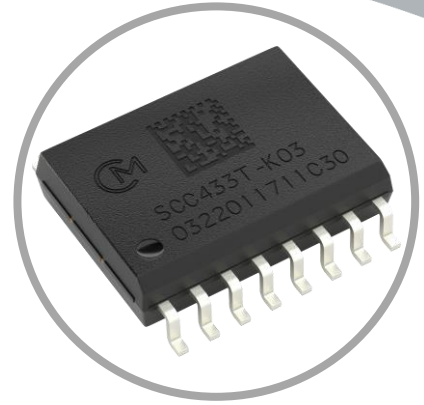


Murata SCC400T

High Performance Combined Gyro Sensor and Accelerometer



Applications

- Inertial Measurement Units (IMUs)
- Robotic control systems
- Machine control systems
- Platform stabilization and control
- Motion analysis and control
- High precision (GNSS) positioning

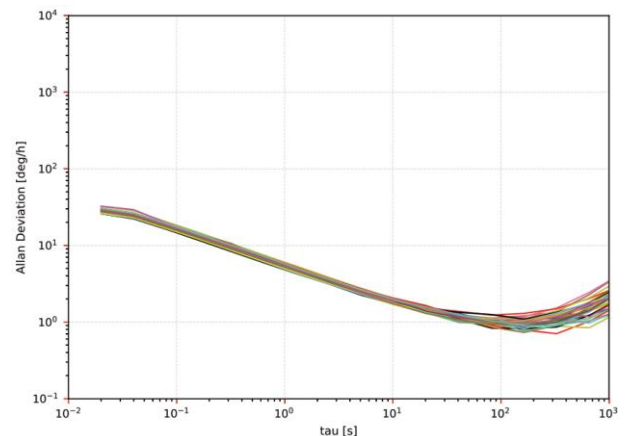
Features

- Single package up to 5DOF High Performance Combined Gyro Sensor and Accelerometer
- $\pm 300^\circ/\text{s}$ X- or X/Z-axis angular rate measurement range
- $\pm 6\text{g}$ 3-axis acceleration range
- $\pm 8\text{g}$ 3-axis acceleration range (parallel output)
- Secondary gyro output with independent low pass filter control
- Based on Murata's proven 3D-MEMS technology
- New architecture enabling low noise for gyro and accelerometer
- Excellent linearity and offset stability over temperature
- RoHS compliant robust SOIC plastic package suitable for lead free soldering process and SMD mounting $10.4 \times 7.65 \times 2.3 \text{ mm}$ (l \times w \times h)
- 3.0V - 3.6V supply voltage
- Extensive self-diagnostics features
- SCC400T series enables implementation of a 6DOF sensor solution on one application PCB with 5DOF and 1DOF sensors

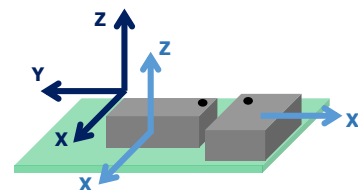
Performance

- Low noise: $70 \mu\text{g}/\sqrt{\text{Hz}}$ & $0.002^\circ/\text{s}/\sqrt{\text{Hz}}$
- Excellent linearity: error below $\pm 1 \text{ mg}$
- Excellent offset stability over temperature and lifetime
- Bias instability down to $1^\circ/\text{h}$ level
- Temperature range $-40\dots+110^\circ\text{C}$

Gyro Allan variance



6DOF PCB configuration



Accel \rightarrow
Gyro \rightarrow
System \rightarrow

