

Launch Date	October 8, 2009
Launch Vehicle	Delta 7920 (9 strap-ons)
Launch Site	Vandenberg Air Force Base
Orbit Altitude	770 kilometers
Orbit Type	Sun synchronous, 10:30 am (LT) descending Node
Orbit Period	100 minutes; 7.25 year mission life, including all consumables and degradables (e.g., propellant)
Spacecraft Size, Mass, & Power	4.3 meters (14 feet) tall x 2.5 meters (8 feet) across, 7.1 meters (23 feet) across the deployed solar arrays; 2800 kilograms (6200 pounds); 3.2 kW solar array, 100 Ahr battery
Sensor Bands	Panchromatic 8 Multispectral (4 standard colors: red, blue, green, near-IR), 4 new colors: red edge, coastal, yellow, near-IR2
Sensor Resolution GSD	Ground Sample Distance Panchromatic: 0.46 meters GSD at Nadir, 0.52 meters GSD at 20° Off-Nadir Multispectral: 1.84 meters GSD at Nadir, 2.4 meters GSD at 20° Off-Nadir
Dynamic Range	11-bits per pixel
Time Delay Integration (TDI)	Panchromatic - 6 selectable levels from 8 to 64 Multispectral - 7 selectable levels from 3 to 24
Swath Width	16.4 kilometers at nadir
Attitude Determination and Control	3-axis stabilized
Actuators	Control Moment Gyros (CMGs)
Sensors	Star trackers, solid state IRU
GPS Position Accuracy & Knowledge	< 500 meters at image start and stop Knowledge: Supports geolocation accuracy below Retargeting
Agility Acceleration	1.5 deg/s/s Rate: 3.5 deg/s Time to slew 300 kilometers: 9 seconds
Onboard Storage	2199 gigabits solid state with EDAC Communications Image and Ancillary Data: 800 Mbps X-band
Housekeeping	4, 16 or 32 kbps real-time, 524 kbps stored, X-band
Command	2 or 64 kbps S-band
Max Viewing Angle	Accessible Ground Swath Nominally +/-40° off-nadir = 1355 km wide swath Higher angles selectively available Per Orbit Collection: 524 gigabits Max Contiguous Area Collected in a Single Pass: 96 x 110 km mono, 48 x 110 km stereo
Revisit Frequency	1.1 days at 1 meter GSD or less 3.7 days at 20° off-nadir or less (0.52 meter GSD)
Geolocation Accuracy	Demonstrated <3.5 m CE90 without ground control