

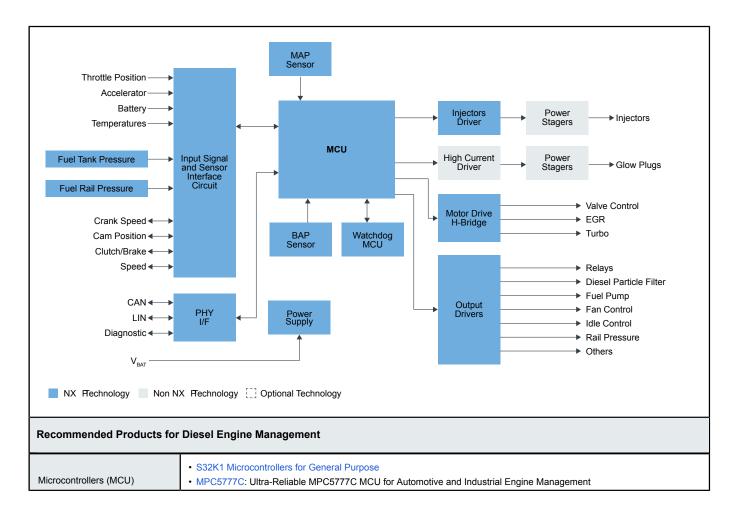
## **Diesel Engine Management**

Last Updated: Dec 30, 2021

Today's diesel engines offer better performance, improved fuel efficiency, reduced noise and lower smoke emissions.

NXP provides a full range of MCUs, barometric pressure sensors (BAP), and analog/mixedsignal IC drivers for improving diesel vehicle fuel economy, enhancing performance and meeting emissions requirements.

## **Diesel Engine Management Block Diagram**



	MPC5746R: Automotive & Industrial Engine Management MCU
Watchdog Microcontrollers (MCU)	S08SG: 8-bit Small Package SG MCUs
Output Drivers	MC33800: Engine Control Integrated Circuit     MC33879: Configurable Octal Serial Switch     GD3000: 3-Phase Brushless Motor Pre-Driver     MC33937: 3-Phase Field Effect Transistor Pre-driver
PHY Interface	<ul> <li>TJA1021: LIN 2.1/SAE J2602 Transceiver</li> <li>TJA1044: High-Speed CAN Transceiver with Standby Mode - Mantis Family</li> <li>TJA1462: CAN Signal Improvement Capability Transceiver with Standby Mode</li> </ul>
Input Signal and Sensor Interface Circuits	MC33975: MSDI with 32 mA Suppressed Wakeup
Safety SBC	<ul> <li>FS6600: Safety SBC for S32S2 Microcontroller, Fit for ASIL D</li> <li>FS86: Safety System Basis Chip For Domain Controller, Fit For ASIL B and D</li> <li>FS4500: Grade 1 and Grade 0 Safety Power System Basis Chip with CAN Flexible Data Transceiver</li> <li>FS26: Safety System Basis Chip (SBC) with Low Power Fit for ASIL D</li> <li>FS6500: Grade 1 and Grade 0 Safety Power System Basis Chip with CAN Flexible Data Transceiver</li> </ul>
Injectors Drivers	PT2000: Programmable Solenoid Controller Gate Driver     PT2001: Programmable Gate Driver for Solenoid Control
Motor driver H-Bridge	<ul> <li>MC33931: H-Bridge, Brushed DC Motor Driver, 5-28 V, 5 A, 11 kHz</li> <li>MC33926: H-Bridge, Brushed DC Motor Driver, 5-28 V, 5 A, 20 kHz</li> <li>HB2000: SPI Programmable 10 A H-Bridge Brushed DC Motor Driver</li> <li>HB2001: SPI Programmable 10 A H-Bridge Brushed DC Motor Driver</li> </ul>
BAP Sensor	MPXHZ6130A: Absolute, Integrated Pressure Sensor (15 to 130 kPa)
MAP Sensor	MPX4250: 0 to 250 kPa, Differential, Gauge and Absolute Integrated Pressure Sensor
Fuel Tank and Rail Pressure	<ul> <li>FXPS7xx0A4: Analog Absolute Pressure Sensor (20 to 550 KPa)</li> <li>FXPS7xx0D4: Digital Absolute Pressure Sensor (20 to 550 KPa)</li> </ul>
Fuel Tank and Rail Pressure	<ul> <li>FXPS7xx0A4: Analog Absolute Pressure Sensor (20 to 550 KPa)</li> <li>FXPS7xx0D4: Digital Absolute Pressure Sensor (20 to 550 KPa)</li> </ul>

View our complete solution for Diesel Engine Management.

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

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