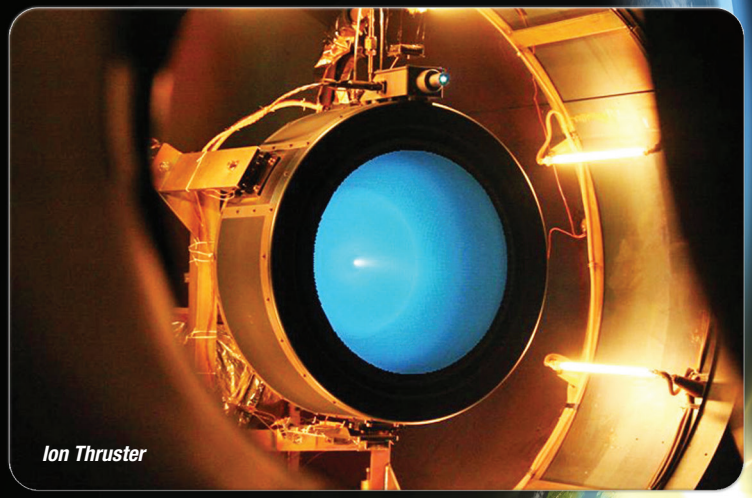
NEXT-C

NASA Evolutionary Xenon Thruster-Commercial



Ion Thruster

AEROJET ROCKETDYNE

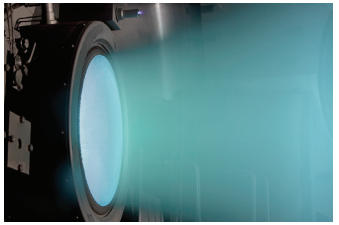
www.rocket.com

Advanced Electric Propulsion

NASA's Evolutionary Xenon Thruster-Commercial (NEXT-C) is being commercialized by Aerojet Rocketdyne. NEXT-C has 7.4 kW of maximum power and greater than 4100s specific impulse (Isp). Its high Isp and flexible operational capabilities make NEXT ideal for scientific space missions, orbit transfer stages, and commercial geostationary communication satellite missions.

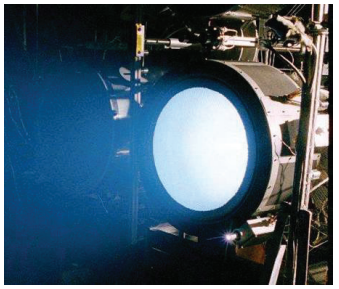
System Performance

Input Voltage Range	80V – 160V
Total Impulse	> 24 MNs
Efficiency	> 0.64 (at 7.33 kW input power)
Mass	< 50 kg (not including XFC)
Life Capability	> 15 yrs



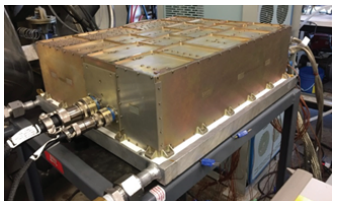
Ion Thruster

Propellant	Xenon
Mass	< 14 kg
Envelope	700 mm (diam) X 480 mm (height)
Low Power Performance	25 mN, 1395 seconds (0.64 kW input to PPU)
High Power Performance	235 mN, 4155 seconds (7.33 kW input to PPU)
High Thrust Performance (in development)	323 mN, 3060 seconds (7.08 kW input to PPU)
Efficiency	> 0.69 (at 7.33 kW input power)



Power Processing Unit

Mass	< 36 kg
Envelope	410 mm X 510 mm X 140 mm
Efficiency	> 93.5% (at 7.3 kW input power)
Command Interface	RS-485
Discharge Output Power	0.5 kW to 7 kW
Features	Flexible and automated startup, monitoring, and fault protection of thruster, over 40 throttle points



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