HYPERION TECHNOLOGIES

ST200 Star Tracker

DESCRIPTION

The ST200 is one of the world's smallest and lightest fully autonomous, low power star trackers, aimed at applications in pico- and nano-satellite platforms. It has been jointly developed by Hyperion Technologies B.V. and Berlin Space Technologies GmbH.

The ST200 is also suitable for applications on larger satellite platforms. For these applications, additional interfaces and power supply ranges are available.

HIGHLIGHTS

- Attitude determination accuracy (3 σ):
  - < 30 arcseconds pitch and yaw
  - < 200 arcseconds roll
- 5 Hz update rate
- TTL UART interface.
  RS422, RS485, I²C are optional
- Radiation tolerance qualified up to 12.5 krad (Si) for all components[1].
- Plug-and-play ready design
- Various baffle options available on demand

- Low mass: 42 g
- Low power: 600 mW
  (nominal power consumption when running at 5Hz update rate)
- Outer dimensions: 29 x 29 x 38.1 mm

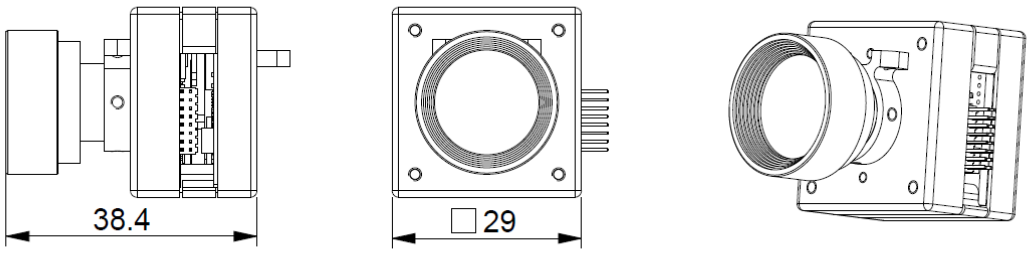
[1] Final radiation tolerance of the product can be tailored to customer needs. Please contact Hyperion Technologies B.V. for information.

SPECIFICATIONS

Performance				
Attitude determination accuracy (pitch, yaw)		30		arcseconds (3σ)
Attitude determination accuracy (roll)		200		arcseconds (3σ)
Update rate		5		Hz
Maximum slew rate (tilt/tilt)		> 0.3		°/s
Maximum slew rate (roll)		> 0.6		°/s
Dimensions				
Outer dimensions		29 x 29 x 38.1		mm
Mass (excluding baffle)		42		g
Environmental				
Operating temperature		-20 - +40		°C
Radiation tolerance		> 12.5		krad (Si)
Equivalent shielding thickness		> 1.5		mm Al
Electrical				
	Min.	Typ.	Max.	
Supply voltage	3.6	3.65[1]	5.0	V
Bus logic level voltage	Referenced to VREF[2]			V
Power consumption	180	600[3]	1000	mW

[1] Maximum efficiency is reached when operating at the lowest voltage
[2] VREF can range from 1.8 to 5.1V for I²C and UART applications.
[3] At 3.65V, at 5Hz update rate

MECHANICAL CHARACTERISTICS



Standard version of the ST200 Outer dimensions [mm]
(*note: the standard version does not include a baffle or an RS422/RS485 interface*)

For pricing, delivery, configuration and ordering information please contact Hyperion Technologies B.V. at *info@hyperiontechnologies.nl*, or visit Hyperion Technologies' website at *www.hyperiontechnologies.nl*.