

Sun Sensor on a Chip (SSOC) is a two-axes and low cost sun sensor for **high accurate** sun-tracking, pointing and attitude determination. The device measures the incident angle of sun ray in two orthogonal axes, providing a high sensitivity based on the geometrical dimensions of the design.

nanoSSOC sun sensor is based on MEMS fabrication processes to achieve high integrated sensing structures. nanoSSOC-A60 has tiny size, low weight and low power consumption to be the perfect ADCS solution for nanosatellite platforms like Cubesats.

### Technical Characteristics:

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

**ITAR FREE**



**Digital  
Space Qualified**

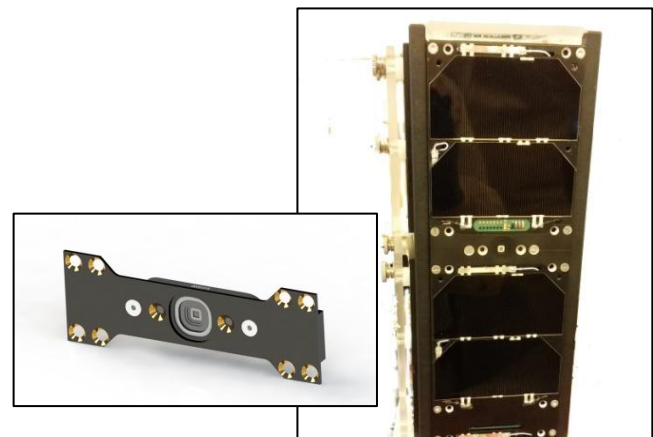
### Qualification Data and Flight Heritage:

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

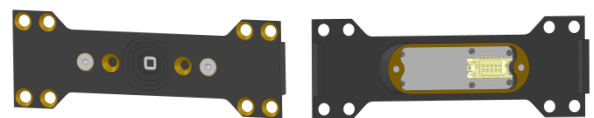
It includes MEMS technology of Solar MEMS with flight heritage. Electronic components are space-grade, and microprocessor has been tested according to space environment, and has flight heritage.

More than **50 units** included in more than 10 missions.

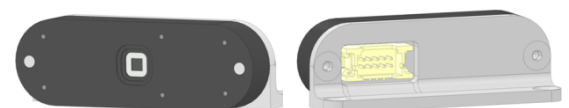
### Nano-Satellite Accommodation:



Compatible with most cubesat structures.  
Compatible with most OBCs.



Accommodation with structure



Accommodation with vertical support

### Mechanical Interface:

