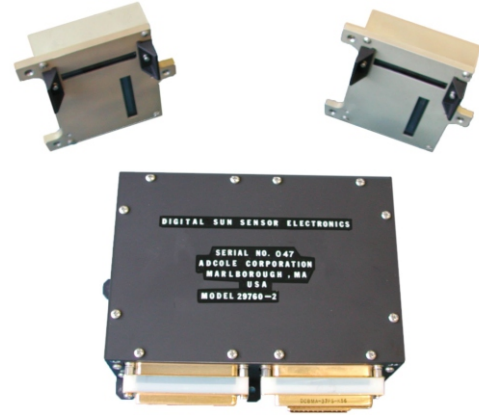


Digital Sun Sensor Rad-Hard Hi-Rel

Adcole Digital Sun Sensors provide a large field of view with moderate accuracy and resolution. Each system consists of one or more optical heads, each of which provides two axes of sun angle data. The $\pm 64^\circ$ DSS, when configured with five heads per electronics, can provide full spherical coverage (4n sr)



Specifications

Digital Sun Sensor ($\pm 32^\circ$)

Adcole $\pm 32^\circ$ Digital Sun Sensors provide better accuracy and resolution over a smaller field of view than the $\pm 64^\circ$ DSS. They are typically used for medium accuracy attitude determination. Systems can be configured with one or more optical heads per electronics.

Configuration:

Number of Measurement Axes: 2 (each sensor)

Number of Sensors: 2 (1 each redundant side)

Parameters:

Field of View: $\pm 32^\circ \times \pm 32^\circ$ (each sensor)

Accuracy: $\pm 0.1^\circ$

LSB Size: 0.125°

Input Power: 28 $\pm$ 7 Vdc (other ranges available)
(Typical power dissipation 1 W)

Output: Serial data stream consisting of two 10-bit data words (typically) plus one dedicated sun presence bit.
Note: One word per axis, each consisting of 9 bits of sun angle data, and 1 identity bit.

Weight: Sensor 0.66 lb (0.3 kg) nominal
Electronics 2.2 lb nominal

Size (exclusive of connector)

Sensor 3.8" x 3.7" x 2.1" (96 x 94 x 53 mm)

Electronics 7.5" x 5" x 2.1" (190 x 127 x 53 mm)

Hundreds of Missions

On-Board Spacecraft Across the Solar System

