

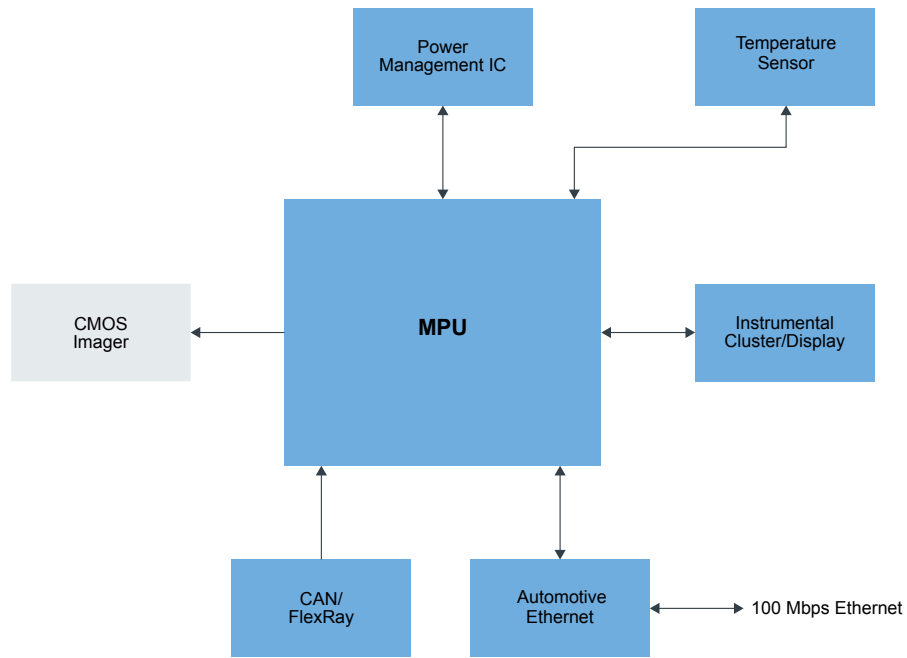


Automotive Vision Systems

Last Updated: Nov 22, 2023

Accelerating innovation in automotive vision technology is fueling a transformation in advanced driver assistance systems (ADAS) and will help to enable the achievement of fully autonomous L5 vehicles. ADAS Vision Systems currently provide many assist functions for today's driver. The vision system is a key part of that capability as cars perceive their surroundings and decide on the actions required to maintain the safety of all road users. Co-piloting and then fully automating a car requires technology with automotive grade reliability, safety and security. Our S32V vision processor provides the requisite performance and features for vision system applications.

Automotive Vision System Block Diagram



■ NXP Technology ■ Non NXP Technology □ Optional Technology

Recommended Products for Automotive Vision System

MPU	<ul style="list-style-type: none"> • MPC560xE: Ultra-Reliable 32-bit MCU for Automotive ADAS and Industrial Ethernet Applications • S32V234: S32V2 Processors for Vision, Machine Learning and Sensor Fusion • MAC57D5xx: Ultra-Reliable Multi-Core Arm®-Based MCU for Clusters and Display Management
Power Management IC	<ul style="list-style-type: none"> • PF5024: Multi-Channel (4) PMIC for Automotive Applications – 4 High Power, Fit for ASIL B Safety Level • FS86: ドメイン・コントローラ用セーフティ・システムベース・チップ、ASIL BおよびDに適合 • PF8101-PF8201: 9-Channel Power Management Integrated Circuit (PMIC) for High-Performance Processing Applications • PF5200: Dual-Channel PMIC for Automotive Applications – 2 High Efficient LVBUCK, Fit for ASIL B Safety Level • PF5020: Multi-Channel (5) PMIC for Automotive Applications – 4 High Power and 1 Low Power, Fit for ASIL B Safety Level • FS8400: Safety System Basis Chip for S32 Microcontrollers, Fit for ASIL B • VR5510: Multi-Channel (9) PMIC for S32G Processor – 8 High Power, 1 Low Power, Fit for ASIL D Safety Level • FS6000: Automotive Dual Buck Regulator and Controller with Voltage Monitors and Watchdog Timer • PF7100: 7-Channel Power Management Integrated Circuit for High Performance Applications, Fit for ASIL B Safety Level

車載イーサネット	<ul style="list-style-type: none"> • TJA1120: TJA1120、ASIL B準拠、車載用イーサネット100BASE-T1 PHYトランシーバ • TJA1101: TJA1101B、IEEE 100BASE-T1準拠、車載用イーサネットPHYトランシーバ • TJA1103: TJA1103、ASIL B準拠車載イーサネット100BASE-T1 PHYトランシーバ
CAN/FlexRay	<ul style="list-style-type: none"> • TJA1043: High-Speed CAN Transceiver with Standby and Sleep Mode • TJA1081G: FlexRay™ Node Transceiver - Clamp 30 • TJA1463: CAN Signal Improvement Capability Transceiver with Sleep Mode
Instrumental Cluster/Display	<ul style="list-style-type: none"> • TJA1101: TJA1101B、IEEE 100BASE-T1準拠、車載用イーサネットPHYトランシーバ • TJA1103: TJA1103、ASIL B準拠車載イーサネット100BASE-T1 PHYトランシーバ
温度センサ	<ul style="list-style-type: none"> • P3T1755DP: I3C/I²Cバス対応、±0.5° C精度デジタル温度センサ • P3T1750DP: I3C/I²Cバス、±1° C精度、デジタル温度センサ

View our complete solution for [Automotive Vision Systems](#).

Note: The information on this document is subject to change without notice.

www.nxp.com

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2024 NXP B.V.