



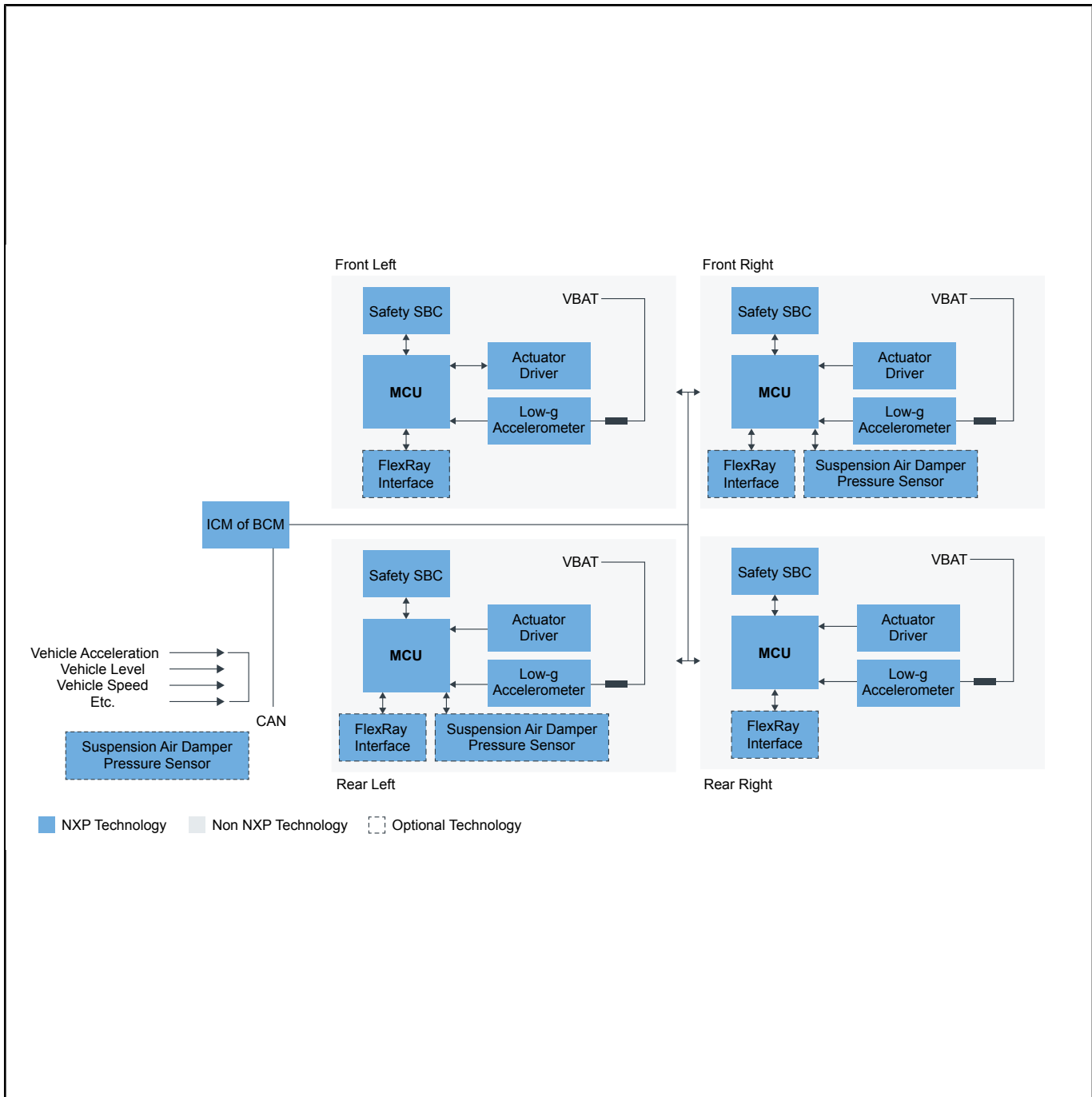
Active Suspension

Last Updated: Dec 22, 2022

NXP solutions enable active suspension systems in today's high-end sports cars and sedans. This offers an adjustable ride, optimized for comfort or handling performance by automatically adjusting the vehicle's wheel and chassis movements according to road conditions.

NXP low g sensors mounted on dampers measure displacement acceleration, while 16-bit single-core and MPC5xxx 32-bit single-core and dual-core MCUs with enhanced computing power and specialized peripherals for control functions enable individual control of the damper coefficient at each wheel.

Active Suspension Block Diagram



Recommended Products for Active Suspension

Suspension Air Damper Pressure Sensor	<ul style="list-style-type: none"> • MPXx6400: Absolute, Integrated Pressure Sensor (15 to 400 kPa)
Safety SBC	<ul style="list-style-type: none"> • FS6500: Grade 1 and Grade 0 Safety Power System Basis Chip with CAN Flexible Data Transceiver • FS4500: Grade 1 and Grade 0 Safety Power System Basis Chip with CAN Flexible Data Transceiver • FS26: Safety System Basis Chip with Low Power, for ASIL D Systems
CAN Transceiver	<ul style="list-style-type: none"> • CAN Transceivers: CAN Transceivers
Microcontrollers (MCU)	<ul style="list-style-type: none"> • MPC560xP: Ultra-Reliable MPC560xP MCU for Automotive and Industrial Safety Applications • MPC564xL: Ultra-Reliable Dual-Core 32-bit MCU for Automotive and Industrial Applications

	<ul style="list-style-type: none"> • S32Z2: S32Z2 Safe and Secure High-Performance Real-Time Processors • S32E2: S32E2 Safe and Secure High-Performance Real-Time Processors with Actuation Support
Low-g Accelerometer	<ul style="list-style-type: none"> • FXLS8964AF: ±2g/±4g/±8g/±16g, Low-Power 12-Bit Digital Accelerometer
FlexRay™ Interface	<ul style="list-style-type: none"> • FlexRay Transceivers: FlexRay Transceivers
Actuator Driver	<ul style="list-style-type: none"> • HB2000: SPI Programmable 10 A H-Bridge Brushed DC Motor Driver • HB2001: SPI Programmable 10 A H-Bridge Brushed DC Motor Driver • MC33926: H-Bridge, Brushed DC Motor Driver, 5-28 V, 5 A, 20 kHz
ICM OR BCM MCU	<ul style="list-style-type: none"> • Gateway: Gateway

View our complete solution for [Active Suspension](#).

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