

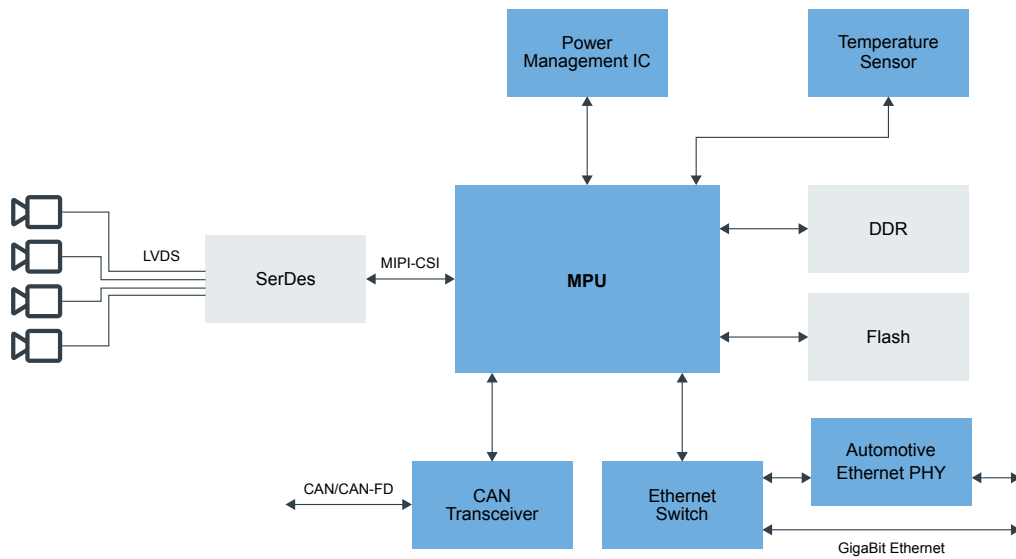


# Surround View

Last Updated: May 28, 2024

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

Auto Ethernet	<ul style="list-style-type: none"> <li>• <a href="#">TJA1120</a>: TJA1120, ASIL B Compliant Automotive Ethernet 1000BASE-T1 PHY Transceiver</li> <li>• <a href="#">TJA1103</a>: TJA1103, ASIL B Compliant Automotive Ethernet 100BASE-T1 PHY Transceiver</li> </ul>
Ethernet Switch	<ul style="list-style-type: none"> <li>• <a href="#">SJA1110</a>: Multi-Gig Safe and Secure TSN Ethernet Switch with Integrated 100BASE-T1 PHYs</li> <li>• <a href="#">SJA1105PQRS</a>: SJA1105PEL/QEL/REL/SEL Series Ethernet Switches</li> </ul>
CAN Transceiver	<ul style="list-style-type: none"> <li>• <a href="#">TJA1043</a>: High-Speed CAN Transceiver with Standby and Sleep Mode</li> <li>• <a href="#">TJA1463</a>: CAN Signal Improvement Capability Transceiver with Sleep Mode</li> </ul>
Temperature Sensor	<ul style="list-style-type: none"> <li>• <a href="#">P3T1750DP</a>: I3C/I<sup>2</sup>C-Bus, ±1 °C Accuracy, Digital Temperature Sensor</li> <li>• <a href="#">P3T1755DP</a>: I3C/I<sup>2</sup>C-Bus ±0.5 °C Accurate Digital Temperature Sensor</li> </ul>

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

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

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