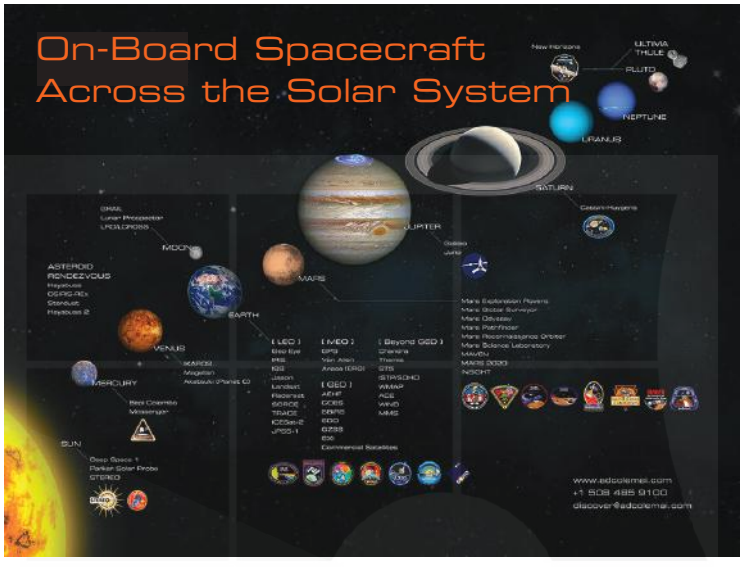
ADCOLE MARYLAND AEROSPACE

High Reliability
Spacecraft Solutions

Coarse Sun Sensor

The Coarse Sun Sensor Detector is a single detector model used for applications including solar array pointing, sun acquisition, and fail-safe recovery. The Coarse Sun Sensor Detector is a navigational instrument used by spacecraft to detect the position of the sun.

Hundreds of Missions



Mission Heritage

MAVEN, SMAP, DSCS, UARS, EUVE, GPS IIR, GPS IIF, LANDSAT, MARS SURVEYOR, MARS ODYSSEY, STARDUST, ODIN/CYCLOPS, AMOS-1, AMOS-2, SPACEBUS 4000, TDRS, GOES, CLASSIFIED PROGRAMS.

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.

Specifications at a Glance

The Coarse Sun Sensor Detector is a single detector model used for applications including solar array pointing, sun acquisition, and fail-safe recovery.

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Parameters

Field of View	2π steradian plus
Accuracy	±1° at Null (typically) ±5° throughout linear range
Size	2.3"×2.3" (58×58) mm

Coarse Sun Sensor Detector Specifications

APPLICATIONS	Solar-Array Pointing Sun Acquisition Fail-Safe Recovery
WEIGHT	0.29 lb (0.13 kg) nominal
SIZE	
Mounting Base	2.3"×2.3" (58×58 mm)
With Baffles Extented	3.5"×3.5"×1.7" (89×89×43 mm)
CONFIGURATION	
Number of measurement axes	2
Number of detectors	4 per bracket
Other bracket configurations	2,6,8 detectors per bracket
PARAMETERS	
Field of View	2π steradian plus[i]
Accuracy	±1° at Null (typically) ±5° throughout linear range
Input Power	None
Peak Output	500 µA to 1300 µA, each detector

[i] Baffles can be provided to restrict the field of view (FOV).

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