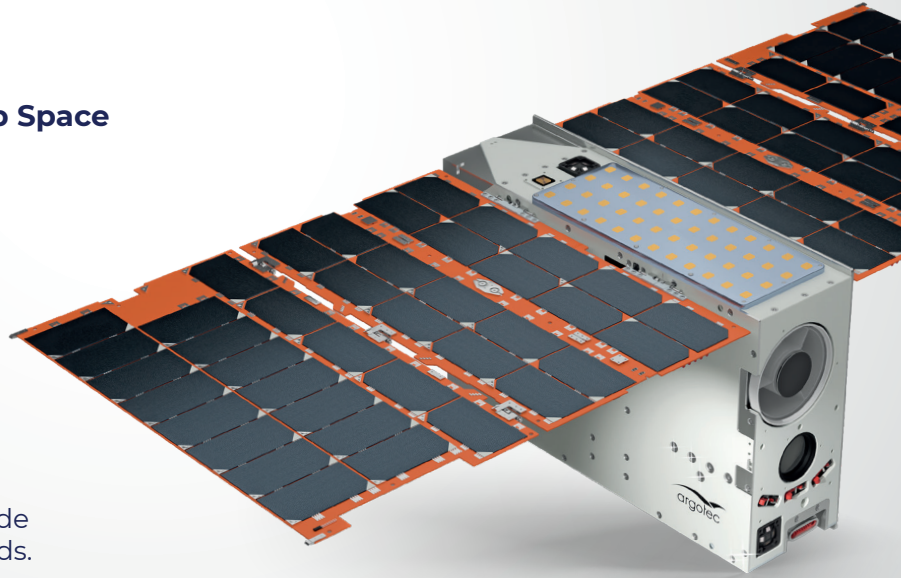


HAWK LITE

**Advanced 6U-12U microsatellite
suitable for missions in LEO and Deep Space**

HAWK LITE microsatellite platforms are available in 6U and 12U form factors, with avionic configurations designed to operate in LEO or in deep space, depending on the selected platform configuration.

Equipped with Argotec OBC&DH, PCPU and Software Defined Radio (SDR), HAWK LITE microsatellite platforms enable highly autonomous operations, edge-computing applications, and are designed to host a wide variety of commercial and scientific payloads.



EMPLOYED FOR LICIACUBE, AWARDED “MISSION OF THE YEAR 2023” BY THE AIAA

HAWK, in its 6U deep-space variant, had its inaugural flight as part of NASA's DART mission, which hosted a companion CubeSat, LICIACube.

The micro-satellite, designed and operated by Argotec, achieved tremendous results and became the first CubeSat to ever visit an asteroid with a autonomous fly-by.

SUITABLE TO OPERATE IN BOTH, LEO AND DEEP SPACE

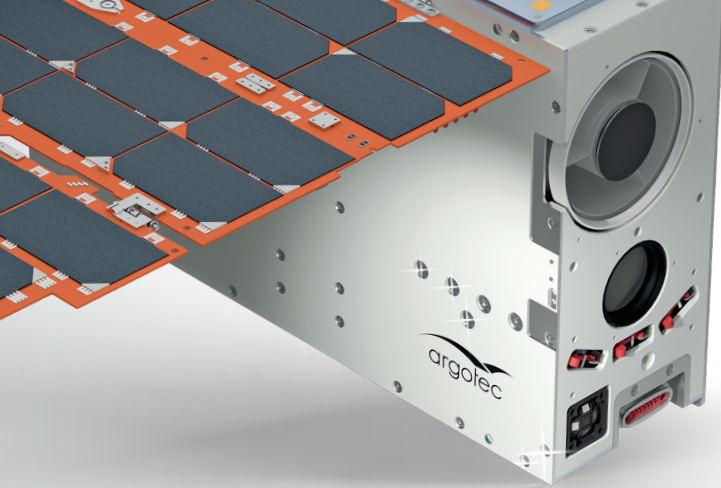
HAWK can be equipped with avionics configurations capable of operating in LEO or deep-space, while ensuring wide payload compatibility.

The HAWK family is designed to address the needs of both commercial and scientific missions, guaranteeing operations far beyond the usual limit of CubeSats.

EMBEDS EDGE COMPUTING AND AUTONOMOUS OPERATION CAPABILITIES

Advanced computing capabilities are part of HAWK's avionics since its initial development in 2016.

A heterogeneous set of powerful SoCs enables the acceleration of complex algorithms on-the-edge, with a focus on autonomous operations.



ARGOTEC PRODUCTS | DATA SHEET

HAWK LITE

**Advanced 6U-12U microsatellite
suitable for missions in LEO and Deep Space**

TECHNICAL SPECIFICATION

	6U		12U Earth	12U Deep Space
MAX PAYLOAD MASS AND VOLUME	3 kg, 3.5 U		8 kg, 6U	
MAX PAYLOAD POWER	40 W		100 W	130 W
DATA INTERFACES	RS422, LVDS, SpaceWire, SPI, CAN			
ELECTRICAL INTERFACES	Protected regulated lines: 5V, 12V Protected unregulated lines: 22V to 32V			
BOL SOLAR ARRAY PEAK POWER	Up to 80 W		Up to 95 W	Up to 220 W
TARGET ORBITS	LEO, Interplanetary		LEO	GEO, Cislunar, Interplanetary
COMPUTING CAPABILITIES	130 DMIPS (CPU only, FPGA available)		130 DMIPS (CPU only, FPGA available) Dedicated PDP option available	
ON-BOARD STORAGE	Up to 32 GB		Up to 32 GB Up to 240 GB with PDP option	
OBC&DH PROTOCOL	CCSDS, PUS			
COMMS DATA BAND	S-Band, X-Band Upon request: UHF		S-Band, X-Band Upon request: UHF	X-Band Upon Request: S-Band, K-Band, Ka-band
PAYLOAD DOWNLINK RATE	Up to 200 Mbps		Up to 200Mbps	Up to 100 Mbps
TM/TC DOWNLINK AND UPLINK	62.5 bps to 10 Mbps (X-band) Up to 128 kbps (S-Band)			
PROPULSION	60 m/s (Chemical)	60 m/s (Chemical) Upon request: Electrical	120 m/s (Chemical) 2.5 km/s (Electrical)	
NAVIGATION	Optical NAV, GNSS, Sequential Ranging, PN Ranging		GNSS	Optical NAV, GNSS, Sequential Ranging, PN Ranging
POSITION KNOWLEDGE	Up to ±10 m			
ATTITUDE STRATEGY	3-axis stabilized			3-axis stabilized Upon request: Spinning Mode
POINTING ACCURACY	Up to ±10 arcsec (1σ) for 2 axes Up to ±25 arcsec (1σ) for 3rd axis			
ABSOLUTE KNOWLEDGE ERROR	Up to ±6 arcsec (1σ) for 2 axes Up to ±40 arcsec (1σ) for 3rd axis			
MOMENTUM STORAGE	Up to 50 mNms per axis		Up to 100 mNms per axis	
MAXIMUM SLEW RATE	Up to 10 deg/s			
DESIGN LIFETIME	Up to 5 years			