

RAPIS-1

Space innovation starts here



Mission Complete

Operation terminated on June 24, 2020

RAPid Innovative payload demonstration Satellite 1 (RAPIS-1) is the first demonstration mission in Japan Aerospace Exploration Agency (JAXA) 's Innovative Satellite Technology Demonstration Program.

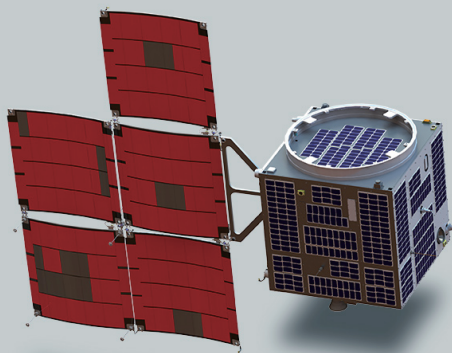
It was designed to carry new components developed by Japanese private companies, universities and research institutes, allowing them to demonstrate their capabilities in the actual space environment.

Axelspace was responsible for the design, construction and in-orbit operation of the satellite.

Demonstration Theme Title / Institution

- Evaluation of space environment tolerance of an innovative FPGA on the orbit / NEC
- 2-3 Gbps X-band downlink in-orbit demonstration / Keio University
- Green Propellant Reaction Control System (GPRCS) in-orbit demonstration / Japan Space Systems
- Space Particle Monitor (SPM) in-orbit demonstration / Japan Space Systems
- Innovative deep learning attitude sensor/star tracker development / Tokyo Institute of Technology
- Light-weight solar panel apparatus / JAXA
- Miniaturized low-power GNSS receiver in-orbit demonstration / Chubu University

The bus system of this satellite was designed for high independence between mission systems and bus systems. It was thus an optimal setup for experimental components and was easily adaptable for future enhancements in functionality.



Client	: Japan Aerospace Exploration Agency
Dimensions	: 1022 x 1082 x 1060mm
Mass	: About 200Kg About 35Kg For Payloads
Generated Power	: About 56W In Average, Max 130W
Launch Date	: January 18, 2019 9:50:20 AM (Japan Standard Time)
Launch Vehicle	: Enhanced Epsilon Rocket
Orbit	: Polar orbit 500Km Altitude
Current State	: End Of Operation

Corporate Outline

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