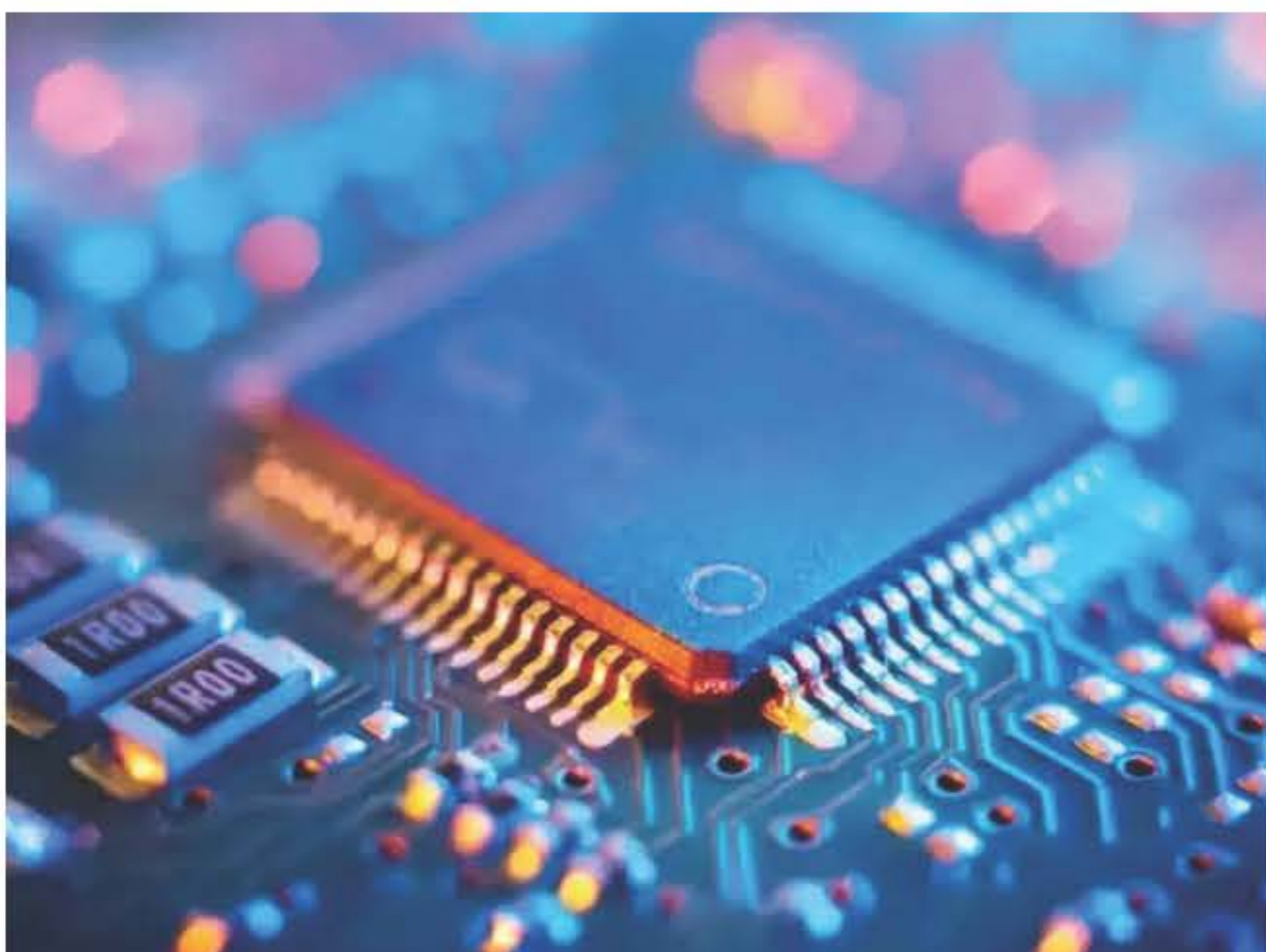


# Tata Electronics set for semiconductor packaging foray

## Synopsis

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**Chennai:** [Tata Electronics](#) is in talks with large global [semiconductor](#) companies and Outsourced Semiconductor Assembly and Test (OSAT) vendors to foray into advanced packaging of semiconductor components, said [Raja Manickam](#), the chief executive of its OSAT arm.

