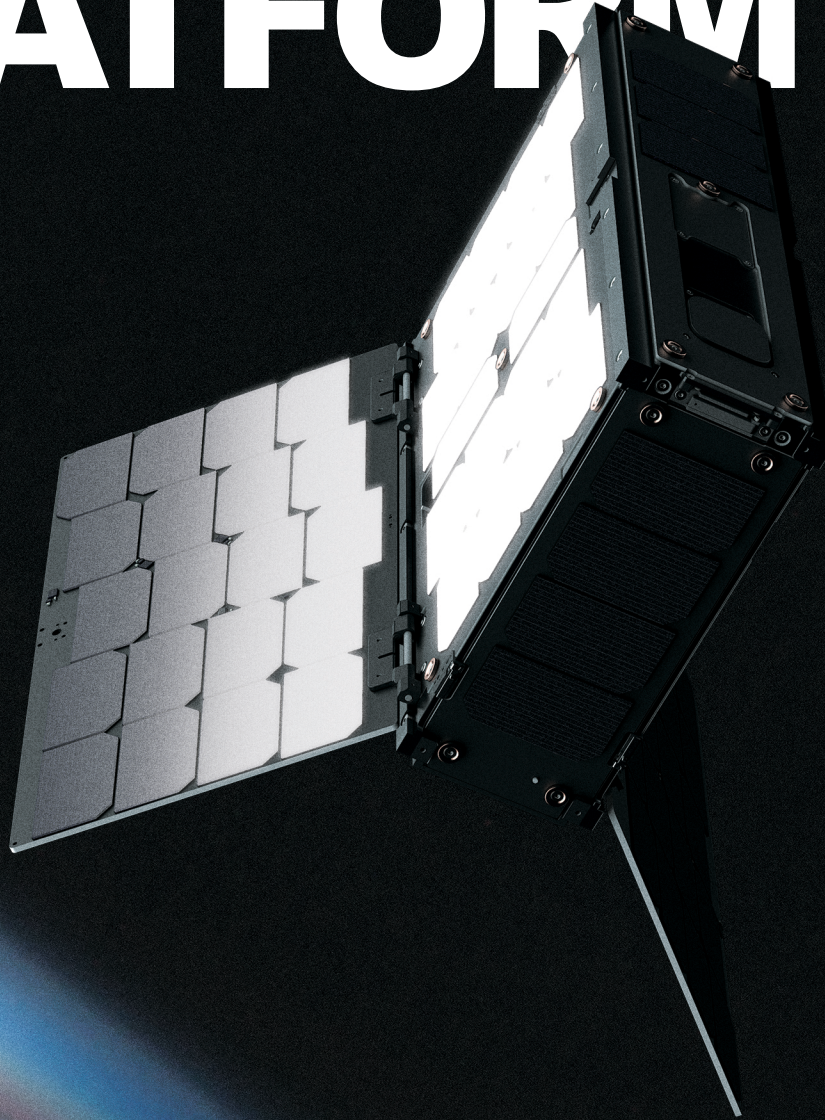


6U CUBESAT PLATFORM



Mission-Ready, Modular, Configurable

Our 6U CubeSat platform provides a robust, modular foundation for a wide range of LEO missions, combining reliable spacecraft subsystems with flexible payload accommodation and streamlined integration.

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6U CUBESAT PLATFORM

Our 6U CubeSat platform delivers a compact, high-reliability solution for rapid and cost-effective space missions. Designed, manufactured, and integrated entirely in-house, every subsystem has been flight-tested and proven in orbit, ensuring dependable performance from launch through operations. The platform supports a wide range of payloads and mission profiles while offering streamlined integration, reduced development risk, and shorter deployment timelines.

CubeSat form factor: 6U

Platform composition: Structure, OBC, PCDU, MPPT, battery, Solar panels (deployable), transceiver and antenna (Available frequencies: UHF, S-band, X-band)

Mass / 3-5 kg without payload
Dimensions / 226.3 x 100 x 366 mm

Power

Average power [folded] / 10 - 15 W
Average power [unfolded] / 32 - 37 W
Peak power [folded] / 17 - 20 W
Peak power [unfolded] / 39 - 43 W
Battery capacity / 48 or 96 Wh with Li-ion pack
Available configuration: 4S, 8S, 2S2P, 4S2P, 4P, 8P
Bus Voltage / 3.3 V, 5 V, 12 V, Battery raw

ADCS

Initial angular rate: $\leq 10^\circ/\text{s}$ per axis (Maximum design condition, not sigma)
Detumbling time: ≤ 12 hours (95% of simulated cases)
Sun-acquisition time: ≤ 30 minutes (95% of simulated cases)
Safe-mode Sun-pointing accuracy: $\leq 10^\circ$ (3σ)
Nominal three-axis pointing accuracy: $\leq 1.0^\circ$ (3σ)
Attitude knowledge accuracy: $\leq 0.5^\circ$ (3σ)
Angular-rate stability: $\leq 0.1^\circ/\text{s}$ (3σ)
GPS position accuracy: ≤ 10 m (95% probability or 2DRMS)
GPS velocity accuracy: ≤ 0.1 m/s (1σ , unless the supplier specifies otherwise)
GPS timing accuracy: ≤ 1 μs relative to UTC | 1σ or supplier-defined)
Reaction-wheel redundancy: Three operational wheels out of four

Communication

Freq: 435-438MHz / 401 - 402 MHz
Uplink UHF (9600 bps GFSK/GMSK/FSK) / Downlink UHF (9600bps GMSK/GFSK/FSK)
AX.25 Protocol (Custom protocol available for beacon)
Transmission Power: Max. 2 W
Beacon: UHF (20 WPM @ 500 mW)

OS / Firmware

FreeRTOS / Firmware (suitable for simple missions)

Design Life / <1 year, 1 year, 3 years, 5 years

Payload

Mass / Up to 7 kg
Envelope / Up to 3U (configurable) + tunacan (depending on dispenser)
Power for payload (peak folded) / 20 W
Power for payload (peak unfolded) / 30 W
Power for payload (average folded) / 8 W
Power for payload (average unfolded) / 17 W
Payload Interface
Data / I2C/CAN/SPI/UART/RS422/RS485
TMTC / UHF/ S_BAND
Power / 3.3 V, 5 V, 12 V, Battery raw
Payload Data Transmission / 9.6 kbps (UHF) - SAFE MODE / 1Mbps (S-Band) - NORMAL MODE
Data Storage / up to 128 GB

