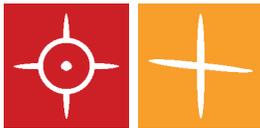


MS2100

2-axis Reference Magnetic Sensor with ASIC



THE SIMPLEST WAY TO INTEGRATE 2-AXIS

magnetic field sensing into any device, the MS2100 from PNI comprises two orthogonal magnetic sensors on a single chip to provide high-resolution compassing while setting new lows for energy consumption. It boasts unparalleled dynamic range, hysteresis-free performance, immunity to large-signal noise, and stability over a wide temperature range.

Ideal for magnetic field sensing applications where power is in short supply, the MS2100 is optimized for use in watches, radar detectors, and any consumer product with integrated compassing functions.



Get it all...

The MS2100 is a high resolution, integrated 2-axis magnetic sensor chip combining PNI's magneto-inductive (MI) sensors and ASIC into a single package for unparalleled performance.

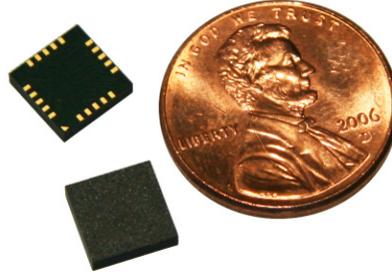
Designed to facilitate digital compassing in consumer electronics products, the MS2100 can enable heading accuracy of 1° with 0.5° resolution. The device also includes pins to support the connection of a third Reference Magnetic sensor axis for higher performance applications.

The MS2100 uses significantly less power than comparable magneto-resistive (MR) or fluxgate sensors. And because it doesn't require setting and resetting like MR devices, its peak current requirement is dramatically less. The MS2100 provides superior signal-to-noise immunity, a large dynamic range, stable measurement over temperature, and is inherently free from offset drift.

...on a single chip.

The microprocessor-compatible SPI interface allows easy access to the MS2100's measurement parameters, while eliminating the need for glue logic components. 3V operation ensures compatibility with most battery-powered products. Providing software-configurable resolution, sampling rate, and measurement range, the MS2100 can be optimized for the user's system.

These advantages make the MS2100 the choice for high volume applications where small size and low power requirements are paramount.



MS2100

2-axis Reference Magnetic Sensor with ASIC



2 AXIS



HIGH RESOLUTION



LOW POWER

PNI SENSOR CORPORATION is America's leader in the exacting science of turning information from the Earth's magnetic field into usable orientation data. Building on decades of patented knowledge of magnetic fields and their anomalies, PNI offers today's most reliable magnetic sensors, including both 2 and 3 axis compasses and other advanced sensor systems. Highly sensitive and finely tuned, PNI offers a range of sensors to meet varying price, accuracy and footprint size needs.

Serving a demanding, wide-ranging list of industries and applications, PNI's U.S. based team of physicists, engineers, researchers and quality control experts can help speed your time to market and ensure marketplace success. Nimble and responsive, PNI offers a multitude of sensors to meet today's growing technology needs.

Specifications

	MS2100
Axes	X & Y with Z axis provision
Field Measurement Range ¹	± 11 Gauss
Resolution ²	55 nT
Linearity, ± 200µT	0.5 %
Current Consumption ³	0.7 mA @ 3.0 VDC
Peak Current Consumption	<5 mA @ 3.0 VDC
Dimensions	7 x 7 x 1.35mm
Surface-Mount Package	20 pad QFN
Communication Interface	SPI
Operating Temperature	-20°C to 70°C
Storage Temperature	-40°C to 85°C

1. The field measurement range is the monotonic region of the output curve
 2. With period select set to 2048
 3. At 8 Hz sample rate and period select set to 2048

For detailed ordering information and most current specifications, please visit www.pnicorp.com

