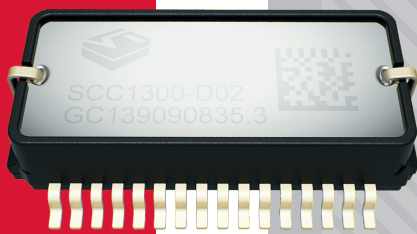


# SCC1300

Combined X-axis Gyroscope & 3-axis Accelerometer



ROBUST DESIGN | HIGH PERFORMANCE

SMALL SIZE MAKE A BIG DIFFERENCE. FOR A SAFER, MORE ENJOYABLE WORLD.

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TECHNOLOGIES

# 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)
- $\pm 100$  °/s &  $\pm 300$  °/s angular rate measurement ranges
- $\pm 2$  g &  $\pm 6$  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 °C
- RoHS compliant

### Applications

Inertial measurement units for highly demanding industrial environments

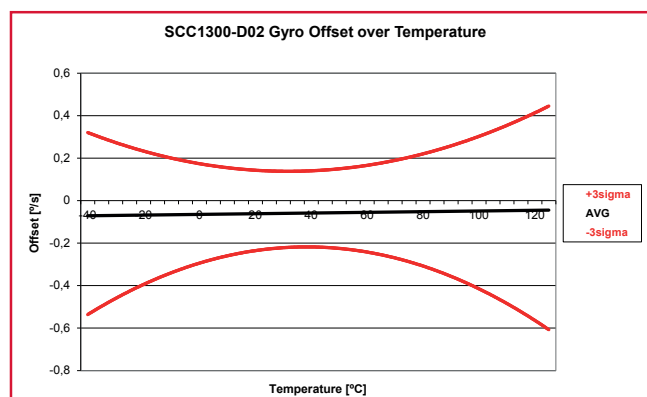
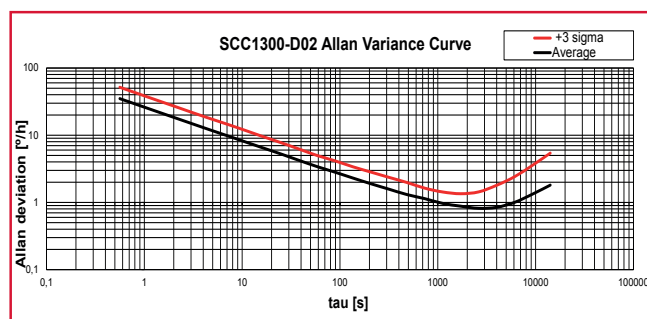
- Platform stabilization and control
- Motion analysis and control
- Guidance and navigation systems



## SCC1300 GYROSCOPE SPECIFICATIONS

Available also as gyro only (SCR1100).

Parameters	Unit	SCC1300-D02 SCR1100-D02	SCC1300-D04 SCR1100-D04
Package size	mm <sup>3</sup>	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 (+/-2 g)
Measurement range	°/s	$\pm 100$	$\pm 300$
Operation voltage	V	5.0V analog 3.3V digital	5.0V analog 3.3V digital
Supply current	mA	46	46
Operating temperature range	°C	-40 ... +125	-40 ... +125
Offset over temperature	°/s	$\pm 0.6$ (3 $\sigma$ )	$\pm 0.9$ (3 $\sigma$ )
Sensitivity temperature error	%	$\pm 0.1$ (3 $\sigma$ )	$\pm 1$ (3 $\sigma$ )
Noise (RMS)	°/s RMS	0.06	0.14
Bias instability	°/h	<1	<2
Angular random walk (ARW)	°/h	0.45	0.86
Nonlinearity	°/s	$\pm 0.5$	$\pm 1$
Cross-axis sensitivity	%	1.7	1.7
G-sensitivity	°/s / g	$\pm 0.1$	$\pm 0.1$
Amplitude response	Hz	50	50
Power on setup time	s	0.8	0.8
Output interface		Digital, SPI	Digital, SPI



For more detailed information, please check SCC1300 Datasheet available at [www.vtitechnologies.com](http://www.vtitechnologies.com)

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