

Image credit: SSTL-Micro render 2019. Credit: SSTL

SSTL-MICRO

Outstanding payload resources and capability

The SSTL-Micro has been designed as a highly capable system, offering impressive payload power, mass carrying capability and redundancy. The platform is based on SSTL's Core Avionics suite and provides excellent power provision with a high capacity battery enabling continuous payload operation.

Configurations

- "Platform-to-go"
- Customer provided payload
- SSTL payload, off-the-shelf or custom

Benefits

- Cradle to grave complete mission service
- 7 year platform design life
- Compatible with auxiliary launch slots
- Fully redundant avionics
- Validated system FDIR
- Capable propulsion system options
- Compatible with Viasat Real Time Earth Networks

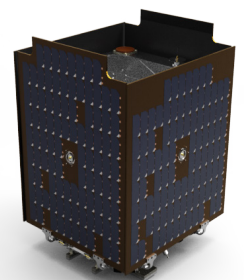
Payload

Suitable for a range of payloads, including:

- Earth Imaging
- Software Defined Radio
- Science and Atmospheric Observation
- LEO Telecoms
- Technology Demonstration
- Radiation Monitoring
- AIS

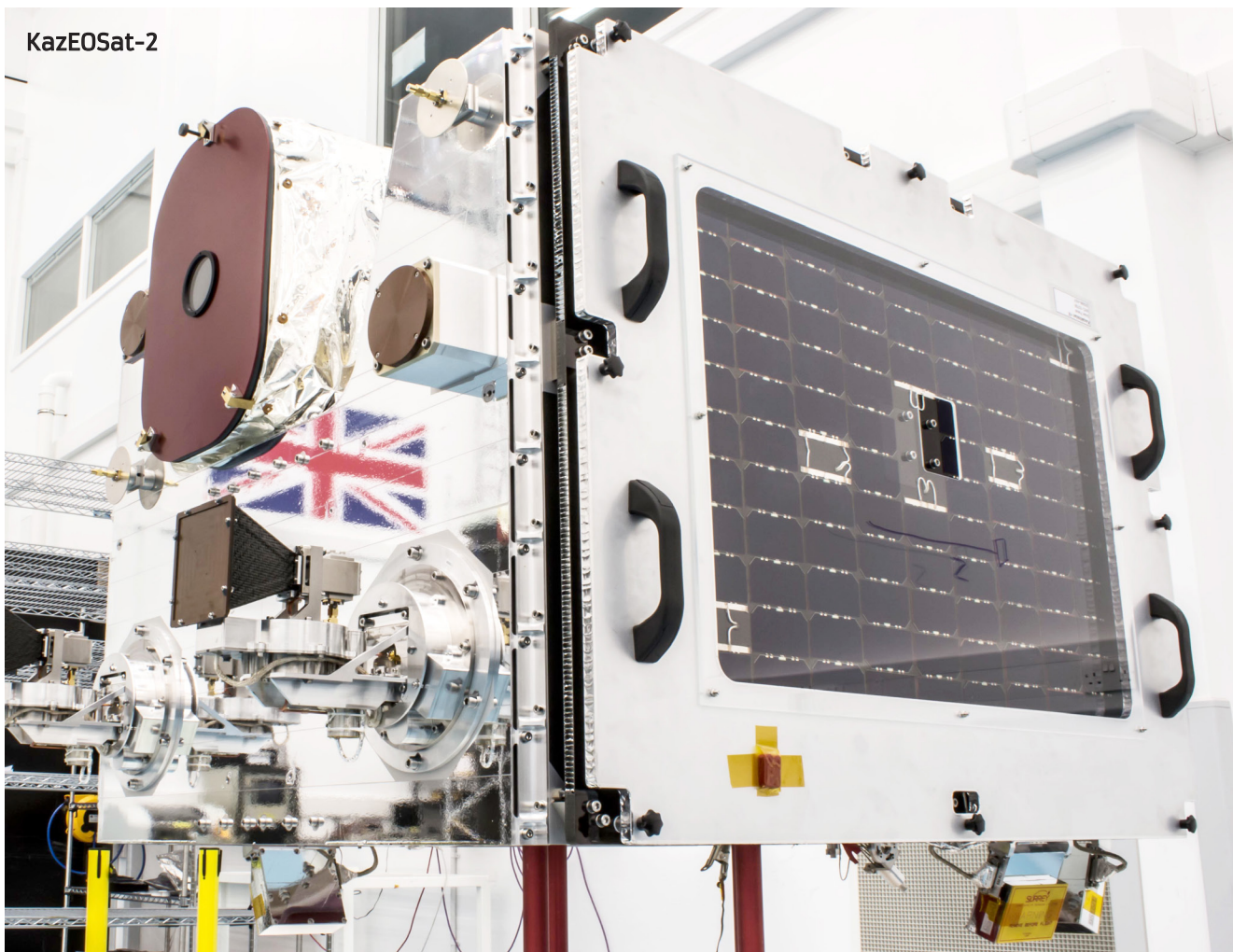
Key specifications

- Low earth orbit
- Payload mass: up to 65kg
- Payload power: up to 63W OAP
- 7 year platform design life



Why buy from us?

- 30+ years experience in satellite design and manufacturing
- 350+ years on-orbit operational satellite experience
- Avionics designed and manufactured by SSTL
- Customisable platforms
- Design licensing to manufacture
- SSTL options for payloads, launch services, ground stations and operation services



Platform Specification	
Redundancy	Dual redundant core avionics and AOCS
Power Options	<ul style="list-style-type: none"> • 28 V unregulated, up to 18 Ah battery capacity • 12 V unregulated, 12 Ah battery capacity
Platform mass	From ~30kg
Reference design orbits	500-800 km, Sun Synchronous
Lifetime	7 years
S-Band RF uplink	19.2 kbps FSK
S-Band RF downlink	38.4 kbps QPSK
Attitude control system	<ul style="list-style-type: none"> • 3-axis stabilised • [With sun sensors only] knowledge & control < 2.5 degrees • [With star tracker] knowledge < 0.05 degrees, control < 0.1 degrees
GPS	<ul style="list-style-type: none"> • Position 5m • Velocity 10cm/s • Time 100ns
Propulsion	<ul style="list-style-type: none"> • SSTL xenon system • Can also support small EP systems

Payload Specification	
Payload mass	Up to 65 kg for payload chain*
Payload envelope	Maximum W 45 x L 34 x H 34 cm
Payload power	Up to 63 W OAP at 100% duty cycle (550km 10.30am SSO LTAN) Up to 200 W peak
Standard Payload Data Interfaces	<ul style="list-style-type: none"> • CAN bus 500 kbps • RS-422 (P2P) • RS-485 (P2P or multi) • LVDS (P2P or multi) • MGT lanes (Input & I/O) • I2C, Cameralink • PPS provision • Temperature monitoring
Payload data storage	240 GBytes
Max read / write rate	Up to 10 Gbit/s, interface dependant
Optional Upgrades	
S-band uplink options	Up to 600 kbps (configuration dependant)
Payload downlink options	<ul style="list-style-type: none"> • 2 Mbps S-band downlink • Up to 140 Mbp X-band downlink

* Payload chain is defined as payload plus supporting equipment such as data storage or X-band downlink