

# TeLEOS-1

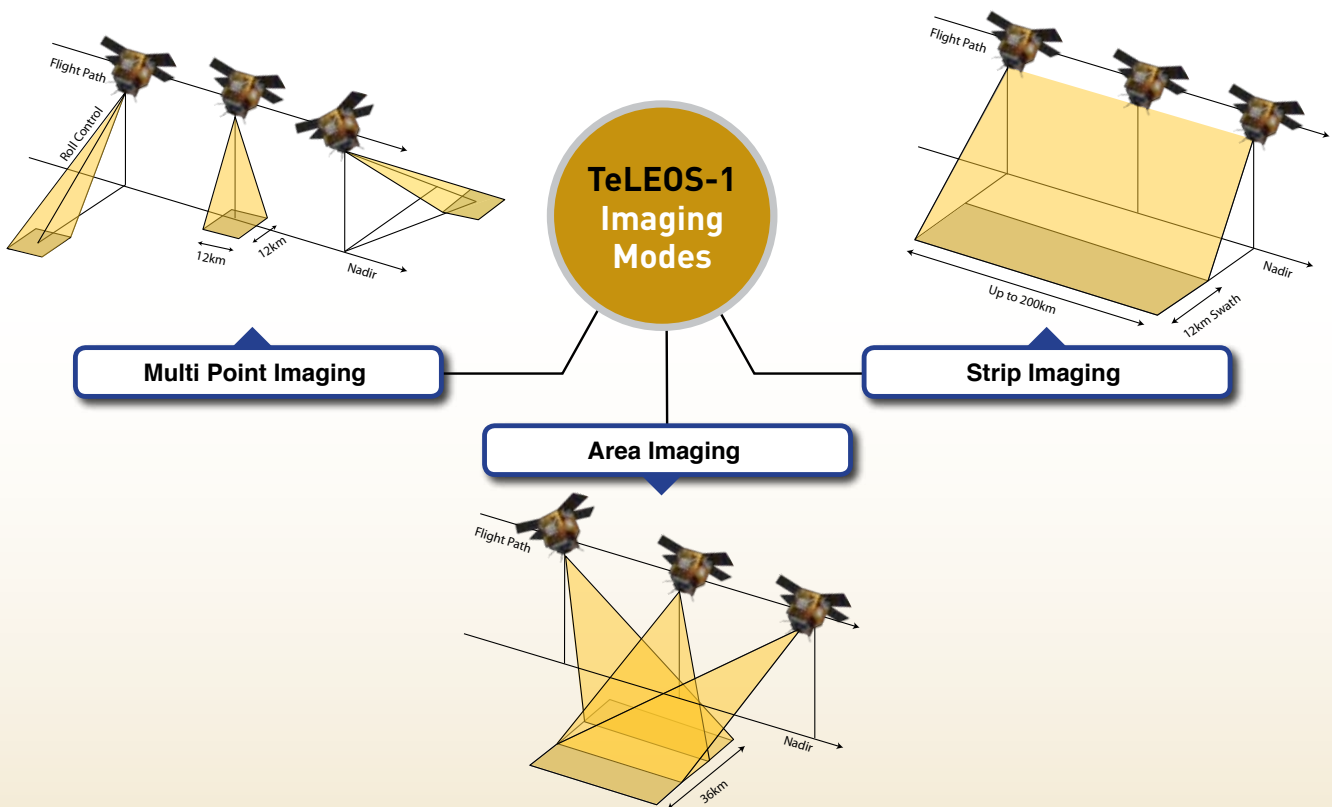
## Singapore's First Commercial NEq0 Earth Observation Satellite

Launched on 16 December 2015, TeLEOS-1 is Singapore's first commercial Near Equatorial Orbit (NEqO) Earth Observation satellite. Operating at an altitude of 550 kilometres, TeLEOS-1 offers 1 metre high resolution satellite imagery with an average revisit time of 12 to 16 hours. This will enable decision makers and users convenient access to high temporal imagery and geospatial solutions to respond to time sensitive events, such as homeland security and border control, maritime situation awareness, and disaster monitoring and management around the equatorial belt.

