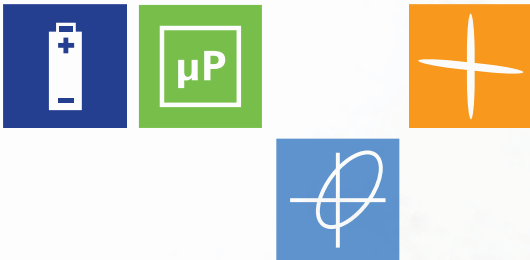


CompassPoint V2Xe

2-axis digital compass module

A TURNKEY COMPASS FOR EVERY BUDGET.



A LOW-COST, LOW-POWER CONSUMPTION 2-AXIS COMPASS

module, PNI's preprogrammed CompassPoint™ V2Xe features an onboard microprocessor for true plug-and-play compassing and magnetic field sensing functionality in seismic monitoring, wind direction sensing, and robotics applications.

CompassPoint V2Xe provides all-digital compass heading outputs accurate to 1 degree, can be calibrated to account for local magnetic fields, and includes non-volatile memory that retains accurate calibration even when powered down. The V2Xe eliminates the time and expense of building a compass from scratch, making it a perfect solution for high-volume electronics applications as well as robotics and engineering.

Turnkey 2-axis compass...

With low power consumption, high signal/noise immunity under all conditions, and software-configurable resolution and field measurement range, the CompassPoint V2Xe is the perfect solution for adding compass heading functionality to virtually any application — from hobbyist projects and consumer electronics prototypes to high-performance solid-state navigation and magnetic field sensing equipment.



...for every budget.

CompassPoint V2Xe allows designers to bypass the time and expense required to build a 2-axis digital compass from scratch. Advantages include 3 V operation for compatibility with new systems, low power consumption, a small footprint, large signal noise immunity under all conditions, and a large magnetic field dynamic range. Resolution and field measurement range are software configurable for a variety of applications. The measurement is very stable over temperature and inherently free from offset drift. These advantages make PNI's V2Xe the choice for compassing applications that require a high degree of azimuth accuracy, low power consumption, and/or a small package size.

Specifications

Performance Specifications	Heading	Accuracy	1.0° rms
		Resolution ¹	0.01°
		Repeatability	±0.05
	Magnetometers	Field Measurement Range	±1100 µT
		Magnetic Resolution	0.015° µT
I/O Characteristics	Maximum Sample Rate		8 samples/sec
	Communication Interface		SPI
Mechanical Characteristics	Dimensions (l x w x h)		25.4 x 25.4 x 11.55 mm
	Weight		3 gm
Power Requirements	Supply Voltage		3.0 VDC
	Current Draw (continuous)		2.0 mA
	Current Draw (sleep mode)		0.2 mA
Temperature Range	Operation		-20° C to +70° C
	Storage		-40° C to +85° C

1. Heading resolution decreases with increasing inclination (dip angle). Value assumes operation at the magnetic equator.

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

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July 2010

CompassPoint V2Xe

2-axis digital compassing module



2-AXIS



LOW POWER



HARD AND SOFT IRON CORRECTION



INTEGRATED PROCESSOR

PNI MAGNETO-INDUCTIVE ORIENTATION

SENSORS can tell you if something is up or down, sideways or facing east. They can tell you where in space your handheld is, or track movement across a screen or down a ravine. They're reliably accurate underwater, in space, in a car, and at extreme temperatures — all with pin-point accuracy, and using far less power than other technologies.

PNI uses the existing power of the earth's magnetic field to measure position, orientation and heading, applying its patented Magneto-Inductive technology in each of its sensors and modules.

Many of today's leading companies are using PNI technology in their marquee products and across a wide spectrum of applications, including compassing, surveying equipment, sonar, robotics, vehicles and oceanography equipment.

