

SCHA63T

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

Applications

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

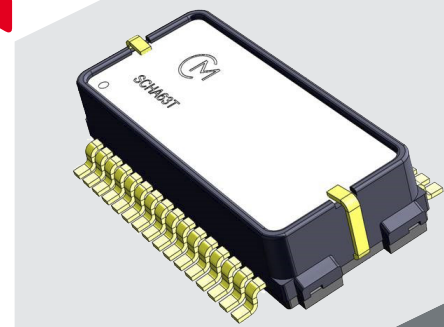
Typical applications include:

- 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

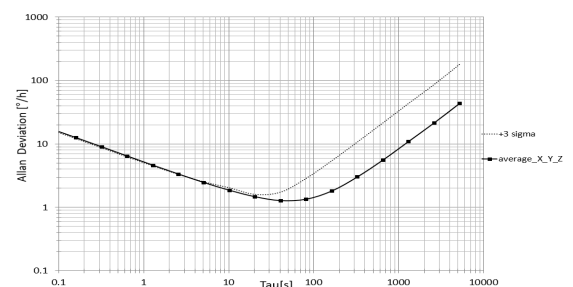
*)Bottom of Allan Variance curve

✉ info@murata.eu
 🌐 www.murata.com

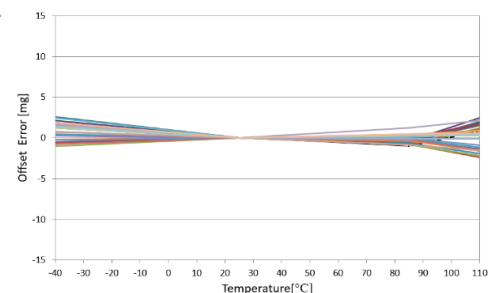


Size
19.71x12.15x4.6 mm

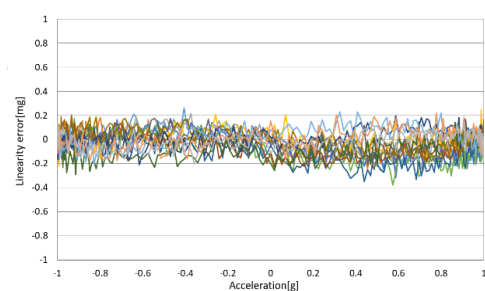
Gyro X, Y, Z Average Allan Deviation in °/h



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



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



Headquarter Switzerland:
Angst+Pfister Sensors and Power AG

Thurgauerstrasse 66
CH-8050 Zurich
Phone +41 44 877 35 00
sensorsandpower@angst-pfister.com

Office Germany:
Angst+Pfister Sensors and Power
Deutschland GmbH
Edisonstraße 16
D-85716 Unterschleißheim
Phone +49 89 374 288 87 0
sensorsandpower.de@angst-pfister.com



We are here for you. Addresses and Contacts.

Sales Germany & Austria

Geometrical sensors
Other products

Kurt Stritzelberger
Phone +49 89 374 288 87 22
kurt.stritzelberger@angst-pfister.com

Pressure sensors
Other products

Gerhard Vetter
Phone +49 89 374 288 87 26
gerhard.vetter@angst-pfister.com

Gas sensors and modules

Peter Felder
Phone +41 44 877 35 05
peter.felder@angst-pfister.com

Sales Switzerland & Liechtenstein

Postcode 3000 – 9999

Basil Frei
Phone +41 44 877 35 18
basil.frei@angst-pfister.com

Postcode 1000 – 2999

Christian Mohrenstecher
Phone +41 76 444 57 93
christian.mohrenstecher@angst-pfister.com

Sales International Key Accounts

Peter Felder
Phone +41 44 877 35 05
peter.felder@angst-pfister.com

Sales Other Countries / Product Management

Pressure Sensors
Load Cells

Philipp Kistler
Phone +41 44 877 35 03
philipp.kistler@angst-pfister.com

Gas sensors
Gas sensor modules

Dr. Thomas Clausen
Phone +49 89 374 288 87 24
thomas.clausen@angst-pfister.com

Flow / Level / Medical products

Dr. Adriano Pittarelli
Phone +49 89 374 288 87 67
adriano.pittarelli@angst-pfister.com

Power supplies

Sebastiano Leggio
Phone +41 44 877 35 06
sebastiano.leggio@angst-pfister.com

Linear position sensors
Angle sensors

Eric Letsch
Phone +41 44 877 35 14
eric.letsch@angst-pfister.com

Accelerometers
Sensor elements

Christoph Kleye
Phone +49 89 374 288 87 61
christoph.kleye@angst-pfister.com

Drive technology
CH Postcode 5000 – 9999 / DE

Roman Homa
Phone +41 76 444 00 86
roman.homa@angst-pfister.com

Drive technology
CH Postcode 1000 – 4999 / AT / IT / FR

Christian Mohrenstecher
Phone +41 76 444 57 93
christian.mohrenstecher@angst-pfister.com

Harald Thomas
Phone +49 89 374 288 87 23
harald.thomas@angst-pfister.com