

# MAI-SS Space Sextant

Low Cost Miniature Star Tracker

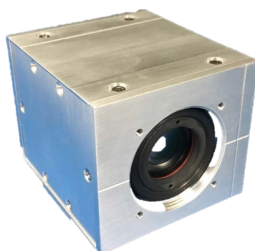
Stock #: MAI-000-00000010



The MAI-SS Star Tracker is low in cost and intended for CubeSat and NanoSat missions. The unit is completely self-contained and features lost in space star identification. Just apply power and begin receiving quaternions accurate to about 4 arcsec at 4 Hz rate. Currently available in either vertical or horizontal mounting. The tracker can be operated with a baffle or with sun exposure controlled by operations. The baffle is approximately 5" long, and so is not used for most CubeSat applications.

## Specifications

Performance Item	Specification
Accuracy (Cross Axis / Boresight)	4 arcsec / 27 arcsec
Acquisition Time	130 ms Acq, 105 ms Track (typical)
Max Tracking Rate	>2.0°/sec
Update Rate	4 Hz
Star Catalog	1825 stars to 6.0 VM
Lens	0.9in f1.2 BK7 Glass
Sun Exclusion w/wo Baffle	45° / 90°
Operating Temperature	-40 to 80 °C
Weight	170g (282 g w/ housing)
Dimensions wo / w case (mm)	50 x 50 x 47 / 55 x 65 x 70
Baffle Dimensions, Wt.	100 x 90 x 195, 135 gm
DC Voltage	5.0 V
Radiation TID (outside of case)	75 krad
Average power consumption	1.5 W (current, 1.0 W goal)
Serial Interface	UART TTL / I2C



**MAI Space Sextant Star Tracker in Standalone Enclosure and with Baffle**

