



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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World's First Wide-Range 6-Axis MEMS MotionTracking™ Device for Sports and High Impact Applications

GENERAL DESCRIPTION

Many of today's wearable and sports solutions, which analyze the motion of a user's golf or tennis swings, soccer ball kicks, or basketball activities, require higher than currently available ± 2000 dps (degrees per second) FSR for gyroscope and $\pm 16g$ FSR for accelerometer to better insure that critical data is not lost at the point of high impact or high speed rotation. The ICM-20601 SoC offers the smallest size, lowest profile and lowest power in conjunction with industry leading high FSR.

With an extended FSR range of ± 4000 dps for gyroscope and $\pm 32g$ for accelerometer, the ICM-20601 enables precise analysis of contact sports applications providing continuous motion sensor data before, during and after impact providing more accurate feedback

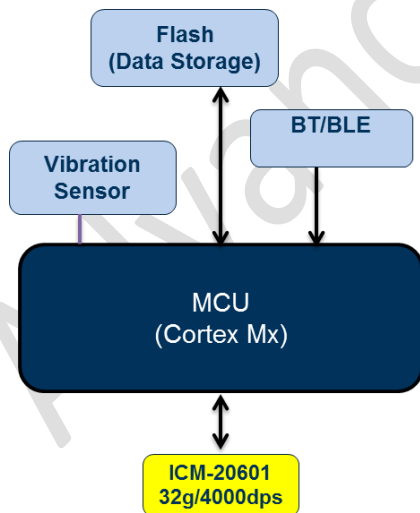
The ICM-20601 is the world's first wide-range 6-axis MotionTracking device for Sports and other High Impact applications. It is available in a 3x3x0.75mm 16-pin LGA package.

ORDERING INFORMATION

PART	TEMP RANGE	PACKAGE
ICM-20601†	-40°C to +85°C	16-Pin LGA

†Denotes RoHS and Green-Compliant Package

BLOCK DIAGRAM



Motion Analysis Pod Architecture

APPLICATIONS

- Sports
- Wearable Sensors
- High Impact Applications

FEATURES

- 3-Axis Gyroscope with Programmable FSR of ± 500 dps, ± 100 dps, ± 2000 dps and ± 4000 dps
- 3-Axis Accelerometer with Programmable FSR of $\pm 4g$, $\pm 8g$, $\pm 16g$ and $\pm 32g$
- User-programmable interrupts
- Wake-on-motion interrupt for low power operation of applications processor
- 512 byte FIFO buffer enables the applications processor to read the data in bursts
- On-Chip 16-bit ADCs and Programmable Filters
- Host interface: 8MHz SPI or 400kHz Fast Mode I2C
- Digital-output temperature sensor
- VDD operating range of 1.71 to 3.45V
- MEMS structure hermetically sealed and bonded at wafer level
- RoHS and Green compliant

TYPICAL OPERATING CIRCUIT

