Integrated GPS Receiver & Antenna

MODEL: VP-200

The integration of a high-performance GPS receiver & an active GPS antenna to fulfill your needs of rapid & excellent vehicle navigation.

The GPS NAVPAC VP-200 is the integration of a high performance GPS receiver and an active GPS antenna in a very compact/weatherproof enclosure, which mounts just like an antenna! It outputs Lat/Lon, Time, Speed, Course, and Satellite Data in standard NMEA0183 protocol and at RS232 level which can be linked directly to a broad range of navigation equipment such as plotters, sounders, radar, fishfinders, and electronic charts for navigation on GPS 24 hours a day at free of charge.

The NAVPAC VP-200 is capable of operating over a wide range of unregulated input voltages with low power consumption by the use of a built-in switching regulator. Its GPS receiver and associated circuit are properly shielded with metal frames to prevent interference induced by other radio transmitting equipment.

When input with RTCM SC-104 correction data, the NAVPAC VP-200 is capable of processing differential GPS (DGPS) real time to provide the user with a low cost solution for obtaining a higher positioning accuracy.

With the most advanced GPS receiver and antenna design, the NAVPAC VP-200 has been proven to have exceptionally high performance even under the most adverse condition. It continues to track on satellites and provides GPS data during severe pitching and rolling in navigation. It is also proven to be able to

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re-acquire the satellites and fix on the position very quickly after a short period of signal obstruction.

In brief, the NAVPAC VP-200 facilitates GPS upgrades on your existing equipment and offers you immediate value in terms of equipment savings and also exceptional GPS navigation performance!

Features:

- Fast acquisition & re-acquisition
- Low power consumption, only 1.08 Watt
- DGPS capable. (RTCM SC-104 interface)
- User configurable output sentences
- Standard NMEA 0183 output
- User programmable output time interval
- User selectable datum
- Pole mount to 1"-14 UNS threaded mast
- Wide operating voltage range 8~40V DC *Compact construction/fully waterproof
- Excellent noise immunity
- Easy installation/ operation

Applications:

- Marine GPS
- GIS
- Land Surveyor
- Mobile GPS

Specifications:

PHYSICAL CONSTRUCTION	ELECTRICAL CHARACTERISTICS
Construction: High impact, corrosion-proof polycarbonate resin, hermetically sealed & waterproof	**Input Power:** 8~40V DC with reverse protection
Dimension: 4.5" diameter x 2.9" height	**Voltage Regulator:** On-board, switching mode
Weight: 360g (w/o cable & connector)	**Consumption:** 1.08 Watt typical
Standard Mounting: Pole mount to 1"-14 threaded mast	**EMI Filter:** power line interference rejection
CABLE & CONNECTOR	OVERALL PERFORMANCE
Length: 15 meter 2464 cable (standard), & 30 m (optional)	**Antenna:** High-reliability ceramic patch

Description: Multi-color conductors strained in a shielded/weatherproof jacket	**Antenna LNA Gain:** 26+/-2dBi, NF: 2.0dB max. **Receiver Frequency:** 1575.42 MHz, C/A code
Housing: 7 pin circular, hermetically sealed	**Receiver Architecture:** 12-channel all-in-view algorithm tracking with up to 12 satellites
Pins: Gold plated for anti-corrosion	**DGPS Capability:** direct RTCM-SC104 interface
SIGNAL INTERFACE	**Acquisition Time:** warm start -- 18 sec. (2D or 3D) cold start -- 40 sec. (2D or 3D)
Output Protocol: NMEA 0183, 4800 baud rate	**Position Accuracy:** 15m or 50 feet RMS*
Signal Level: RS-232 or RS-422 (optional)	**Velocity Accuracy:** 0.1 knots RMS steady state
Standard Output Sentences: GLL,GGA,VTG,ZDA	**Update Rate:** 1 sec. continuous
Custom Output Sentences: GSV, GLL, RMC	**Dynamic Tracking:** Velocity: 0~650 mph (0~300 m/sec)/ Acceleration: 2g
OEM OPTIONS	**Datum:** WGS-84 plus 170 user-selectable datum
Output Available: GGA,GLL,GSA,VTG,RMC,GSV,ZDA	ENVIRONMENTAL SPEC.
Output Interval: 0~60 sec. Selectable	**Operating Temperature:** -30° C~ +75° C
Operating Mode: 2D or 3D automatic	**Storage Temperature:** -40° C~ +85° C
Satellite Mask: SNR Elevation, PDOP	**Relative Humidity:** 95% non-condensing
Interface: RS-232 (standard) & RS-422 (optional) **Datum:** WGS-84 plus 170 user-selectable datum **Extended Input Voltage:** Up to DC 60V	**Water Resistance:** 100% waterproof

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