

The smallest sun sensor in the Adcole Space product portfolio, the Adcole Space SmallSat Sun Sensor can be used for a variety of spacecraft missions requiring sun detection.

One of the smallest sun sensors available on the marketplace today, the SmallSat Sun Sensor provides a cosine output of the sun angle for small satellite applications. The product offers these advantages:

- Extremely low mass
- Low power requirement
- Sensor provides UV and RAD tolerant device for sun angle applications
- A single sun sensor provides the sun presence. A group of sun sensors appropriately mounted can provide sun angle data and polarity



The Micro Sun Sensor can be used for a variety of spacecraft missions requiring sun detection. The output of the Sun Sensor is analog voltage range from 0 to 2.1V, which can be fed into a microprocessor ADC.

A single sun sensor can provide sun presence information. A group of sun sensors appropriately mounted can provide coarse sun angle data and polarity.

| PARAMETERS                           |  |
|--------------------------------------|--|
| <b>SmallSat Sun Sensor</b>           | <p><b>Dimensions:</b> 50.80 x 19.05 x 2.03 mm</p> <p><b>Mass:</b> 5.5 g</p> <p><b>Output:</b> 0 to 250 mV</p> <p><b>Scaling Resistor:</b> 6.8 kΩ</p> <p><b>Mounting Holes:</b> 4-40 screws</p>                           |
| <b>CubeSat Sun Sensor</b>            | <p><b>Dimensions:</b> 27.94 x 17.14 x 2.03 mm</p> <p><b>Mass:</b> 3.5 g</p> <p><b>Output:</b> 0 to 390 mV</p> <p><b>Scaling Resistor:</b> 5.9 Ω</p> <p><b>Mounting Holes:</b> 4 x 0-80 Button Head Socket Cap Screws</p> |
| <b>Powered Sun Sensor (optional)</b> | <p><b>Power Required:</b> 5 mW (3.3V or 5V)</p> <p><b>Output:</b> 0 to 3.3 V or 0 to 5 V</p>   |

## COMPANY HERITAGE

Founded by Addison Cole in 1957, the sun sensors designed by Adcole have flown on numerous space exploration missions, including all Mars Rovers, New Horizons, Juno, and the Parker Solar Probe. An engineer by trade, Cole invented a sun angle sensor that enables rockets and satellites to maintain their orientation in space. Cole's invention, which is in use by space agencies today, provided the impetus behind the launch of Adcole Corporation.

