



Seatex Searef 200

A Portable GPS Reference Station for RTK Operations

Searef 200 is a robust, portable GPS reference station designed for surveying and accurate position determination by RTK methods. Searef 200 is equipped with a 12-channel, dual-frequency, all-in-view GPS receiver for optimum accuracy and multipath mitigation. A radio is included to distribute DGPS RTK corrections to an unlimited number of users in real time. A robust, all-weather housing contains all electronic equipment except antennas.

Searef 200 is ideal for applications where accurate surveying or RTK position determination is needed for a limited period of time. Searef 200 is designed to withstand weather conditions ranging from the extreme coldness in polar regions to the heat and humidity experienced in tropical regions.

In addition to a high-performance GPS receiver and a data-link for transmission of RTCM corrections, advanced built-in software provides functionality far above what is expected for a portable reference station. Examples are full remote control by an external PC, logging of data for post-processing, automatic calculation of reference position based on averaging of GPS fixes, automatic selection of reference station co-ordinates by look-



up in a database, DGPS integrity monitoring, connection to a central control and monitor station (GPS NetWorks).

Searef 200 is designed to be driven either by batteries or an external AC/DC adapter. When battery operated power management is used to maximise the time between recharging. Radio link options are available to meet specific requirements.



Features

- RTCM corrections at up to 1 Hz
- Sub-metre position achievable with high quality roving unit
- Standard RTCM GPS corrections, type 1, 2, 3, 5, 6, 7, 9, 16
- GPS RTK corrections, RTCM type 18, 19, 20, 21
- Full remote control
- RSIM messages for integrity monitoring (option)
- Storage of raw-data for post-processing (option)

Technical specifications

Configuration

High-performance 12-channel, dual-frequency GPS receiver
Multipath mitigation techniques
UHF radio for transmission of RTCM corrections
Hand-held terminal for control and status
External port for remote control, output to external link or central control centre

Weights & Dimensions

W x D x H: 400 x 410 x 196 mm
Weight: 9 kg

Interfaces

Input:
Remote control & status (RS-232)
RTCM corrections for integrity monitoring (RS-232)
Hand-held terminal

Output:
RTCM v.2.x (RS-232)
Remote control & status (RS-232)
Hand-held terminal

Physical & Environmental

Temperature: -20°C to 55°C
Humidity: 100% (sealed)
Enclosure protection IP-67
Storage temperature -20°C to 70°C
Frequency(*) 450 - 470 Mhz

Power

Supply 9 - 36 V DC
Consumption(*) 20 W

(*) Configuration dependent

Specification subject to change without further notice

