



Our Capabilities



SATELLITE
SYSTEMS



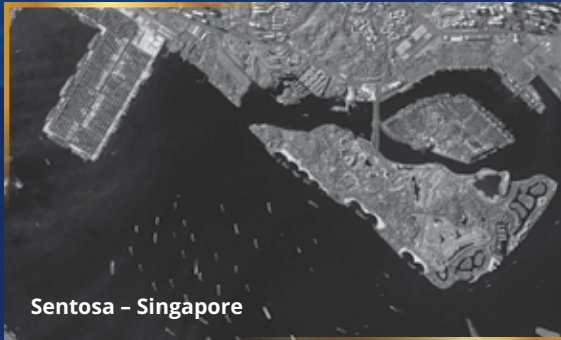
TEST FACILITY
SERVICES



MISSION
STUDIES



O&M
SUPPORT



Sentosa – Singapore



Marina Bay Sands – Singapore

Insightful • Relevant • Timely

We enable new possibilities and transform how businesses operate.



EARTH
OBSERVATION



COMMUNICATIONS



ST Engineering Satellite Systems Pte. Ltd.

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DOP 0223

Realising Your Space Mission

Spacecrafts • Avionics • Engineering Services



A Decade of **Space Heritage**

Our NEqO Constellation

View the World through Your Lens

TeLEOS-1
Singapore's 1st Electro-Optical (EO) satellite. Launched in 2015.



ST Engineering Satellite Systems Pte. Ltd. (SatSys), pioneered the design, manufacture and operation of Singapore's 1st commercial earth observation satellite TeLEOS-1.

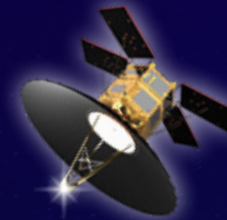
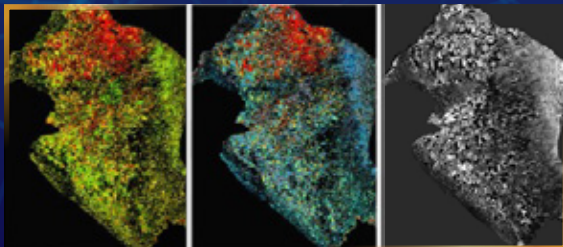
Our satellites are integrated with highly reliable components manufactured in-house to meet our customers' needs.

Insights: Geospatial Solutions

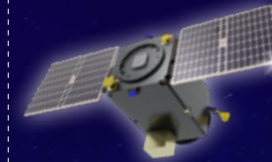
Land Classification Analysis

Vegetation Change Detection

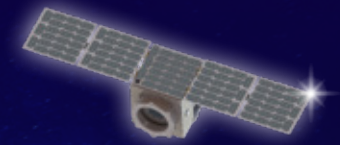
In-depth, Comprehensive and Holistic Analysis with Multiple Data Fusion.
Actional Information to support Timely Decision Making.



ARCTURUS



POLLUX



SIRIUS

Pointing Accuracy (1 σ)	< 0.01°	< 0.01°	< 0.1°
Electrical Power	Up to 1800 W	Up to 600 W	Up to 150 W
Payload Mass	Up to 200 kg	Up to 100 kg	Up to 20 kg
Total Mass	~ 750 kg	~ 200 kg	~ 30 kg
Data – Downlink speed	> 800 Mb/s	> 300 Mb/s	200 Mb/s
– On-board storage	1 TB	256 GB	128 GB
Energy Storage	680 Wh	220 Wh	75 Wh
In-Orbit Life (LEO)	> 5 yrs	> 5 yrs	> 3 yrs
Propulsion	Chemical	Electric	Electric

State-of-the-Art Avionics

Modular & Scalable

Power Control & Distribution Unit (PCDU)

KEY FEATURES

- High efficiency > 97%
- High reliability
- High power 4 kW
- Modular design scalable from 2 kW to 6 kW



LEO / VLEO / MEO



> 5 YRS



24.5 KG

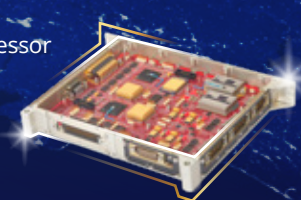


453 X 340 X 279 MM³

On-Board Computer (OBC)

KEY FEATURES

- Rad-hard LEON3 SPARC V8 processor
- Rich communication interfaces
- RTEMS based & flight proven software
- On-board autonomy & FDIR



RTEMS: Real-Time Executive for Multiprocessor Systems
FDIR: Fault Detection, Isolation & Recovery



LEO / VLEO / MEO



> 5 YRS



0.95 KG



215 X 175 X 30 MM³