

Many applications made easy: Bosch launches cost-effective motion sensor BMI323

October 20, 2022

PI11573 CS/KS

Inertial Measurement Unit (IMU) delivers high accuracy and power efficiency for new consumer use cases

- ▶ Motion sensor with no compromises on precision and performance
- ▶ Integrated features simplify and accelerate product development
- ▶ New opportunities for IMUs in diverse consumer applications

Tiny MEMS motion sensors are all around us. They make consumer products easier to use and improve how our smartphones and other gadgets interact with us. These sensors are precise, compact and power-efficient, however, until now, they have been complex for basic applications. To address this issue, Bosch Sensortec is launching the BMI323, an affordable Inertial Measurement Unit (IMU) with excellent performance and integrated features enabling a shorter development time.

"The BMI323's combination of simplicity with an excellent price-performance ratio will open up new applications for IMUs," said Dr. Stefan Finkbeiner, CEO at Bosch Sensortec. "These will include standard consumer products, such as toys, gaming controllers, remote controls, wearables, fitness trackers, smartwatches as well as tablets and laptops."

Like its predecessor BMI160, the new BMI323 is a general-purpose, low-power IMU that combines precise acceleration and angular rate (gyroscopic) measurement with intelligent integrated features that are triggered by motion.

Its integrated features make development faster and easier for OEMs. For example, the BMI323 already includes Bosch Sensortec's plug-and-play step counter software, so customers don't need to spend time developing their own algorithms. Other features include motion detection that can turn subsystems on or off when a device, such as a TV remote control, is put down or picked up, thus reducing overall power consumption.

Compared to the BMI160, the BMI323 provides improved accelerometer performance as well as lower power consumption. In high-performance mode, using both the gyroscope and the accelerometer, the BMI323 has a current consumption of 790µA compared to 925µA on the BMI160, which represents a reduction of nearly 15%.

The 6-axis BMI323 has a self-calibrating 16-bit triaxial gyroscope, a 16-bit triaxial accelerometer, and a 16-bit digital temperature sensor housed in a miniature 2.5 x 3.0 x 0.83 mm³ (14-pin) LGA package that is pin to pin compatible with the BMI160 and others. The BMI323 is the first IMU device announced by Bosch Sensortec to include the new I3C interface, in addition to the I2C and SPI interfaces.

Availability:

The BMI323 is available now.

Website:

<https://www.bosch-sensortec.com/products/motion-sensors/imus/bmi323/>

Press photos: 53f9c38c, 464f8d2f, 92f58fd9, 88657e13, 52c6c2ce, bf55eb87

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Bosch Sensortec GmbH, a fully owned subsidiary of Robert Bosch GmbH, develops and markets a wide portfolio of microelectromechanical systems (MEMS) sensors and solutions tailored for smartphones, tablets, wearables and hearables, AR/VR devices, drones, robots, smart home and IoT (Internet of Things) applications. The product portfolio includes 3-axis accelerometers, gyroscopes and magnetometers, integrated 6- and 9-axis sensors, smart sensors, barometric pressure sensors, humidity sensors, gas sensors, optical microsystems and comprehensive software. Since its foundation in 2005, Bosch Sensortec has emerged as the MEMS technology leader in the markets it addresses. Bosch has been both a pioneer and a global market leader in the MEMS sensor segment since 1995 and has, to date, sold more than 15 billion MEMS sensors.

For more information, please visit www.bosch-sensortec.com, twitter.com/boschMEMS, community.bosch-sensortec.com, linkedin.com/company/bosch-sensortec/, youtube.com/user/BoschSensortec

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