



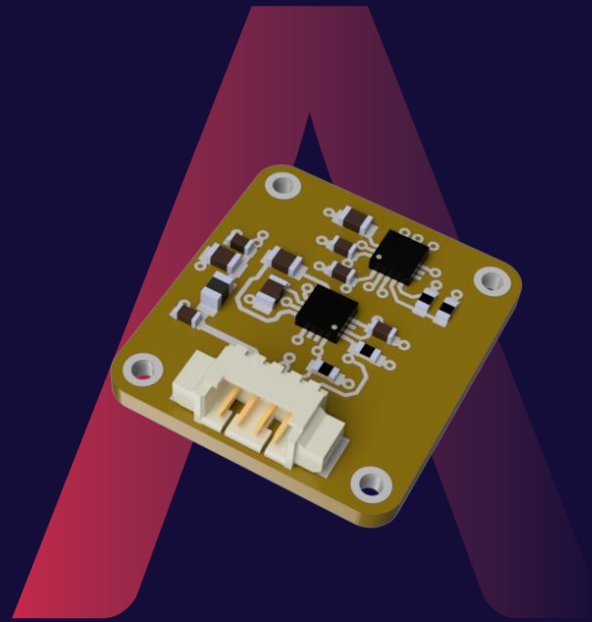
SPACEMANIC

LODESTONE

Gyro&Mag module

SM-AD-LODESTONE

Module uniting a gyroscope and magnetometer for easy attitude determination of your nanosatellite



FEATURES

- Plug&Play Design
- Small footprint for easy integration
- 3-axis gyroscope and 3-axis magnetometer in one module
- No need for external A/D converters

PRODUCT PROPERTIES

- Operating temperature: -40 °C to +85 °C
- Power Supply: 3.3V
- Size: 22x20x5mm
- Mass: 2g
- Power consumption:
 - In idle state: typ. 170µA
 - Under full load: typ. 3.15mA

FUNCTIONAL CHARACTERISTICS

- Gyroscope:
 - FSR from ± 31.25 up to ± 250 °/sec
 - Digitally programmable low-pass filter
 - Self-test capability
 - Integrated temperature sensor
- Magnetometer:
 - FSR $\pm 8G$ with 16bit operation
 - 0.25mG per LSB resolution
 - 0.4mG total RMS noise level
 - 0.2% typical linearity error
 - Integrated temperature sensor

INTERFACES

- I2C at 400kHz Fast mode, 1.8V
- Molex® PicoBlade 4-pin connector

SOFTWARE

- Full compilation of drivers for OBC

TESTING & HERITAGE

- Based on Flight Heritage Hardware