



# 1. GEOSAT 2 AT A GLANCE

The spacecraft design is based on an agile platform for fast and precise off-nadir imaging (up to  $<45^\circ$ ), and it carries a push-broom very-high resolution camera with 5 spectral channels (1 panchromatic + 4 multispectral).

GEOSAT manages all uplink and downlink activities, as well as satellite control. GEOSAT 2 makes use of several ground stations located around the world to maximize redundancy and availability, and to guarantee at least one contact with the satellite at each orbit.

GEOSAT 2 payload includes 5-bands cameras, acquiring panchromatic and multispectral data simultaneously in visible and near infrared spectral range (RED, GREEN, BLUE, and NIR).

BAND	NAME	SPECTRAL RANGE (nm)	GSD (m)	STANDARD ORTHO (m)	ENHANCED ORTHO (m)
1	NIR	770 – 892	4.0	3.0	1.6
2	Red	640 – 697	4.0	3.0	1.6
3	Green	532 – 599	4.0	3.0	1.6
4	Blue	466 – 525	4.0	3.0	1.6
5	Panchromatic	560 – 900	1.0	0.75	0.40

GEOSAT 2 standard pan-sharpened ortho product features a 0.75m resolution, but up to 0.40m resolution could be provided with the support of AI techniques in GEOSAT 2 super-resolution ortho product. The Ground Sampling Distance (GSD) is 1.0m for the Panchromatic channel and 4.0m for the Multispectral channels, considering Nadir observation conditions.

GEOSAT 2 capacity guarantees up to 200,000 Km<sup>2</sup> per day, with strips of 12km wide and up to 1,400km long. Four different operations modes are available, i.e. single strip, multipointing, stereo collection for 3D modelling and tessellation (24km wide strip).