

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 mm²
- 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



P R O D U C T B U L L E T I N

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.

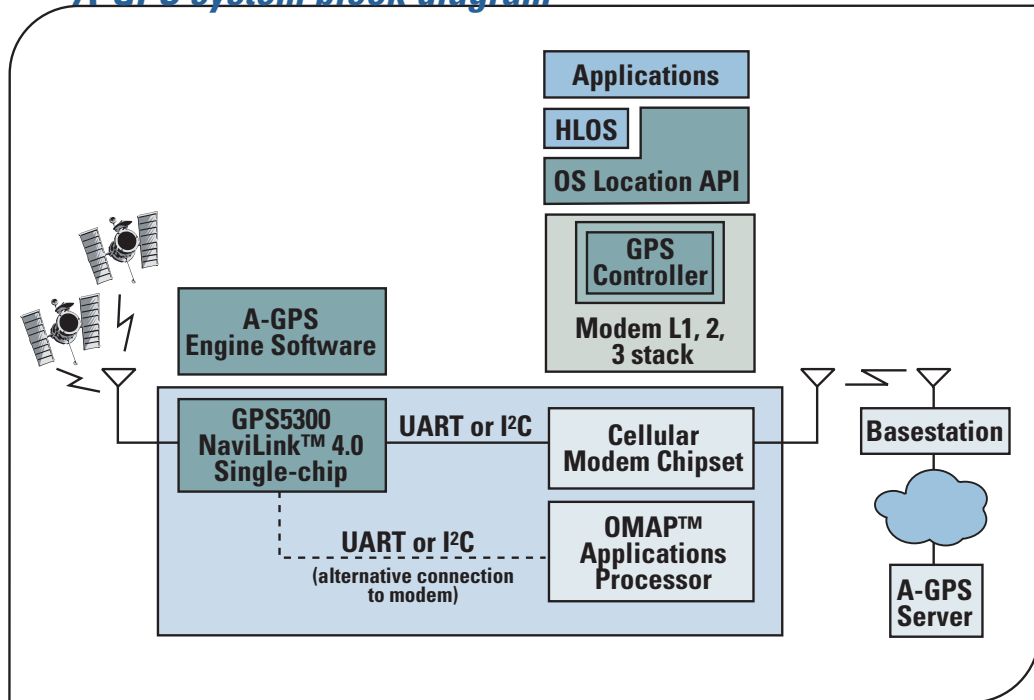
The NavILink single-chip solution is the industry's first A-GPS solution manufactured in 90nm process technology and extends TI's leadership in single-chip integrated solutions using TI's DRP™ technology. Through DRP technology, TI is able to provide the smallest size, lowest cost, low power and high 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 mm².
- **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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