STAR TRACKER

ST-16RT2 Data Sheet
High-Performance Star Tracker

Version 3.1 – 2024-08-02

ABSOLUTE ACCURACY	5 arcsecond cross-boresight (RMS) 55 arcsecond around boresight (RMS)
MAXIMUM SLEW RATE	Up to 3 deg/s
LENS	Full-custom optical solution, designed for shock and vacuum
OUTPUT SOLUTION	Up to 5 Hz (standard 2 Hz) Built-in catalogue and processing Full lost-in-space solution every frame Zero initial acquisition time Internal corrections for proper motion and stellar aberration
COMMAND / TELEMETRY	RS-485, redundant half-duplex or full-duplex
SUPPLY VOLTAGE	9V to 34V (nominal 28V)
POWER CONSUMPTION	Average: < 0.5 W Peak: 1.0 W
ENVIRONMENT	Thermal: -40°C to +48°C (operating), -40°C to +88°C (survival) Vibration: 26.43 gRMS (large baffle) | 27.05 gRMS (small baffle)
RADIATION	TID: 18 krad (board level) Heavy Ion: Up to 60 MeV·cm2/mg
HERITAGE	Total of 164 units on orbit across 3 generations, with cumulated 525 years of heritage since 2013

	LARGE BAFFLE	**SMALL BAFFLE**
FOV	7.5° x 10° half-angle	7.5° x Ø 8° half-angle
Sun Avoidance	22° sun-to-boresight	34° sun-to-boresight
Moon Avoidance	Demonstrated orbital operation with full moon in FOV	
Dimensions	99 Ø x 120 mm	62 x 56 x 67.5 mm
Total Mass	243g	182g

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