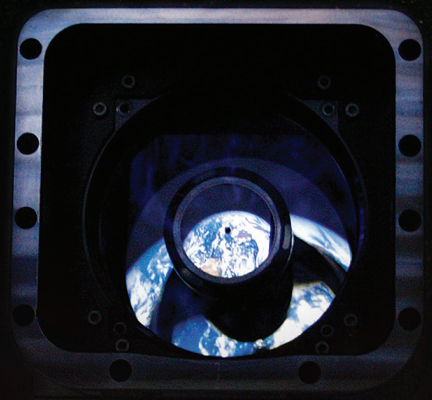

Our vision

NOVI's on-board edge computing and low-cost multi-sensor satellites significantly reduce cost, complexity and latency associated with usage of space-based data. This will democratize access for all and enable widespread adoption and usage of EO capabilities (which are estimated to add $3.8T to the economy by 2030).

The company has already delivered flight edge processing hardware to STP for in-space testing on the ISS as part of the H10 mission. It also launched a free-flyer spacecraft on the Transporter 12 mission in January 2025 for in-space testing of our SP240 edge processor based on the AMD Versal architecture.

Founded in 2017, NOVI is solving some of the biggest problems associated with today's Earth Observation (EO) services through implementation of onboard AI / ML and edge processing.

The NOVI team is collocated in Arlington, VA outside of DC, and has deep domain knowledge and experience in the full satellite hardware and software life-cycle including mission CONOPS, requirements development, integrated spacecraft design, hardware fabrication and procurement, AI&T, launch and regulatory licensing support, and in-space mission-operations.

NOVI®

novispace.ai

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NOVI®

SP240 ON-BOARD COMPUTER

ENABLING EDGE COMPUTING IN SPACE

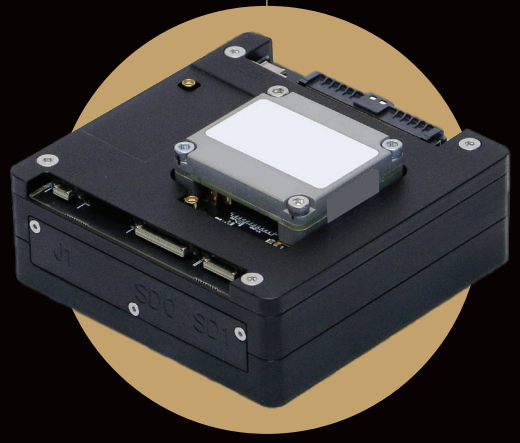
SP240 On-Board Computer

Featuring a state-of-the-art AMD Versal adaptive SoC, NOVI's AI-enabled SP240 OBC is a highly-optimized edge processor that offers un-paralleled machine-learning performance in a power efficient CubeSat form factor, while being powerful enough to operate larger payloads and satellite missions.

The AMD Versal is a complex radiation tolerant and latch-up immune SoC that has high performance and real time application processor cores, AI Engine tiles for machine learning workloads, and highly configurable programmable logic for flexible IO.

NOVI's SP240 OBC also features a radiation-hardened Vorago MCU which can either be used as the primary computer, or as a supervisor for the main processor and other spacecraft systems.

SP240 OBC in space since January 2025



Performance

AMD/Xilinx Versal (AI Edge Series)

- Application Processor: Dual-core ARM® Cortex®-A72
- Real-time Processor: Dual-core ARM® Cortex®-R5F
- Programmable Logic (FPGA)
- AI Engines: High-performance parallel compute cores
- 12 TOPS ML performance
- 8 GB DDR4

Vorago ARM MCU

- Low-power ARM® Cortex®-M4
- Embedded rad-hard FRAM

Software Support

AMD/Xilinx Versal

- Embedded Linux

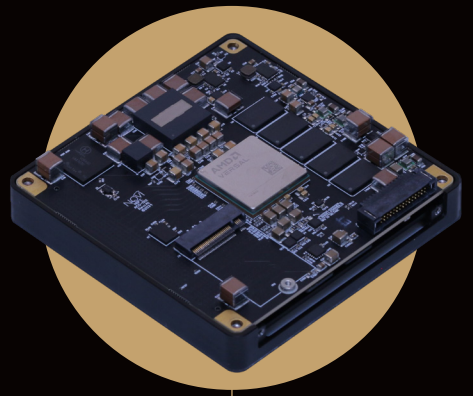
Vorago ARM MCU

- FreeRTOS™

Flexible IO

Highly customizable and reconfigurable with:

- Low speed interfaces (RS-422, UART, CAN, I2C, SPI)
- Multiple 1G ethernet interfaces
- 10G/25G/40G/100G ethernet
- High-speed serial (PCIe, JESD204B, SLVS-EC, SpaceWire)
- High-speed parallel interfaces (LVDS, MIPI)
- Analog inputs and outputs
- Optional PC-104/CubeSat Kit™ Header
- Optional integrated GNSS
- Optional Iridium modem



SP240 OBC with heatsink removed

Radiation Tolerance

- Radiation-hardened Vorago ARM MCU
- SEL immune Xilinx processor
- Built in SEU/SEFI mitigation
- ECC protection on all memory interfaces
- Redundant storage for boot images and data
- Radiation-hardened version for long duration, MEO, GEO, and beyond

Power

- Single wide input range power supply (5-28V)
- Low-power mode: <750 mW
- High-performance modes: 5-50W (application dependent)

Mechanical

- Housing Dimensions: 93 mm x 93 mm x 25 mm
- Mounting: PC-104 through holes or screw-locking keyed inserts
- Customizable mounting options and form factor