

ITAR FREE

Space Qualified

Mechanical Interface 1

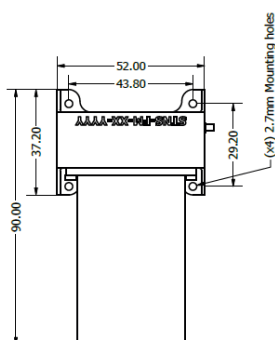


Mechanical Interface 2

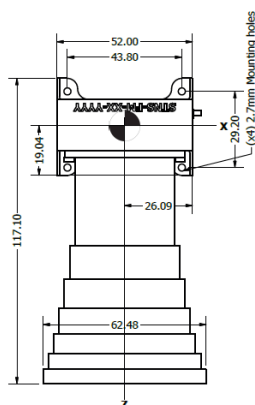


Assembly

STNS with Cubesat Baffle



STNS with Standard Baffle



Description

Star Tracker for Small Satellites STNS of Solar MEMS is an accurate device for attitude determination of Satellites. This sensor **captures images of a Star Field** with an internal CMOS device and identifies stars and constellations to determine pointing and attitude of the satellite with high accuracy.

Its robustness is based on highly used COTS devices together with space grade parts, **and it is plug & play**, so it does not need any additional electronic support or module for operating.

Qualification Data and Flight Heritage

Operating Temperature	-30° to 70° Celsius
Mechanical tests	Random RMS 8.8 gRMS Shock 2200 g at 2 kHz
EMC tests	MIL-STD 461G RE, CS, RS
Qualification	COTS camera with space heritage and space grade parts
Thickness of aluminum case	2mm
Radiation Hardness	10Krad

- Space grade and metallic connector
- Customization of baffle

Technical Characteristics

Type	Star Tracker for Attitud determination
Full Field of View	15° x 18° Rectangular
Accuracy	30 arcseconds (3sigma)
Exclusion HFOV	41deg (Sun) Cubesat baffle 30deg (Sun) Standard baffle
Electrical interface	UART nanoD 15pins connector
Power supply	5V, 1W consumption
Mechanical interface	90x52x38mm 160g (Cubesat) 118x63x63mm 200g (Standard)
Housing	Aluminum 6082 Black Anodized and Surtec 650