

Fastrax IT400 series Change Notice

CN_IT430_20110915

Key Features:

- SiRF/CSR chip GSD4e ROM firmware will be upgraded from rev. 1.3 to rev 2.0 aka GSD4e_4.1.0-P1
- Affected hardware: IT430 and UC430
- UC430 Bill-of-Materials will change due to improvement in embedded antenna matching



Technical data:

Hardware change

- Chip GSD4e-9312 will change to GSD4e-9322.
- UC430 antenna matching capacitor is added.

Documentation

- Fastrax IT430 Technical Descriptions will be updated to rev 1.9 to match with ROM 2.0 operation.
- Firmware release notes on next page.

Production

- Samples are available now.
- Introduction to production will be implemented during Q3/2011.
- New product codes:
 - IT430-410S-SGT-4077
 - UC430-410S-SGT-4150
- New marking (label) codes:
 - IT430C4077
 - UC430C4150
- Minimum order quantity is 500 pcs. Tape&Reel will be packed in 500 pcs per reel.
- AP430 Application Board for IT430 will be upgraded to rev. C to add new MEMS sensors.

End of Life

- Previous module revision will be phased out due to end of chip availability during 2012 (to be announced later).
 - IT430-404S-SGT-3764

ROM 2.0 Firmware Release Notes

Summary

- SiRF/CSR chip GSD4e ROM 1.3 firmware will be upgraded to rev 2.0.
- This section describes ROM 2.0 firmware identification, operational changes over the ROM 1.3, new features and known issues.

Firmware identification

- The firmware is identified both on the module and in firmware.
- The IT430 module label identifies the firmware revision -C-, which is also described on the previous page in IT430 marking code.
- The FW revision code can be polled by the host by using OSP binary protocol message MID 132 and the response is *GSD4e_4.1.0-P1*.

Operational changes

- ROM2.0 has the same operation as previous ROM1.3.
- The ROM 2.0 implements all the previous patches up to GSD4e 4.0.4-P1 ROM1.3 Patch r04.
- Patch files and CCK configuration files provided for use with previous ROM versions 1.0 and 1.3 cannot be used with ROM2.0.

New features

- External Accelerometer MEMS sensors (Stationery Detection) supported with 3-D accelerometer and magnetometer
- 5 Hz navigation supported
- SiRFAware average current drain reduced from 500 to 125 μ A typ.
- Alternate serial EEPROM vendor (Microchip) support with 128 kB and 64 kB devices
- ECLK signal (GPIO3) has a new function Message_Waiting when in UART handshaking or SPI host port modes to reduce host SPI master overhead
- Automatic system level RF gain adjustment for detection of external LNA/active antenna operation increases external gain range up to +35 dB
- Server Generated EE period is extended from 7 d to 14 d
- QZSS test signal cross-correlation problem mitigation implemented

Known issues

- SBAS tracking is not stable and DGPS status has not expected performance. Mitigation: keep SBAS disabled. Status: a patch is under development.
- Enabling 5 Hz navigation will also change 1PPS (TM) signal output rate to 5 Hz with 50 ms pulse. Status: a patch is under development.