

nanoSSOC-D60 Sun Sensor for Nano-Satellites

Digital Interface

The nanoSSOC-D60 is a volume, mass and power efficient digital output sun sensor and the perfect ADCS solution for cubesats and other nanosatellite platforms interested in interfacing with the sensor over UART, I2C or SPI. The Sun Sensor on a Chip (SSOC) architecture, achieved through MEMS fabrication processes, provides accurate tracking, pointing and attitude determination. The low cost device measures the incident angle of sun rays in two orthogonal axes, leveraging the geometrical dimensions of the design to provide high sensitivity in a compact and robust package.

Technical Chracteristics:

Туре	2 orthogonal axes
Field of View	±60°
Accuracy	< 0.5 ° (3sigma) < 0.1 ° (precision)
Electrical interface	UART, I2C or SPI 10-pin micro-connector
Power supply	3.3V / 5V < 23mA consumption
Mechanical interface	43 x 14 x 5.9 mm 6.5 g
Housing	Aluminum 6082 Black anodizing

Qualification Data and Flight Heritage:

Operating Temperature	-30° to 85° Celsius
Radiation	30 kRad (gamma) 6 MeV 3000 kRad (protons)
Random vibration	14,1g@20-2000 Hz
Shock	3000 g @ 1-100 ms

The unit includes MEMS technology from Solar MEMS, space grade electronic components and significant flight heritage. More than **50 flight models** have been delivered in support of more than 15 missions.

Mechanical Interface:



sales@spacequest.com 703-424-7801



Digital Space Qualified



Nano-Satellite Accommodation:



Compatible with most cubesat structures. Compatible with most OBCs.



Accommodation with structure



Accommodation with vertical support

SpaceQuest Ltd. • 3554 Chain Bridge Rd, Ste 400, Fairfax, VA 22030 • www.spacequest.com SpaceQuest is the distributor of Solar MEMS Technologies in the United States of America

