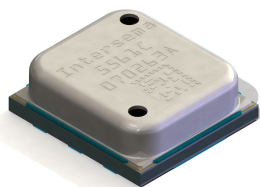


MS5561-C

MICRO ALTIMETER



Preliminary

- 10 - 1100 mbar / 1 – 110 kPa absolute pressure range
- High accuracy temperature measurement
- Integrated miniature pressure sensor module
4.75 mm x 4.25 mm
- Thin design of 1.6 mm
- Piezo-resistive silicon micro-machined sensor
- 6 coefficients for software compensation stored on-chip
- 16 Bit ADC, sigma delta converter
- 3-wire serial interface
- 1 system clock line (32.768 kHz)
- Low voltage and low power consumption
- RoHS-compatible & Pb-free*

DESCRIPTION

The MS5561 is a SMD-hybrid device including a precision piezo-resistive pressure sensor and an ADC-Interface IC. It is fully software compatible to Intersema's well known barometer/altimeter modules MS5534B / MS5540. Its dimensions of only 4.75 mm x 4.25 mm and a height of only 1.6 mm allows for up-to-date SMD design. It provides a 16 Bit data word from a pressure and temperature dependent voltage. The MS5561 is a low power, low voltage device with automatic power down (ON/OFF) switching. A 3-wire interface is used for all communications with a micro-controller.

FEATURES

- Pressure resolution 0.1 mbar
- Operating temperature -40°C to +85°C
- Supply voltage 2.2 V to 3.6 V
- Low supply current, typ. 4 µA
Standby current < 0.1 µA
- Calibrated temperature and pressure sensor for 2nd order compensation
- ESD protected, HBM 4 kV

APPLICATIONS

- Mobile phones
- GPS receivers
- High volume altimeter applications

BLOCK DIAGRAM

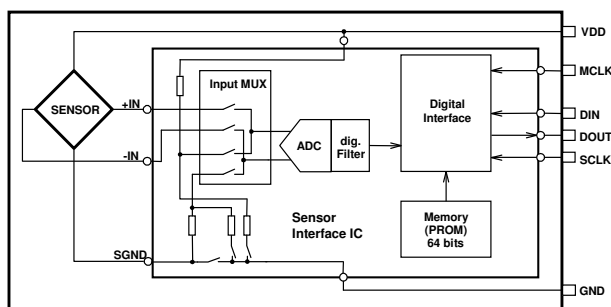


Fig. 1: Block diagram MS5561

* The European RoHS directive 2002/95/EC (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment) bans the use of lead, mercury, cadmium, hexavalent chromium and polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE).