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## New AMI603 Motion Sensor for Smartphones

~World's highest azimuth accuracy, World's first magnetic gyro, Energy saving, and Mini-sized~

AICHI STEEL CORPORATION (HQ: Tokai-City, AICHI, President: Shokichi Yasukawa) has succeeded in developing "AMI603", a high-performance 6-axis motion sensor highly improved for use in smartphones. Sample sales will begin in April.

AMI603 is an ultra small 6-axis motion sensor that integrates a 3-axis magnetic sensor, 3-axis accelerometer, and IC for control into a single chip. It is capable of detecting direction, tilt, and motion.

One of the main characteristics of AMI603 is that it has an azimuth accuracy error of less than 3 degrees, much more accurate than that of existing products (within 10 degrees). In addition, its fast sampling time of 0.6 milliseconds allows it to measure rotating speed (the world's first 6-axis magnetic gyro function). Furthermore, it has improved in size: 3.0×3.0 (65% smaller than our existing product AMI602) and power consumption: 0.5mA (50% less than AMI602), making it a high density packaging type and meeting the specifications for electronic parts mounted in smartphones. A low power consumption pedometer has also been embedded.

Electronic compasses have become standard equipment on smartphones and the number in use is increasing rapidly. AICHI developed an ultra small electronic compass in July last year which entered mass production in February this year. Smartphones have been becoming increasingly functional with AR (Augmented Reality) services, navigation, games, air-mouse, etc. The newly developed 6-axis motion sensor, AMI603, is able to meet the performance requirements for these functions.

The general description of the 6-axis motion sensor "AMI603" is as follows:

1. Name: motion sensor for smartphone "AMI603"
2. Size: 3.0mm×3.0mm×1.1mm (world's smallest)
3. Characteristics:

Capability	Expected function for smartphone
• Less power consumption (0.5mA)	• saves electric power
• High azimuth accuracy (3° )	• dynamic control of CG (esp. map rotation)
• Fast measurement (0.6m/sec)	• static control of CG (esp. games)
• Embedded pedometer	• walking distance and calories-out calculation

4. Main Customers: World's smartphone manufacturers
5. Sale: September 2011 (samples: April 2011)
6. Sales Targets (AMI603): 1M (2011), 30M (2012)  
(Total in sensors): 100M (2011), 180M (2012)
7. Price of sample: US\$3 /piece

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