| | |
|---|---|
| **Launch Date** | August 13, 2014 |
| **Orbit** | Altitude: 617 km<br>Type: SunSync, 1:30 pm descending Node<br>Period: 97 min. |
| **Life** | Spec Mission Life; 7.25 years<br>Estimated Service Life: 10 to 12 years |
| **Spacecraft Size, Mass and Power** | Size: 5.7 m (18.7 feet) tall x 2.5 m (8 feet) across, 7.1 m (23 feet) across the deployed solar arrays<br>Mass: 2800 kilograms (6200 pounds)<br>Power: 3.1 kW solar array, 100 Ahr battery |
| **Sensor Bands** | Panchromatic: 450-800 nm<br>8 Multispectral: (red, red edge, coastal, blue, green, yellow, near-IR1 and near-IR2) 400 nm - 1040 nm<br>8 SWIR: 1195 nm - 2365 nm<br>12 CAVIS Bands: (desert clouds, aerosol-1, aerosol-2, aerosol-3, green, water-1, water- 2, water-3, NDVI-SWIR, cirrus, snow) 405 nm - 2245 nm |
| **Sensor Resolution ( or GSD, Ground Sample Distance; off-nadir is geometric mean)** | Panchromatic Nadir: 0.31 m GSD at Nadir 0.34 m at 20° Off-Nadir<br>Multispectral Nadir: 1.24 m at Nadir, 1.38 m at 20° Off-Nadir<br>SWIR Nadir: 3.70 m at Nadir, 4.10 m at 20° Off-Nadir<br>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<br>Actuators: Control Moment Gyros (CMGs)<br>Sensors: Star trackers, precision, IRU, GPS |
| **Pointing Accuracy and Knowledge** | Accuracy: <500 m at image start and stop<br>Knowledge: Supports geolocation accuracy below |
| **Retargeting Agility** | Time to slew 200 km: 12 seconds |
| **Onboard Storage** | 2199 Gb solid state with EDAC |
| **Communications** | Image & Ancillary: 800 & 1200 Mbps X-band<br>Housekeeping: 4, 16, 32 or 64 kbps real-time, 524 kbps stored, X-band<br>Command: 2 0r 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)<br>Stereo: 26.6 km x 112 km (2 pairs) |
| **Revisit Frequency(at 40°N Latitude)** | 1 m GSD: <1.0 day<br>4.5 days at 20° off-nadir or less |
| **Geolocation Accuracy(CE90)** | Predicted Performance: <3.5 m CE90 without ground control |
| **Capacity** | 680,000 km2 per day |