# Gateway

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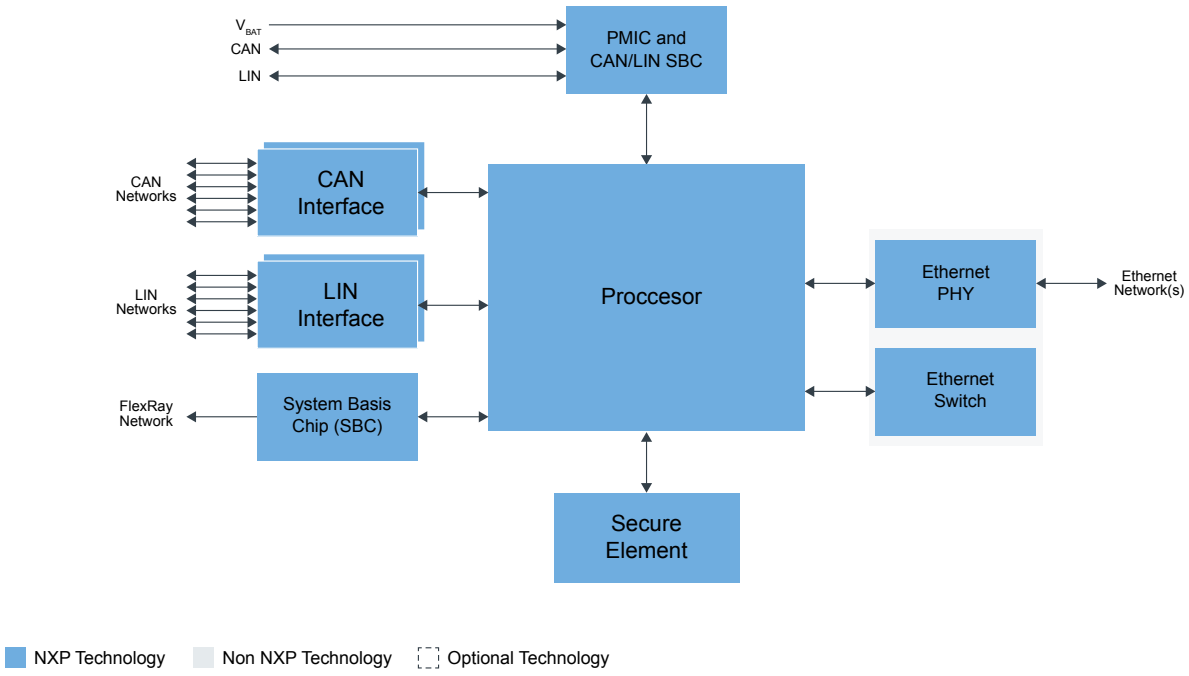
The gateway is a central hub in the vehicle that securely interconnects and processes data across heterogeneous vehicle networks to and from functional domains such as powertrain, chassis and safety, body control, infotainment, telematics and advanced driving assistance systems.

Automotive gateways process different communication protocols, such as CAN, LIN, FlexRay and Gigabit Ethernet while securely filtering data in real time to protect it from hacking. Gateways also enable over-the-air (OTA) firmware updates for the different electronic control units (ECUs) within the car.

**Gateway Block Diagram**




| Recommended Products for Gateway | |
|---|---|
| Processor | • S32G3: S32G3 Processors for Vehicle Networking<br>• S32G2: S32G2 Processors for Vehicle Networking |
| CAN Transceiver | • CAN Transceivers: CAN Transceivers |
| LIN Transceiver | • Automotive LIN Solutions: Automotive LIN Solutions |
| PMIC and CAN/LIN SBC | • TJA1128: LIN Mini System Basis Chip<br>• VR5510: Multi-Channel (9) PMIC for S32G Processor – 8 High Power, 1 Low Power, Fit for ASIL D Safety Level<br>• CAN/LIN SBCs: CAN/LIN System Basis Chips (SBCs) |

| | |
|---|---|
| FlexRay Transceivers | • FlexRay Transceivers: FlexRay Transceivers |
| Ethernet PHY | • TJA1120: TJA1120, ASIL B Compliant Automotive Ethernet 1000BASE-T1 PHY Transceiver<br>• TJA1103: TJA1103, ASIL B Compliant Automotive Ethernet 100BASE-T1 PHY Transceiver |
| Ethernet Switch | • SJA1105EL: SJA1105EL: Five- Ports AVB Automotive Ethernet Switch<br>• SJA1105TEL: Five- Ports AVB and TSN Automotive Ethernet Switch<br>• SJA1105PQRS: SJA1105PEL/QEL/REL/SEL Series Ethernet Switches<br>• SJA1110: Multi-Gig Safe and Secure TSN Ethernet Switch with Integrated 100BASE-T1 PHYs |
| Secure Elements | • NCJ37x: Automotive Secure Element with Passive NFC, $I^2C$ and SPI Interfaces<br>• NCJ38A: Automotive-Qualified Embedded Secure Element (SE) |

View our complete solution for Gateway.

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