smart
positioning

Fastrax IT300, IT310, UP300

Change Notice

- **Upgrade to SiRF GSC3e(f)/LPx**

- **75mW power**

- **PCB, LNA and regulator change**

- **Firmware GSW3.5.0, cold/warm start sensitivity -146dBm**

Summary

Fastrax 300 series OEM GPS receiver modules will be upgraded with SiRF GSC3e(f)/LPx chip, which is pin compatible with the previous GSC3e(f)/LP chip.

The main effect is reduced power consumption down to 75mW (typ.) during navigation and 18uW (typ.) in back-up state.

Module operation will have no changes. Interface will have some minor changes due to CMOS level change but compatibility will be not affected in most cases.

Affected hardware(s): IT300, IT310, UP300

Hardware change

- GSC3e(f)/LP is replaced with GSC3e(f)/LPx, 75mW average power during navigation

- I/O level change to 2.8V CMOS (previously VCC/VDD), all inputs are 3.3V tolerable

- XRESET & ON_OFF inputs have 1.2V CMOS signal levels (previously 1.5V) and are 3.3V tolerable

- Regulator upgrade due to transition to 1.2V back-up and 2.8V digital supplies

- Internal LNA upgraded with more gain, which improves sensitivity with passive antennas without the need for external LNA usage (IT300, IT310)

- PCB upgrade due to component and signal trace modifications

Firmware change

At the same time the firmware will be upgraded to SiRF GSW revision 3.5.0. It has enhancements in ephemeris availability, cold/warm start sensitivity, TTFF, cross correlation detection and navigation performance. It adds also support for Hibernate state control with ON_OFF control input during Push-to-Fix low power mode. However SiRF TricklePower operation mode is not supported by GSW3.5.0. For TricklePower operation the previous GSW3.2.5 firmware variant is suggested. For additional information request an application note on low power modes.

Documentation

Fastrax module Technical Descriptions will be updated. SiRF firmware GSW3.5.0 Version Description Document (VDD) is available on request.

Production

Introduction to production will be implemented after the phase out of the previous hardware version during Q2/2009.

New product codes:

- IT300-350S-STD-2861

- IT300-350S-CAR-2861

- IT310-350S-CAR-2862

- UP300 product code will be determined during 2Q/2009

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