PORTAL

Supernova

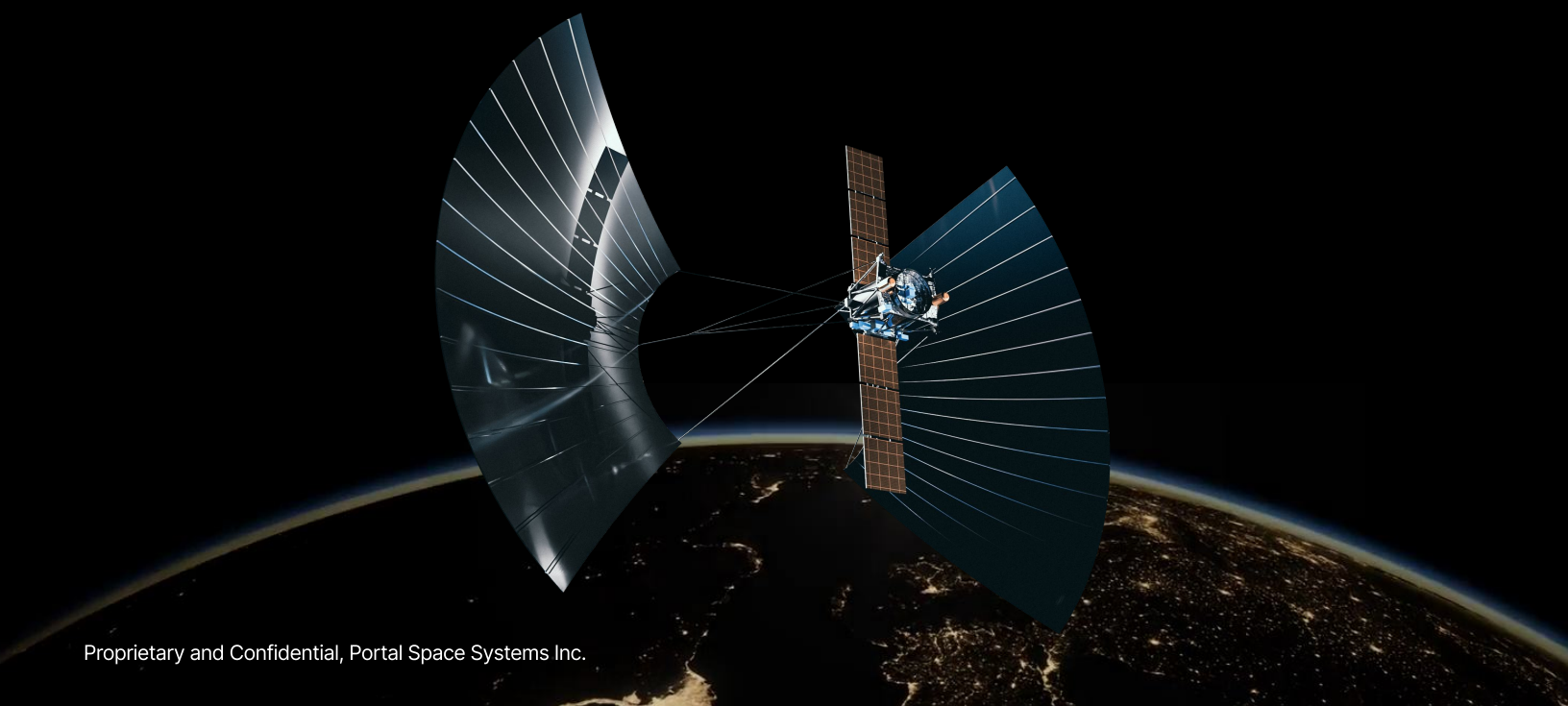
Product Overview

Supernova is a high delta-v, trans-orbital spacecraft designed to operate across LEO, MEO, GEO, and Cislunar space. It leverages Portal's proprietary solar thermal propulsion system to deliver over 6 km/s of maneuverability using a single, non-cryogenic propellant. Supernova is built for long-duration missions, refuelability, and rapid retasking, with shared subsystems aligned with the Starburst platform. It supports hosted payloads, onboard processing, and dynamic tasking for defense and commercial operations.

Baseline Capabilities

Rendezvous and Proximity Operations (RPO), Rapid Retasking, and Rapid Maneuvering, Space Domain Awareness, Edge compute for AI/ML.

Delta-V	Up to 6km/s
Radiation Tolerance	LEO, MEO, GEO, or Cislunar
Payload Capacity	50 kg max performance up to 250 kg with high Delta-V
Spacecraft Mass	1,600 kg
Launch Volume	SpaceX Cake Topper or Dedicated
Production Lead Time	12 months
Production Rate	Up to 12 per year
Attitude Control	Reaction wheels, Ammonia RCS
Propulsion	Flare - Solar Thermal Propulsion
Power Available to Payload	>500 Watts (Contact us)
Lifetime on Orbit	Up to 5 years
First Launch	2027
Commercial Available	Starting 2028



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