

BAE Systems Satellite Platform - P30



The BAE Systems Satellite Platform P30 is a compact spacecraft platform designed under the ESA Pioneer Programme. Suitable for orbits 400 km to 600 km with flexible payload accommodation, affordability, and full redundancy. Our open architecture allows for a diverse and wide supply chain of many different platform equipment items, thereby allowing it to scale and flex to meet changing mission requirements.

Key Features

- Flexible and scalable to mission requirements and objectives
- Accommodates up to 18 payloads
- Open Architecture
- User customisable mission software
- High data downlink capability
- High power generation
- Payload Mass 70 kg

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Technical Specification

| Parameter | Capability |
|---|--|
| Mission Design Level | |
| Orbit Type | Low Earth Orbit |
| Altitude | 400-600 km |
| Inclination | 0° to 97.8° |
| Mission Lifetime | 5 Years |
| Platform Level | |
| Max Wet Spacecraft Mass (Platform, Payload, Propellant) | 300 kg |
| Stowed Spacecraft Dimension (LxWxH) | 1 m x 0.9 m x 0.9 m |
| Deployed Spacecraft Dimension (LxWxH) | 4 m x 0.9 m x 0.9 m |
| Launcher Compatibility | Rideshare options including: Falcon 9 (Full Plate, Full Plate-XL) Ariane-6 (Hub Port) PSLV (Upper / Lower) Skyrora XL (Standard Fairing) ABL RS1 (XL Fairing) |
| Redundancy | Redundant platform core avionics |
| BOL Power Generation (500km SSO with 10:30 LTAN) | Nadir: >100W OAP / Sun Pointing: >220W OAP |
| Battery Capacity / Voltage | 518 Wh / 28V (±4V) |
| Stabilisation Method | 3-axis |
| Pointing Modes | Nadir, Sun, and Inertial Tracking; Static Ground Tracking; Forward Motion Compensation |
| Attitude Absolute Knowledge Error | 0.049° 3σ (half-cone) |
| Attitude Pointing Error | 0.016° 3σ (half-cone) |
| Slew Rates | 1.5°/second |
| Positional Accuracy | 10 m |
| Propulsion System | Electric Propulsion |
| Propulsion Total Impulse / Thrust / dV | 30 kNs / 10 μN to 1mN / 100 m/s |
| Command and Telemetry (Native bit rates) | S-Band Uplink: 1300 kbps Downlink: 2200-4000 kbps |
| High Speed Downlink (Native bit rates) | X-Band Downlink: 600 Mbps |
| On Board Storage | 4TB |
| Payload Level | |
| Payload Mass Capability | 70 kg |
| Payload Volume Capability (LxWxH) | 0.8 x 0.8 x 0.45 m |
| Payload Field of View | Hemispherical open concept |
| Number of Payloads | Up to 18 payloads possible |
| Payload Switch Voltages Available | Unregulated: 28V (±4V) / Regulated: 3.3V, 5V, and 12V |
| BOL OAP Payload Power | Nadir: >40W OAP Sun Pointing: >160W OAP |
| Payload Interfaces | RS422, CAN, LVDS, Ethernet |

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Find out more by
scanning the QR Code



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