

NEWSPACE MARKET · COMPANY PROFILE



Applied Ion Systems

United States · appliedionsystems.com

12

PRODUCTS

4

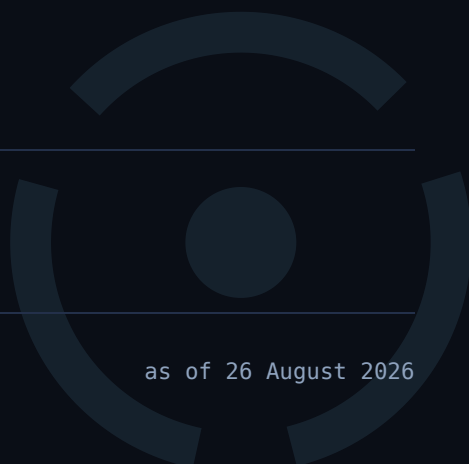
SERVICES

2

WITH DATASHEETS

newspacemarket.com/companies/applied-ion-systems/

as of 26 August 2026



Applied Ion Systems

Applied Ion Systems (AIS) designs and develops electric propulsion systems, specifically micro End Hall Thrusters. The company's product line includes the AIS-EHT1 Micro End Hall Thruster. AIS conducts ignition tests of its thruster systems, with at least two full system ignition tests of the AIS-EHT1 having been performed. The company has also presented on open source propulsion at events such as the IIT Madras Research Scholars Day 2021. AIS has been openly developing electric propulsion for two years and has achieved orbital status.

This profile is generated from the live NewSpace Market catalogue. Specifications are as published by the manufacturer; every product links to a page where a request for quotation reaches the company directly.

Services

Custom Electric Propulsion Systems

AIS offers custom modifications to existing electric propulsion prototypes and products, including mounting, board configuration, thruster scaling, clusters, and higher power electronics, as well as c

Electric Propulsion Design Consulting

AIS provides consulting services for advanced electric propulsion systems for nanosatellites, covering all types of plasma and ion propulsion, offering low-cost development and design.

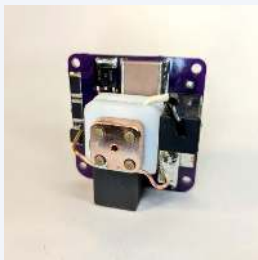
Electric Propulsion Market Research and Analysis Consulting

AIS provides advising and consulting on micro-EP market trends, competitor analysis, technology comparison, and feasibility assessments for investors and developers.

Vacuum Engineering Consulting

AIS offers low-cost vacuum system and engineering design and consulting services, from low vacuum to ultra-high vacuum, for any industry, leveraging their in-house expertise in high vacuum engineering

Product catalogue



APPLIED ION SYSTEMS

AIS-gPPT3-1C Series Integrated Propulsion Module

An open-source, ultra-low-cost micro pulsed plasma thruster module designed for PocketQubes and CubeSats, with confirmed flight heritage on orbit aboard a 1U CubeSat. Now retired.

Thruster type	AIS-gPPT3-1C Micro Pulsed Plasma Thruster
Fuel	Teflon
Power draw	500 mW
Primary capacitor bank	0.136uF
Primary bank working voltage	2 kV
Supply voltage	5 V
Thruster energy	0.28J

TRL 7 \$2 500 [datasheet](#)



APPLIED ION SYSTEMS

AIS-SWAG1-PQ Sublimation Warm Gas Thruster

A PocketQube-class sublimation warm gas thruster using solid unpressurized Adamantane propellant, providing 120uN thrust for up to 7 hours of operation.

Type	Sublimation Warm Gas Thruster
Fuel	Solid Unpressurized Adamantane
Power	5 W
Thrust	120uN
Operating lifetime	7 hours
Pre-heat time	1 hour
Ramp-up time to max thrust	3 hours

\$4 500



APPLIED ION SYSTEMS

AIS-SWAG1-QUAD

The AIS-SWAG1-QUAD is a Sublimation Warm Gas Thruster designed for CubeSats, offering 480uN of thrust and a total impulse of 12Ns, enabling significant orbital movement for small s

Type	Quad Sublimation Warm Gas Thruster
Fuel	Solid Unpressurized Adamantane
Power	20 W
Thrust	480uN
Operating lifetime	7 hours
Pre-heat time	1 hour
Ramp-up time to max thrust	3 hours

\$12 500



APPLIED ION SYSTEMS

AIS-VAT0-DEMO Educational DIY Micro Vacuum Arc Thruster Kit

The first off-the-shelf DIY educational electric propulsion learning kit, allowing anyone to build and fire a fully operational micro vacuum arc thruster based on real flight-modul

Type	Micro Vacuum Arc Thruster Demo DIY Kit
Power	2.5 W
Shot lifetime (10^-2 Torr)	>300,000
Shot lifetime (10^-6 Torr)	60,000
Rep rate	Single Shot to 8 Hz
Dimensions	50x50x21mm
Fuel	Bismuth

\$570 [datasheet](#)



APPLIED ION SYSTEMS

AIS-VAT1-DUO Dual Micro Vacuum Arc Thruster

A dual-module micro vacuum arc thruster cluster consisting of two parallel AIS-VAT1-PQ units, sized for CubeSats down to 1U or even 1/2U class satellites.

