

POLLUX - Micro-miniature INERTIAL NAVIGATION SYSTEMS

FEATURES

- Extended Kalman Filter
- Shock Survival up-to 8g
- Low Power & Cost Effective
- Reasonable bias stability MEMS gyro
- Miniature size
- Weight < 40gms
- Industrial grade

PLX-NS10**PLX-NS20****PLX-NS30**

DESCRIPTION

Aeron's Micro-miniature INS is a family of compact, miniature Inertial Navigation Systems. These devices run a multi-state extended Kalman filter that fuses data from various sensors/sources and gives out best estimate of navigation parameters such as position, velocities, altitude and orientation. This data can be used to navigate as well know real-time location of personnel and vehicles.

The 2.5 cms of position accuracy is achieved using the calibration and tuning of the filter algorithm.

Being compact and low-powered the Mini-INS can be placed on user's wrist or can be put in custom built shoes and can be powered using rechargeable batteries. It can become a reliable navigation aid for pedestrian or soldier, working seamlessly in indoor and outdoor conditions.



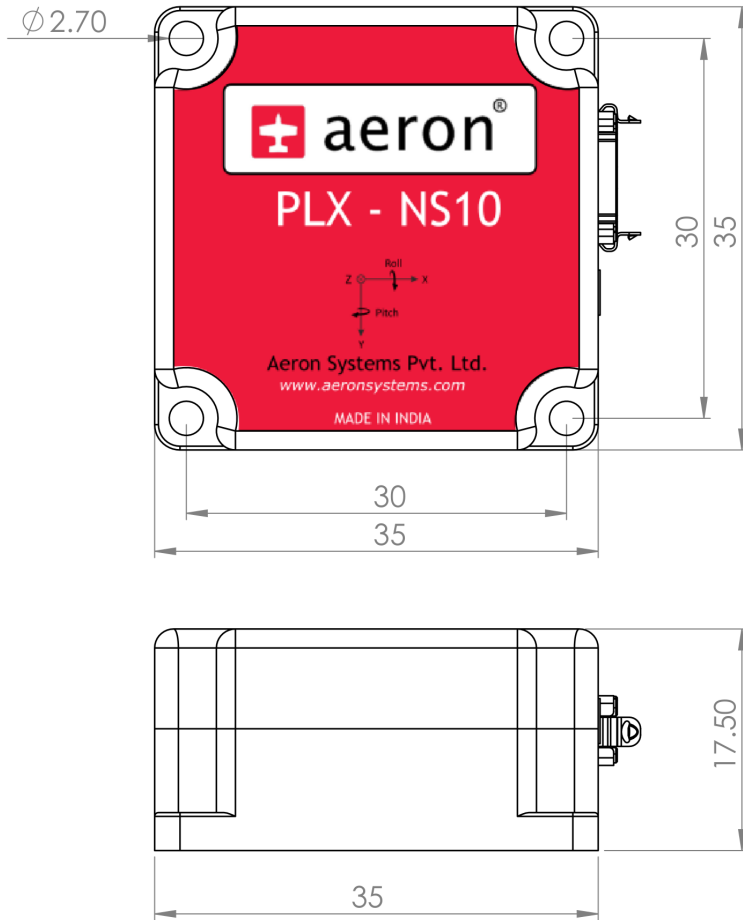
Preliminary Datasheet
Subject to change without prior notice

TECHNICAL SPECIFICATIONS

Parameter Name	Parameter Value
	Pollux
Acceleration	
Range	± 8 g
Noise Density	25 ug/ √Hz
Bias Stability	± 3.5 mg
Range	±250°/s
Noise Density	0.007 °/s/ √Hz
Bias Stability	< 10°/hr
Position	2.5m CEP with L1 GNSS, 2.5cm CEP with L1 RTK
Velocity	< 5 cm/s with RTK 0.2 m/s with GNSS (w/o RTK)
Roll Range	±180°
Pitch Range	±90°
Roll, Pitch Accuracy	0.5° with GNSS aiding
Heading Range	±180°
Heading Accuracy	0.5°
Angle Resolution	< 0.01°
Type	72 channels L1, GNSS (GPS, GLONASS, Beidou)
TTFF ¹	29s
Electrical	
Input Voltage	5V - 15V
Power Consumption	~ 3.5 W
Physical	
Weight	~ 40 gms
Size	35mm (W) x 35 mm (B) x 17.5 mm (H)
Update rate	25Hz
Interface	USB / RS232
Environment	
Operating Temperature	-40°C to +80°C
Storage Temperature	-45°C to +90°C
Humidity	10% to 90% RH (non -condensing)
Survival Shock	upto 8g
IP Protection	IP67

1 - Time to First Fix

PRODUCT DIMENSIONS



ORDERING INFORMATION

To order the product :

ARN _ PLX _ NS10

- 10 - RS232 / USB
- 20 - RS232 / USB with RTK
- 30 - RS232 / CAN

MECHANICAL DIMENSIONS

All dimensions in mm.

These are representational images. Dimensions may vary slightly depending on the version.

Ordering Information

