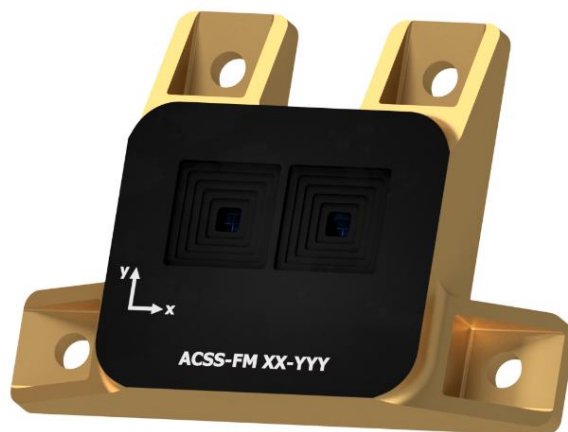


Advanced Coarse Sun Sensor (ACSS) is a device for sun-tracking and **attitude determination**. This sensor measures the incident angle of sun ray in two orthogonal axes, providing a high sensitivity based on the geometrical dimensions of the design.

ACSS sun sensor offers the highest **reliability** and **radiation hardness** for the most demanding LEO and GEO missions. ACSS technology has **flight heritage** since 2019 with hundreds of flight units delivered, and its manufacturing process has been developed and industrialized for **mass production**.

### Technical Specifications:

<b>Sun sensor</b>	Double redundancy
<b>Type</b>	2 orthogonal axes
<b>Field of View</b>	$\pm 60^\circ$
<b>Accuracy</b>	$< 1^\circ$ (3sigma, calibration)
<b>Electrical interface</b>	Analog, 15-pin micro connector
<b>Power supply</b>	15-30V, 3 mA
<b>Operating Temperature</b>	-40° to 85° Celsius
<b>Mechanical interface</b>	65 x 47 x 13 mm
<b>Mass</b>	40 g
<b>Housing</b>	Aluminum 6082 Alodine + Black anodizing



**Analog**  
**Space Qualified**  
**Industrialized for Mass Production**

### Qualification and Verification data:

<b>Qualification Temperature</b>	-55 to 105° Celsius
<b>Radiation tests</b>	200 kRad (gamma) 8e11 10 MeV (protons)
<b>Mechanical tests</b>	Shock 2000 g 18.3 g @ 20-2000 H
<b>Endurance tests</b>	600 cycles from -55 to 105°C 2000h at 125°C
<b>EMC/ESD</b>	ECSS-E-ST-20-07C MIL-STD-461F

ACSS is based on the CSS sensor designed and developed for OneWeb Constellation.

### Industrial Specifications:

<b>Mass production</b>	Up to more than 100 ss/month
<b>Quality control</b>	> 50 inspection points/KC
<b>Acceptance control</b>	Each ACSS is characterized and tested

### Mechanical interface and dimensions

