



GeoEye-1

Launched in 2008, the GeoEye-1 satellite is equipped with some of the most advanced technology ever used in a commercial remote sensing system. Operating at an expected altitude of 681 km, GeoEye-1 provides 41 cm panchromatic resolution and 1.65 m multispectral resolution. The satellite is capable of collecting up to 350,000 km² of pan-sharpened multispectral imagery per day.

Utilizing the GeoEye-1 satellite, European Space Imaging is capable of delivering very high resolution imagery options. We can currently offer our customers stereoscopic collection on a single pass (synoptic) collection ensuring continuity and consistency of image quality. In addition GeoEye-1 offers geolocation features to less than 5 m allowing our customers to create maps in remote areas. Furthermore, our customers have access to direct access tasking to ensure you get the right image every time and an archive library that spans more than 4,000,000,000 km².

Company Information

European Space Imaging is a leading supplier of global very high-resolution (VHR) satellite imagery and derived services to customers in Europe, North Africa and CIS countries.

Operating a multi-mission capable ground station enables optimized image collection results taking into account real-time weather information and giving customers the highest degree of flexibility.

With a reputation for expert and personalized customer service it has been providing tailored VHR imagery solutions to meet the diverse project requirements of its customers since 2002.



Design and Specifications

Orbit	Altitude: 681 km Type: SunSync, 10:30 am descending node Period: 98 minutes
Life	Estimated mission life: >10 years
Spacecraft size, mass and power	Size: 4.34 m in length Mass: 1,902 kg
Sensor bands and resolution	Panchromatic: 41 cm GSD at nadir Black and White: 450 - 800 nm 4 Multispectral 1.65 m GSD at nadir Blue: 450 - 510 nm Green: 510 - 580 nm Red: 655 - 690 nm Near IR: 780 - 920 nm
Dynamic range	11-bits per pixel
Swath width	At nadir: 15.3 km
Attitude determination and control	Type: 3-axis stabilized Sensors: Star trackers, precision IRU, GPS
Retargeting agility	Time to slew 200 km: 20 sec
Onboard storage	1 Tbit capacity
Communications	Payload data: X-band 740/150 Mbps AES/DES encryption Housekeeping: X-band 64 kbps AES encryption
Revisit frequency	2.6 days at 30° off-nadir
Geolocation accuracy	5 m CE90, 3 m CE90 (measured)
Capacity	350,000km ² per day

Features

- Very high-resolution
- Industry-leading geolocation accuracy
- High capacity over a broad range of collection types
- Direct download to customer sites available
- Frequent revisits

Benefits

- Provides highly detailed imagery for precise map creation, change detection and in-depth image analysis
- Geolocate features to less than 5 m to create maps in remote areas, maximizing the utility of available resources
- Collects, stores and downlinks a greater supply of frequently updated global imagery products than competitive systems
- Stereoscopic collection on a single pass ensures image continuity and consistency of quality

Sensor Bands

-  Panchromatic
 Multispectral

