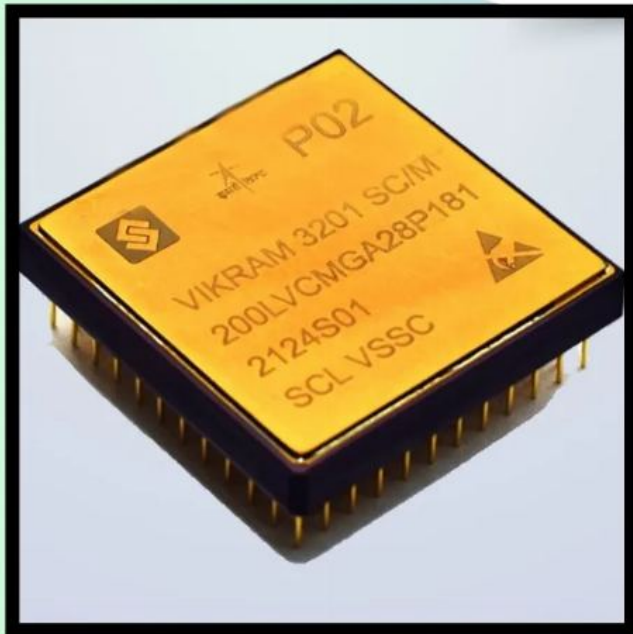


Vikram 3201

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Vikram 3201

Vikram 3201 Latest News

India unveiled its first fully indigenous 32-bit microprocessor, the Vikram 3201, at the Semicon India 2025 conference recently.

About Vikram 3201

- It is **India's first fully indigenous 32-bit microprocessor**.
- **Designed by the Vikram Sarabhai Space Center (VSSC)**, Vikram 3201 has been **built by the Indian Space Research Organisation's (ISRO) Semiconductor Laboratory (SCL) in Chandigarh**.
- Unlike processors in everyday devices like smartphones or laptops, this one is **designed specifically for rockets and satellites**.
- It is an **upgrade to Vikram 1601**, a **16-bit processor** that has **powered ISRO's launch vehicles since 2009**.
- The Vikram 3201 marks the **first time India has indigenously designed and fabricated a processor of this scale** and specification **for launch vehicle avionics**.

What will the Vikram 32-bit Processor do?

- The chip's job is to **handle navigation, control, and mission management in launch vehicles**, performing the **split-second calculations** needed to keep rockets stable and on course.
- Because space environments are harsh, the chip is manufactured to **military-grade standards** and rigorously tested to ensure it can keep **working in extreme heat, cold, vibration, and radiation**.
- The Vikram 3201 is built to **withstand the extreme conditions of space missions**, including temperatures from **-55 degrees Celsius to +125 degrees Celsius**.
- Unlike its predecessor, the new chip **supports 64-bit floating-point operations, Ada programming language compatibility**, and features on-chip 1553B bus interfaces for reliable communication during missions.
- It can **handle substantial memory** and execute complex instructions needed for launching satellites and space vehicles.

Source: [BS](#)

Source: <https://vajiramandravi.com/current-affairs/vikram-3201/>

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