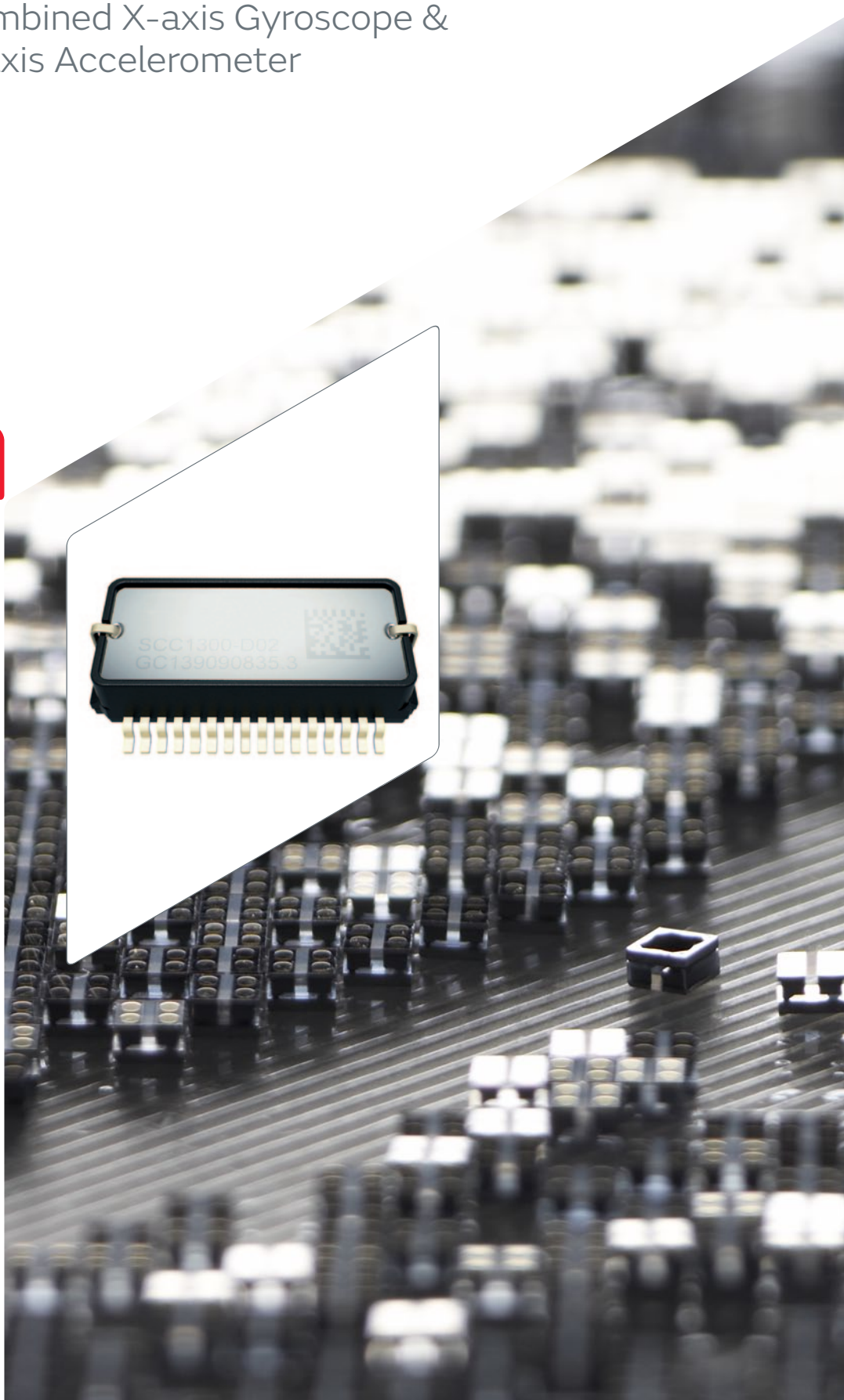
muRata
INNOVATOR IN ELECTRONICS

SCC1300

Combined X-axis Gyroscope & 3-axis Accelerometer



SCC1300

Combined X-axis Gyroscope & 3-axis Accelerometer

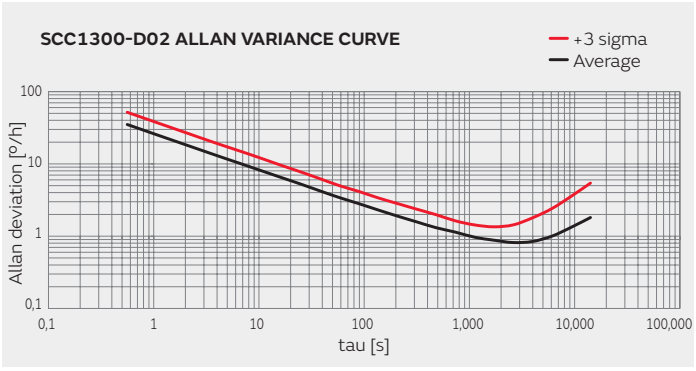
Key features

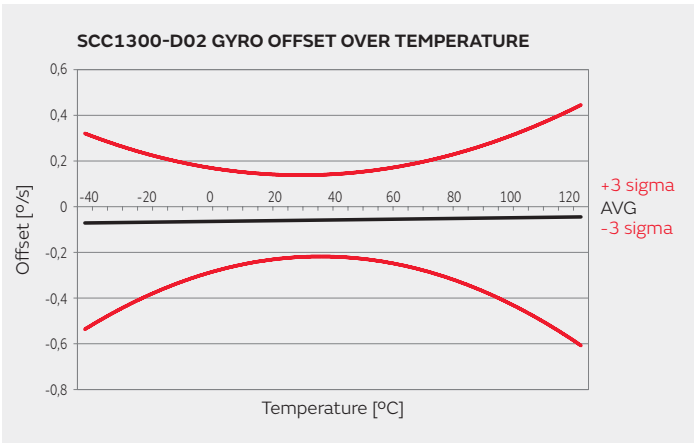
- All in one digital component
- Exceptionally insensitive to mechanical shocks and vibrations
- Superior angular rate bias stability over temperature and time
- Size 8.5 x 4.53 x 18.65 mm (w x h x l)
- ±100 °/s & ±300 °/s angular rate measurement ranges
- ±2 g & ±6 g acceleration measurement ranges
- Angular rate measurement around X-axis
- Acceleration measurement in X, Y and Z directions
- Digital SPI interfacing
- Self diagnostics features
- Wide operating temperature range -40ºC ...+125 °C
- RoHS compliant

Applications

Inertial measurement units for highly demanding industrial environments

- Platform stabilization and control
- Motion analysis and control
- Guidance and navigation systems





For more information, please refer to the product datasheets available ONLINE at **www.murata.com**
