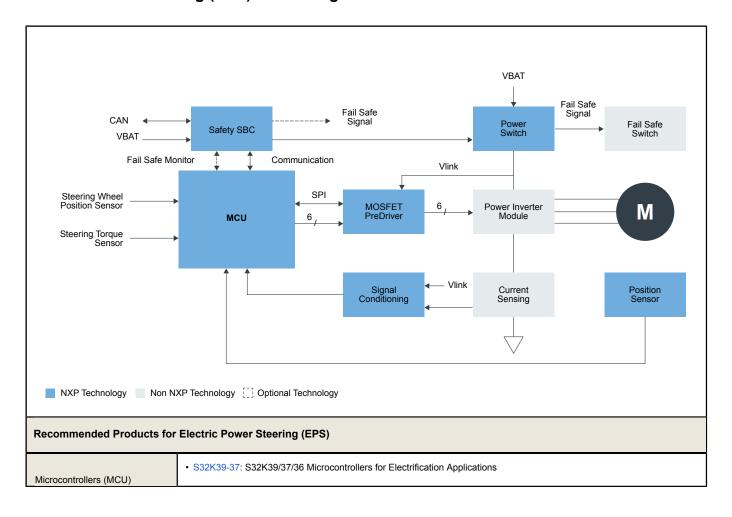


Electric Power Steering (EPS)

Last Updated: Nov 16, 2023

Electric Power Steering (EPS) offers improved handling and steering feel while improving vehicle safety by adopting the steering torque to the vehicle speed and providing active torque in critical driving situations. Our 16-bit and 32-bit single and dual-core automotive MCUs provide enhanced computing power and specialized peripherals for complex electric motor control functions. Integrated power supply solutions are also important elements of a power steering control unit. They provide connectivity to automotive busses, such as CAN and LIN. For MOSFET power stages control, integrated pre-drivers are typically used to interface with the MCU directly or via SPI.

Electric Power Steering (EPS) Block Diagram



	S32E2: S32E2 Safe and Secure High-Performance Real-Time Processors with Actuation Support
Safety SBC	VR5510: Multi-Channel (9) PMIC for S32G Processor – 8 High Power, 1 Low Power, Fit for ASIL D Safety Level FS86: Safety System Basis Chip For Domain Controller, Fit For ASIL B and D S32E2: S32E2 Safe and Secure High-Performance Real-Time Processors with Actuation Support PF5030: Multi-Channel PMIC for Automotive Applications FS26: Safety System Basis Chip with Low Power, for ASIL D Systems TJA1103: TJA1103, ASIL B Compliant Automotive Ethernet 100BASE-T1 PHY Transceiver TJA1462: CAN Signal Improvement Capability Transceiver with Standby Mode TJA144x: Automotive CAN FD Transceiver Family TJA1152: Secure HS-CAN Transceiver with Standby Mode
MOSFET Pre-Driver	GD3000: 3-Phase Brushless Motor Pre-Driver MC33937: 3-Phase Field Effect Transistor Pre-Driver
Signal Conditioning	MC33972: MSDI with Suppressed Wakeup CD1020: Low-Cost 22-CH Multiple Switch Detect Interface
Position Sensor	NMH1000: NMH1000 Ultra-Low Power and Low-Voltage Magnetic Switch

View our complete solution for Electric Power Steering (EPS).

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

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