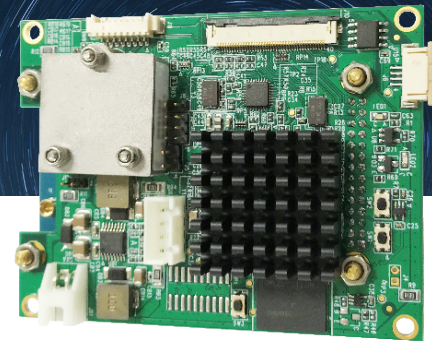


RTK GNSS/INS

POLYNAV 2000P OEM



The Polynav 2000P OEM GNSS-Inertial System is a high-performance, cost-effective GNSS aided Inertial Navigation System (INS) designed and built by Polynesian Exploration Inc. This system offers dual frequency RTK that provides centimeter level accuracy while also providing superior performance during GNSS signal outages through its tightly coupled GNSS and INS systems. Furthermore, the system is capable of continuously generating highly accurate attitude measurements regardless of whether the platform is moving or static. The Automotive Dead Reckoning (ADR) solution provided by Polynav 2000P OEM delivers strong performance in challenging environments such as cities.

FEATURES

- High accurate position, velocity, acceleration, attitude (roll, pitch, heading), angular rate
- GPS, GLONASS, Beidou, Galileo and SBAS
- Dual frequency (L1 & L2) RTK
- Dual antenna for accurate heading
- 100 Hz navigation solution and raw measurement output
- Accurate attitude/heading whether the platform is static or moving
- Tactical grade IMU sensors
- Sensor fusion for GNSS, IMU and Odometer
- ROS driver available

BENEFITS



BREAK THROUGH PRICE



MULTI I/O INTERFACE



NETWORK BASED RTK



RUGGED



Visit polyexplore.com For More Information.

High End, Cost-Effective Navigation Solutions.

Polynesian Exploration Inc.

2210 O'Toole Ave, Suite 240, San Jose, CA 95131
contact@polyexplore.com

REV. 2.00

TECHNICAL DATA

RTK GNSS/INS POLYNAV 2000P OEM

HARDWARE

Dimension: 80 x 60 x 22 mm
 Weight: 13 g
 Input voltage: 12–24 V DC
 Power consumption: 5W
 Operating temperature: -40° to 85° C

INERTIAL SENSORS

POLYNAV 2000P/OEM

Type	Gyros	Accelerometers
Dynamic Range	±125°/s	±8g
Bias Instability	2°/h	3.6ug
Random Walk	0.15°/√h	0.012m/s/√h

GNSS SENSOR PERFORMANCE

Time to First Fix (TTFF)

Cold start: < 60 seconds
 Warm Start: < 45 seconds
 Hot Start: < 11 seconds
 Signal re-acquisition: < 2 seconds

Velocity Accuracy

0.02 m/sec HRMS

Precise Positioning Performance (RTK fixed solution)

Accuracy (HRMS): < 8 mm + 1 ppm
 Initialization time: < 1 min typical
 Operating range: < 40 km

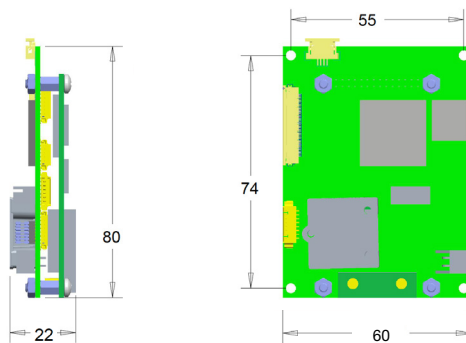
Heading

Accuracy (RMS): 0.1° per 1 m of baseline length
 Initialization time: < 10 sec typical

POLYNAV 2000P OEM CHARACTERISTICS

Constellation	GPS/GLONASS/Beidou/Galileo
Satellite signals	L1 & L2
Position accuracy	1.6 m CEP SPS 0.02 m RTK
Velocity Accuracy	1 cm/s
Roll/Pitch	0.05°
Heading	0.1°
Measurement rate	100 Hz (up to 400Hz)
Sensitivity	-160dBm
Power input	12-24 V
Number of antennas	Two
Temperature	-40° C to +85° C

MECHANICAL DIMENSIONS (Unit:mm)



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