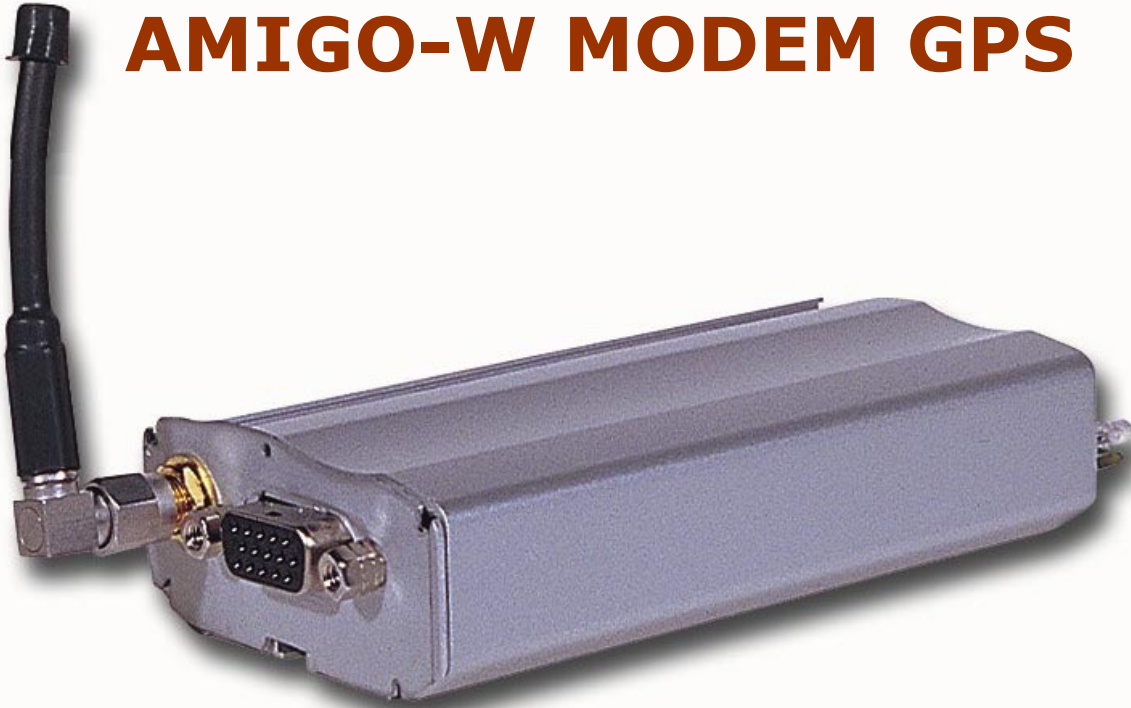


# AMIGO-W MODEM GPS



The *Amigo-W* modem contains a GSM telephone modem and a high-performance GPS receiver in a single case, designed for full compatibility with the WM02 series WISMO telephone modem for GSM 900/1800/1900 from WAVECOM, for data transmission, short messages and voice calls.

It provides all the functionality of a modem, and also allows you to obtain your GPS position by means of an extended series of AT commands. At the same time, it facilitates the reporting of your GPS position using GSM communication, while also adding the functionality of a positioning device so that it can be controlled from a remote base.

Based on the WM2C MODEM, it has a state-of-the-art GPS ALBATROS module designed by SENA GPS.

This GPS increases the system's power by offering a series of commands specific to a GPS receiver: position, satellites, channels...

The *Amigo-W* modem features the following functionality:

- Operation in GSM telephone modem mode with reading and monitoring of GPS data via the control port on the GSM modem, using an enhanced set of AT commands.

- Operation as a GPS positioning device, transmitting the data to a Management Centre using the GSM modem.

Is capable of reporting your position using three different mechanisms:

- POLLING, in response to a position query.

- TRACKING CYCLE. You can set a cycle in order to have the positioning device send your position voluntarily.

- EVENT ALARMS. When the events occur, the positioning device will spontaneously send your position and the reason for the notification

## Alarm motives

- You exit an area set as an operation circle.
- You reach the maximum authorised time away from your base.
- An alarm is triggered by the discrete input signal.

## Electrical Characteristic

**Power Supply:** 6 to 30 Vdc

### Power Consumption

**Stand By:** 15 mA  
**TricklePower:** 30 mA  
**While receiving:** 215 mA  
**While transmitting:** 435 mA

## Environmental Characteristics

**Temperature:**  
operating: -20°C to +55°C  
storage: -25°C to +70°C

**Humidity:** 5% to 95% R.H.  
non-condensing  
at +60°C

**Shock:** 20g (11 mS  
sawtooth)

**Vibration:** 4 g

## Physical Characteristics

**Dimensions:**  
98x54x25 mm  
(excluding connectors)

**Overall dimensions:**  
110x54x25 mm

**Weight:**  
135 grams

**Volume:**  
13.23 cm<sup>3</sup>

**Housing:**  
Aluminium profiled

## GPS Receiver Albatros

**Receiver:** Code C/A, L1  
**Channels:** 12  
**Position Update Rate** 1 per seconds  
**Minimum signal tracked** -175 dBW

## Dynamic Characteristics

**Maximum altitude:** < 60,000 feet

**Maximum speed:** < 1,000 Knots

## Acquisition Performance

**Satellite reacquisition time:**  
100mS

**Snap Start:**  
< 2 seconds

**Hot Start:**  
< 8 seconds average

**Warm Start:**  
< 38 seconds average

**Cold Start:**  
< 45 seconds average

## Accuracy

**Position:**  
100 mts 2d RMS, with SA on  
25 mts (SEP), with SA off.  
1 - 5 mts DGPS corrected.

## Physical Interface

**Inputs:**  
1 optocoupler (0-12V)

**Outputs:**  
1 open drain (50mA, 12V max)

**GSM antenna connector:**  
SMA

**GPS antenna connector:**  
MCX

**Serial and control communication connector:**  
Sub-D15H high density

**Power supply and discretes connector:**  
Micro-Fit 4 pins

