

SpacePoint SCOUT™

9-axis Motion-Tracking Module



That makes about 52,415 hours of sensor fusing that you won't have to do.

SpacePoint SCOUT is the first development module that puts top caliber 9-axis motion tracking technology together in one integrated module – sensors, sensor fusion algorithms and an I²C interface – ready for quick implementation.

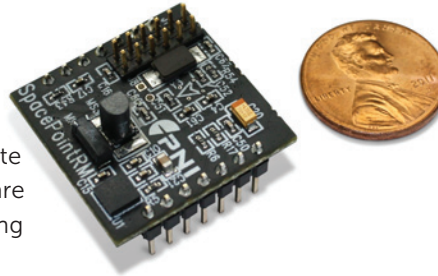
It includes a 3 axis accelerometer, a 3-axis gyroscope and PNI's 3-axis geomagnetic sensor that facilitates a constant, repeatable absolute orientation reference. What differentiates this module is the sensor fusion algorithms that takes advantage of the precise

magnetic readings and PNI's 25+ years of magnetic field expertise.

Reliable in the Real World. More accurate and reliable than standard 6-axis IMU systems, the SCOUT delivers unbeatably accurate results that stay accurate throughout use in real world conditions. It constantly corrects for gyro drift, magnetic anomalies and other real world interference. It's a life saver for applications that require stable and repeatable tracking of physical movement.

SpacePoint SCOUT

The SpacePoint SCOUT includes a 3 axis accelerometer, 3 axis gyroscope and PNI Sensor Corporation's 3-axis magnetometer that facilitates a constant, repeatable absolute orientation reference. These 9 data points are then fused using a proprietary algorithm using a high state Kalman filter.



The SCOUT is designed for use in highly dynamic conditions such as high-speed gaming, remote controllers where accuracy is demanded, robotics, and limb and body tracking virtual reality...essentially any applications that require stable and repeatable tracking of physical movement.

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.

Sensor Components

Sensor Type	Manufacturer	Model
3-Axis Gyroscope	ST Microelectronics	L3G4200D
3-Axis Accelerometer	ST Microelectronics	LIS3LV02DL
X & Y Axis Magnetic Sensors	PNI Sensor Corporation	Sen-XY-f (2 pcs)
Z Axis Magnetic Sensor	PNI Sensor Corporation	Sen-Z-f

I/O Characteristics

Parameter	Value
Supply Voltage	3.8 to 10 VDC
Communication Interface	RS232 UART & I2C
Communication Protocol	PNI Binary
Communication Data Rate ¹	2400 to 921,600 baud, 115,200 default
Output Data Rate	125 Hz

1. The SpacePoint Scout can operate up to 921,600 baud, but native RS232 is limited to 115,200 baud.

Environmental Requirements

Parameter	Value
Operating Temperature ¹	-40C to +85C
Storage Temperature	-40C to +85C

1. The SpacePoint Scout can operate across this temperature range, but performance will vary across the range.

Mechanical Characteristics

Parameter	Value
Dimensions (l x w x h)	25.4 x 25.4 x 16.0 mm
Weight	6 gm
Connector	7 pin SIP, 0.1" Header

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