

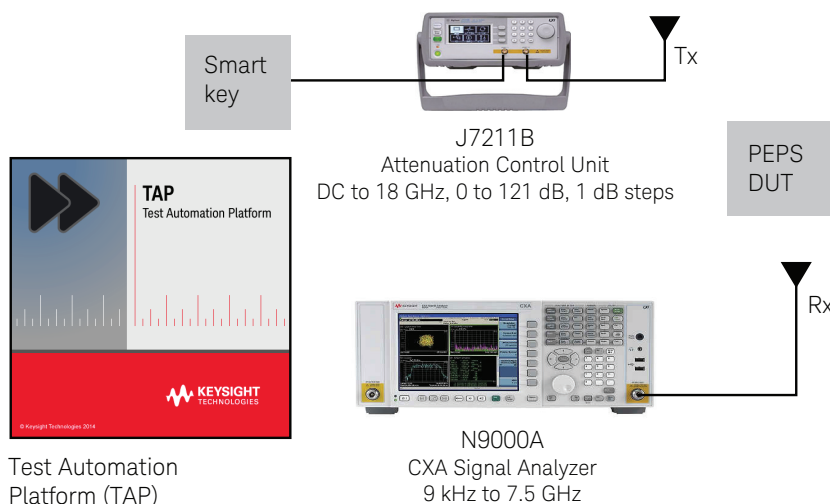
Keysight Technologies

Enhance Vehicle Security with Ultra-Wide Bandwidth Passive Entry Passive Start System Automotive Test Technology – Solution Brief

Cyber-attacks pose a severe threat to the automotive wireless eco-system. Existing narrowband passive entry/ passive start (PEPS) systems are prone to high risk of vehicle theft, where the smart key signal is relayed to unlock the vehicle. To counter such relay attacks, ultra-wide bandwidth (UWB) PEPS with high immunity to interference and accuracy on distance detection is becoming increasingly popular.

UWB PEPS works by detecting and translating codes inputted from the smart key, and also transmission of beacon signals from the PEPS to the key. In manufacturing functional test, you can use an affordable CXA signal analyzer, which provides effective functional validation of transmitter power and its occupied bandwidth.

Solution/Application Setup



Test Automation Platform (TAP)

N9000A
CXA Signal Analyzer
9 kHz to 7.5 GHz



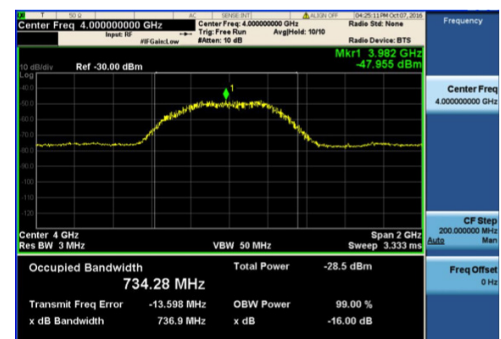
For more information:
www.keysight.com/find/automotive

Choose Keysight

Keysight continues working on evolving our solutions to meet new requirements from automakers, offering both manufacturing and R&D test solutions that meet the IEEE802.15.4-2011 UWB standard.

For R&D design verification, the 510 MHz analysis bandwidth option offered by the Keysight N9030B PXA signal analyzer is ideal to analyze short pulses that require a wide dynamic range and large analysis bandwidth.

Please contact your nearest Keysight representative to discuss your UWB PEPS solution needs.



Transmitted UWB Signal

Consider this solution if you are involved with:

- Design/Design validation
- Design project management