

GA-500

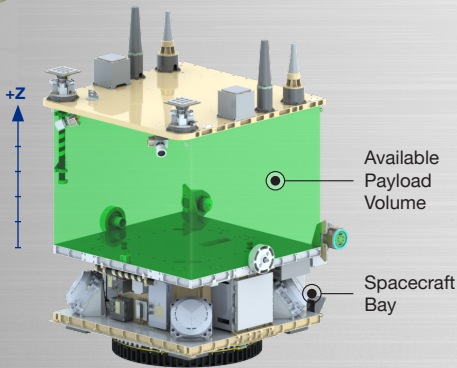


Resilient, modular, and configurable ESPA-Grande bus design supporting Environmental Monitoring, Space Situational Awareness, Comms, and ISR missions

Customizable to operate over a wide range of orbits including Cislunar, and compatible with multiple launch vehicles

Utilizes standard payload interfaces to enable seamless integration and mission-ready delivery times

Block redundant and cross-strapped options available



Spacecraft can grow in Z direction to accommodate various tank sizes

GA-500 PARAMETER

GA-500 VALUE

SPACECRAFT (S/V) CAPABILITY

Orbit	All orbits, all inclinations (Including xGEO/Cislunar)
Mass (Basic/Launch)	Up to 280 kg/505 kg
Volume	ESPA/G-designed (Configurable for other launches)
Mission/Program	EWS, GA-500x
Launch Vehicle Compatibility	Falcon 9, Minotaur IV (Others as required)
Design Life	3-15 years
Stabilization	3-axis, 0.035 deg, 3 σ
Voltage	28 V +/- 6 Vdc
Telemetry, Tracking & Command Rate	S-band, Up to 125 kbps uplink, 1 Mbps downlink
Mission Data Rate	X-band, Up to 300 Mbps; Optical Communication Terminal capable
On-board Storage	>8 Gbytes, additional storage options available
Propulsion	Xenon/Krypton Hall, Traditional Hydrazine (Electric and green options available)

PAYLOAD (P/L) ACCOMMODATION CAPABILITY

Mass	Up to 225 kg
OAP/Peak	Up to 450 W/3k W (Customizable for mission needs) Payload accommodation: power conversion available (6 V, 12 V, and 28 V)
Volume	Variable (Launch vehicle dependent)
Field-of-Regard/View	Hemispherical unobstructed FoV
Mission Data Handling	Up to 300 Mbps from P/L to S/V: 1 Gbps using GigE connection
Command/Data Interface	Fully configurable (i.e. LVDS, RS422, SpaceWire)
Thermal Control	Up to 5 bus-controlled heater switches
Heat Rejection	Configurable heat management system available