

P200 Small Sat Platform

This platform is the next evolution of the PROBA platform leveraging the next iteration of QinetiQ's proprietary on-board computer, along with extensive flight heritage, accumulating over more than 30 years in orbit without failure.

Standard configuration

- Payload: 70kg/120W
- >99.9% system availability
- Delivery in 30 months
- In accordance to ESA standards
- Compatible with small sat launchers

“Over the last decade ‘PROBA’ has become synonymous with small, high-performance satellites”

Bus specifications

Dimensions	800 x 800 x 1200 mm
Mass	~163 kg
Propulsion	84 m/s — 4 x 1N thrusters
Lifetime	7 years
Structure	Aluminium Honeycomb structure mounted on Al milled bottom (Qualified on STM test campaign 2019)

Payload capabilities

Power	120 W
Volume	- External: 650 x 770 x 490-1872 mm (depending on launcher) - Internal: 180 x 290 x 180 mm
Mass	70 kg (up to 100 kg)
Data	Up to 200 Mb/s

Pointing

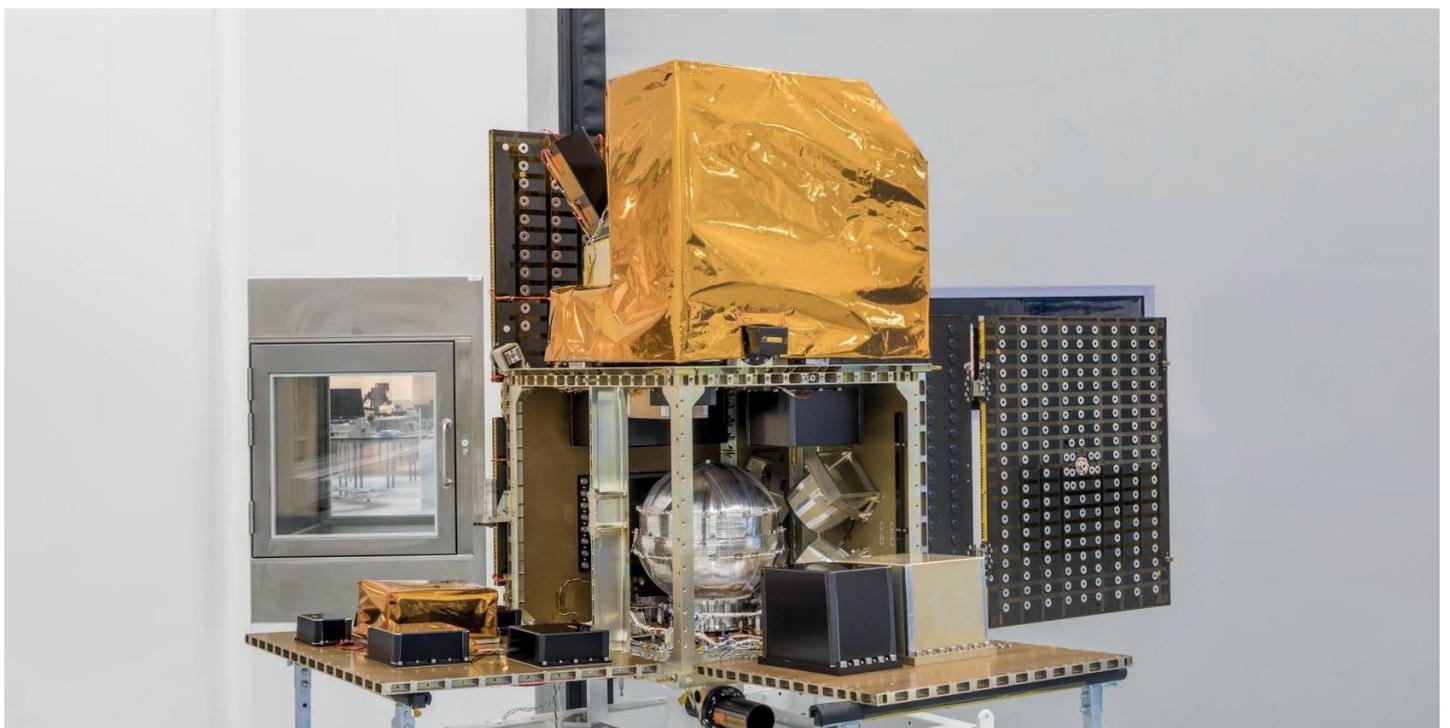
Pointing control	6 arcsec (2 sigma)
Knowledge	2 arcsec (2 sigma)
Stability	1.5 arcsec/sec
Slew rate	60 deg/min



P200 Standard

The standard configuration has two deployable solar panels but mission specific solutions are available as well.

The platform is compatible with typical shared launch opportunities and can be delivered with a CCSDS-compliant Satellite Control Centre (SCC) fully validated in AIV.





Key design features

Command and Data Handling

- Based on Rad-hard LEON-3 SPARC processor, cold-redundant
- Payload Data Handling unit 256 Gbit (1Tbit option)

Flight software

- Flight proven and based on RTEMS Operating System
- Designed for max on-board autonomy, including system mode management, payload ops and FDIR

Communication

- S-band transceiver for command and telemetry
- X-band for payload data

Propulsion

- Up to 15 kg propellant
- Monopropellant Hydrazine system - 4 x1N thrusters



QinetiQ is a leading science and engineering company operating primarily in the defence, security and critical infrastructure markets. Our space business is trusted to design and deliver mission success, with over 35 mission-years in orbit delivering observation, platforms, science, navigation, propulsion, and secure communications support across military, security and civil space sectors. Our satellites team design and deliver highly versatile small satellites and advanced subsystems for the commercial market, combining the benefits of lower launch costs, with the capacity to carry sophisticated payloads, including high resolution cameras, remote sensing, tracking, radio and data communications systems. Highly manoeuvrable, our satellites are also capable of high precision pointing, typically associated with larger platforms.

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Satellite Integration Facilities

QinetiQ has recently upgraded its cleanroom facilities for assembly integration and testing of spacecraft. The new facility is located next to and interconnected to the main building. The total surface of the new integration facility is 1800 m² and includes the following main functionalities:

- 450 m² cleanroom ISO 7 compliant to ISO 14644 (this allows integration of 3 satellites in parallel)
- 390 m² mechanical & electronic labs
- 20 m² biological materials processing area
- Dedicated KUKA-robot-area

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