

# SCA3060

Digital Low Cost Low Power  
Automotive Qualified 3-axis Accelerometer



LOW POWER | ROBUST DESIGN | HIGH PERFORMANCE

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



# SCA3060

## Digital Low Cost Low Power Automotive Qualified 3-axis Accelerometer

### Key features

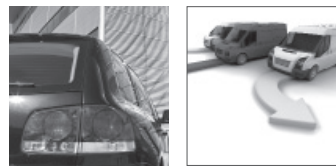
- Size 7.6 x 3.3 x 8.6 mm (w x h x l)
- $\pm 2$  g measurement range
- -40...+105 °C temperature range
- 3.0 V - 3.6 V supply voltage
- Low current consumption
- Measurement mode 150  $\mu$ A
- Total offset error  $\pm 200$  mg
- Includes effects over supply voltage, temperature and life time
- RoHS compliant
- AEC Q-100 qualified
- High shock durability
- Interrupt signal triggered by motion
- Selectable frequency response
- 64 samples/axis ring buffer memory and advanced features enable significant power and resource savings

### Applications

SCA3060 is targeted to automotive security applications such as

- Inertial navigation
- Vehicle alarms
- Inclination sensing
- Motion activation
- Black box systems

Robust packaging makes the sensor also suitable for Industrial applications.



## SCA3060 PERFORMANCE CHARACTERISTICS

Parameter	Condition	SCA 3060-D01 (SPI)			SCA 3060-D02 (I <sup>2</sup> C)			Units
		Min	Typ.	Max	Min	Nom	Max	
Analog and digital Vdd		3.0	3.3	3.6	3.0	3.3	3.6	V
Operating temperature		-40	-	105	-40	-	105	°C
Current consumption	Reset	-	<9	-	-	<9	-	$\mu$ A
	Measurement/MD mode		150			250		$\mu$ A
Acceleration range	Nominal	-	$\pm 2$		-	$\pm 2$		g
Total offset error	-40 ... +105 °C	-200	-	200	-200	-	200	mg
Sensitivity		-	1000	-	-	1000		Count/g
Total sensitivity error		-4	$\pm 2$	4	-4	$\pm 2$	4	%
Non-linearity		-3	$\pm 1$	3	-3	$\pm 1$	3	% FS
Cross-axis sensitivity		-	$\pm 3$	-	-	$\pm 3$	-	%
Bandwidth	Measurement mode		9			11		Hz
	Wide band mode		35			40		Hz
Noise	Measurement mode		9			9	-	mg RMS
	Wide band mode		16			16		mg RMS
Output data rate	Measurement mode		50			63		Hz
	Wide band mode		100			130		Hz
Start-up time		-	200	-	-	200	-	ms
Output load		-	-	35	-	-	35	pF
SPI clock rate / I <sup>2</sup> C clock rate			-	325		-	100	kHz

For more detailed information, please check SCA3060 Datasheet available at [www.vtitechnologies.com](http://www.vtitechnologies.com)

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