

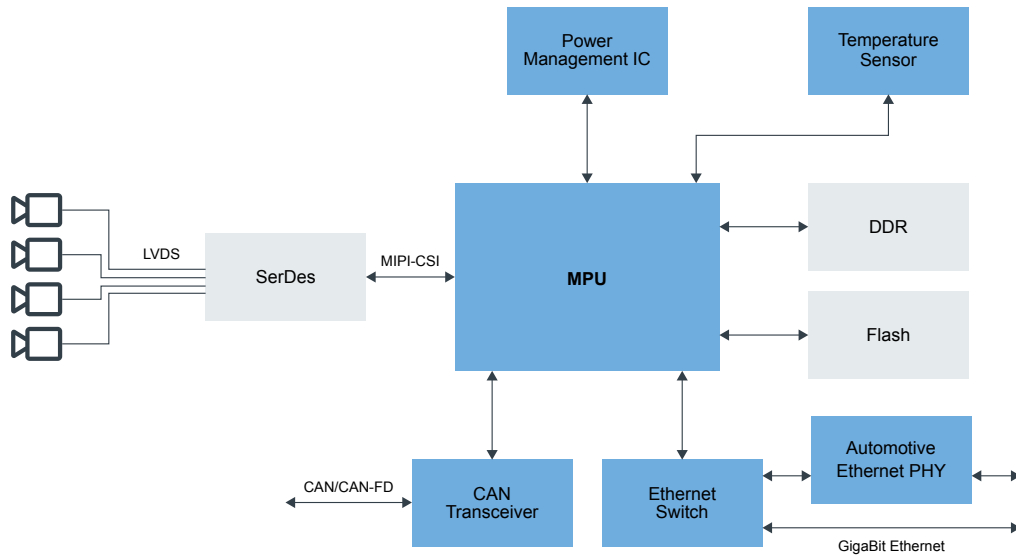


# Surround View

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"> <li>• <a href="#">i.MX 6 Processors</a>: i.MX 6 Series Applications Processors: Multicore, Arm® Cortex®-A7 Core, Cortex-A9 Core, Cortex-M4 Core</li> <li>• <a href="#">S32V234</a>: S32V2 Processors for Vision, Machine Learning and Sensor Fusion</li> </ul>
Power Management IC	<ul style="list-style-type: none"> <li>• <a href="#">PCA9451A</a>: PCA9451A Power Management IC for i.MX 93x Application Processor</li> <li>• <a href="#">FS86</a>: Safety System Basis Chip For Domain Controller, Fit For ASIL B and D</li> <li>• <a href="#">FS8400</a>: Safety System Basis Chip for S32 Microcontrollers, Fit for ASIL B</li> <li>• <a href="#">FS5600</a>: Automotive Dual Buck Regulator and Controller with Voltage Monitors and Watchdog Timer</li> <li>• <a href="#">MMPF0100</a>: 14-Channel Configurable PMIC</li> <li>• <a href="#">PF8100-PF8200</a>: 12-Channel Power Management Integrated Circuit (PMIC) for High-Performance Processing Applications</li> <li>• <a href="#">PF5020</a>: Multi-Channel (5) PMIC for Automotive Applications – 4 High Power and 1 Low Power, Fit for ASIL B Safety Level</li> <li>• <a href="#">PF7100</a>: 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.

---

**[www.nxp.com](http://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.