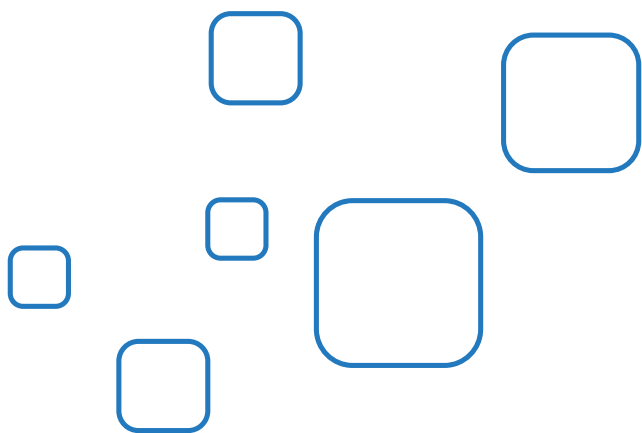


GRAHAA SPACE

Near real-time geospatial video data

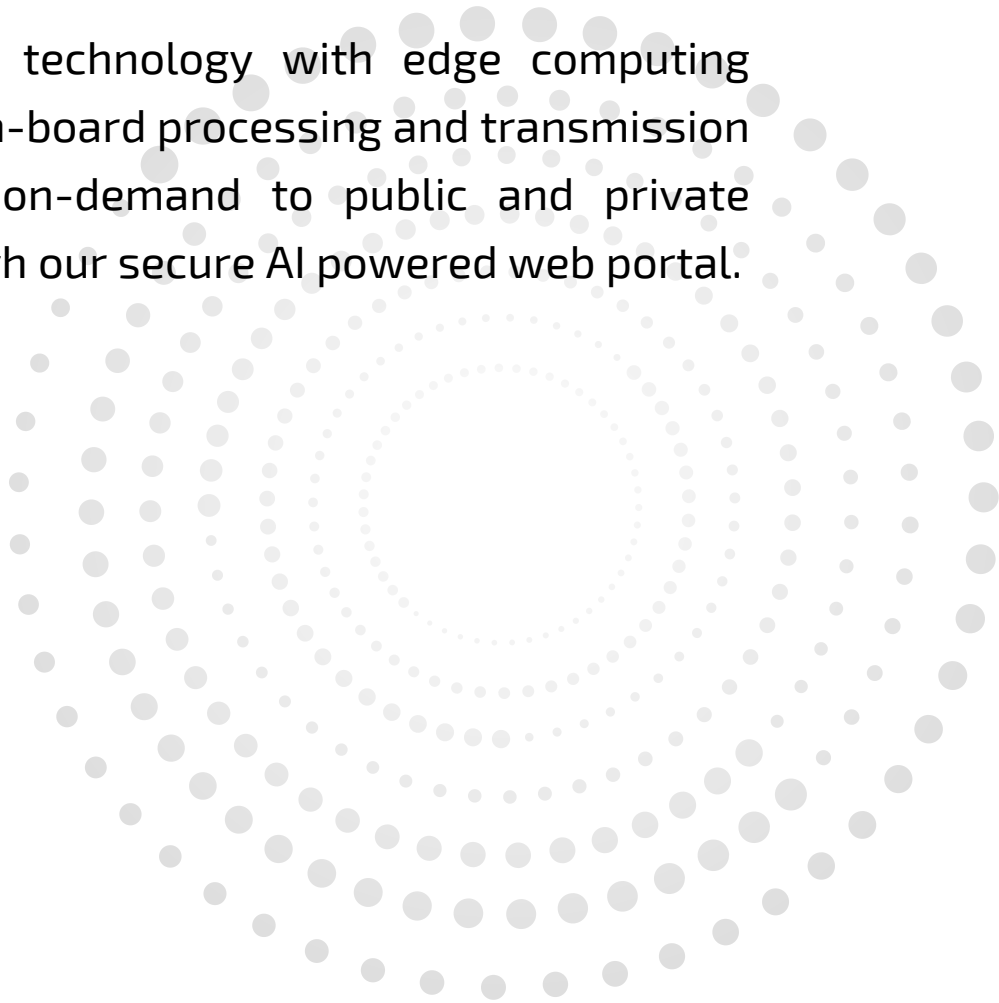


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About Us

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.



2U Nano Satellite Configuration Report

Configuration Name: 2U

Description: 10 x 10 x 20 cm: Offers double the capacity of 1U, enabling slightly more complex payloads. Suitable for communication systems or basic imaging.

User Selected Configurations for Nano Satellite:

Payload Mass: 1 kg

Payload Volume Envelope: 2 U

Pointing Precision: base

Propulsion: with propulsion

Downlink Data Rate: High - 80-200Mbps

Payload Duty Cycle: 1%

Payload Power Consumption: 2 W

Subsystem Configuration:

<i>Component</i>	<i>Light Config</i>	<i>Mid Config</i>	<i>Max Config</i>
Solar Panel	Output: 8W, 15x15 cm	Output: 16W, 25x25 cm	Output: 32W, 50x50 cm
Battery	Capacity: 3000mAh, Voltage: 3.7V	Capacity: 6000mAh, Voltage: 7.4V	Capacity: 12000mAh, Voltage: 11.1V
Transmitter	Frequency: 600MHz, Power: 0.75W	Frequency: 900MHz, Power: 1.25W	Frequency: 1400MHz, Power: 2.5W
Antenna	Gain: 3dBi, Circular Polarization	Gain: 5dBi, Linear Polarization	Gain: 7dBi, Circular Polarization
Gyroscope	Range: $\pm 300^\circ/\text{s}$, Sensitivity: $0.004^\circ/\text{s}$	Range: $\pm 600^\circ/\text{s}$, Sensitivity: $0.002^\circ/\text{s}$	Range: $\pm 1200^\circ/\text{s}$, Sensitivity: $0.001^\circ/\text{s}$
Reaction Wheel	Torque: 0.015Nm, Speed: 3500RPM	Torque: 0.03Nm, Speed: 7000RPM	Torque: 0.045Nm, Speed: 10500RPM

<i>Component</i>	<i>Light Config</i>	<i>Mid Config</i>	<i>Max Config</i>
Magnetorquer	Dipole: 0.15Am ² , Power: 0.15W	Dipole: 0.25Am ² , Power: 0.25W	Dipole: 0.35Am ² , Power: 0.35W
Star Tracker	Accuracy: ±0.015°, FOV: 12°	Accuracy: ±0.007°, FOV: 18°	Accuracy: ±0.003°, FOV: 24°
Thermal Control	MLI Passive, -30°C to 85°C	Heater Active, -40°C to 105°C	Active + MLI, -50°C to 130°C
Payload Camera	8MP, FOV: 100°	15MP, FOV: 130°	25MP, FOV: 160°