GPS5300 NaviLink™ 4.0 single-chip A-GPS solution

Key features

- Single chip using TI's DRP™ technology and 90 nm manufacturing process
- The smallest A-GPS solution with a board area less than 50 mm^2
- Lowest total bill-of-materials for a complete A-GPS system with only 11 external passives required
- Low power with integrated power management
- High A-GPS performance with weaker satellite signals, exceeding 3GPP and 3GPP2 requirements
- Optimized to interface with TI's 3G chipsets and OMAP™ processors to deliver a complete solution for handset OEMs
- Small module speeds time-to-market for A-GPS enabled phones

PRODUCT BULLETIN

Overview

Global positioning system (GPS) applications are increasing in popularity in mobile phones worldwide for mobile navigation, mapping and safety services. Texas Instruments' (TI's) GPS5300 NaviLink™ 4.0 single-chip solution for assisted global positioning system (A-GPS) applications is optimized for 3G mobile phones.

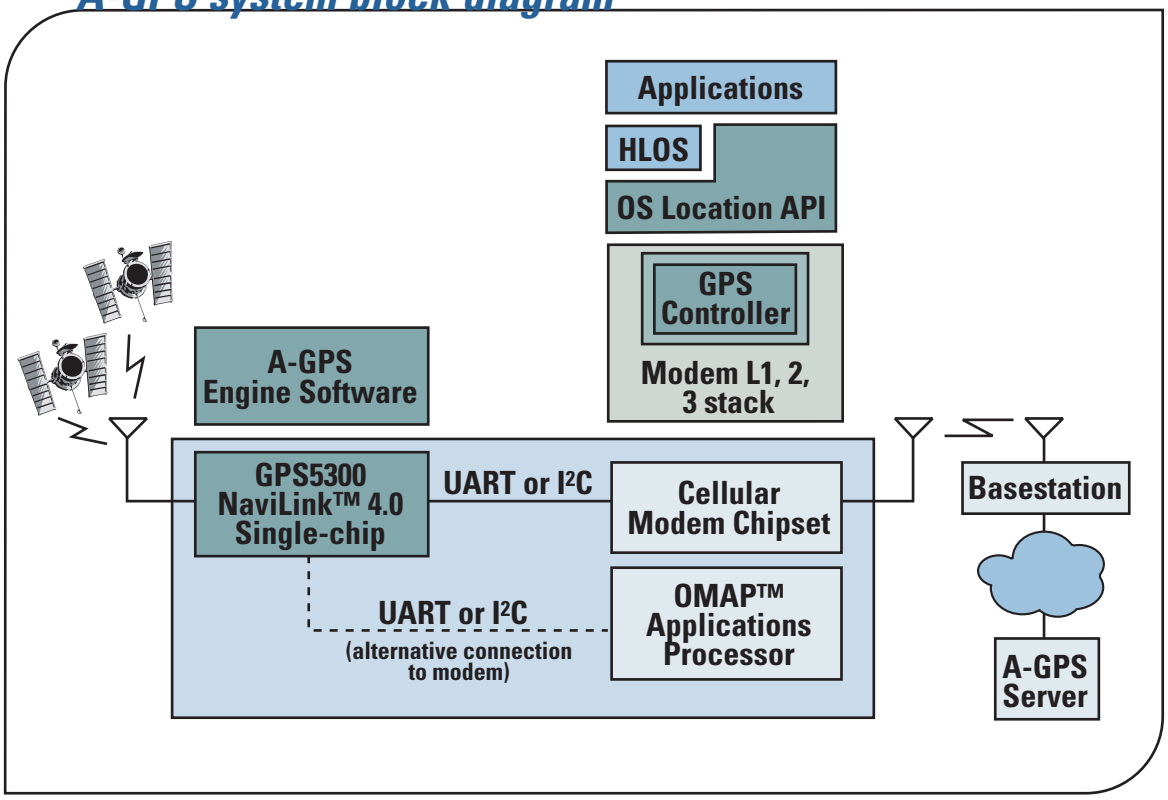
The NaviLink single-chip solution is the industry's first A-GPS solution manufactured in 90nm process technology and extends TI's leadership in single-chip integrated solutions using TI's DRP™ technology. Through DRP technology, TI is able to provide the smallest size, lowest cost, low power and high performance discrete A-GPS solution to mobile phone manufacturers.

- ***Smallest size:*** The GPS5300 NaviLink 4.0 solution integrates a complete A-GPS system into one chip significantly reducing the board layout area for a discrete A-GPS engine. The single-chip enables a board area for the complete system of less than 50 mm^2.
- ***Lowest cost:*** As a single chip the GPS5300 only requires 11 external passives, a significant reduction over existing solutions which require up to 30 external passives. This level of integration delivers a total bill of materials that is almost 50 percent less than competition today.
- ***Low power:*** The GPS5300 NaviLink 4.0 solution has power management integrated on-chip, which simplifies design and further reduces the bill-of-materials. The single chip also allows direct connect to battery for easy incorporation into mobile phone designs.

- ***High performance:*** The GPS5300 NaviLink 4.0 solution enables a rapid time to first fix (TTFF) from weak satellite signals exceeding the A-GPS requirements for 3GPP and 3GPP2 operation.

The GPS5300 NaviLink 4.0 single-chip solution is sampling now and is expected to be in production in 2Q 2006. Additionally, TI is collaborating with Murata to deliver a small module to handset OEMs to speed time to market of NaviLink-based A-GPS mobile phones.

A-GPS system block diagram



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