



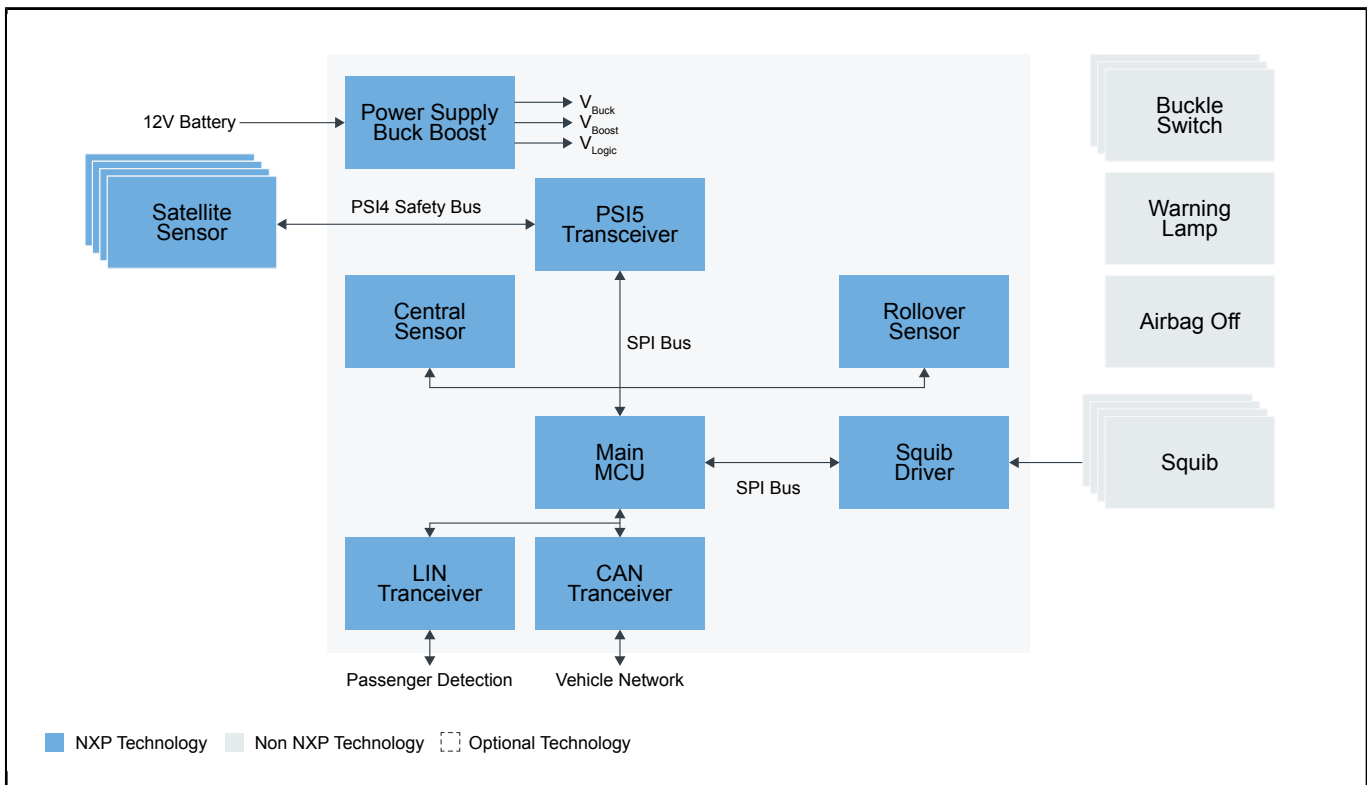
# Airbag and Crash Detection

Last Updated: Dec 16, 2022

NXP enables passive vehicle safety features such as crash detection to maintain driver and passenger safety.

NXP sensors and MCU, developed following ISO26262 standard, monitor vehicle acceleration variation and help deploy airbags in case of a collision. Multiple accelerometers detect abrupt changes in acceleration. An integrated IC helps transmit data from remote sensors to the main electronic control unit (ECU). NXP also offers multiple solutions for ECU power management, designed to meet airbag application requirements.

