Setting the standard in automotive testing

GPS-Base

Portable GPS base station

The GPS-Base is a portable GPS base station that provides RTK corrections to one or more differential enabled GPS Receivers via radio modem. Correction data can also be logged to a PC when connected.

» Features

- 45 cm DGPS corrections
- 20 cm L1 corrections
- 1 cm L2 corrections
- RTCA, RTCA2 and RTCM and RTCMv3 correction formats
- Various radio modem options are available
- Error correcting transmission
- Save/Restore antenna position
- Multi-path rejecting GPS antenna
- Easy to power from a variety of sources
- Wide range of operating temperatures

» Compatibility

- RT3000
- RT4000
- Survey+
- RT-Split
- xNAV550
- Also compatible with other manufacturers' receivers that support the correction message format

» Applications

- Useful in permanent installations that require RTK corrections
- Cheaper alternative to RT-Base S in automotive applications where IP65 and mobility are not required

» Quick to install

The GPS-Base has been designed with installation speed in mind. Simply connect the GPS antenna and the radio modem aerial; then turn on. Simple software on the PC is used to configure the GPS-Base. The current location can be saved and restored or a new location can be set by averaging the GPS measurements.

» Flexible Power

The power can be supplied by a battery, a car cigarette lighter or a mains power supply. The GPS-Base accepts 6 to 18 V dc.

» Multipath Rejection

The GPS-Base uses pulse-aperture correlator technology to minimise the effects of multipath. The antenna includes a ground-plane to minimise ground surface multi-path and reflections.

» Radio modem

Three different radio options are available. This allows a suitable radio to be chosen for license free operation. Advanced error correcting codes are used in the radio modem's communication to enhance reliability and minimise the number of corrupt packets.

The radio modem provides reliable transmission over a 2 km range in an open environment. Since some packets can be dropped or have errors, the radio modem can be used up to a range of 5 km in open environments.

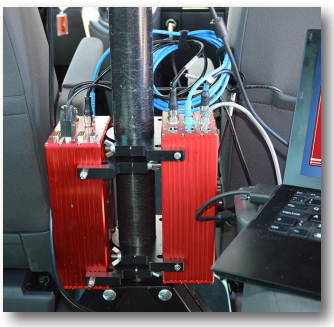
For further information please contact Oxford Technical Solutions or your nearest local agent.

» Specifications

Power	6–18 V dc, 2 W
Operating Temperature	–40 °C to 75 °C
Environment	Dry environments
Corrections	RTCA (Differential, L1, L2), RTCA2, RTCMv3
Output frequency	1 Hz
Format	RS232

» Radio modem options

SATEL	403–473 MHz band, up to 1 W, typically 5 km. License free bands available for many European countries. Radio will typically cover 8 bands with 25 kHz channel spacing
SATEL	869 MHz band, up to 500 mW, typically 2 km. License free across most of European Union
Freewave	900 MHz band, up to 1 W, typically >10 km. License free in USA, Brazil, Canada



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OXTS Inertial+GPS

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