OSAT vendors provide third-party Integrated Circuit-packaging and test services.

Tata Electronics has surveyed four states - [Tamil Nadu](#), [Karnataka](#), [Telangana](#) and [Odisha](#) - as prospective locations to house its facility, Manickam told ET.

Tata Electronics already has an operational facility in Hosur, Tamil Nadu.

“We’ve written up a report on pros and cons in all the four states. Hopefully, by mid-May, we’ll make an announcement on location,” Manickam said. “We have not finalised or signed up with any of them yet but we will get into advanced packaging for sure,” Manickam, previously the founder of Tessolve Semiconductors, said.

The company was, however, only scouting the market for a technology partner for advanced packaging and not traditional packaging, which, Manickam said, was the other segment of the packaging business.

“Traditional packaging is a high-volume business. We don’t need a partner for that. We can build it ourselves,” he said.

Advanced packaging allows semiconductor companies to combine mature and leading-edge chips in an integrated system for applications that need both types, which lowers costs.

This trend, called heterogeneous integration, enables companies to combine multiple smaller chips instead of making one large chip.

Larger chips often have lower yield, with the drop typically scaling with chip size, so heterogeneous integration may deliver profound cost benefits.

Last year, Tata Sons chairman N Chandrasekharan said the salt-to-software conglomerate intends to foray into semiconductor manufacturing.

“At the Tata group, we have already pivoted into a number of new businesses like electronics manufacturing, 5G network equipment as well as semiconductors,” he had said at the annual general meeting of the IMC Chamber of Commerce and Industry.

Last year, Tata Sons bought a 43.35% stake in telecom gear maker Tejas Networks Ltd for ₹1,884 crore. Earlier this year, Tejas Networks announced plans to acquire Saankhya Labs in a two-phase process. Founded in 2007, Saankhya Labs has developed a wide range of system and semiconductor products for cellular wireless, broadcast radios and satellite communication ground-terminals. The purchase of Saankhya is in line with Tata’s ambitions in the semiconductor business.

The government has unveiled a \$10 billion (about Rs 76,000 crore) plan to attract chipmakers from around the world to set up shop in India.

Three consortiums -- Vedanta-Foxconn, ISMC, and IGSS Venture -- have applied for incentives to manufacture chips and set up a fab.

Manickam said there was a “clamour for fab” and that there is a perception that OSAT is a low-technology and low-margin business.

“People fail to understand that every chip that is made has to be packaged,” he said. “One wafer can have hundreds or maybe even thousands or tens of thousands of dies. So, each wafer will create, on average, at least 5,000 to 10,000 packages. It’s an exponential volume as compared to wafer fab,” he said.

Tata Electronics had picked packaging not only because it was easier to build up compared to a fab but also because it sees the potential to be at an inflection point.

“We are in a very strong position, because of this inflection point, to become world leaders in the next 10 years on something which is just evolving,” he said.

Global consultancy McKinsey said in a recent report that the advanced-packaging market was valued at \$20 billion in 2020, and projected it to rise to \$45 billion by 2026, when it will represent about 50% of packaging revenues.

“Although leading-edge IDMs and foundries are driving packaging innovations, advanced techniques also create opportunities for other players across the value chain because they boost demand for new materials and new equipment,” according to the report.

Last year, Tata Electronics signed a Memorandum of Understanding (MoU) with the Tamil Nadu government to set up a facility for manufacturing mobile components with an investment of Rs 4,684 crore in a new plant in Krishnagiri.