Efficiency, precision and flexibility are three main features in the 5 Hz submeter surveyor and navigator.

The NT300D targets professional mariners in need of submeter navigation and positioning during applications such as dredging, echo sounding, tug and workboat duties, precise navigation, research and much more.

The NT300D is a cost effective choice including everything needed for precise navigation in a single package. The rugged and waterproof unit includes a high resolution LCD display, a 12-channel GPS receiver and a built-in dual-channel radiobeacon receiver.

The NT300D is fully featured as a stand-alone DGPS navigator. The display presents accurate navigation guidance both graphically and numerically. Custom navigation screens can also be created for maximum flexibility.

The NT300D includes a large database where up to 500 waypoints and other important positions can be stored. An optional Trimble PC Card reader/writer, SCR, can also be installed with the receiver for extended data logging and uploads of routes and waypoints.

The ease in using the NT300D, its single key operations for quick access to important navigation functions and the ability to plan the missions ahead of time, all make the receiver a perfect time saver.

The NT300D can also be part of an integrated system. It provides a simple interface to a large variety of equipment onboard, such as radars, autopilots, computers and gyro. Any one of its two serial ports can transmit submeter positions up to 5 times per second, with a maximum latency of 0.2 seconds. Other information such as configuration control messages, beacon receiver status and GPS status can also be transmitted.

The NT300D utilizes Trimble's latest technology to achieve submeter position accuracy. The built-in dual-channel radiobeacon receiver allows for intelligent and seamless switching between radio beacons resulting in maximum performance and availability.

The unit also accepts externally received corrections and allows the user to prioritize between those corrections and the corrections received by the internal beacon receiver.
Submeter Guidance with NT300D
All your navigation needs in a single package

Features

- 12 channel DGPS receiver with an integrated beacon receiver
- Dual-channel beacon beacon receiver with intelligent selection of reference station
- Two automatic modes
- One manual mode
- External RTCM SC-104 input
- Combined L1 GPS and beacon H-field loop antenna
- Sub-meter accuracy
- Positioning based on carrier-phase filtered L1 pseudoranges
- Two programmable RS-422 serial ports, 1200 - 38400 baud
- NMEA-0183 input/output
- RTCM SC-104 input/output
- T-SIP interface protocol input/output
- Speed output, 200 PPM contact closure (150 mA max)
- External alarm, contact closure (150 mA max)
- High resolution LCD display
- Graphical and numerical presentation of navigation data
- Position resolution: 4 decimal places (lat/lon)
- 3 user configurable screens
- 500 waypoints
- 50 reversible routes
- User defined 3 or 7 parameter datum
- 5000 routes
- 500 waypoints storage
- Smart Card Reader, SCR, for data logging and waypoint storage only.
- Extended warranty (1 year)
- Firmware update service (1 year)
- TSIP development kit

Performance Characteristics

NT300D

Size: 26cm W x 18cm H x 5cm D
(10" x 7" x 2"
Water proof to IEC 529PX5
Meets IEC 945
Display: 15cm (6") diagonal, high resolution, 320 x 240 pixels, backlit LCD
Operating Temperature: 0°C to +55°C (+32°F to +131°F)
Storage Temperature: -20°C to +60°C (+4°F to +140°F)
Power: 12 and 24 Volt systems, 12 Watts max.

Smart Card Reader

Size: 18cm W x 18cm H x 5cm D
(4" x 7" x 2"
GPS/Beacon antenna

Size: 15cm (6") diagonal, high resolution, 320 x 240 pixels, backlit LCD

Options

- 50m (160 ft) antenna cable
- Smart Card Reader, SCR, for data logging and waypoint storage only.
- External warranty (1 year)
- Firmware update service (1 year)
- TSIP development kit

Physical Characteristics

NMEA messages out:
- ALM, DTM, GGA, GLL, GRS, GSA, GTS, GSV, MSA, RMC/RMB, VTG, XTE, ZDA, ZL2
NMEA messages in:
- MSK, HDG, VHW

Built in Dual Channel Beacon Receiver

Frequency range: 283.5 kHz to 325 kHz
Channel spacing: 50 Hz, 100 and 200 bit/second
Signal strength: 10 µV/meter minimum @ 100BPS
Dynamic range: 100 dB
Acquisition time: 2-5 seconds, typical

To achieve differential speed and position, the receiver must be operating within the broadcast area of a reference station conforming to the International Association of Lighthouse Authorities (IALA) Reference Station Standards. All non-differential GPS receivers are subject to degradation of position and velocity accuracy under U.S. Department of Defense-imposed Selective Availability (S/A). Positions may be degraded up to 100 meters 2D RMS.

Specifications are subject to change without notice.

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