



## NXP Introduces Secure UWB Fine Ranging Chipset to Allow Broad Deployment in Mobile Devices

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### News Highlights:



Adding NXP UWB capabilities brings a new level of connectivity for relative positioning among multiple devices, whether indoor or outdoor, with little to no interference. The NXP mobile UWB implementation delivers unprecedented accuracy, even in crowded, multipath signal environments with numerous walls, people, and other obstacles. End-users can enjoy the convenience of leaving their mobile devices in their back pockets and still experience the functionalities and connectivity the solution offers.

- World's first all-in-one solution to combine Secure Element (SE), Near Field Communications (NFC) and Ultra-Wide Band (UWB) fine-ranging technology
- Delivers unparalleled precision sensing, including 360 degrees positioning
- Leverages NXP's leading end-to-end security architecture for secure localization capabilities in a variety of security applications
- Provides  $\pm 10$  cm range and  $\pm 3^\circ$  angle accuracy

EINDHOVEN, The Netherlands, Sept. 17, 2019 (GLOBE NEWSWIRE) -- NXP Semiconductors N.V. (NASDAQ: NXPI) today officially announced its secure fine ranging chipset, SR100T – designed to bring remarkably precise positioning performance tailored for next-generation UWB-enabled mobile devices. With the SR100T, mobile devices will be able to communicate with connected doors, points of entry, and cars to open them once approaching. Lights, audio speakers, and any other connected device with UWB sensing capability will be able to follow users from one room to another, and smart connected technology will intuitively be embedded in people's lives.

The new UWB-based chipset, SR100T, amplifies and builds on NXP's connectivity, security ecosystem expertise, and proven security architecture found in many of today's popular mobile payment-enabled devices featuring NFC and SE hardware. Adding UWB brings the use case of spatial awareness and relative positioning among multiple devices, whether indoor or outdoor, with little to no interference. Additionally, the UWB implementation delivers unprecedented accuracy, even in crowded, multipath signal environments with numerous walls, people, and other obstacles. The technology also uses angle-of-arrival (AoA) technology to accurately indicate the direction of a signal for added precision.

Furthermore, the SR100T expands NXP's mobile wallet solution to include spatial awareness for new handsfree access applications.

"The use cases that UWB enables is one of the most highly anticipated developments and NXP is the first out of the gate to bring seamless, interoperable experiences with an all-in-one solution for mobile devices," said Rafael Sotomayor, senior vice president of Mobile. "Today, NXP's mobile wallet solutions already impact millions of consumers around the world. The SR100T is an evolution of our secure connected offerings and is designed to complement existing standards like Bluetooth and Wi-Fi. This is a major step forward in allowing developers to deliver ubiquitous UWB experiences to people around the globe."

## Setting the Benchmark on Robust Wireless Accuracy and Localization

- 6 to 9 GHz; 500 MHz bandwidth per channel
- High accuracy of AoA estimates with dual-Rx for AoA functionality
- Exceptional range accuracy in non-line-of-sight (nLOS):  $\pm 10$  cm with angle accuracy (LoS):  $\pm 3^\circ$

## Multi-layered Security Approach

- Best-in-class RF security provided through the security extension currently being specified in IEEE 802.15.4z
- Multiple integrated security mechanisms for both the protection of keys and software security
- Unified security architecture with NFC and Secure Element

## Leading a UWB Revolution

NXP is a co-founder of the [FiRa Consortium](#), a community of industry experts dedicated to the development and widespread adoption of seamless user experiences based on the secure fine-ranging and positioning capabilities of interoperable UWB technologies.

For more information visit: <https://www.nxp.com/UWB> or [Watch the video about NXP UWB technology](#)

## About NXP Semiconductors

NXP Semiconductors N.V. enables secure connections for a smarter world, advancing solutions that make lives easier, better, and safer. As the world leader in secure connectivity solutions for embedded applications, NXP is driving innovation in the automotive, industrial & IoT, mobile, and communication infrastructure markets. Built on more than 60 years of combined experience and expertise, the company has approximately 30,000 employees in more than 30 countries and posted revenue of \$9.41 billion in 2018. Find out more at [www.nxp.com](http://www.nxp.com)

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