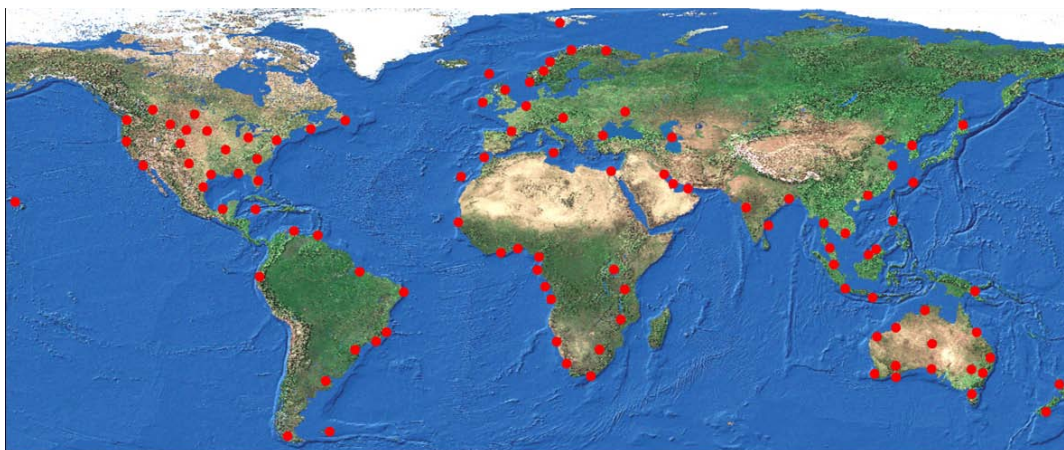


# OmniSTAR-IP

## Worldwide corrections over the Internet



*OmniSTAR Reference Station Network*

### **About OmniSTAR**

OmniSTAR is world leader in providing high accuracy DGNS correction data. OmniSTAR is a member of the Fugro Group, a worldwide services and consultancy company with more than 200 offices in over 50 countries. Fugro provides surveying, positioning and geotechnical solutions for both on- and offshore applications.

OmniSTAR delivers commercial DGNS services worldwide and is leading in the design and development of Differential GPS positioning technology. The OmniSTAR services, OmniSTAR-VBS ('Virtual Base Station'), OmniSTAR-HP ('High Performance') and OmniSTAR-XP ('Extended Performance'), were specifically developed to satisfy the need for high accuracy positioning systems and services for land based applications. With approximately 100 reference stations and 2 global Network Control Centres, OmniSTAR delivers consistent and highly reliable positioning services worldwide, 24 hours a day, 365 days a year. OmniSTAR services are available by subscription. For more information please refer to [www.omnistar.nl](http://www.omnistar.nl).

In addition to the tried and tested data services broadcast by a range of L-Band satellites, OmniSTAR now offers transmission of their DGNS services via IP (Internet Protocol) channels, i.e. any communication channel capable of carrying IP data can now also be utilized to receive OmniSTAR DGNS services. Examples of such networks are GPRS, UMTS, Iridium and Thuraya.

Receiving OmniSTAR DGNS through IP, instead of through regular satellite transmission channels, can be useful in situations where reception of a satellite transmission may be blocked by high buildings, mountains or tree canopy.

### **Setup**

The OmniSTAR IP service infrastructure is located at our Network Control Centers where redundant servers warrant an uninterrupted supply of DGNS data. The data transmitted via IP is an exact duplicate of the data that is also broadcasted via satellite and can therefore be used as a stand-alone or backup positioning solution.

It is up to the user to select what type of broadcast is utilized: Satellite or IP based. An OmniSTAR subscription authorizes the user to use either one (or both) at no additional cost. Access to our IP service is by username and password. Once the username and password have been accepted by our server, the DGNS stream, appropriate for your territory, can be selected.

### **Cellular modem**

OmniSTAR IP can only be used by OmniSTAR compatible hardware that allows the input of DGNS data through a serial port (for suitable hardware, see the specifications below). To convert IP based data to data that can be fed to an RS232 interface, the use of a special OmniSTAR IP demodulator box (the Siemens TC65) is required. The TC65 supports Quad-band operation and can be used world-wide, using local GPRS communications. For the use of Iridium or Thuraya, please contact us.



## OmniSTAR IP Specifications

**Protocol:** NTRIP

### Available OmniSTAR DGNS streams

IORH, AORWH, AOREH, POR & PORH (600 bps)  
AFSAT, AMSAT, AMSAT, OCSAT, POR (1200 bps)

### Data volume

Per message: Approx. 1 KB  
Per hour: 300 KB @ 1200 bps or 150 KB @ 600 bps

### SIM-card:

To be supplied by customer.  
To be obtained from local GSM operator<sup>3</sup>

### Time

Time to first correction: 15 Seconds typical  
Data latency: 5 Seconds

### Supported Receivers

#### OmniSTAR

- 8305HP, 9200G2

#### Novatel

- Propak-V3, SmartV1, FlexpakV1, DLV3, OEMV1, OEMV3

#### Trimble

- SPS551, SPS850, Pro-XRT, AgGPS432, BD960

#### Applanix

- Pos-LV, Pos-AV

### OmniSTAR Accuracy

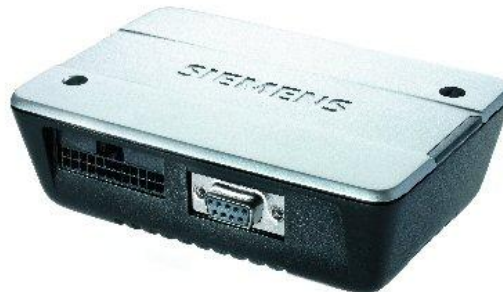
VBS: <1 Meter 2DRMS<sup>1</sup>  
HP and XP at start up: 60 cm 2DRMS<sup>2</sup>  
XP converged: 12 cm 2DRMS<sup>2</sup>  
HP converged: 7 cm 2DRMS<sup>2</sup>

<sup>1</sup>) Within 1000 km of the nearest reference station at mid-latitudes.

<sup>2</sup>) Within 500 km of the nearest reference station.

<sup>3</sup>) OmniSTAR IP reception depends on the coverage provided by your wireless telecoms supplier.

## TC65 demodulator box



**Quad-Band:** GSM850/900/1800/1900

**GPRS:** Multislot Class 12

**Weight:** 190 g

### Dimensions

- Height: 130 mm
- Width: 90 mm
- Depth: 38 mm

### Electrical

Supply voltage range: 8V to 30V DC @12VDC

### Environmental

Ambient temp. range: 30°C to +65°C  
Storage temp. range: 40°C to 85°C  
Automatic switch off at: 75 °C

### Approvals

R&TTE, FCC, UL, IC, GCF, PTCRB, E1 mark, RoHS

### OmniSTAR B.V.

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### Or contact your local distributor:

