEO said Raiden's predecessor, the Sakura II chips, are already going through radiation testing by NASA for space deployment, and Raiden is expected to have the same radiation tolerance strength while adding more advantages for space applications.

"While Sakura II is also a good fit for space data centers given the form factor, Raiden is a better fit for scale."

Unlike the company's previous chips, Raiden's chiplet design is similar to "Lego-like building blocks." This means engineers can combine multiple dies or swap out parts of the chips to keep pace with evolving AI workloads, without needing to redesign the whole chip.

Dasgupta said Raiden's building-block design makes it easier to scale up and meet the growing AI compute demand compared to building ever-larger single chips.

While space data centers are a relatively nascent market, there are already plenty of companies looking to supply chips for use in orbit, including Elon Musk's SpaceX, which is developing its own processors. The rocket, satellite and AI company is working with Musk's other venture Tesla to develop next generation AI chips and a terafab which aims to produce 1 million wafers per month. Musk said the company's upcoming AI6 chip will be "the best edge computing chip in the world."

But Dasgupta said he does not see SpaceX as competition at all, but rather a prospective customer.

"I think what they [SpaceX] want is the best breed of solution out there," he said, adding that the chiplet design makes it easy for SpaceX to combine Raiden with its own chips.

"The benefit for Raiden is that it's not designed necessarily just to be standalone," said Dasgupta, adding that SpaceX's in-house chips and other processors the Musk company is exploring to use in its orbit data center "could be married with Raiden."

"I believe that would be the future for us to potentially work with companies like SpaceX."

許諾番号NK004663 日本経済新聞社が記事利用を許諾しています。

本サービスで提供される記事、写真、図表、見出しその他の情報(以下「情報」)の著作権その他の知的財産権は、その情報提供者に帰属します。

本サービスで提供される情報の無断転載を禁止します。

本サービスは、方法の如何、有償無償を問わず、契約者以外の第三者に利用させることはできません。

Copyrights © 日本経済新聞社 Nikkei Inc. All Rights Reserved.