Type	Dual Micro Vacuum Arc Cluster
Power	5 W or 10 W Options
Min thrust	8.4uN (1 W)
Max thrust (5W)	26uN
Max thrust (10W)	52uN
Shot lifetime	40,000
Total impulse	0.26Ns

\$4 800



APPLIED ION SYSTEMS

AIS-VAT1-PQ

A flight-qualified micro vacuum arc thruster (MVAT) using solid bismuth fuel, designed to provide propulsion for PocketQube and small CubeSat satellites.

Type	Micro Vacuum Arc Thruster
Power	2.5 W or 5 W Options
Thrust (Beginning of Life)	26uN
Thrust (End of Life)	<1uN
Shot lifetime	40,000
Total impulse	0.13Ns
ISP	87s

\$3 500



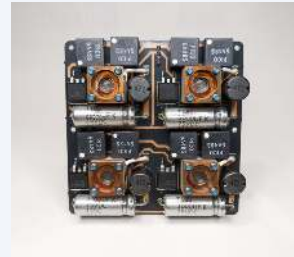
APPLIED ION SYSTEMS

AIS-VAT1-PQ Micro Vacuum Arc Thruster

The smallest thruster in the AIS-VAT Series — an ultra-low-cost micro vacuum arc thruster sized for 1.5P PocketQubes up to 1U CubeSats, using solid Bismuth fuel for maximum thrust-

Type	Micro Vacuum Arc Thruster
Power	2.5 W or 5 W Options
Min thrust	4.2uN (<1 W)
Max thrust (2.5W)	13uN
Max thrust (5W)	26uN
Shot lifetime	40,000
Total impulse	0.13Ns

\$2 500



APPLIED ION SYSTEMS

AIS-VAT1-QUAD Quad Micro Vacuum Arc Thruster

A quad-module micro vacuum arc thruster cluster consisting of four parallel AIS-VAT1-PQ units, providing up to 104uN thrust for CubeSats down to 1U class satellites.

Type	Quad Micro Vacuum Arc Cluster
Power	10 W or 20 W Options
Min thrust	16.8uN (2 W)
Max thrust (10W)	52uN
Max thrust (20W)	104uN
Shot lifetime	40,000
Total impulse	0.52Ns

\$6 500



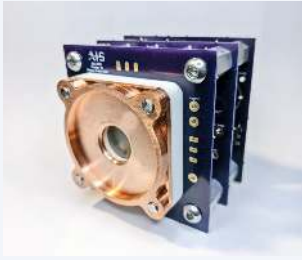
APPLIED ION SYSTEMS

AIS-VAT2 Vacuum Arc Thruster

The AIS-VAT2 is a next-generation vacuum arc thruster designed for CubeSats, offering propulsion at 20W or less and fitting within a 0.5U volume.

Type	Vacuum Arc Thruster
Power	20 W
Thrust (Beginning of Life)	128uN (at 2 Hz)
Thrust (End of Life)	32uN (at 2 Hz)
Shot lifetime	up to 300,000
Total impulse	8Ns
Rep rate	1-2Hz

price on request



APPLIED ION SYSTEMS

AIS-VAT3 Vacuum Arc Thruster

The AIS-VAT3 is a 40W-class vacuum arc thruster (VAT) developed by Applied Ion Systems, scaled up from the VAT1-PQ design for use on larger CubeSats up to 6U-class. Development of

Type	High Power Vacuum Arc Thruster
Power	40 W
Thrust	256uN (at 4 Hz)
Thrust (End of Life)	64uN (at 4 Hz)
Shot lifetime	up to 300,000
Total impulse	8Ns
Rep rate	1-4Hz

price on request

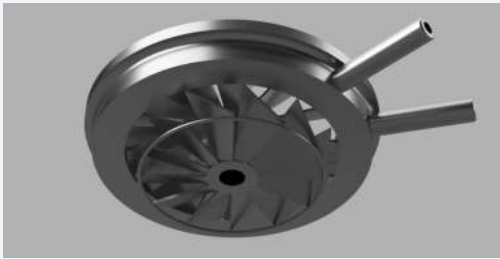


APPLIED ION SYSTEMS

High Vacuum System V4 Foreline Assembled

The High Vacuum System V4 Foreline Assembled is a component of a small-scale multipurpose high vacuum system designed by Applied Ion Systems.

price on request



APPLIED ION SYSTEMS

Water Cooled Baffle

The Water Cooled Baffle is a high vacuum diffusion pump baffle designed by Applied Ion Systems.

price on request

Contact Applied Ion Systems

Open the company profile on NewSpace Market to see full specifications and datasheets, and to send a request for quotation that reaches the manufacturer directly.

<https://newspacemarket.com/companies/applied-ion-systems/>

<https://www.appliedionsystems.com>

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