

GR-310, SiRFstarIII, Sleek,

Bluetooth, USB Dongle

GPS Receiver



inserted into an optional battery bank.

Overview

GR-310 is a sleek, easy to bring, ultra-high performance, low power GPS smart antenna with USB connector. In addition to wired connection, it also supports Bluetooth wireless communication. The built-in SiRFstarIII chip and our experienced design provide fast acquisitions and excellent tracking performance. It is a perfect navigation companion with Smart phone, MID, PDA, Notebook PC, UMPC etc.

The embedded string hole allows one to bring this sleek device as a necklace or a key chain.

Applications

- Vehicle navigation device
- GPS Souvenir

Features

- Compact, sleek, lightweight
- Based on SiRF's GSC3f low power single chip
- Bluetooth version 2.0, class 2
- Both wired (USB) and wireless (Bluetooth) navigation support
- High performance: -159dBm tracking sensitivity
- Low power: 70mA at continuous tracking
- SBAS (WAAS, EGNOS, MSAS) support (optional)
- Backup battery support for faster position fix
- Green LED for GPS position fix indication
- Blue LED for Bluetooth status indication
- Sleek design for bringing as necklace or key chain
- It becomes an independent portable unit when

Technical Specifications

Receiver Performance Data

| | |
|------------------------------|--|
| Receiver Type | 20-channel, L1 frequency, C/A code GPS:1575.42MHz |
| Horizontal Position Accuracy | < 2.5m (Autonomous) < 2.0m (WAAS) (50% 24hr static, -130dBm) |
| Velocity Accuracy | <0.01 m/s (speed) <0.01° (heading), (50%@30m/s) |
| Time To First Fix | Autonomous |
| Hot start | <1sec |
| Warm start | <35sec |
| Cold start | <42sec (50% -130dBm) |
| Sensitivity (Autonomous) | -142dBm (acquisition) -159dBm (tracking) (-142dBm 28dB-Hz with 4dB noise figure) |
| Max. Update Rate | 1Hz |
| Max. Altitude | <18,000 m |
| Max. Velocity | <1,852 km/hr |
| Protocol Support | NMEA v3.00, 4800bps N,8,1; GGA, GSA, GSV, RMC, VTG |
| Datum | WGS-84 |
| SBAS Support | WAAS, EGNOS, MSAS (optional) |
| Dynamics | <4g |

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Bluetooth Data

| | |
|-------------|---|
| Version 2.0 | Downward compatible with ver. 1.0/1.1/1.2 |
| Class 2 | Communication range: Up to 10 m |
| Profile | SPP (Serial Port Profile) |

LED Display

| | |
|-----------|--|
| Green LED | Always on as position is not fixed Blinks as position is fixed |
| Blue LED | Always off w/o Bluetooth connection Blinks 2s on 2s off w/ Bluetooth connection |

Electrical Data

| | |
|-------------------|---|
| Power Supply | 3.3V~5.5 VDC |
| Power Consumption | 70mA/continous tracking, communicating via Bluetooth interface |

Environmental Data

| | |
|-----------------------|------------|
| Operating temperature | -20 ~ 60°C |
| Storage temperature | |

Other Data

| | |
|-----------|---------------------------------------|
| Dimension | 21 x 72 x 13.5 (mm) including USB cap |
|-----------|---------------------------------------|

Connector

USB A-type

Male Plug



Ordering Information

GR-310X

| | |
|---|---|
| A | GGA, GSA, RMC, VTG@1Hz, GSV@1/5Hz 4800bps, N-8-1 |
|---|---|

Note. Other baud rate, NMEA sentences, or even datum could be customized based on MOQ.

Optional Accessory

- USB cable of length 1.5m for extending the GPS signal reception range.
- Car charger with USB connector for powering GR-310 or charging a battery bank (BB-100).



- BB-100 battery bank for powering GR-310



BB-100

BB-100 and GR-310

*This document is subject to change without notice.