

# **Assisted GPS for Mobile Devices and GPS Receiver Design**

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During recent years location technologies have emerged as a research area with many possible applications. In particular, wireless operators around the world have identified Location Based Services (LBS) as an excellent opportunity for growth. Hi-end mobile devices are already able to determine their position and help with the navigation. The Global Positioning System (GPS) is standardized and widely used component of all these systems. A GPS receiver uses satellite signals to determine position, velocity, and timing information. Assisted GPS receivers have been used in modern mobile devices by integrating wireless communication and positioning systems. The presentation will overview Assisted GPS Technology, emerging new satellite systems, and receiver chains. Research platforms and challenging aspects of RF reception and design will be discussed.