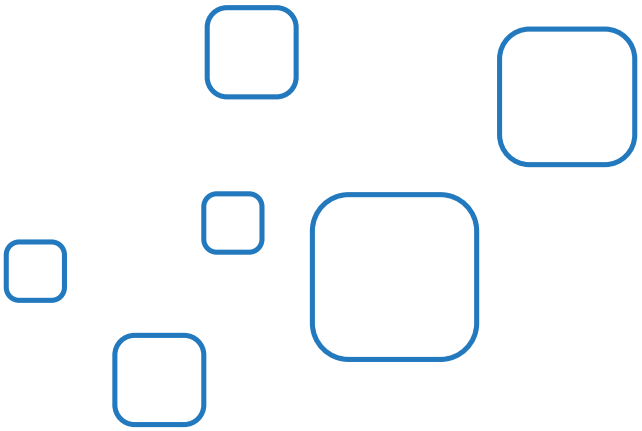
GRAHAA SPACE

Near real-time geospatial video data



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About Us

Grahaa Space is on a mission to provide on-demand, near real-time geospatial videos of any given location on earth, captured and streamed through our advanced constellation of earth observation nano satellites.

Our patent-pending technology with edge computing capability enables on-board processing and transmission of the video data on-demand to public and private organizations through our secure AI powered web portal.

Nano Satellite Configuration Report

7U Configuration Report

Configuration Name: 7U
Description: 10 x 20 x 35 cm: Suitable for advanced Earth observation, communication payloads, and scientific research with higher performance requirements.

User Selected Configurations for Nano Satellite:

Payload Mass: 1 kg
Payload Volume Envelope: 7 U
Pointing Precision: base
Propulsion: No propulsion
Downlink Data Rate: Base - 3Mbps
Payload Duty Cycle: 1%
Payload Power Consumption: 1 W

Subsystem Configuration:

Component	*Light Config*	*Mid Config*	*Max Config*
Solar Panel	Output: 25W, 40x40 cm	Output: 50W, 70x70 cm	Output: 100W, 140x140 cm
Battery	Capacity: 10000mAh, Voltage: 3.7V	Capacity: 20000mAh, Voltage: 7.4V	Capacity: 40000mAh, Voltage: 11.1V
Transmitter	Frequency: 1500MHz, Power: 2.5W	Frequency: 2000MHz, Power: 3W	Frequency: 2600MHz, Power: 6W
Antenna	Gain: 8dBi, Circular Polarization	Gain: 10dBi, Linear Polarization	Gain: 12dBi, Circular Polarization
Gyroscope	Range: ±700°/s, Sensitivity: 0.0006°/s	Range: ±1400°/s, Sensitivity: 0.0003°/s	Range: ±2800°/s, Sensitivity: 0.0001°/s

Component	*Light Config*	*Mid Config*	*Max Config*
Reaction Wheel	Torque: 0.045Nm, Speed: 6000RPM	Torque: 0.09Nm, Speed: 12000RPM	Torque: 0.135Nm, Speed: 18000RPM
Magnetorquer	Dipole: 0.4Am², Power: 0.4W	Dipole: 0.6Am², Power: 0.6W	Dipole: 0.8Am², Power: 0.8W
Star Tracker	Accuracy: ±0.04°, FOV: 25°	Accuracy: ±0.03°, FOV: 30°	Accuracy: ±0.02°, FOV: 45°
Thermal Control	MLI Passive, 10°C to 130°C	Heater Active, 5°C to 150°C	Active + MLI, 0°C to 170°C
Payload Camera	20MP, FOV: 150°	40MP, FOV: 180°	70MP, FOV: 220°