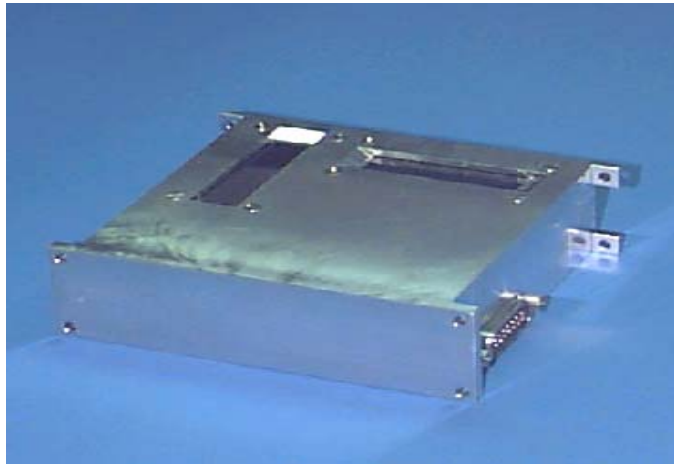


2-AXIS DMC SUN SENSOR

Applications

- LEO Missions
- Earth Observation Missions
- Space Science Missions
- Momentum Unloading



Bare sun sensor unit. Can be supplied with a variety of applied thermal surfaces

Features

- Reliable attitude determination
- The output from each axis consists of 2 analogue 0 - 5 Volt signals (A & B) which are combined and linearised using a calibration polynomial function to obtain the relevant sun angles
- Temperature sensing

Interfaces

- Analogue Inputs/Outputs
- D-Type DC Connector

Key Specifications

- Sensors: 2 orthogonal axes
- Sensor field of view: $\pm 50^\circ$
- Accuracy: 1.0° (95%)
- Analogue output: 4x 0-5V per channel

Heritage (63+ orbit years)

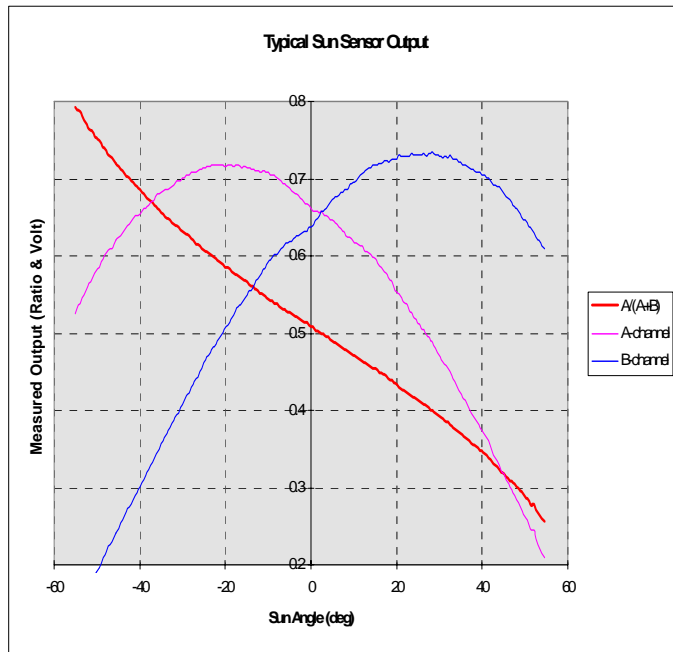
- FASAT-Bravo
- Uosat-12
- TopSat
- Beijing-1

Other SSTL AOCS Products

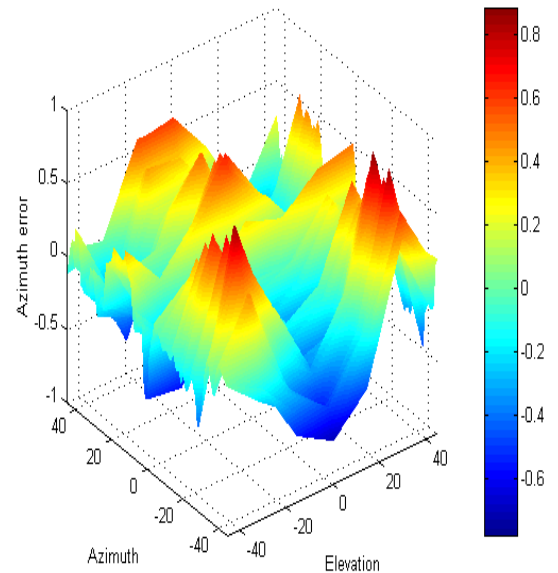
- Reaction Wheels
- Star Trackers
- Magnetometers
- Gyros
- Magnetorquer

| | |
|----------------------|--|
| Sensors | 2 orthogonal axes |
| Sensor field of view | $\pm 50^\circ$ |
| Accuracy | 1.0° (95%) |
| Analogue output | 4x 0-5V per channel |
| Mass | 300g |
| Dimensions | 95 x 107 x 35 mm |
| Power consumption | Sunlit: <100mW; Dark: <10mW |
| Power Supply | $\pm 12V$ |
| Temperature | -20 to +50°C operating -40 to +80°C non-operating |
| Random Vibration | 15Grms in all axis |
| Radiation Tolerance | 20kRad (Si) |

2-AXIS DMC SUN SENSOR



Typical sun sensor output



Errors in azimuth and elevation following calibration

SSTL is ISO9001:2008 certified

Subsystems are manufactured to:

- ECSS Q-ST-70-08C
- ECSS Q-ST-70-38C
- All work overseen by ESA-trained assembly staff

Standard delivery service includes:

- compliance testing
- vibration test
- thermal cycling
- user manual
- test results
- export license and shipping
- thermal vacuum testing available
- unit can be supplied prior to environmental testing

Surrey Satellite Technology Limited

SSTL has launched over 34 satellites gaining almost 200 years in-orbit experience. SSTL draws on its world-class expertise in both small satellite platform technology and high and medium resolution optical instruments. SSTL provides complete turn-key system solutions; spacecraft, ground station, launch, operations and image processing.

SSTL is unique in the space industry; able to design, manufacture and integrate multiple satellites in-house.

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