

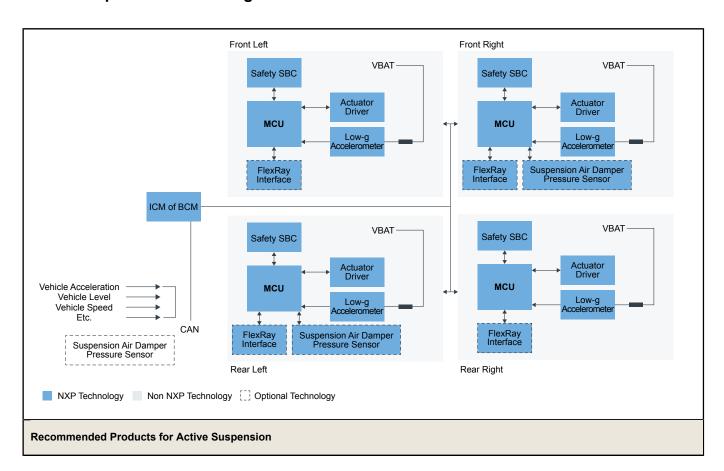
Active Suspension

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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



Suspension Air Damper Pressure Sensor	MPXx6400: Absolute, Integrated Pressure Sensor (15 to 400 kPa)
Safety SBC	 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	CAN Transceivers: CAN Transceivers
Microcontrollers (MCU)	MPC560xP: Ultra-Reliable MPC560xP MCU for Automotive and Industrial Safety Applications MPC564xL: Ultra-Reliable Dual-Core 32-bit MCU for Automotive and Industrial Applications 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	
FlexRay™ Interface	FlexRay Transceivers: FlexRay Transceivers
Actuator Driver	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	Gateway: Gateway

View our complete solution for Active Suspension.

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