FGS 1

Unique GPS Set for multipurpose applications

The geo-FENNEL FGS 1 is a robust receiver designed for challenging environments integrated into a compact device that is lightweight and highly portable.

The FGS 1 can track all current working GNSS constellations. By using a unique algorithm it can operate in RTK mode combining all GNSS constellation signals or by using a single GNSS constellation signal such as GLONASS or BeiDou. The strong anti-interference ability of the receiver makes it possible to work in any environment. The FGS 1 integrates a cutting edge GNSS board, Bluetooth®, optional UHF (Rx & Tx) into a compact system. The smart design positions the FGS 1 among the lightest and most compact receivers currently available. The system is open to third party applications and supported by MicroSurvey FieldGenius and Carlson Surv-CE field applications.

Features

> High speed processing
> Support for both post-processing and kinematic
> Processing ability separate or to be combined with GPS, GLONASS and BeiDou
> Supports downloads & use of precise ephemeris
> Generation of various reports
> User friendly

Supplied with

GPS SYSTEM FGS 1 COMPLETE SET

ART.-NO. 751000

> 2 GNSS Antenna FGS 1
> 1 MicroSurvey Fieldgenius Software
> 1 Fieldcontroller DC5
> 1 Postprocessing Software
> 2 USB-Cable for FGS 1
> 2 RS-232 Cable for FGS 1
> 1 Measuring Tape 3 m
> 1 Tribrach AJ 10 black
> 1 Tribrach Adaptor AL 11-D black with optical plummet
> 1 Container
> 1 Operators? manual

GPS SYSTEM FGS 1 NETZWERK-SET
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Technical data
Signal Tracking

256 channels with simultaneously tracked satellite signals:

Â - GPS
L1 C/A, L1/L2P, L5

Â - GLONASS
L1/L2

Â - BeiDou

B1, B2, B3

 - Galileo
Yes, but not activated

 - SBAS
WAAS, EGNOS, MSAS

Performance Specifications

Cold start
<50s

Warm start
<30s

Initialization time
typically <10s

Initialization reliability
typically >99,9%

Signal reacquisition
<2s

Positioning Specifications

Post processing static

 - horizontal
2,5 mm + 0,5 ppm RMS

Â - vertical
5,0 mm + 0,5 ppm RMS

Real time kinematic

Â - horizontal
10 mm + 0,5 ppm RMS

Â - vertical
20 mm + 0,5 ppm RMS

E-RTK (<100 km)

Â - horizontal
0,20 m + 1 ppm RMS

Â - vertical
0,40 m + 1 ppm RMS

Code differential GNSS positioning

Â - horizontal
0,25 m + 1 ppm RMS

Â - vertical
0,50 m + 1 ppm RMS

SBAS
typically <1 m 3D RMS

Stand-Alone
<1,5 m RMS

Communication

1 Serial port (7 Pin Lemo), Baud rates up to 921 600 bps

Radio modem (optional)
Tx/Rx with full frequency rang from 410 - 470 MHz

Â - transmit power
0.5 - 2W adjustable

Positioning update rate
1 Hz, 2 Hz, 5 Hz, 10 Hz

5 LED Indicating lights
Power, satellite tracking, differential data and data recording

Bluetooth®; V 2.X protocol, work compatible with Windows 7®, Windows mobile® and Android®

Data Format

Data inputs / outputs

Â - Correction data I/O
RTCM 2.x, 3.x, CMR & CMR+ (GPS only)

Position data outputs

Â - ASCII
NMEA-0183 GSV, RMC, HDT, VHD, GGA, GSA, ZDA, VTG, GST, PJK, PTNL

geo-FENNEL Binary update to 20 Hz

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