



30 cm Resolution Imaging

European Space Imaging currently has access to two satellites - WorldView-3 and WorldView-4 - capable of delivering 30 cm very high resolution imagery. WorldView-3 has an average revisit time higher than once a day and is capable of collecting up to 680,000 km² per day. WorldView-4 operates in co-ordination with WorldView-3 and combined they are able to image a location an average of 4.5 times a day at 1 m ground sample distance or less.

Utilizing WorldView-3 and WorldView-4 satellites, European Space Imaging is capable of delivering very high resolution imagery options. We can currently offer our customers the following options: 31 cm panchromatic resolution, 1.24 m multispectral resolution, 3.7 m short-wave infrared resolution and 30 m CAVIS resolution. The European Space Imaging archive has more than 4,000,000,000 km² of imagery. In addition, our customers may request direct access tasking to ensure they get the right image every time.



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.

WorldView-3 Design and Specifications

Orbit	Altitude: 617km Type: SunSync, 10:30 am descending Node Period: 97 minutes
Life	Spec mission life: 7.25 years Estimated service life: 10- 12 years
Spacecraft size, mass and power	Size: 5.7 m H x 2.5 m W, 7.1 m across deployed solar arrays Mass: 2800 kg Power: 3.1 kW solar array, 100 Ahr battery
Sensor bands	Panochromatic: 450- 800 nm 8 Multispectral Coastal: 400 - 450 nm Red: 630- 690 nm Blue: 450 - 510 nm Red Edge: 705 - 745 nm Green: 510 - 580 nm Near-IR1: 770 - 895 nm Yellow: 585 - 625 nm Near-IR2: 860 - 1040 nm 8 SWIR Bands SWIR-1: 1195- 1225 nm SWIR-5: 2145- 2185 nm SWIR-2: 1550- 1590 nm SWIR-6: 2185- 2225 nm SWIR-3: 1640- 1680 nm SWIR-7: 2235- 2285 nm SWIR-4: 1710- 1750 nm SWIR-8: 2295- 2365 nm 12 CAVIS Bands Desert Clouds: 405 - 420 nm Water-3: 930- 965 nm Aerosol-1: 459 - 509 nm NDM-SWIR: 1220- 1252 nm Green: 525 - 585 nm Cirrus: 1365- 1405 nm Aerosol-2: 635 - 685 nm Snow: 1620- 1680 nm Water-1: 845 - 885 nm Aerosol-3: 2105- 2245 nm Water-2: 897 - 927 nm Aerosol-3: 2105- 2245 nm
Sensor resolution	Panochromatic Nadir: 0.31 m 20° Off-Nadir: 0.34 m Multispectral Nadir: 1.24 m 20° Off-Nadir: 1.38 m SWIR Nadir: 3.70 m 20° Off-Nadir: 4.10 m CAVIS Nadir: 30.00 m
Dynamic range	11-bits per pixel Pan and MS; 14-bits per pixel SWIR
Swath width	At nadir: 13.1 km
Attitude determination and control	Type: 3-axis stabilized Actuators: Control moment gyros (CMGs) Sensors: Star trackers, precision IRU, GPS
Pointing accuracy and knowledge	Accuracy: <500 m at image start / stop Knowledge: Supports geolocation accuracy below
Retargeting agility	Time to slew 200 km: 12 sec
Onboard storage	2199 Gb solid state with EDAC
Communications	Image and ancillary data: 800 and 1200 Mbps X-band Housekeeping: 4, 16, 32 or 64 kbps real time, 524 kbps stored, X-band Command: 2 or 64 kbps S-band
Max contiguous area collected in a single pass	Mono: 66.5 km x 112 km (5 strips) Stereo: 26.6 km x 112km (2 pairs)
Revisit frequency	1 m GSD: <1.0 day 4.5 days at 20° off-nadir or less
Geolocation accuracy	Predicted <3.5 m CE90 without ground control
Capacity	680,000km ² per day

Sensor Bands

- Panchromatic
- 8 SWIR bands
- Multispectral
- 12 CAVIS bands
- 4 additional multispectral bands

WorldView-4 Design and Specifications

Orbit	Altitude: 617km Type: SunSync, 10:30 am descending node Period: 97 minutes
Life	Estimated service life: 10- 12 years
Spacecraft size, mass and power	Size: 5.3 m H x 2.5 m W, 7.9 m across deployed solar arrays Aperature: 1.1m
Sensor bands	Panochromatic: 450 - 800 nm 4 Multispectral Red: 655 - 690 nm Green: 510 - 580 nm Blue: 450 - 510 nm Near IR: 780 - 920 nm
Sensor resolution	Panochromatic Nadir: 0.31 m 20° Off-Nadir: 0.34 m 56° Off-Nadir: 1.00 m 60° Off-Nadir: 3.51 m Multispectral Nadir: 1.24 m 20° Off-Nadir: 1.38 m 56° Off-Nadir: 4.00 m 60° Off-Nadir: 14.00 m
Dynamic range	11-bits per pixel
Swath width	At nadir: 13.1 km
Attitude determination and control	Type: 3-axis stabilized Actuators: Control moment gyros (CMGs) Sensors: Star trackers, precision IRU, GPS
Retargeting agility	Time to slew 200 km: 10.6 sec
Onboard storage	3200 Gb solid state with EDAC
Communications	Image and ancillary data: 800 Mbps X-band Housekeeping: 120 kbps real time, X-band Command: 64 kbps S-band
Max contiguous area collected in a single pass	Mono: 66.5 km x 112 km (5 strips) Stereo: 26.6 km x 112km (2 pairs)
Revisit frequency	1 m GSD: <1.0 day Total constellation >4.5 accesses / day
Geolocation accuracy	Predicted <4 m CE90 without ground control
Capacity	680,000km ² per day

Sensor Bands

- Panchromatic
- Multispectral

