



RAD-HARD Hi-REL

The Redwire \pm 64° Digital Sun Sensor is a two-axis digital sun sensor system. The unit is Rad hard to 100 krad (Si).

- + The solution features two measurement axes and five sensors (up to 8 sensors available).
- + The ± 64° Digital Sun Sensor is spaceflight proven, with a rich flight heritage.

APPLICATIONS

- + Attitude Determination
- + Sun Acquisition

- + Solar Array Pointing
- + Fail-Safe Recovery

蹄 PARAMETERS

128° X 128° (EACH SENSOR) NOTE: 4π STERADIANS ACHIEVED WITH 5 SENSORS

Field of View

±0.25° (TRANSITION ACCURACY)

Accuracy

0.5°

LSB Size

28 ± 7 VDC (OTHER RANGES AVAILABLE) (TYPICAL POWER DISSIPATION 0.4 W)

Input Power

SERIAL DATA: 16 BITS OF SUN ANGLE (8 BITS PER AXIS), SUN PRESENCE, HEAD SELECT, ALBEDO INDICATION

Output¹

SENSOR 0.56 LB (0.25 KG) NOMINAL ELECTRONICS² 0.65 LB. TO 2.5 LB. (0.29 KG TO 1.1 KG)

Mass

SENSOR³ 3.2" X 3.2" X 0.8" (81×81×20) MM ELECTRONICS³ VARIABLE

Dimensions

'Electronics selects sensor that has sun in field of view. Parallel data format is available. Depending on processing and power. 'Exclusive of connector.

Sun Sensors are export controlled through an ECCN (Export Control Classification Number) issued by the United States Department of Commerce, ECCN 7A104. Export shipment requires successful application for an export license.





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ONFIGURATION

2 (EACH SENSOR)

5 (TYPICAL) 1 TO 8 CAN ALSO BE USED

Number of Measurement Axes

Number of Sensors

MISSION HERITAGE

- + ADVANCED COMPOSITION EXPLORER
- + CASSINI-HUYGENS
- + TRANSITION REGION and CORONAL EXPLORER
- + DEEP SPACE ONE
- + GOES-12
- + MARS EXPLORATION ROVER A
- + MARS EXPLORATION ROVER B
- + MErcury Surface, Space ENvironment, GEochemistry, and Ranging

- + SOLAR TERRESTRIAL RELATIONS OBSERVATORY
- + MARS SCIENCE LABORATORY
- + INTERFACE REGION IMAGING SPECTROGRAPH
- + MARS 2020
- + DOUBLE ASTEROID REDIRECTION TEST
- + MAGELLAN
- + MARS PATHFINDER

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REDWIRE

HERITAGE

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