ORBION SPACE TECHNOLOGY

Propulsion. Perfected.



AURORA

The Affordable, Reliable, Electric Propulsion Solution for Small Satellite Missions

Orbion's Aurora is a fully integrated Hall-effect propulsion system, consisting of a magnetically shielded thruster (for ultra-long life and high-total impulse), a power processing unit, propellant management, and harness assemblies..

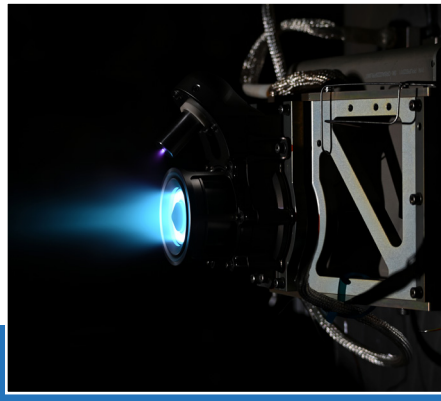
But Aurora is more than a small satellite thruster — it's a workhorse. A flight-proven, turnkey, end-to-end product that you can trust for your in-space maneuvers.

Aurora System



Aurora: Features and Benefits

- Flexible architecture designed for large constellations
- Digital control with data recorder capability
- Software that is both easy to use and comprehensive
- CD&H interface with simple commands – specify power and duration
- Robust health monitoring and warning notifications to the platform
- Single-event upset detection and error correction
- Automatic recording of all commands, telemetry, performance, and events
- Best-in-industry technical documentation – over 400 pages
- Emulator available with flight software for FlatSat integration



Aurora: A Reliable, Modular Design

The Aurora system consists of standard components uniquely designed to work together in numerous configurations.

The components can be provided separately for custom placement in your spacecraft, or we can combine them with a tank, fill/drain valve, plumbing, and structural elements into a module that is bolt-on, plug-in for ultimate ease of integration with your spacecraft.

We can perform module acceptance testing to your requirements and can even ship the module to your factory fully fueled with xenon or krypton.

Tell us what you need. We build it for you. Period.

Aurora's Electric Propulsion Solution for Small Sat Missions

- Allows for constellation deployment from a single launch vehicle
- Raises orbit to higher altitudes
- Routine orbit maintenance
- Enables xGEO missions
- Avoids collisions
- De-orbits at end-of-life

Specification	Value
Propellant	Xenon or Krypton
Input voltage from spacecraft	28 V unregulated (acceptable range: 24 – 35 V)
Dry mass of system	8.3 kg (does not include tank, propellant lines, or mounting hardware)
Data interface with spacecraft	RS-422
Magnetic dipole moment	< 0.15 A-m^2
Total impulse	> 400 kN-s (demonstrated)

More Reasons to Choose Aurora

- A test-like-you-fly philosophy to ensure the highest reliability and performance
- Individual acceptance testing for each Hall-effect thruster, power processing unit, flow controller, regulator, and electrical harness assembly
- Significant propellant savings over chemical propulsion-based systems
- Best total impulse in class
- Compatible with krypton or xenon to meet a wide variety of mission needs
- A full spectrum of system variants to meet your mission requirements and your budget
- Proven manufacturing at scale improves efficiency and controls cost

Simplify Your Interface. Maximize Your Performance. *With Aurora.*

Visit our website for more information

Aurora's Spec Sheet:
orbionspace.com/product

Online Configurator:
orbionspace.com/thruster-configurator

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