

Star Tracker



DESCRIPTION

A third-generation autonomous star tracker (AZOPHI I) that built on the MKES's Pioneer II experiences. This sensor is used for high accuracy 3-axis attitude determination in real time and is the ideal star sensor for small and CubeSat satellites.

KEY HIGHLIGHT

- 2 years LEO Orbit life time
- High Accuracy and short delivery time suitable for missions with high accuracy attitude determination requirements.
- Small size and low mass
- Simple to interface



TECHNICAL SPECIFICATION

Functional and Performance Characteristics

Field of View	13° x 9.8°
Active Pixel	(640 x 480) to 2592 x 1944
Focal Length	25 mm
X/Z accuracy	22 arcsec (1 ó)
Y accuracy	90 arcsec (1 ó)
Acquisition Time (Lost in Space)	<3sec
Maximum tracking output rate	1.0 °/sec
Star catalog Size	5300
Attitude update rate	4 Hz
Stellar visible magnitude	5.5 Mv
Sun / Earth exclusion angle	45° / 30°

Environmental and Mechanical Characteristics

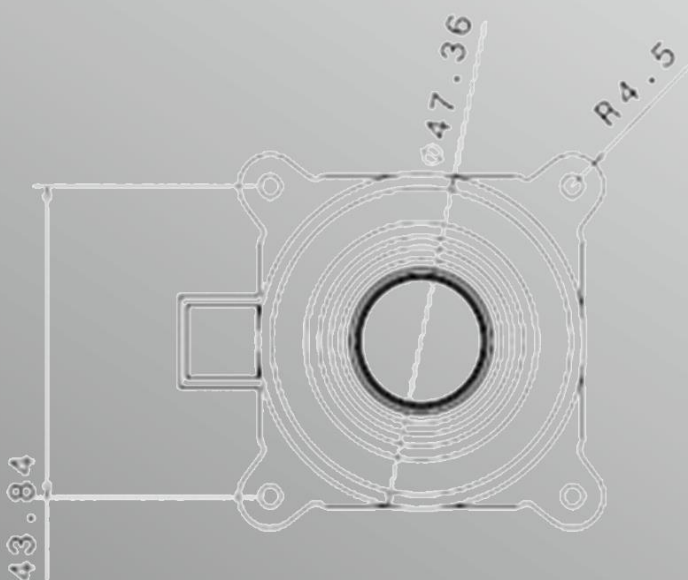
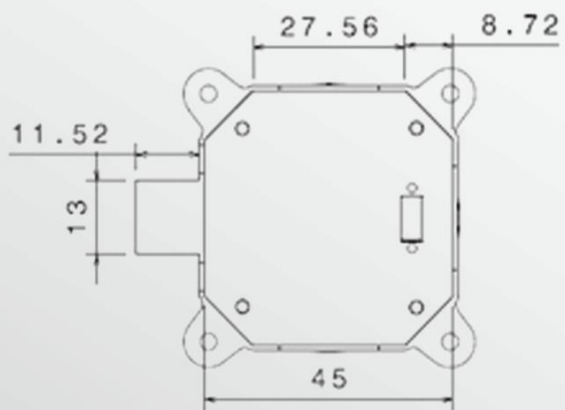
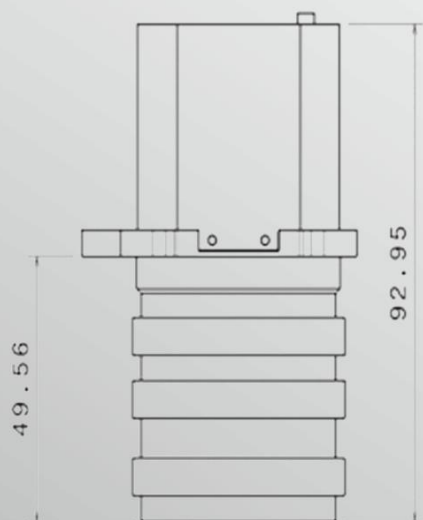
Radiation	10 kRad	
Random Vibration	15 Grms	
Operating Temperature Range	-30 °C to +65°C	
Mass / Dimensions	Baffle assembly	58 g / 49.6 , φ = 47.3 mm
	Case	122 g / 45 x 45 x 50.4 mm

Electrical Characteristics

Supply Voltage	5 V
Power Consumption	< 1.20 Watt
Data Interfaces	CAN bus



Drawing



Bottom view
Scale: 1:1

