Fugro SeaSTAR®

SeaSTAR 8200 HP System

The 8200HP receiver is a low cost, low maintenance, user friendly, dual frequency (L1/L2) GPS receiver with integrated L-BAND demodulator to receive DGPS corrections.

The 8200HP receiver is able to output DGPS positions with an accuracy from 10 cm to 1 m depending on what service the receiver is subscribed to.

The receiver can be subscribed to Fugro SeaSTAR's following services:

- VBS service : accuracy 1 m 95%
- XP service : accuracy 20 cm 95%
- HP service : accuracy 10 cm 95%

When the receiver is subscribed to HP or XP, it will also be subscribed to VBS for back-up purposes. If the receiver is not able to compute an HP or XP position it will automatically fall back to VBS, hence still providing reliable positioning.

A typical 8200HP system consists of:

- 8200HP receiver c/w PSU
- L1/L2/DGPS antenna
- 30 m low loss antenna cable
- Interface cables
- User Guide / manual

The receiver has a display and a keypad through which it can be monitored and configured. There is no need for a PC.

The main display gives all the essential information, see illustration below.

Information available on the main screen:

H/3D	- The receiver outputs a converged HP position
SV/09	- The receiver is tracking 9 satellites
DOP02	- The current DOP value is 2
A: 7cm	- Estimated Position Error is 7 cm (1 sigma)
EASAT	- Using the EASAT to receive corrections
s/n07	- The signal to noise ratio of the EASAT is 7

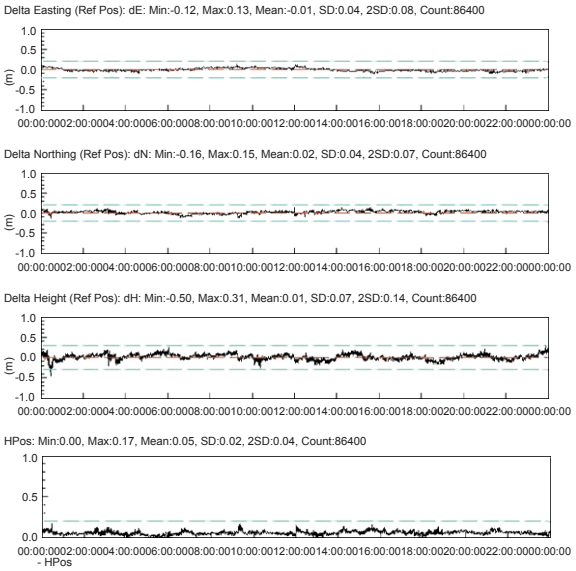
The rear panel contains 2 power/data connectors with the following functions:

- Input of Power (350 mA @ 12 V)
- Output of Position data (NMEA-0183)
- Output of Corrections (RTCM SC-104)

Features:

- Dual Frequency (L1/L2) Trimble GPS receiver
- Internal L-band receiver to receive corrections
- Display and Keypad to monitor and configure
- Outputs various NMEA sentences (GGA, VTG)
- Outputs RTCM SC-104 corrections
- Two serial RS232 Ports

8200HP (59°55'24.4691"N 10°40'41.7208"E)



RECEIVER TECHNICAL SPECIFICATIONS

GPS Channels

Channels	12–channel parallel tracking L1/L2
Update Rate	1, 5, 10 Hz

Position Accuracy

VBS	1 m (2 sigma - 95 %)
HP	10 cm (2 sigma - 95 %)
XP	20 cm (2 sigma - 95 %)

Velocity Accuracy 0.05 m/s RMS

Differential Corrections

SeaSTAR	enabled
SBAS	enabled
IALA	optional

Input / Output data Interface

Electrical Format	RS232
Baud Rates	4800, 9600, 19200, 38400, 57600, 115200 bps
NMEA messages	GGA, GLL, GRS, GSA, GST, GSV, MSS, RMC, VTG, XTE, ZDA

Power Requirements

Voltage	+10 to +32 VDC
Power consumption	4.2 W typical

Environmental

Operating temperature	-30° to + 70°C -22° to + 158°F
Storage temperature	-40° to + 85°C -40° to + 185°F

Physical Characteristics

Dimensions	216 x 148 x 56 mm 8.6 x 5.7 x 2.2 in

Further information
Complete technical information on a specific model type or peripheral hardware can be obtained from Fugro Seastar AS:

ISO 9001

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