Battery Management System

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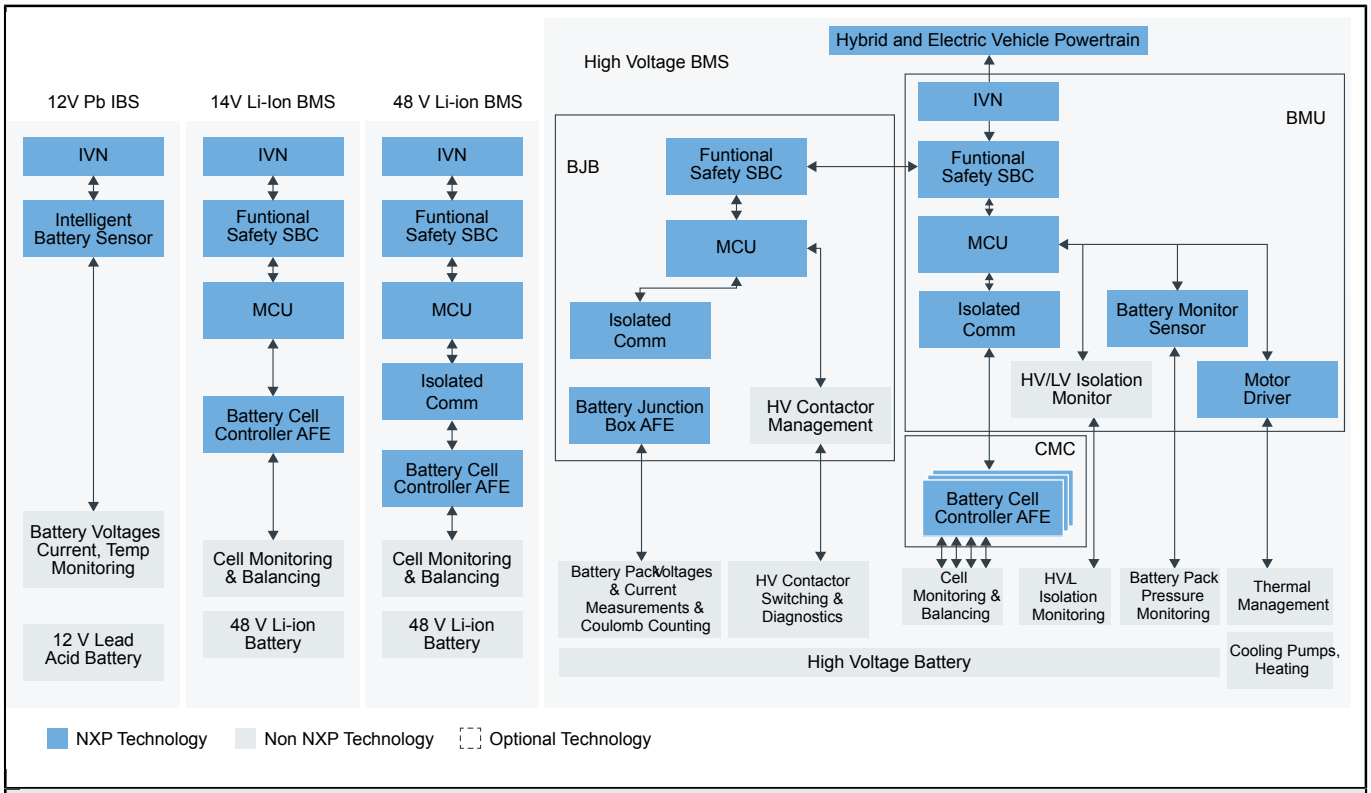
NXP's scalable battery management system (BMS) can be used in industrial or automotive applications. The BMS offers high measurement accuracy after soldering and aging and ISO 26262 support up to ASIL D functional safety capability.

The solution is a robust and safe, BOM-optimized option that combines BMS, junction box monitoring solutions with high-performance processors and integrated analog front end solutions.

Battery management system Block Diagram



Recommended Products for Battery management system

Battery Sensor	• MM912_637: Battery Sensor with LIN for 12 V Lead-acid Batteries • MM9Z1_638: Battery Sensor with CAN and LIN
Isolated Communication	• MC33664: Isolated Network High-Speed Transceiver
Battery Cell Controllers	• MC33771C: 14-Channel Li-ion Battery Cell Controller IC • MC33771B: 14-Channel Li-ion Battery Cell Controller IC • MC33772C: 6-Channel Li-ion Battery Cell Controller IC • MC33772B: 6-Channel Li-ion Battery Cell Controller IC
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Microcontrollers (MCUs)	• S32K3 Microcontrollers for General Purpose • NXP GreenBox Vehicle Electrification Development Platform • S32K1 Microcontrollers for General Purpose • MPC5775B and MPC5775E Microcontrollers for Battery Management Systems (BMS) and Inverter Applications • MPC5777C: Ultra-Reliable MPC5777C MCU for Automotive and Industrial Engine Management • MPC574xP: Ultra-Reliable MPC574xP MCU for Automotive & Industrial Safety Applications • MPC560xB: Ultra-Reliable MPC56xB MCU for Automotive and Industrial General Purpose
Motor Drivers	• MC33937: 3-Phase Field Effect Transistor Pre-driver • GD3000: 3-Phase Brushless Motor Pre-Driver • GD3100: Advanced Single-Channel Gate Driver for Insulated Gate Bipolar Transistors and Silicon Carbide MOSFETs • GD3160: Advanced Single-Channel High-Voltage Isolated Automotive Gate Driver for SiC MOSFETs/IGBTs • HB2000: SPI Programmable 10 A H-Bridge Brushed DC Motor Driver • HB2001: SPI Programmable 10 A H-Bridge Brushed DC Motor Driver
In-Vehicle Networking & Gateway	• Gateway: Gateway • CAN Transceivers: CAN Transceivers
HEV/EV Application	• Hybrid Electric Vehicle (HEV) Applications: Hybrid Electric Vehicle (HEV) Applications
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 (SBC) with Low Power Fit for ASIL D
Battery Monitor Sensor	• FXPS7xx0D4: Digital Absolute Pressure Sensor (20 to 550 KPa) • Analog Absolute Pressure Sensors, FXPS7 Family, 20 to 550 kPa • NBP8-9x: Highly Integrated Battery Pressure Monitor Sensor
NFC	• NCx3320: Automotive-Grade NFC Frontend IC • NCx3310: NFC Forum-Compliant Tag IC with I^2C for Automotive

View our complete solution for Battery Management System.

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