## Airbag PSI5 Block Diagram

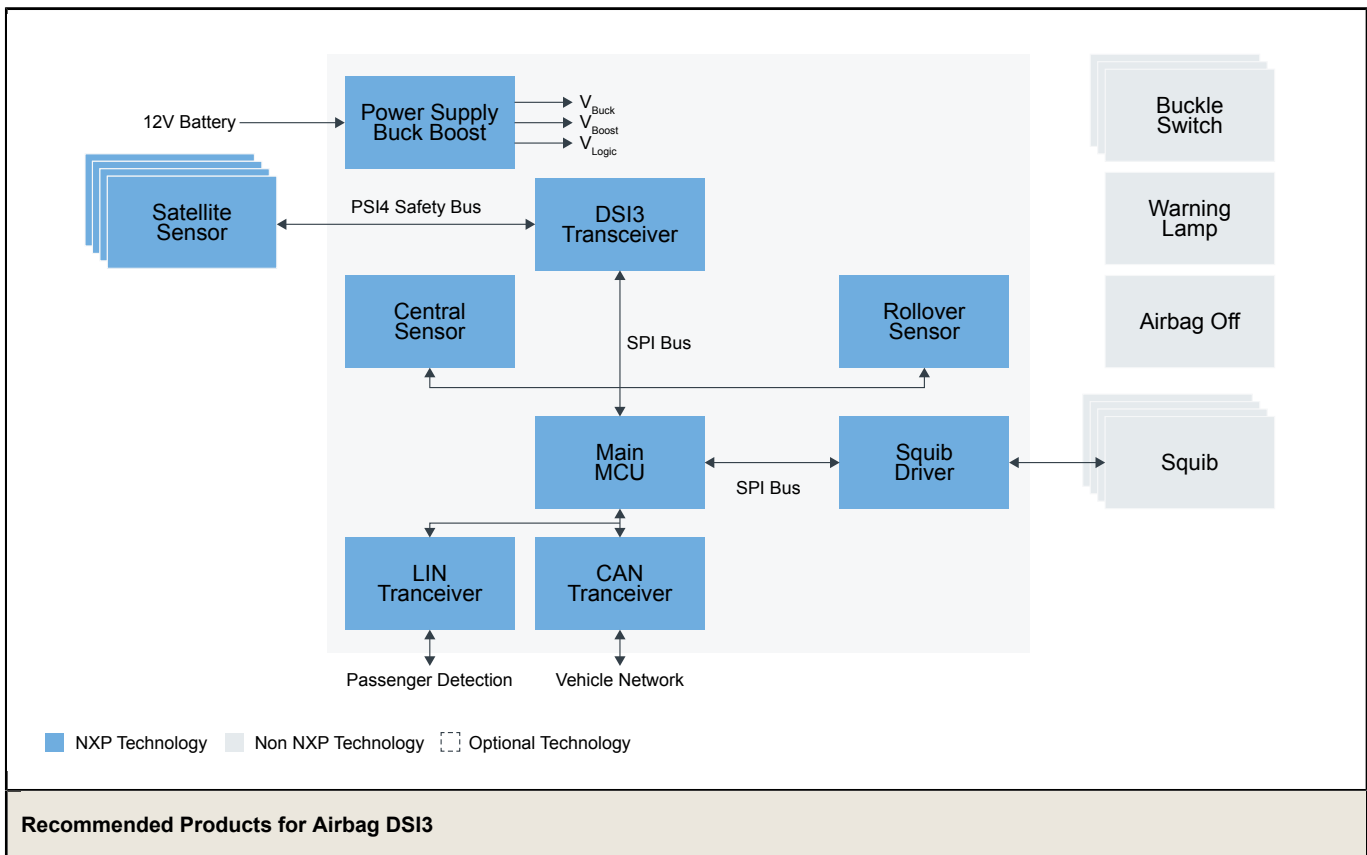


### Recommended Products for Airbag PSI5

PSI5 Transceiver	<ul style="list-style-type: none"> <li>• <a href="#">MC33789</a>: Airbag Power Supply and PSI5 Sensor Interface</li> </ul>
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Satellite/Central/Rollover Sensor	<ul style="list-style-type: none"> <li>• <a href="#">FXLS93</a>: PSI5 Automotive Safety Digital Accelerometer</li> </ul>
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PSI5 Transceiver	<ul style="list-style-type: none"> <li>• <a href="#">MC33789</a>: Airbag Power Supply and PSI5 Sensor Interface</li> </ul>
Main MCU	<ul style="list-style-type: none"> <li>• <a href="#">S32K1</a>: S32K1 Microcontrollers for Automotive General Purpose</li> </ul>
LIN Transceiver	<ul style="list-style-type: none"> <li>• <a href="#">TJA1029</a>: LIN 2.2A/SAE J2602 Transceiver with TXD Dominant Timeout</li> </ul>
CAN Transceiver	<ul style="list-style-type: none"> <li>• <a href="#">TJA1042</a>: High-Speed CAN Transceiver with Standby Mode</li> </ul>
Squib Driver	<ul style="list-style-type: none"> <li>• <a href="#">MC33797</a>: Four Channel Squib Driver IC</li> </ul>
Satellite/Central/Rollover Sensor	<ul style="list-style-type: none"> <li>• <a href="#">FXLS93</a>: PSI5 Automotive Safety Digital Accelerometer</li> </ul>

## Airbag DSI3 Block Diagram



**Recommended Products for Airbag DSI3**

Power Supply	<ul style="list-style-type: none"> <li>• <a href="#">MC33789</a>: Airbag Power Supply and PSI5 Sensor Interface</li> </ul>
Satellite/Central/Rollover Sensor	<ul style="list-style-type: none"> <li>• <a href="#">FXLS93</a>: PSI5 Automotive Safety Digital Accelerometer</li> </ul>
Satellite/Central/Rollover Sensor	<ul style="list-style-type: none"> <li>• <a href="#">FXLS93</a>: PSI5 Automotive Safety Digital Accelerometer</li> </ul>
Main MCU	<ul style="list-style-type: none"> <li>• <a href="#">S32K1</a>: S32K1 Microcontrollers for Automotive General Purpose</li> </ul>
LIN Transceiver	<ul style="list-style-type: none"> <li>• <a href="#">TJA1029</a>: LIN 2.2A/SAE J2602 Transceiver with TXD Dominant Timeout</li> </ul>
CAN Transceiver	<ul style="list-style-type: none"> <li>• <a href="#">TJA1042</a>: High-Speed CAN Transceiver with Standby Mode</li> </ul>
Squib Driver	<ul style="list-style-type: none"> <li>• <a href="#">MC33797</a>: Four Channel Squib Driver IC</li> </ul>
DSI3 Transceiver	<ul style="list-style-type: none"> <li>• <a href="#">SA0528</a>: Dual DSI3 Leader Transceiver for Automotive Applications</li> </ul>
Satellite/Central/Rollover Sensor	<ul style="list-style-type: none"> <li>• <a href="#">FXLS90</a>: DSI3/SPI Automotive Safety Digital Accelerometer</li> </ul>

View our complete solution for [Airbag and Crash Detection](#).

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

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