

GPS Compass

Model: SJ-500



©2008 San Jose Technology, Inc. All specifications subject to change without notice.

With the advanced GPS Kinematic technology, our latest satellite compass—**Pilot SJ-500**, is elegantly designed to provide your marine navigation system with steady and highly accurate heading and positioning information.

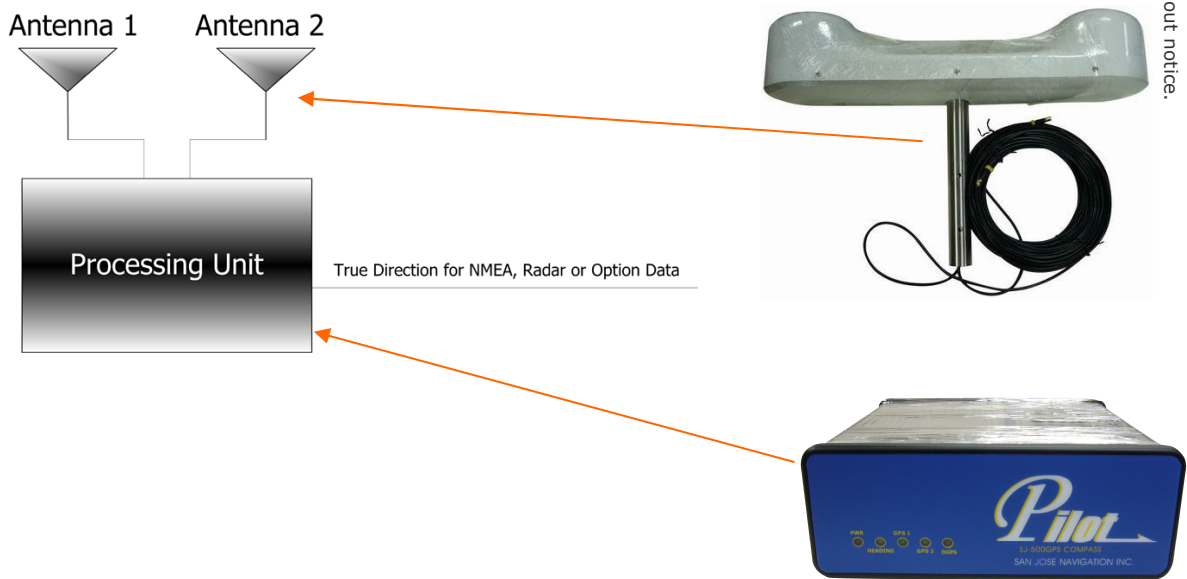
Pilot SJ-500 is an accurate heading system that integrates two GPS receivers and two multi-path resistant active antennas with a central processing sensor. Working cooperatively, **Pilot SJ-500** resolves extremely accurate heading with the sophisticated Real-time Kinematics (RTK) solution.

Leveraging the Real-time Kinematics (RTK) and the On-the-Fly (OTF) techniques, **Pilot SJ-500** provides *real-time* heading with accuracy of less than 0.5° RMS and *real-time* positioning at the level of 5.0m RMS accuracy. On the strength of an external sensor for heading, the system increases the reliability and robustness of the heading information. Owing to its accurate GPS heading computation, **Pilot SJ-500** can serve as a superior alternative to traditional gyrocompasses in Radar, Scanning Sonar, and Chart Plotter applications.

Pilot SJ-500 is able to output desired information at the rate of 1 Hz through RS-232 and RS-422. The output format is the standard NMEA-0183 sentences, which can be easily applied to many display devices to meet the needs of GPS information.

No matter the various applications of Marine, Machine Control or Vehicle Guidance, we firmly believe that **Pilot SJ-500** is exactly what you are looking for.

System Configuration



©2008 San Jose Technology, Inc.
All specifications subject to change without notice.

Features

- Easy to install Plug-Navigate-Position
- Highly accurate heading information of 0.5° RMS
- Position accuracy of 5.0m RMS
- Heading information for Radar, Scanning Sonar, Chart Plotter
- Excellent rate of turn of 25°/s
- Standard RS-232 (RS-422) I/O port
- NMEA-0183 Sentences output
- Precise information of heading, pitch/roll, latitude/longitude, altitude, SOG, COG, time, SVs and International Geodetic Datum
- Fast start-up, settling and reacquisition time
- Low profile and portable size
- Free from routine maintenance & internal calibration
- Antenna sealed enclosure at the rating of IP66
- Clear VGA display
- RTCM SC-104 DGPS Input

Specifications

General Description	GPS Compass for Accurate Heading and Positioning
Physical Characteristics	Dimensions: Pedestal: 60cm(L) x 10cm(W) x 10cm (H) Antenna: 4.5" in diameter & 2.9" in height Sensor: 16cm(L) x 16cm(W) x 6cm (H)
	Weight: <1.5kg
	Serial Port: 1 full duplex RS-232 & 1 RS-422 Interface
	Power Cable Length: 3 meters Antenna Cable Length: 20 meters (66.6 ft)
	Standard Connector: 1 RS-232 DB-9 1 RS-422 DB-9 1 RTCM SC-104 Input 2 GPS RF SMA female Connectors 1 DB-15 VGA Output 1 Power Input
	Standard Mounting: Screw mounts
	Color: Pedestal: Gray / Antenna: White / Sensor: Black
Performance Specifications	Receiver Type: L1 C/A code with carrier phase smoothing
	Channels: 12 parallel channels all-in-view
	Time to First Fix: Cold→120 sec (no almanac/RTC) Warm→35 sec (valid almanac/RTC) Hot→11 sec (valid almanac/RTC within 2 hours from last position fix)
	Satellite Reacquisition: 1 sec
	Settling Time: < 50 sec (At least 4 observable satellites)
	Heading Reacquisition after loss: < 30sec
	Acceleration: 4Gs
	Data Output Rate: 1Hz
	Angular Resolution: 0.1°
	Rate of Turn Accuracy: 25°/sec
	Heading Accuracy: 0.5° RMS
	Position Accuracy: 5.0m (CEP)
	Velocity Accuracy: 0.05 m/s (0.1 knots)
	Correction I/O Protocol: RTCM
	Default Baud Rate: 9600bps
	DGPS Position Accuracy: <1.0m (CEP)
	Timing Output: 1PPS
	Output Protocol: Standard NMEA-0183 version 3.0
	NMEA Heading Message: \$GPHDT, \$GPHDM, \$GPHDG, \$SJHRP
	Transmission Speed: 4800/9600 baud

©2008 San Jose Technology, Inc.
All specifications subject to change without notice.

(*PS: The specification is subject to change without prior notice)

