

NaviLink™ 6.0 single-chip A-GPS/Bluetooth®/FM Rx/Tx solution: NL5500



Product Bulletin

As the popularity of global positioning satellite (GPS) systems and location based services applications continue to grow, users are increasing demand for GPS technology on the go in handheld, portable and multimedia devices. In addition, a vast majority of handheld devices include *Bluetooth* wireless technology providing wireless connectivity between devices. A growing segment of the handheld multimedia devices incorporates FM radio receiver/transceivers (Rx/Tx) to allow users to enjoy FM radio.

Built on TI's experience and expertise in multiple radio solutions, the NaviLink™ 6.0 (NL5500) is the industry's first single chip that combines assisted global positioning satellite (A-GPS), *Bluetooth* 2.1 and FM receive/transmit capabilities.

Built on TI's DRP™ single-chip technology at 65 nanometer (nm), the highly integrated and cost-effective NaviLink 6.0 solution enables manufacturers to introduce sleek, affordable and high-performance handsets with GPS capabilities to the large mid-tier market and drive increased usage of popular GPS-based applications such as 3-D mapping, location based services and safety services. NaviLink 6.0 maximizes board space by 40 percent, enabling the smallest possible devices and reduces power consumption by up to 50 percent over previous TI solutions.

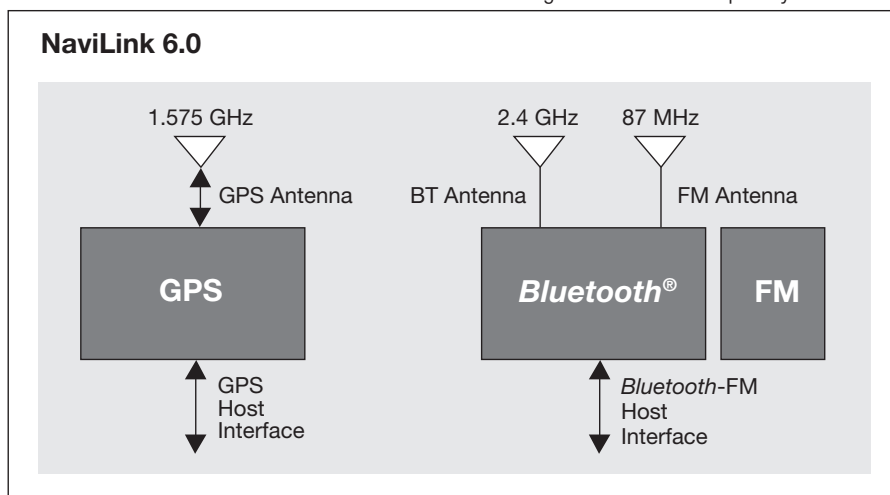
The user experience is further enhanced by enabling consumers to enjoy simultaneous activities such as navigating, having a conversation using a *Bluetooth* headset, while also transmitting an MP3 file to the car radio using the FM transmit capability.

Key benefits

- The Industry's first single-chip solution integrating A-GPS, *Bluetooth* and FM radio Rx/Tx
- A board area 40 percent smaller than previous solutions as a result of TI's DRP technology and 65-nm manufacturing process
- Longer battery life with an integrated power-saving module that cuts power requirements in half
- Optimized coexistence software to minimize interference issues
- 80 percent faster TTFF and better reception in urban canyons and indoor environments
- Interfaces with TI's OMAP™ solutions and other host platforms to deliver a complete solution for OEMs

Further improving the user experience, the NaviLink 6.0 solution includes enhanced algorithms to dramatically reduce the "time to first fix" (TTFF) over previous TI solutions and existing solutions in the market. Integrated "position optimizer" software delivers superior accuracy in weak satellite signal areas, such as urban centers and heavily wooded areas.

The NaviLink 6.0 solution also addresses the complex coexistence challenge. TI's hardware implementation and software algorithms are optimized to ensure seamless coexistence between GPS, *Bluetooth*, FM, WLAN and cellular functions.



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