



Crystalspace S1U Sun sensor

Overview

Sun sensor measures sun angle to satellite. Our sun sensor is the lightest, smallest and most energy efficient sensor on the market. Sensor provides at least ± 0.5 degree precision in whole field of view. Our sun sensor has ± 45 degrees field of view in two axis, using six sensors it is possible to track sun movement around whole satellite. Sensor is fully self-contained and does not expose any sensitive analog signals for simplicity and reliability. It uses standard SPI interface for communication.

Features

- Mechanically easily integratable
- Radiation hardened by design
- 6 mm thick and weighs under 5 g
- Architecture flight tested on successful ESTCube-1 satellite
- Power consumption during active mode: < 20 mW
- Power consumption during sleep mode: < 9 mW
- SPI controlled
- Temperature calibrated
- System can be easily tested, controlled and calibrated with Crystalspace control application

Available options

- Side panels with integrated sun sensors and magnetic torquers

Performance

- at least ± 0.5 degree precision
- ± 45 degrees field of view in two axis

Product Properties

- Dimensions: 26 x 26 x 6 mm
- Temperature range -25°C to 85°C
- Mass: < 5 g
- IPC-A-610 Class 3 assembly
- Vibration and shock tested
- Thermal vacuum tested