

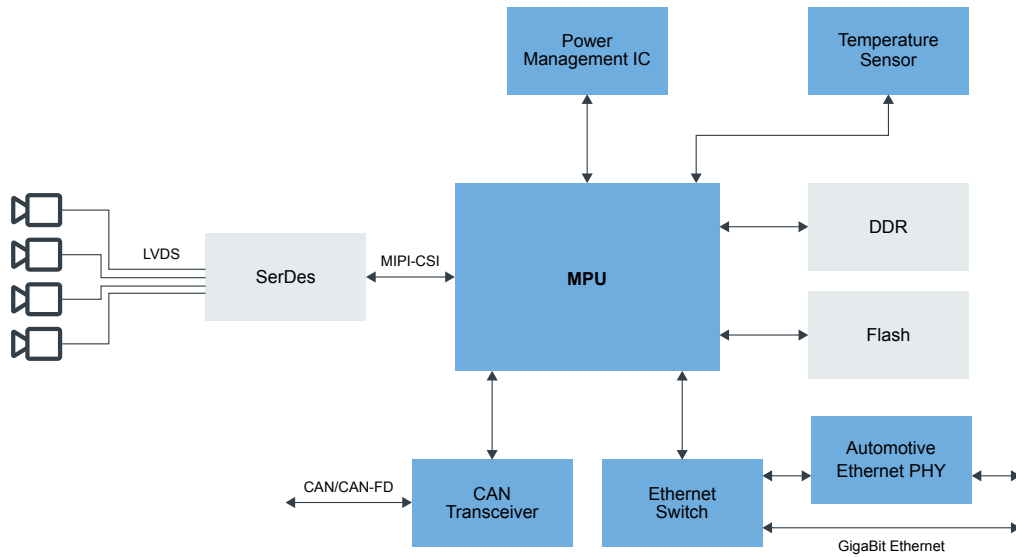


Surround View

Last Updated: Jun 2, 2023

Multi-camera surround view and sense park assist systems capture and display onscreen the area surrounding the car from a virtual 3D view. The perspective is dynamically moved depending upon the trajectory of the car, providing a 360° view around the car. Advanced parking systems deploy four to five high-dynamic range (HDR) > 1 MP cameras using a cost-effective link such as MIPI-CSI or Gb Ethernet. Our S32V family provide up to four high-performance Arm® Cortex®-A53 cores, advanced graphics and vision accelerators for processing of up to five >1 MP video streams at > 30 fps.

Surround View Block Diagram



■ NXP Technology ■ Non NXP Technology □ Optional Technology

Recommended Products for Surround View

MPU	<ul style="list-style-type: none"> • i.MX 6 Processors: i.MX 6 Series Applications Processors: Multicore, Arm® Cortex®-A7 Core, Cortex-A9 Core, Cortex-M4 Core • S32V234: S32V2 Processors for Vision, Machine Learning and Sensor Fusion
Power Management IC	<ul style="list-style-type: none"> • PCA9451A: PCA9451A Power Management IC for i.MX 93x Application Processor • FS86: Safety System Basis Chip For Domain Controller, Fit For ASIL B and D • FS8400: Safety System Basis Chip for S32 Microcontrollers, Fit for ASIL B • FS5600: Automotive Dual Buck Regulator and Controller with Voltage Monitors and Watchdog Timer • MMPF0100: 14-Channel Configurable PMIC • PF81-PF82: 12-Channel Power Management Integrated Circuit (PMIC) for High-Performance Processing Applications • PF5020: Multi-Channel (5) PMIC for Automotive Applications – 4 High Power and 1 Low Power, Fit for ASIL B Safety Level • PF7100: 7-Channel Power Management Integrated Circuit for High Performance Applications, Fit for ASIL B Safety Level

Auto Ethernet	<ul style="list-style-type: none"> • TJA1120: TJA1120, ASIL B Compliant Automotive Ethernet 1000BASE-T1 PHY Transceiver • TJA1103: TJA1103, ASIL B Compliant Automotive Ethernet 100BASE-T1 PHY Transceiver
Ethernet Switch	<ul style="list-style-type: none"> • SJA1110: Multi-Gig Safe and Secure TSN Ethernet Switch with Integrated 100BASE-T1 PHYs • SJA1105PQRS: SJA1105PEL/QEL/REL/SEL Series Ethernet Switches
CAN Transceiver	<ul style="list-style-type: none"> • TJA1043: High-Speed CAN Transceiver with Standby and Sleep Mode • TJA1463: CAN Signal Improvement Capability Transceiver with Sleep Mode
Temperature Sensor	<ul style="list-style-type: none"> • P3T1750DP: I3C/I²C-Bus, ±1 °C Accuracy, Digital Temperature Sensor • P3T1755DP: I3C/I²C-Bus ±0.5 °C Accurate Digital Temperature Sensor

View our complete solution for [Surround View](#).

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