

3U CUBESAT PLATFORM



Our 3U CubeSat platform is a compact, reliable solution designed for rapid and cost-effective space missions. All subsystems are developed and manufactured in-house and have been flight-tested and proven in orbit. The platform supports flexible payload integration and a wide range of mission applications. The illustration shows KSOI-22 optical imager as payload.

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3U CUBESAT PLATFORM

Our 3U 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: 3U

Platform composition: Structure, OBC, PCDU, MPPT, battery, six solar panels, UHF transceiver, S-band transceiver, UHF patch antenna, S-band patch antenna

Mass / 3 kg without payload
Dimensions / 100x100x340.5 mm

Average power / 3.5 W
Peak power / 8.4 W
Battery capacity / 48 Wh with Li-ion pack
available configuration: 4S, 2S2P, 4P
Bus Voltage / 3.3 V, 5 V, 12 V, Battery raw

OS / Firmware
Encryption / AES-256-GCM/CBC (On-board)
Design Life / 1 year

Communication

Mod. J/B
Uplink VHF (1200 bps AFSK) / Downlink UHF (9600 bps GMSK)
Uplink UHF (1200 bps AFSK) / Downlink VHF (1200 bps AFSK)
AX.25 Protocol (Custom protocol available)
Transmission Power: Max. 2 W
Beacon: UHF (20 WPM @ 500 mW)

ADCS

Pointing Knowledge / $<5^\circ$ (1σ)
Pointing Accuracy / $<10^\circ$ (1σ)
GPS Accuracy (optional) / PPS accuracy 20 ns
Position accuracy / 12 m (3σ)
Velocity accuracy / 0.9 m/s (3σ)

Payload

Mass / Up to 4 kg
Envelope / Up to 1.5U (configurable) + tunacan (depending on dispenser)
Power for payload (peak) / 8 W
Power for payload (average) / 1.5 W
Payload Interface
Data / I2C/CAN/SPI/UART
TMTC / UHF
Power / 3.3 V, 5 V, 12 V, Battery raw
Payload Data Transmission / 10 kbps (UHF)
Data Storage / up to 32 GB

Available extra options:

KOSI-22, KSOL-VA optical imaging payloads
Deployable solar panels with HDRM
MGSE jigs

Price range: 250K - 430K USD

with flight software: 603K - 850K USD

