

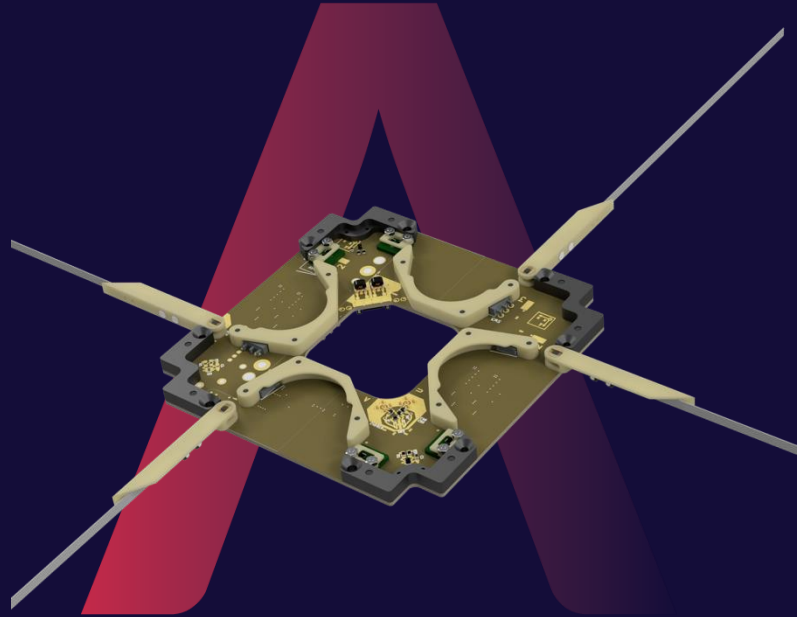


SPACEMANIC

SAM

Small Antenna Module

Deployable CubeSat antenna module suitable for nanosatellite communication system.



FEATURES

- Plug&Play Design
- Compatible with CubeSat standard
- Compatible with CubeSat components from other vendors
- CubeSat Space Protocol
- Deployable mechanism redundancy
- Deployment detection
- Option to choose antenna type:
 - 2x VHF dipole
 - 2x UHF dipole
 - VHF + UHF dipole
 - UHF turnstile
- Robust design, flight heritage

PRODUCT PROPERTIES

- Operating temperature: -40 °C to +85 °C
- Recommended temperature for deployment: 0 °C to +85 °C
- Dimensions:
 - Mounting height 98x98x5.2 mm (without MMCX and coverplate)
 - Total height 98x98x9 (without coverplate)
- Power Supply: 3.3V or 5V based on configuration
- Mass: ~55g
- Power consumption:
 - 1.5W avg. in deployment mode
 - <75mW in communication mode
 - can be fully turned off after deployment

FUNCTIONAL CHARACTERISTICS

- Frequency covering (VSWR < 2):
 - VHF: ~ 133MHz -150MHz
 - UHF: ~ 380MHz -450MHz
- Antenna gain:
 - VHF dipole: ~ 2.3dBi
 - UHF dipole: ~ 2.6dBi
 - UHF turnstile: ~ 2.6dBi
- Minimum VSWR:
 - VHF dipole: ~ 1
 - UHF dipole: ~ 1.3
 - UHF turnstile: ~ 1.2

INTERFACES

- 1 x I2C (CSP)
- 1 x RS485 (CSP)
- MMCX Radio connector

TESTING & HERITAGE

- Flight Heritage Hardware
- Successful vibration & heated vacuum tests