



DATA SHEET

## WORLDVIEW-4

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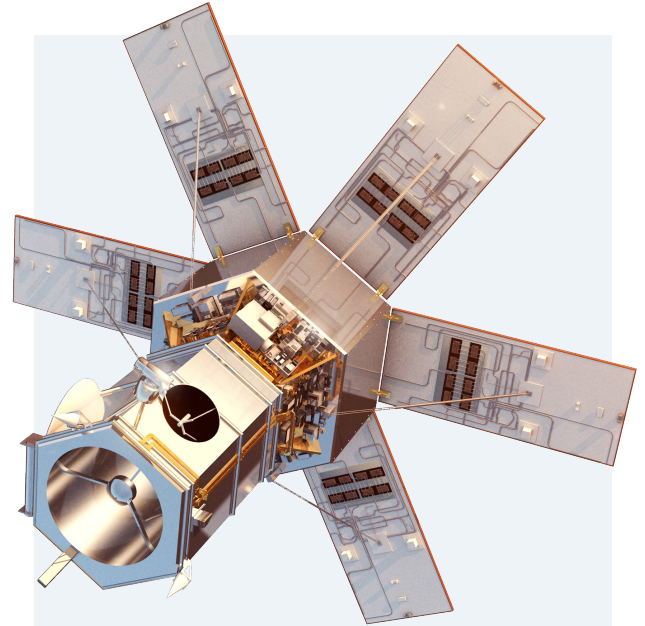


# WorldView-4

Introducing WorldView-4, a multispectral, high-resolution commercial satellite. Operating at an expected altitude of 617 km, WorldView-4 provides 31 cm panchromatic resolution, and 1.23 m multispectral resolution. WorldView-4 has an average revisit time of <1 day and is capable of collecting up to 680,000 sq km per day, further enhancing the DigitalGlobe collection capacity for more rapid and reliable collection.

## Features & Benefits

- Very high-resolution
  - Panchromatic 31 cm
  - Visible & near-infrared 1.24 m
- Industry-leading geolocation accuracy
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- High capacity in various collection modes
- Bi-directional scanning
- Rapid retargeting using Control Moment Gyros (>2x faster than any competitor)
- Direct Access tasking from and image transmission to customer sites
- Daily revisits
- Simultaneous, high resolution, super-spectral imagery
- Large area mono and stereoscopic collection eliminates temporal variations
- Precision geolocation possible without ground control points
- Global capacity of 680,000 sq km per day, which doubles 30 cm collection capability and the ability to collect for large-area mapping projects at the highest commercially available resolution

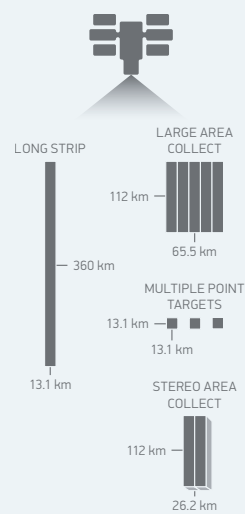


WorldView-4 artist rendering

# Design & Specifications

Orbit	Altitude: 617 km Type: Sun Synchronous, 10:30 am descending Node Period: 97 min.
Life	Estimated service life: 10 to 12 years
Spacecraft size and aperture	Size: 5.3 m (17.7 ft) tall x 2.5 m (8 ft) across 7.9 m (26 ft) across deployed solar arrays Aperture: 1.1m
Sensor bands	Panchromatic: 450 - 800 nm  4 Multispectral: Red: 655 - 690 nm Green: 510 - 580 nm Blue: 450 - 510 nm Near-IR: 780 - 920 nm
Sensor resolution (or GSD, ground sample distance; off-nadir is geometric mean)	Panchromatic Nadir: 0.31 m 20° Off-Nadir: 0.34 m 56° Off-Nadir: 1.00 m Multispectral Nadir: 1.24 m 20° Off-Nadir: 1.38 m 56° Off-Nadir: 4.00 m
Dynamic range	11-bits per pixel
Swath width	At nadir: 13.2 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: 170 m at 40 off-nadir Knowledge: Supports geolocation accuracy below
Retargeting agility	Time to Slew 200 km: 10.6 sec
Onboard storage	3200 Gb solid state with EDAC
Communications	Image & 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 (30° off-nadir angle)	Mono: 66.5 km x 112 km (5 strips) Stereo: 26.6 km x 112 km (2 pairs)
Revisit frequency (at 40°N latitude)	1 m GSD: < 1.0 day Total constellation >4.5 accesses/day
Geolocation accuracy (CE90)	Predicted <5 m CE90 without ground control
Capacity	680,000 sq km per day

## Collection scenarios



## Sensor bands

- ° Panchromatic
- ° Multispectral