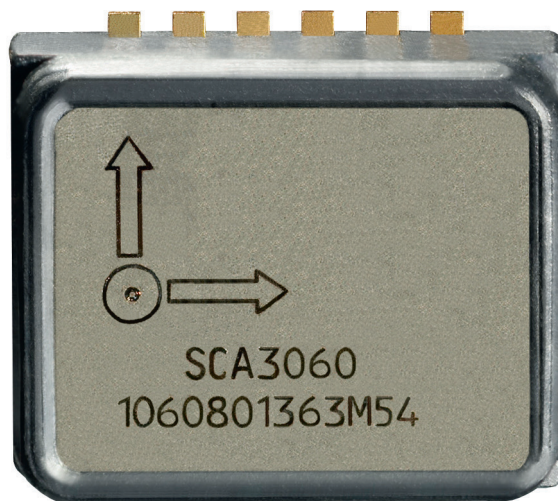


# SCA3060

Digital Low Cost Low Power  
Automotive Qualified 3-axis  
Accelerometer



**muRata**

Murata Electronics Oy

*Innovator  
in Electronics*

# SCA3060

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

### Key features

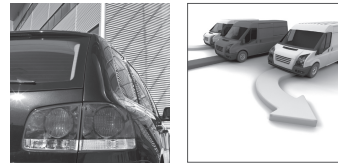
- Size 7.6 x 3.3 x 8.6 mm (w x h x l)
- $\pm 2$  g measurement range
- -40...+105 °C temperature range
- 3.0 V - 3.6 V supply voltage
- Low current consumption
- Measurement mode 150  $\mu$ A
- Total offset error  $\pm 200$  mg
- Includes effects over supply voltage, temperature and life time
- RoHS 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) |         |     | Units   |
|--|---------------------|--------------------|---------|-----|---------|
|  |                     | Min                | Typ.    | Max |         |
| Analog and digital Vdd                       |                     | 3.0                | 3.3     | 3.6 | V       |
| Operating temperature                        |                     | -40                | -       | 105 | °C      |
| Current consumption                          | Reset               | -                  | <9      | -   | $\mu$ A |
|  | Measurement/MD mode |                    | 150     |     | $\mu$ A |
| Acceleration range                           | Nominal             | -                  | $\pm 2$ |     | g       |
| Total offset error                           | -40 ... +105 °C     | -200               | -       | 200 | mg      |
| Sensitivity                                  |                     | -                  | 1000    | -   | Count/g |
| Total sensitivity error                      |                     | -4                 | $\pm 2$ | 4   | %       |
| Non-linearity                                |                     | -3                 | $\pm 1$ | 3   | % FS    |
| Cross-axis sensitivity                       |                     | -                  | $\pm 3$ | -   | %       |
| Bandwidth                                    | Measurement mode    |                    | 9       |     | Hz      |
|  | Wide band mode      |                    | 35      |     | Hz      |
| Noise  | Measurement mode    |                    | 9       |     | mg RMS  |
|  | Wide band mode      |                    | 16      |     | mg RMS  |
| Output data rate                             | Measurement mode    |                    | 50      |     | Hz      |
|  | Wide band mode      |                    | 100     |     | Hz      |
| Start-up time                                |                     | -                  | 200     | -   | ms      |
| Output load                                  |                     | -                  | -       | 35  | pF      |
| SPI clock rate / I <sup>2</sup> C clock rate |                     |                    | -       | 325 | kHz     |

FOR MORE INFORMATION, PLEASE REFER TO THE PRODUCT DATASHEETS AVAILABLE ONLINE AT [WWW.MURATAMEMS.FI](http://WWW.MURATAMEMS.FI)