Precise, secure, real-time localization capabilities for vehicles

NCJ29D5 Ultra-Wideband ICs for Automotive Applications

NXP's UWB technology precisely measures the propagation time of the signal between two UWB nodes for unprecedented localization accuracy of a few centimeters in harsh environments and in real-time. This enables secure and precise localization for a variety of applications.

OVERVIEW

UWB provides precise, secure, real-time localization capabilities. The technology is designed to give spatial awareness to UWB-equipped cars, mobiles, and other smart devices, to enable cars to know exactly where the users are.

For the first time, smartphone-based car access offers the same level of convenience as state-of-the-art systems. Users can open and start cars, while leaving their phones in their pockets or bags, and enjoy secure remote parking via smartphone. Furthermore, the new UWB IC brings maximum level of protection against car theft through relay attacks.

PRODUCT SPECIFICATIONS

- Interoperability granted for smart access
- Highest localization resolution
- Lowest system cost
- Integrated power management
- High band operation from 6.0 GHz to 8.5 GHz
- Arm® Cortex®-based
- On-chip support for a wide range of cryptographic operations
- IEEE 802.15.4 forward and backward compatible

NXP NCJ29D5 Ultra-Wideband Chip for Automotive Applications

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