Apart from reliable and rapid collection, TeLEOS-1 also offers direct tasking, imaging and downloading, and greater imaging opportunities throughout the day. TeLEOS-1 is an excellent complement to existing Sun Synchronous Orbit (SSO) Earth Observation satellites, allowing the expansion of opportunities for global imagery offerings for commercial and government customers.

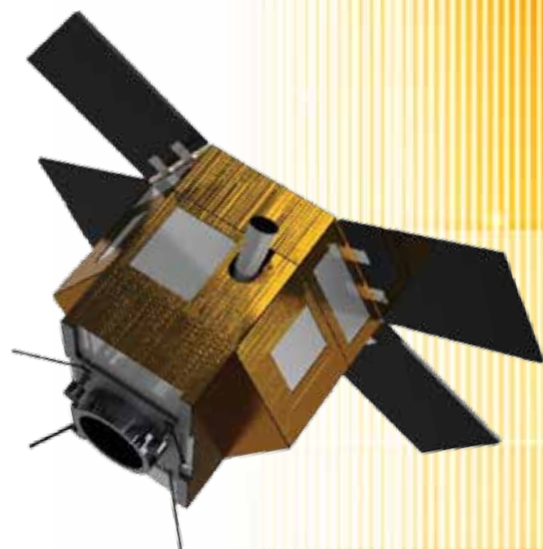
### Key Features

- High resolution imagery for precise and high temporal change detection, mapping, and in-depth image analysis
- Greater imaging opportunities throughout the day with up to 6 Daylight passes per day
- Increased revisit rates for response to time critical events, such as maritime situation awareness and disaster management
- Direct tasking, imaging and downlinks with superior response and deliverables of updated imagery products
- Excellent complement to existing SSO Earth Observation satellites



## Technical Specifications

|   |   |
|---|---|
| <b>Satellite Manufacturer</b>                 | ST Electronics (Satellite Systems) Pte Ltd  |
| <b>Launch Date</b>                            | 16 Dec 2015   |
| <b>Mission Life</b>                           | Fully redundant 5 years design life   |
| <b>Orbit</b>                                  | Type/Period - Near Equatorial Orbit/ 96min<br>Inclination - 15 degrees<br>Altitude - 550 kilometres |
| <b>Satellite Mass</b>                         | 400 kilograms   |
| <b>Satellite Data Storage</b>                 | 64 Gbits solid state recorder   |
| <b>Communications<br/>(CCSDS Compliant)</b>   | 300 Mbps (X-Band)   |
| <b>Attitude Determination<br/>and Control</b> | 3-axis stabilised   |
| <b>Mission Control</b>                        | Multiple ground station support   |

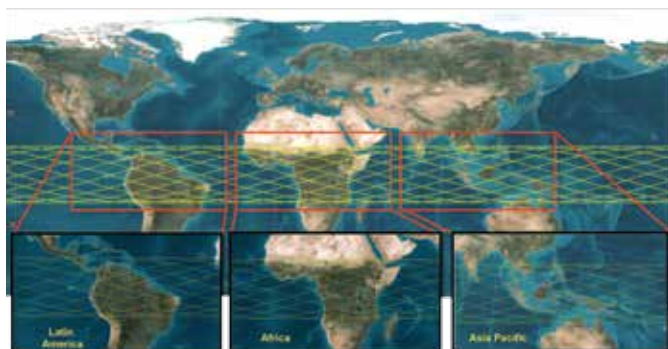


TeLEOS-1 Satellite

## Imaging and Collection Specifications

|                            |  |
|----------------------------|--|
| <b>Mean Revisit Time</b>   | 12 to 16 hours                                 |
| <b>Imaging Opportunity</b> | Up to 6 daylight imaging opportunities per day |
| <b>Image Resolution</b>    | 1m (nominal at nadir)                          |
| <b>Dynamic Range</b>       | 10 bits per pixel                              |
| <b>Swath Width</b>         | 12 kilometres at nadir                         |
| <b>Slew Rate</b>           | 2.5 degree/sec                                 |
| <b>Max Viewing Angle</b>   | ± 45 degrees off-nadir nominal                 |

## TeLEOS-1 Coverage Regions



Note: All specifications are subject to change without notice.  
Rev. 180116