# GR-300, SiRFstarIII, Compact

# Ultra-High Performance

# USB Dongle GPS Receiver



## Overview

GR-300 is a compact, easy to bring, ultra-high performance, low power USB GPS receiver. The built-in SiRFstarIII chip and our experienced design provide fast acquisitions and excellent tracking performance. It is a perfect companion with Notebook/Tablet PC, UMPC etc. The embedded string hole allows one to bring this slim device as a necklace or a key chain.

## Applications

- USB GPS souvenir
- Navigation companion device
- GPS supplement to tablet PC

## Features

- Compact, sleek, lightweight
- Based on SiRF's GSC3f low power single chip
- High performance: -159dBm tracking sensitivity
- Low power: 44mA at continuous tracking
- SBAS (WAAS, EGNOS, MSAS) support (optional)
- Backup battery keeps fixing data for 10 days for faster position fix after first initial fully charging.
- Green LED for GPS position fix indication
- Slim design for bringing as necklace or key chain

## 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   Hot start   Warm start   Cold start | Autonomous <1sec <35sec <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 |

### Electrical Data

| Power Supply | 5 VDC |
|---|---|
| Power Consumption | 44mA/average tracking |

### Environmental Data

| Operating temperature | -20 ~ 60℃ |
|---|---|

| Storage temperature | |
| --- | --- |

## Other Data

Dimension

| With Cap | 21 x 72 x 13.4 (±0.25; mm) |
| --- | --- |
| Without Cap | 21 x 65.9 x 13.4 (±0.25; mm) |

Weight

| With Cap | 18±0.5 g |
| --- | --- |
| Without Cap | 16.4±0.5 g |

## Connector

USB A-type

Male Plug

## Ordering Information

GR-300X

| 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.

*This document is subject to change without notice.