

SCC1300

Combined X-axis Gyroscope and 3-axis Accelerometer



Applications

- Inertial measurement units for highly demanding industrial environments
- Platform stabilization and control
- Motion analysis and control
- Guidance and navigation systems

Key Benefits

- All in one digital component
- Exceptionally insensitive to mechanical shocks and vibrations
- Superior angular rate bias stability over temperature and time

Versions

- SCC1300-D02 (± 100 °/s, ± 2 g)
- SCC1300-D04 (± 300 °/s, ± 6 g)

Standalone Gyros

- SCY1100-D01 (± 100 °/s)
- SCY1100-D02 (± 300 °/s)

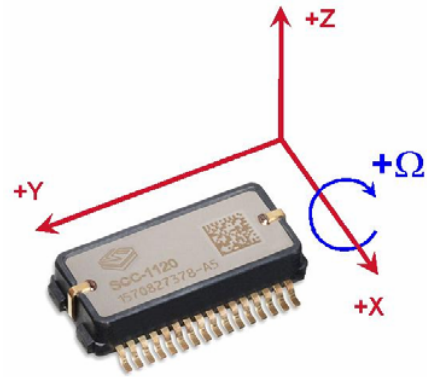
Key Features

- Size 8.5 x 4.53 x 18.65 mm (w x h x l)
- ± 100 °/s & ± 300 °/s angular rate measurement ranges
- ± 2 g & ± 6 g acceleration measurement ranges
- Angular rate measurement around X-axis
- Acceleration measurement in X, Y and Z directions
- Digital SPI interfacing
- Self diagnostics features
- Wide operating temperature range -40°C ... $+125^{\circ}\text{C}$
- RoHS compliant



SCC1300-D02

Gyroscope Specifications



Gyroscope Parameters	Unit	SCC1300-D02
Package size	mm ³	18.65 x 8.5 x 4.53
Number of axis / Direction		Single axis / X / Horizontal
Integrated accelerometer		Yes, 3-axis (±2 g)
Measurement range	°/s	±100
Operation Voltage	V	5.0V analog 3.3V digital
Supply Current	mA	46
Operating temperature range	°C	-40 ... +125
Offset temperature error	°/s °/s / °C	±0.5 (3σ) ±0.003
Sensitivity temperature error	% % / °C	±1 % (3σ) ±0.006 % / °C
Noise (RMS)	°/s RMS	0.06
Bias Stability	°/h	0.85
Angular random walk (ARW)	°/√h	0.45
Nonlinearity	°/s	±0.5
Cross-axis sensitivity	%	1.7
G-sensitivity	°/s / g	±0.1
Amplitude response	Hz	50
Power on setup time	s	0.8
Output interface		Digital, SPI

