

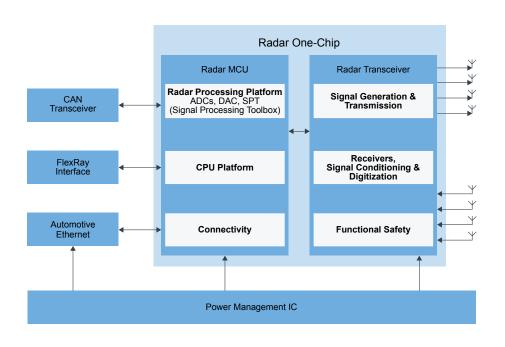
Automotive Radar Systems

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Radar sensors play an essential role for automotive ADAS to enhance road safety and increase driver convenience. NXP provides a scalable portfolio of highly integrated, safe and secure product families of MMICs, processors and SoCs, addressing increasing safety requirements and enabling autonomous driving levels 2+ and beyond.

System designers require a portfolio with a scalable, streamlined and highly-integrated processing platform that strikes the optimal balance of compute agility and power efficiency for the next-generation of radar sensor solutions. NXP's offering consists of fully integrated 77 GHz RFCMOS transceivers, high-performance processors and small form factor one-chip SoCs to enable the full application spectrum for different types of automotive radar sensors from corner to long-range up to 4D imaging radar. Combined with NXP's comprehensive solutions of PMIC, CAN, Ethernet and FlexRay products, NXP eases time of development for engineers when developing scalable solutions to meet the next generation safety requirements and applications.

Radar Systems Block Diagram



Non NXP Technology [] Optional Technology

NXP Technology

Recommended Products for Radar Systems	
Radar MCU	S32R41: S32R41 High-Performance Processor for High-Resolution Radar S32R45: S32R45 High-Performance Processor for Imaging Radar S32R294: Radar Microcontroller
Radar Transceiver	TEF82xx: Fully Integrated 77 GHz RFCMOS Automotive Radar Transceiver TEF810X: TEF810x Fully-Integrated 77 GHz Radar Transceiver
CAN Transceiver	TJA144x: Automotive CAN FD Transceiver Family TJA1043: High-Speed CAN Transceiver with Standby and Sleep Mode TJA1463: CAN Signal Improvement Capability Transceiver with Sleep Mode TJA1462: CAN Signal Improvement Capability Transceiver with Standby Mode
Power Management IC	PF5200: Dual-Channel PMIC for Automotive Applications – 2 High Efficient LVBUCK, Fit for ASIL B Safety Level FS8400: Safety System Basis Chip for S32 Microcontrollers, Fit for ASIL B

	PF5024: Multi-Channel (4) PMIC for Automotive Applications – 4 High Power, Fit for ASIL B Safety Level
FlexRay Interface	• TJA1081G: FlexRay [™] Node Transceiver - Clamp 30
Automotive Ethernet	TJA1121: TJA1121, MACsec Enabled ASIL B Compliant Automotive Ethernet 1000BASE-T1 PHY Transceiver TJA1120: TJA1120, ASIL B Compliant Automotive Ethernet 1000BASE-T1 PHY Transceiver SJA1110: Multi-Gig Safe and Secure TSN Ethernet Switch with Integrated 100BASE-T1 PHYs SJA1105PQRS: SJA1105PEL/QEL/REL/SEL Series Ethernet Switches TJA1104: TJA1104, MACsec Enabled ASIL B Compliant Automotive Ethernet 100BASE-T1 PHY Transceiver TJA1103: TJA1103, ASIL B Compliant Automotive Ethernet 100BASE-T1 PHY Transceiver TJA1101: TJA1101B, IEEE 100BASE-T1 Compliant Automotive Ethernet PHY Transceiver
Radar One-Chip	SAF86XX: One-Chip RFCMOS Automotive Radar SoC for Distributed Architectures SAF85XX: High Performance 77GHz RFCMOS Automotive Radar One-Chip SoC

View our complete solution for Automotive Radar Systems.

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