



METEOR™

High-Thrust Green Bipropellant Propulsion Module

Launch-Safe. High-Performance. Affordable.

Meteor is a launch-safe, non-explosive green bipropellant system offering high-thrust and performance exceeding 300 s specific impulse. Our unique approach to chemical propulsion combines high-density, high-energy propellants with a unique, proprietary ignition system that allows combustion of an otherwise non-explosive fuel/oxidizer combination.

Meteor is ideal for small spacecraft requiring high delta-V and as a dedicated tug or upper stage to complement launch vehicles. **Meteor units will begin shipping Q4 2018 and are available for purchase now.**



Meteor Main Engine Testing at DSI Facilities

Meteor Specifications

Specific Impulse	305 s main engine 290 s RCS thrusters
Impulse Density	350 - 365 s-g/cc
Thrust	285 N (66 lb _f) main engine 0.35 N (0.08 lb _f) RCS
Total Impulse	750 kN-s
Propellant Mass	Up to 250 kg
Dry Mass	45 kg
Volume	ESPA or ESPA-Grande
Power	20 W
Physical Layer Interface	RS422/485, CAN
Protocol and Command Interface	NSPv4, CANOpen, Customizable

Features

- Propulsion module fully integrates main engine, 6-DOF reaction control system, and tankage
- Incorporates electronics and software for pointing/steering, propellant and pressurization management
- Propellant tanks and structure customizable for different applications
- Uses lower-concentration, stabilized hydrogen peroxide oxidizer
- No catalysts or exotic materials used
- System is low-pressure in launch configuration

Advantages:

- Similar Isp and Isp-density to toxic legacy bipropellant systems
- Easier and safer to handle than hydrazine:
 - Uses non-hypergolic propellants
 - Fuel and oxidizer cannot mix at room temperature
 - Compatible with commercial rideshare launch vehicles
- Better performance than green monopropellant alternatives

