TILE

NEXT-GENERATION
ION PROPULSION

ACCION SYSTEMS
The In-Space Propulsion Company

MISSION CAPABILITIES

ORBIT RAISES

CONSTELLATION PHASING

DE-ORBIT

STATION-KEEPING

INCLINATION CHANGES

NON-KEPLERIAN ORBITS

LEARN MORE

THE FUTURE OF SATELLITE PROPULSION

SCALABLE ELECTRIC PROPULSION FOR A NEW ERA OF SATELLITE PLATFORMS

TILE (Tiled Liquid Electrospray) is an advanced propulsion technology that provides major advantages over traditional electric propulsion systems in an elegant, modular, plug-and-play package.

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SAFE, PASSIVE PROPELLANT	TILE products use a non-toxic, inert ionic liquid propellant, eliminating the need for bulky external tanks, valves, or pressurized feed systems, reducing shipping/handling and lifecycle costs.
SCALABLE DESIGN	TILE products are architecturally simple, made of just three components: the thruster chip/panel, the propellant tanks, and the power electronics; these may be easily scaled for greater performance.
HIGH THRUST-TO-POWER	TILE products provide high thrust-to-power enabling exceptional power efficiency for an ion propulsion system, and providing a viable alternative to chemical propulsion.
HIGHEST THRUST DENSITY	The underlying physics of TILE technology allows for scaling of thrust density to levels beyond that of any other ion propulsion system, providing efficiency and mass savings for high thrust needs.

CURRENT TILE PRODUCT LINE
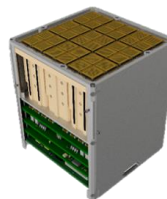
TILE 50	TILE 500	TILE 5000	TILE 200k
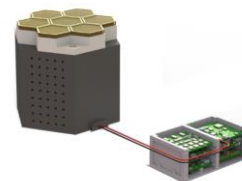
PERFORMANCE SPECIFICATIONS

Performance Parameter	Unit	TILE 50	TILE 500	TILE 5000	TILE 200k
Dimensions	cm	3 x 7 x 1.2	10 x 10 x 5	10 x 10 x 12.5	Upon request
Dry Mass	g	50	600	1100	Upon request
Total Impulse	N-s	20-60	400-1,200	3,500-5,000	200,000+
Specific Impulse	s	1,250	1,250	1,500	1,500
Nominal Thrust (Axial)	mN	0.05	0.4	1.5	10+
Minimum Impulse Bit	uN-s	0.5	< 15	< 15	< 15
Propellant	-	Ionic Liquid (non-volatile, unpressurized)			
Power Consumption	W	1.5	8	30	Upon request
Radiation Tolerance	krad	10-20	100	100	200 (electronics) 40,000 (thruster unit)
Command/TLM + Power Interface	-	12-28 V Unregulated ∣ UART, SPI			Upon request
Temperature Range	°C	Operating: -10 to 80 Survivable: -40 to 100			
Launch Environment Vibration Spec	-	GEVS			