



## SCS100

**SCS100** is a lightweight high performance microsatellite that provides 1m resolution panchromatic and 4m resolution multispectral push-broom imaging. Its unique configuration has been designed to be launched as part of a multi-satellite constellation with up to 15 satellites being launched to sun synchronous orbit on a single small-medium class launch vehicle. When forming part of a dedicated constellation, it can provide near-continuous coverage of any sub-polar point on the globe during daytime hours making it an ideal system for monitoring change. It will perform equally well as a single asset for national or global remote sensing.

The SCS100 imaging payload is a Cassegrain reflecting telescope based on a heritage flight proven design. The resolution and spectral bands chosen enable disaster management, city planning and border, maritime, environment and infrastructure monitoring. The payload has been optimised to support large off-nadir imaging angles enabling rapid revisit times.



### SCS100 - SPECIFICATIONS

Design Lifetime	5 Years
Mass	100 kg
Orbit	500km Sun-synchronous
Revisit time	1 day (60° off-nadir)
Image Modes	Push-broom, Video (10fps)
Ground Sampling Distance	1m (Panchromatic) 4m (Multispectral)
Swath Width	12km
Spectral Bands	Panchromatic, 8 Multispectral bands
Telemetry & Telecommand	S-Band
Payload Data Transmission	1 Gbps (X-band) Live Imaging Transmission
Imaging-Downlink Capacity	300,000 km <sup>2</sup> / day (push-broom)
Propulsion	Orbit altitude maintenance
Ground Accuracy	50m (3 $\sigma$ ) without GCP
Imagery Products	All levels up to Orthorectified images
Image File Format	MP4 (H.264), DIMAP (GeoTIFF)

### Established Satellite Engineering

A reliable high performance system is delivered by an engineering team with over 20 years of experience and a flight heritage of multiple successful microsatellites. Complete environmental testing will be done at appropriate levels according to customer requirements combined with tailored European Cooperation for Space Standardization (ECSS) standards. Complete system verification will be performed prior to delivery and payload performance verification and calibration will be executed prior to integration with the satellite.

## SCS Space

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