

CSS-01,02 Coarse Sun Sensors

Space Micro celebrates its 14-year anniversary in 2016 and continues to support the Space Industry with innovative, affordable and high performance Digital/Image Processing, RF Communication and Attitude Determination Sensor Products.

Space Micro's Coarse Sun Sensor is a very low-cost, high reliability device with >20 years of flight heritage. They are designed to provide attitude determination information during various mission modes including launch vehicle separation, initial attitude acquisition, emergencies and off-nominal modes. They can also provide coarse sun vector determination as a backup to higher resolution sensors.

The Coarse Sun Sensor contains a single photodiode, with the housing assembly also serving as an aperture. The inexpensive, lightweight sensor (only 20g) draws no power and has an accuracy of better than ± 5 degrees over a full angle 120 degree field of view. Sensors are available in panel mount or through-hole configurations.

The Coarse Sun Sensors have flown successfully on multiple spacecraft, including ALEXIS, HETE, MOST, CHIPSat, STPSat-1. and are compatible with virtually all launch environments.

FEATURES

- >20 Years of Flight Heritage
- Very low size and weight
- Compatible with all launch environments
- Standard lead time and pricing
- Back (CSS-01) and front (CSS-02) mount configurations
- Simple reliable design

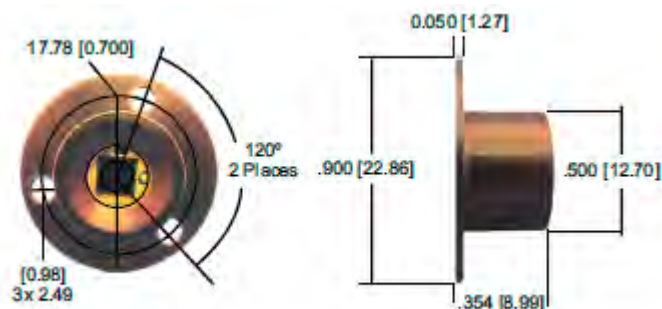


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SPECIFICATIONS

| | |
|------------------------------|--------------------------------------------------------------------------------------------------------------|
| Field of View | 120° full-angle circular field of view |
| Accuracy | ±5° of 1-axis knowledge |
| Temperature Range | -40 to +93°C |
| Vibration Test Levels | 14.1 grms |
| Shock Test Levels | 60g protoqual |
| Interface | 0 to 3.5 mA (typical) current sources on two flying leads: 50" (1.27m) in length, M22759/ 33-26, 26 AWG wire |
| Mounting | Three #2 through holes, 120° apart on a .700" (1.78 cm) diameter pattern (See Figure below). |
| Power | None required |
| Size | |
| Housing diameter | .500" (1.27cm) |
| Flange diameter | .900" (2.286 cm) |
| Sensor height | 0.354" (.899 cm) |
| Volume | 0.500" (1.27 cm) diameter × .354" (0.90 cm) height |
| Mass | 0.022 lbs (10g) with 1.27 cm flying leads |

DIMENSIONS



Single Photodiode with Housing Serving as Aperture

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