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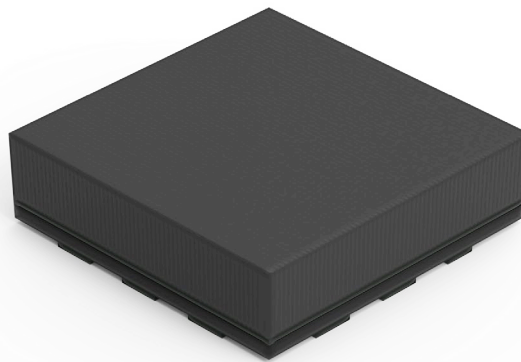
Alps Alpine Co., Ltd.

Started the sale of geomagnetic sensors with double resolution

-Aiming to expand into new markets in the VR sector where high angle resolution is required-

Alps Alpine Co., Ltd. (Head Office: Ota-ku, Tokyo; Representative Director, President & CEO: Hideo Izumi; hereinafter "Alps Alpine") has started selling the new geomagnetic sensor, "HSCDTD015A," as the successor to the conventional model, "HSCDTD008A." It maintains the same size while doubling the resolution, reducing noise to one-third, and cutting power consumption to approximately half.

This product is intended for use in devices such as VR equipment that require high-precision angle detection, which was difficult to achieve with conventional resolution.



Background

Alps Alpine's current model, "HSCDTD008A," was primarily developed for smartphones and has been on the market for approximately 12 years.

In recent years, the proliferation of VR devices and high-performance smart devices has created demand for geomagnetic sensors that combine higher resolution with low noise.

To meet this market demand, the "HSCDTD015A," which significantly enhances performance while maintaining an extremely small size, was developed.

Key features

It supports a high-speed response of 200Hz and can also be used for precise posture control required in VR and AR devices, including pose estimation through sensor fusion and detection of head orientation.

Moreover, its power-saving design makes it a geomagnetic sensor well-suited for smartphones and wearable devices.

[Product information]

Product name	Conventional model: HSCDTD008A	Successor model: HSCDTD015A
Outer dimensions	W1.6 x D1.6 x H0.65mm	W1.55 x D1.55 x H0.62mm
Measurement range	±2.4mT	±2.4mT
Current consumption	60μA typ. (ODR=10Hz) 3μA typ. (standby)	369μA typ. (ODR=100Hz) 19μA typ. (standby)
Operating voltage	AVDD: Drive voltage +1.7 to +3.6V DVDD_io: Drive voltage +1.65 to AVDD	AVDD: Drive voltage +1.6 to +2.0V DVDD_io: Drive voltage +1.14 to AVDD
Operating temperature range	-40 to +85°C	-40 to +85°C
Output resolution	0.15μT/LSB	0.075μT/LSB
Noise	0.3μT	0.1μT

[Principal applications]

- Orientation/position detection for smartphones and VR/AR devices
- Parking lot and mobility device location detection systems, etc.

[Sales information]

Release schedule: October 2025

Sample purchase: <https://tech.alpsalpine.com/e/products/detail/HSCDTD015A/>

Future outlook

This product is being proposed to customers from various markets considering the use of geomagnetic sensors, with annual mass production expected to reach 5.9 million units by 2029. Alps Alpine offers a wide range of sensors to meet market demand and provides tailored product proposals for customers.

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