skylabs



Built-in
NANOhpm

Interface
Redundant CAN for TM/TC

Attitude determination and control system

NANOadcs

High performance GNC platform for ADCS

- ISO 19683
- IPC Class 3+
- TRL 6
- In-house MAIT

NANOadcs, developed and manufactured by SkyLabs is the electronics system for the ADCS, consisting of built-in Fault Tolerant RISC-V 32-bit OBC, which runs GNC algorithms, based on the collected sensor data, and also either commands or drives the actuators in order to achieve accurate attitude estimation, and high precision pointing accuracy and stability. NANOadcs integrates multi-constellation GNSS receiver, highly sensitive on-board magnetometer and gyroscope.

This complete system, including GNS suit and sensors and actuators, is a fully European solution co-developed between SkyLabs and Indra Deimos, enhancing security, resilience, and innovation, positioning Europe as a leader in small satellite technology.

Integrated On-Board sensors
GNSS receiver, magnetometer, gyro

Configurable LCL protected power channels
3.3V, 5V, 12V, or 18V

Sensors and actuators interfaces
5x RS422, 1xCAN,4x UARTs, I2C, 12x Analog TIA&NTC, 3x Current ctrl. Full-bridge PWMs, 1PPS I/O

Wide input power range
5V - 28 V