Murata Electronics Oy, Myllynkivenkuja 6, P.O. Box 27, FI-01621 Vantaa.

SCC1300 GYROSCOPE PERFORMANCE CHARACTERISTICS

Available also as gyro only (SCR1100)

PARAMETERS	UNIT	SCC1300-D02 SCR1100-D02	SCC1300-D04 SCR1100-D04
Package size	mm^3	18.65 x 8.5 x 4.53	18.65 x 8.5 x 4.53
Number of axis / Directions		Single axis / X / Horizontal	Single axis / X / Horizontal
Integrated accelerometer (SCC1300 only)		Yes, 3-axis (±2 g)	Yes, 3-axis (±6 g)
Measurement range	°/s	±100	±300
Operation voltage	V	5.0V analog 3.3V digital	5.0V analog 3.3V digital
Supply current SCC1300 SCR1100	mA	49	49
Operating temperature range	°C	-40 ... +125	-40 ... +125
Offset over temperature	°/s	±0.6 (3σ)	±0.9 (3σ)
Sensitivity temperature error	%	±01 (3σ)	±1 (3σ)
Noise (RMS)	°/s RMS	0.06	0.14
Bias instability	°/h	<1	<2
Angular random walk (ARW)	°/h	0.45	0.86
Nonlinearity	°/s	±0.5	±1
Cross-axis sensitivity	%	1.7	1.7
G-sensitivity	°/s/g	±0.1	±0.1
Amplitude response	Hz	50	50
Power on setup time	s	0.8	0.8
Output interface		Digital, SPI	Digital, SPI