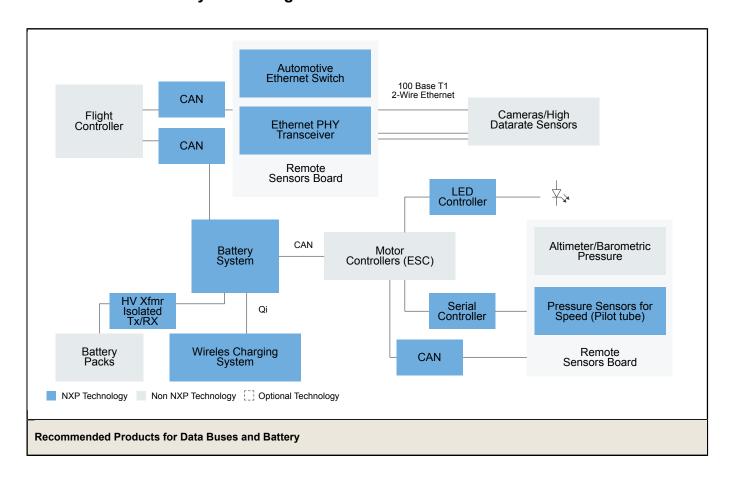


Data Buses and Battery Management

Last Updated: Mar 14, 2024

UV's, aerial and nonaerial, are now using professional level high-reliability CAN-bus and appropriate high speed and low speed interfaces for vision systems and battery management. Advanced battery control is essential to the UV's operational success. Overall efficiency and the ability to carefully monitor and control system health, and charge seamlessly are part of the UV's development. NXP has a wide offering of high reliability automotive systems that provide developers with CAN Bus, LIN, lightweight 100 Base-T1 two wire Ethernet, and specialty isolated battery communications options.

Data Buses and Battery Block Diagram



Battery System	MC33771B: 14-Channel Li-Ion Battery Cell Controller IC
Wireless charging system	MWCT2xx3A: 15 Watt Wireless Charging Transmitter ICs for Automotive Applications
HV Xfmr Isolated Tx/RX	MC33664: Isolated Network High-Speed Transceiver MC33665A: General Purpose BMS Communication TPL Transceiver and CAN FD Gateway
CAN	TJA1044: High-Speed CAN Transceiver with Standby Mode - Mantis Family TJA1462: CAN Signal Improvement Capability Transceiver with Standby Mode
Serial Bus	PCA9564: Parallel Bus to I²C-Bus Controller
LED Controller	PCA9685: 16-Channel, 12-Bit PWM Fm+ I ² C-Bus LED Controller
Automotive Ethernet Switch	SJA1105EL: Five- Ports AVB Automotive Ethernet Switch: SJA1105EL: Five- Ports AVB Automotive Ethernet Switch TJA1101: TJA1101B, IEEE 100BASE-T1 Compliant Automotive Ethernet PHY Transceiver MC33664: Isolated Network High-Speed Transceiver
Pressure Sensor for Speed	NMH1000: NMH1000 Ultra-Low Power and Low-Voltage Magnetic Switch
Automotive Ethernet Switch	TJA1100: TJA1100, IEEE 100BASE-T1 Compliant Automotive Ethernet PHY Transceiver SJA1105EL: SJA1105EL: Five- Ports AVB Automotive Ethernet Switch MC33664: Isolated Network High-Speed Transceiver

View our complete solution for Data Buses and Battery Management.

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

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