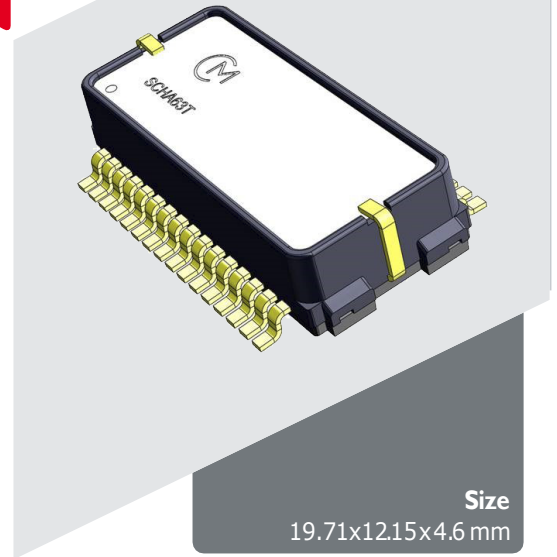


6-DOF XYZ-Axis Gyroscope and XYZ-Axis Accelerometer with Digital SPI Interface for Industrial Applications

Features

- Single package 6DOF component
- Cross-axis calibration enables better than 0.14° orthogonality error
- Gyro bias instability down to 1 °/h level
- Gyro noise density level 0.0015 °/s/√Hz
- Stable Offset and Sensitivity over full temperature range
- Excellent linearity and vibration performance
- Extensive self-diagnostics features
- ±300°/s angular rate measurement range
- ± 6 g acceleration measurement range
- −40°C...+110°C operating temperature range
- 3.0V...3.6V supply voltage
- RoHS compliant robust SOIC housing component size: 19.71 mm x 12.15 mm x 4.6 mm (l × w × h), 32 pins
- Can be used in Safety Critical Applications



Size
19.71x12.15x4.6 mm

Applications

SCHA63T is targeted at applications demanding high performance with tough environmental requirements.

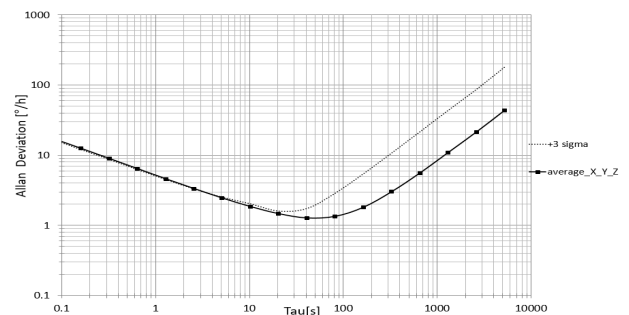
Typical applications include:

- Inertial Measurement Units (IMUs)
- Navigation and positioning
- Machine control and guidance
- Dynamic inclination
- Robotic control and UAVs

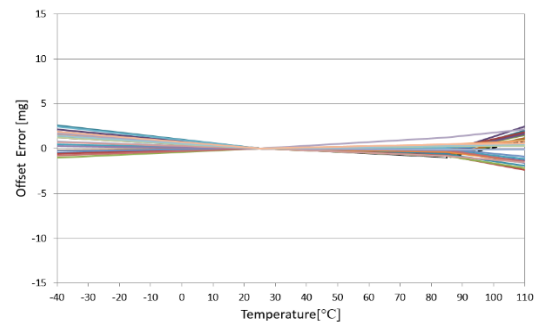
Measurement characteristics	Ω xyz	Acc xyz
Range	±300 °/s	±6g
User Selectable Low Pass Filter	13, 20, 46 or 300 Hz	13, 20, 46 or 300 Hz
Sensitivity	80 LSB/°/s	4905 LSB/g
Offset Temperature Dependency −40°C...+110°C (3σ)	(Z) ±0.085 °/s (XY) ±0.65 °/s	(XYZ) ±7.3 mg
Noise Density (Typ, 13 Hz filter)	(XYZ) 0.0015 °/s/√Hz	(XYZ) 59.5 µg/ √Hz
Bias Instability (Typ)	(XYZ) 1.1 °/h	(XYZ) 8.1 µg

*)Bottom of Allan Variance curve

Gyro X, Y, Z Average Allan Deviation in °/h



Acceleration X, Y, Z Offset Error Over Temperature in mg (10 pcs)



Acceleration X, Y, Z Linearity error in mg (10 pcs)

