

TI Single-Chip Solution Drives GPS into Mainstream Mobile Phones

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Texas Instruments today announced a new single-chip device that is expected to drive GPS applications into mainstream mobile phones.

Built on TI's innovative DRPTM single-chip technology, the NaviLinkTM 5.0 solution has a footprint of 25mm², delivering high performance with the industry's smallest solution size and lowest bill of materials, making GPS more affordable to accelerate adoption in mobile phones.

The new NaviLink 5.0 GPS receiver architecture provides fast "time to first fix" (TTFF) in weak signal conditions typical in metropolitan areas and deep indoor environments. With GPS available in more handsets, operators can broadly deploy location-based services consumers have come to expect, such as rich 3D mapping and navigation applications.

The NaviLink 5.0 solution supports both assisted-GPS (A-GPS) and stand-alone modes of operation. Unlike other GPS architectures, the NaviLink 5.0 chip requires minimal host loading and memory requirements, providing system design flexibility and reduced power consumption, which are key concerns for handset manufacturers. The chip also exceeds 3GPP and OMA SUPL performance requirements, enabling ease of integration in mobile phones.

"Most consumers are familiar with accessing navigation data from their in-car systems and via the Internet. With TI's high-performance NaviLink 5.0 solution, we enable handset manufacturers to offer

affordable personal navigation systems and applications in mobile phones for on-the-go consumers anytime, anywhere," said Marc Cetto, general manager of TI's Mobile Connectivity Solutions business.

With location-based services on the mobile phone, busy consumers can access information about services and businesses in their immediate area such as ATMs, restaurants, movie theatres, and more. They can also identify the location of family and friends through "presence" management, which lets users locate personal contacts via their handset.

"We see strong growth potential for GPS-enabled handsets, particularly the high and mid-tier market segments. With GPS demand increasing due to location-based services and regulatory requirements, an affordable single-chip solution like TI's NaviLink 5.0 device will help fuel GPS adoption in mid-tier handsets," said Patrick Connolly, Senior Analyst, IMS Research.

Data that consumers will access on their handsets with GPS technology, such as localized maps, increases the need for rich 3D graphics to better identify landmarks and their surroundings on the small screen. The NaviLink 5.0 single-chip solution is optimized to interface with TI's OMAP™ and OMAP-Vox™ processors, which provide clear, crisp 3D images to further enrich the user experience. The GPS chip also seamlessly interfaces with TI's 2.5G and 3G chipsets to deliver a complete solution for handset manufacturers.

The NaviLink 5.0 solution is expected to be in high volume production in 4Q07.

Source: Texas Instruments

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