

BMF055

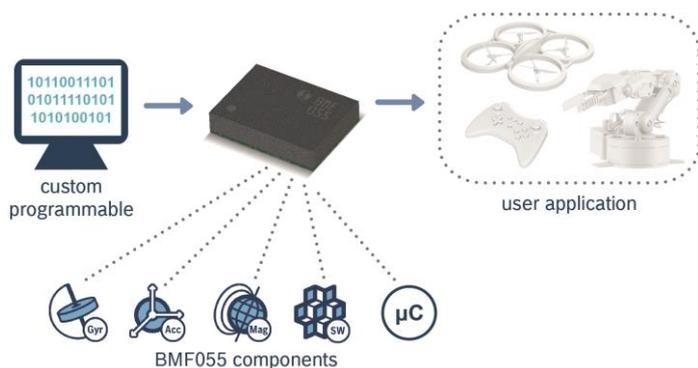
Custom programmable 9-axis motion sensor

GENERAL DESCRIPTION

The BMF055 is an extension of the Application Specific Sensor Nodes (ASSN) family implementing a custom programmable 9 axis motion sensor which includes sensors and a microcontroller in a single package.

The BMF055 is a System in Package (SiP), integrating a triaxial 14 bit accelerometer, a triaxial 16 bit gyroscope with a range of ± 2000 degrees per second, a triaxial geomagnetic sensor and a 32 bit Cortex M0+ micro-controller from Atmel. At just just $5.2 \times 3.8 \times 1.1 \text{ mm}^3$, it is significantly smaller than comparable discrete or system on board solution.

By integrating sensors and the microcontroller in a single device, the BMF055 eases the integration process for customers. Moreover Bosch Sensortec also provides an additional Software Development Package which includes a precompiled BSX Lite fusion library with integration guidelines, API source files for individual sensors and example projects as a plugin for Atmel Studio ©. This enables the development of custom specific firmware for applications such as gaming, robotics, augmented reality or other industrial applications.



COMPONENTS

- ▶ Acceleration Sensor (BMA)
- ▶ Gyroscope (BMG)
- ▶ Geomagnetic Sensor (BMM)
- ▶ 32 bit Microcontroller

APPLICATIONS

- ▶ Augmented reality
- ▶ Navigation
- ▶ Gaming
- ▶ Robotics
- ▶ Industrial applications

WHAT MAKES THE DIFFERENCE

- ▶ All components in one package leads to simplified system integration and faster time to market
- ▶ Footprint is significantly reduced compared to discrete and system on board solutions
- ▶ Example projects implemented using Atmel Studio © provides a basic setup to quickly get started with the software development
- ▶ Integration guideline along with the BSX lite fusion library enables easy integration of application specific software
- ▶ Hardware together with the Software Development Package provides the full flexibility to either integrate additional software or develop application specific sensor fusion algorithm

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