

# Product Information

## Navigation Gyroscope

### MLX90609-N2

The MLX90609-N2 Angular Rate Sensor is a full gyroscopic system. A single SMD package contains a high performance Silicon micromachined sensor with signal conditioning circuitry. It operates from 5V supply and is designed for dead reckoning navigation applications.

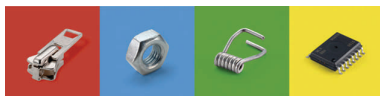
The MLX90609-N2 delivers two output signals proportional to the angular rate parallel to the assembly surface. One of the output signals is in an analog voltage format (the output is 2.5V at zero angular rate and the full scale angular rate produces an output of 4.5V or 0.5V depending on direction of rotation) and the other one is in a digital SPI format..

### Features

- High resolution and dynamic range
- Both digital (SPI) and analog outputs
- Low acceleration and angular rate cross sensitivity
- Low zero rate output drift
- Cost effective and compact solution
- High-performance MEMS sensor in mono crystalline Si yielding a superior long-term behavior reliability and dynamic range
- Programmable bandwidth
- Built-in on demand and non disruptive continuous self tests
- Factory set full scale range ( $\pm 75^\circ/\text{s}$ )
- On chip EEPROM calibration
- Serial Number in EEPROM
- Small footprint (SMD CLCC32) with horizontal mounting
- Operating temperature range:  $-40^\circ\text{C}$  to  $85^\circ\text{C}$

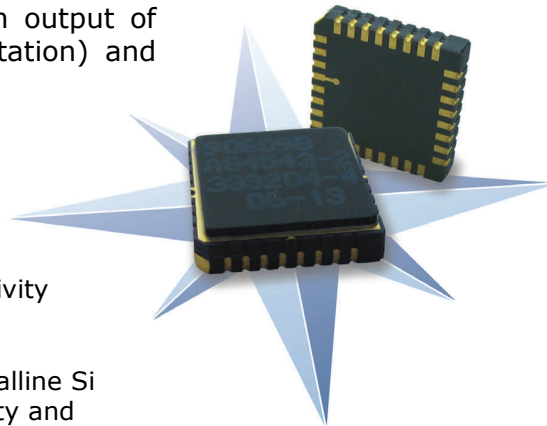
### Applications

- Navigation (dead reckoning)
- Robots



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Silicon MEMS

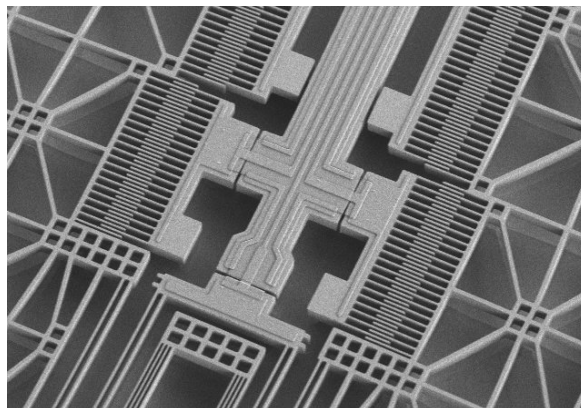
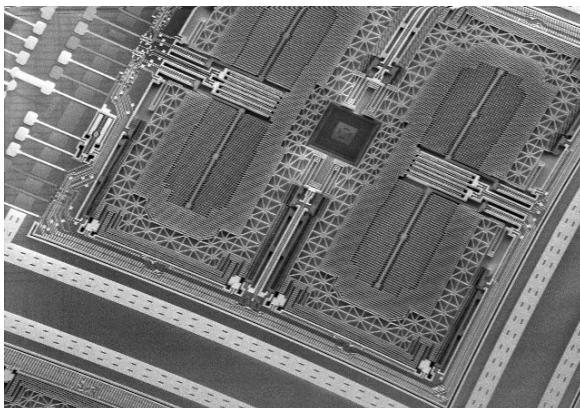
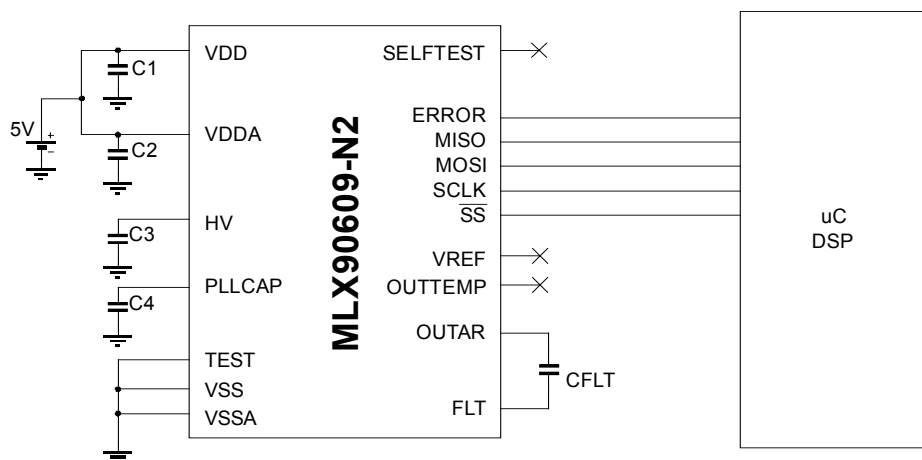
Hall ICs

CMOS Imaging

Bus ICs

IR Temperature

## Application Circuitry



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