



EVA ADCS SYSTEM

6 – 16 U CUBESATS

EVA is a next-generation Attitude Determination and Control System (ADCS) designed for 6U to 16U CubeSats, delivering exceptional precision with a pointing accuracy of ± 50 arcseconds (1σ). Engineered for high-performance CubeSat missions, this compact system integrates advanced sensor fusion algorithms with on-board guidance and control to achieve precise attitude knowledge and control.

BASIC PROPERTIES

Property	Value
Sensors	Up to 6x Fine Sun Sensors, MEMS gyroscope, Magnetometer, 1x Star Tracker
Actuators	3x magnetorquer, 3x or 4x reaction wheel
Momentum Storage	30mNms (per wheel)
Max Torque	2mNm (per wheel)
Slew Rate	Typically 5 deg/s (12U cubesat)
Pointing accuracy (XY/Z)	50/71 arcsec 1 sigma
Knowledge accuracy (XY/Z)	10/50 arcsec 1 sigma
Dimensions	2U (1U for Star Tracker, 1U for Computer and Reaction wheels)
Mass	1,5 kg (including RW and Star Tracker)
Interface	CAN, RS-485, Ethernet, Cubesat Space Protocol
Magnetic Moment	1.0 Am ² (per axis)
Power consumption	Idle: 2.5W, Nominal: 6W, Peak: 16.5 W
Supply Voltage	12V

Equipped with a state-of-the-art star tracker and a range of sensors and actuators, the system offers fine maneuverability, autonomous momentum management, and fault recovery capabilities. Designed for seamless integration, EVA supports CAN, RS-485, and Ethernet interfaces, ensuring compatibility with a wide range of onboard computers.

With industry-leading accuracy and robust software algorithms, this ADCS is the ideal solution for CubeSat missions requiring high-precision pointing for Earth observation, communication, and scientific applications.

