

10 axis motion sensor

General Description

The HTT7201 is a 10-axis motion sensor which has integrated MEMS accelerometer, magnetometer and pressure sensor.

The MEMS sensor detects 3-axis acceleration, 3-axis magnetic field and absolute pressure. By using tilt compensated e-compass and accelerometer, 3-axis rotational velocity (gyroscope) is also calculated. The signal conditioning LSI provides optimal performance with low power consumption. Digital output data interface through I2C standard.

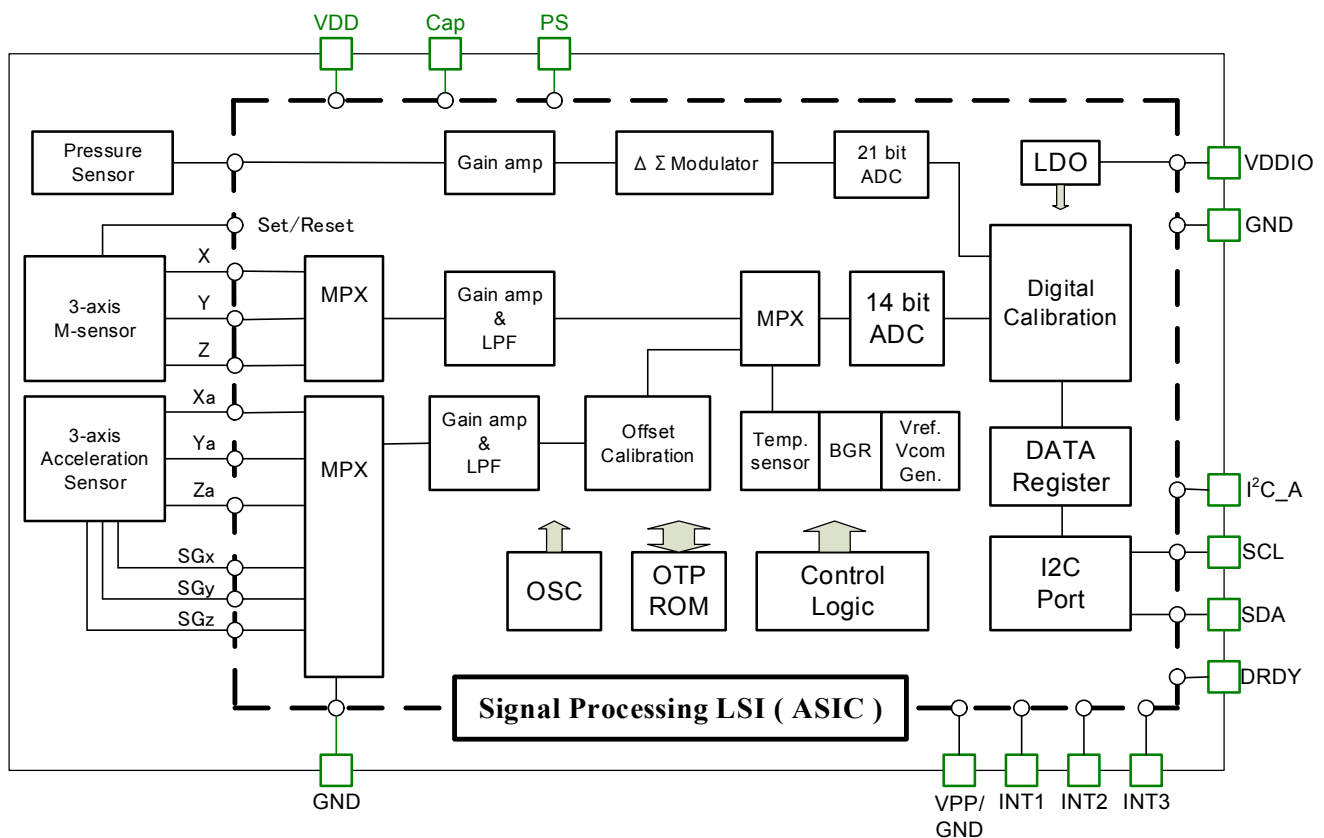
Factory calibration characterizes sensor parameters such as sensitivity and offset for all temperature range.

The accelerometer has a Stress-relaxation structure.

Features

- 10 axis motion sensor: 3 axis accelerometer, 3 axis magnetometer, absolute pressure and 3 axis rotational velocity
- I2C digital serial interface
- Small, Surface mount Package
- Supply Range : VDD = 2.4V ~ 3.6V (I/O interface : 1.7V ~ VDD)
- High resolution A/D converter: 12 bits & 21 bits
- Small package: 2.5 × 2.5 × 1.1 mm (14 pin)
- Operating temperature : -40°C ~ 85°C
- Motion detector provides optimum power management
- Low power mode and Power down capability

Block diagram

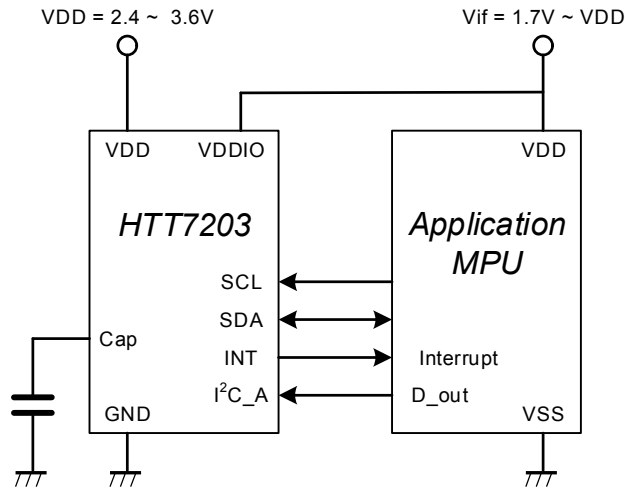


HTT7203

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Typical Application circuit



Pin assignment & axis

