

Busek Micro Resistojet



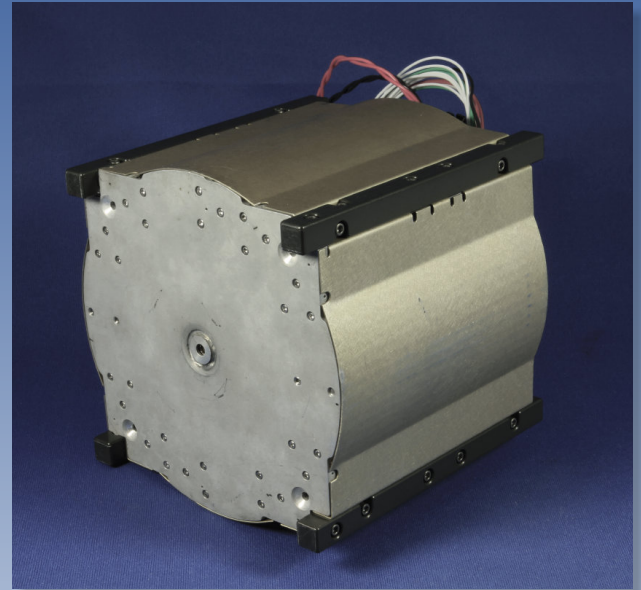
Micro Resistojet module provides integrated primary & ACS propulsion for 6 DOF CubeSat control

The Busek Micro-Resistojet (MRJ) is an integrated primary and attitude control system (ACS) and leverages flight and SBIR design efforts for miniature low power valves and power management electronics.

The 9 cm x 9 cm x 10 cm system is capable of throttling performance based on available power, ranging from 3 to 15W, delivering up to 10 mN along the primary axis and 0.5 mN from each of the eight ACS thrusters. Specific impulse is 150 seconds for the primary thruster, and 80 seconds for each ACS thruster.

The MRJ features safe, non-toxic propellant and lifetime is constrained only by propellant storage.

- 280 mL propellant reservoir or custom volumes are available
- Micro-valve features ST7 design heritage



Micro Resistojet (Busek)

Busek Co. Inc specializes in providing complete electric space propulsion systems including but not limited to a wide range of thrusters, propellant management systems, power processing units and digital control interface units. Busek provides analytical, computational, experimental and product services to government and industry.

Micro Resistojet

Technical Specifications

Electrical

System Power 3 - 15 W

Input Voltage +5 VDC

Mechanical

System Mass < 1.25 kg

System Volume < 1.0 U

System Dimensions < 9 cm x 9 cm x 10 cm

Performance

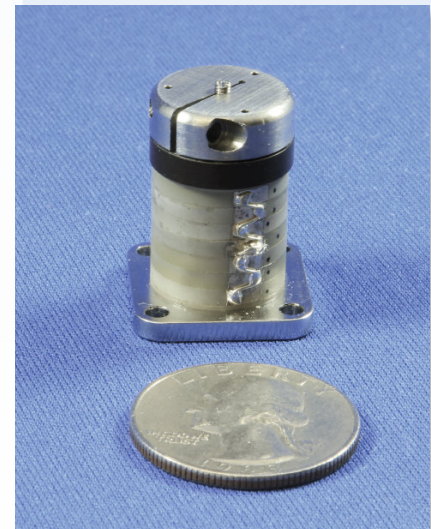
Total Impulse: 404 N-s, primary
23 N-s, ACS

Nominal Thrust: 2-10 mN, primary
0.5 mN, ACS

Nominal ISP: 150 s, primary
80 s, ACS

Delta-V 60 m/s (assuming 4 kg CubeSat), primary
6 m/s, ACS

TRL 5



**Micro Resistojet features
miniature normally closed PFCV**