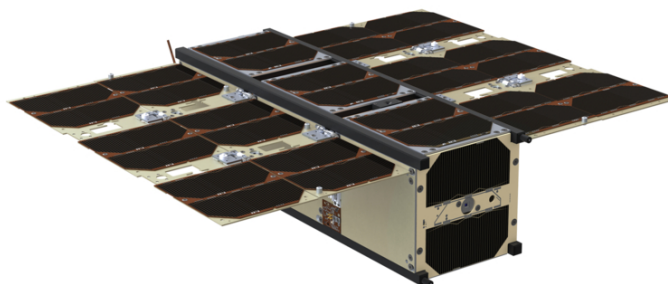


3U PLATFORM



GOMSPACE 3U PLATFORM

The **GomSpace 3U** platform is a standardised platform provided with all the essentials needed to operate your payload. The platform has a very compact design, providing the best solution to keep launch costs as small as possible, but still providing enough volume for most small payloads. The GomSpace platform was first used on the GomSpace GOMX-3 mission and has since obtained extensive flight heritage.

The **GomSpace 3U** platform is well suited for:

- Technical demonstrations
- Radio communications missions
- Signal intelligence missions
- Other missions with small payloads

The **GomSpace 3U** platform provides: electrical power management, deployable solar panels, ADCS, TMTC, OBC functionalities and S-band data links. 4 DOF cold gas propulsion, star tracker, and/or X-band datalink can be provided on request.

More information can be found in the GomSpace Platform White Paper.

3U PLATFORM

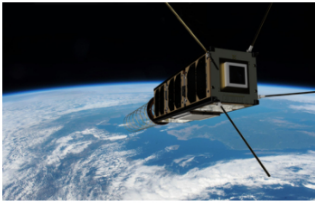
KEY FEATURES		3U
Bus Mass		3.5 kg
Max Payload Mass		1.5 kg
Payload Volume		1.5 U
Solar Array Orbit Average Power (OAP) (Orbit Dep)		4.9 - 22.3 W
Power Bus		3.3V and 5V up to 2A
Battery Capacity		38 Wh
Determination Error Sun/Eclipse		2° / 10°
Pointing Error Sun/Eclipse		2.5° / 10.5°
Max Slew Rate		1.5° / s
Position Knowledge (RMS)		3 m
Data Storage		Up to 120 GB
Data Buses		SpaceWire, CAN, RS422 and TTL level UART
TMTC Communication		Uplink / Downlink: S-band
High Speed Link (HSL) Communication		Uplink: S-band / Downlink: S-band
TMTC Data Downlink		Up to 90 kbps
High Speed Link (HSL) Data Downlink (CCSDS Compatible)		From 500 kbps to 6 Mbps (S-band)
High Speed Link (HSL) Data Uplink (CCSDS Compatible)		From 300 kbps to 6 Mbps (S-band)
Propulsion (optional)		10 m/s
Security		AES256 Encryption and Authentication
Design Lifetime		5 years in LEO

APPLICATIONS / REFERENCE MISSIONS

GOMX-3
3U satellite in collaboration with ESA

FACSAT-1
3U Nanosatellite for the Fuerza Aérea Colombiana

OSIRIS
Nanosatellite Platform for German Aerospace Center



Mission Overview:

Demonstrating advanced pointing while receiving both L-Band and ADS-B signals:

- X-band downlink
- 2nd generation ADS-B receiver
- Software defined radio techniques
- Robust ADCS capability

Launched from ISS in 2015

Bus Configuration

- 3U Platform
- Active 3-axis control
- Software defined radios



Mission Overview:

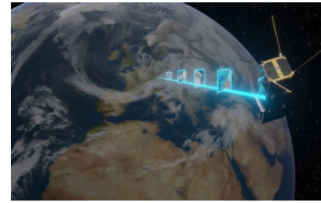
Demonstrating the technological capabilities to build and operate a nanosatellite:

- Visual range imaging
- Payload with 20 m/pixel resolution
- UHF downlink
- Robust ADCS capability

Launched in 2018

Bus Configuration

- 3U Platform
- Active 3-axis control
- NanoCam Imager



Mission Overview:

Demonstrating compact optical communication payloads for small spacecrafts in a LEO orbit:

- High data rate
- Low power consumption
- Compact systems design
- No frequency spectrum regulation

Launched 2021

Bus Configuration

- 3U Platform accommodating the optical payload
- High precision pointing
- Camera