# Simplifying the development of automotive radar applications

# RDK-S32R274
# Automotive Radar Reference Platform

Targeted for Adaptive Cruise Control (ACC) and automatic emergency breaking (AEB) applications, the RDK-S32R274 Radar Reference Platform offers a complete automotive radar solution including a high-performance MCU, a 77 GHz radar transceiver and automotive-qualified radar software.

## OVERVIEW

Built in partnership with Colorado Engineering Inc., the RDK-S32R274 radar reference platform allows rapid prototyping of high-performance radar applications. The solution combines a robust hardware design and automotive-grade radar software to enable customers to rapidly develop products optimized to meet specific requirements. Utilizing a modular architecture, the different modules in the RDK-S32R274 can be optimized to create a customizable development platform. Developed to support high-performance capabilities such as MIMO (Multiple input, multiple output), steerable beams and digital beam forming, this platform provides enough performance headroom for tasks such as radar cross section (RCS) measurements, target tracking, collision avoidance and occupancy sensing.

### Target applications

‣ Adaptive cruise control
‣ Emergency braking
‣ Collision avoidance
‣ Occupancy detection
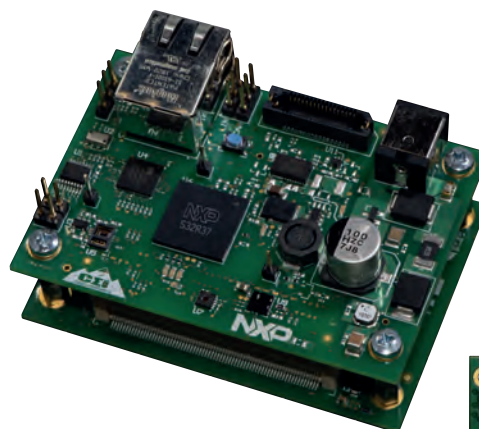


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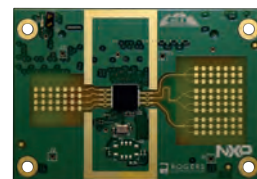
‣ NXP S32R274 automotive radar microcontroller
‣ NXP TEF8102 77 GHz radar transceiver
‣ Robust antenna design enabling customer optimization
‣ Max range: 180 m with range accuracy: 0.175 m
‣ Angle resolution: 4.25° with angle accuracy; +/-0.25°
‣ Application software provided using NXP automotive-qualified radar software development kit (rSDK)
‣ Automotive-grade hardware design

## www.nxp.com/RDK-S32R274

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