

K-PUS Nano

Digital Magnetic Compass



-32 to +85 degree temperature tested

Vacuum Tested

K-PUS Nano DMC Sensor

High performance Heading, Bank and Elevation

K-PUS is high accuracy and high performance Digital Magnetic Compass (DMC) sensor family. It measures Bank (Roll) angle, Elevation (Pitch) angle and Heading (Yaw) angle. Results are provided via a bi-directional electrical interface. It includes a 3D accelerometer, a 3D gyroscope and a 3D magnetometer as its primary sensors.

- **Advanced sensor fusion algorithms for accurate calculation of the roll, pitch and yaw angles.**
- **State-of-the-art hard and soft iron calibration algorithms for magnetic disturbance clearance**
- **Lightweight, low power consumption and reliable design, ready for use in civilian and military applications.**
- **Factory level calibrated for 3 axis in full working temperature range.**
- **Advanced Temperature calibration algorithms**
- **Only 15mm X 15mm sensor size**

Roll/Pitch Accuracy	Heading Accuracy
0.1° RMS	0.25° RMS

K-PUS NANO SPECIFICATONS

SYSTEM PERFORMANCE PARAMETERS	
	K-PUS- Nano
Roll/Pitch Accuracy	0.1° RMS
Heading Accuracy*	0.25° RMS
Output Rate	Up to 50 Hz

PHYSICAL AND ELECTRICAL PROPERTIES	
Communications Interface	UART (TTL), I2C
Power Supply	3.3 V
Dimensions	15x15x2.3 mm
Sampling Rate	1 to 50 Hz
Weight	< 1 gr
Power Consumption	21mA
Operating Temperature	-40°C to 85°C

SENSOR PROPERTIES	
Magnetometer Range	+/- 8 Gauss
Magnetometer Sensitivity	61 mikrogauss
Magnetometer Resolution	18 bit
Gyroscope Range	+/- 500 deg/sec
Non Orthogonality	< 1 deg
Gyroscope Sensitivity	2.8 mdps/rt-Hz
Gyroscope Sampling	1000Hz

