

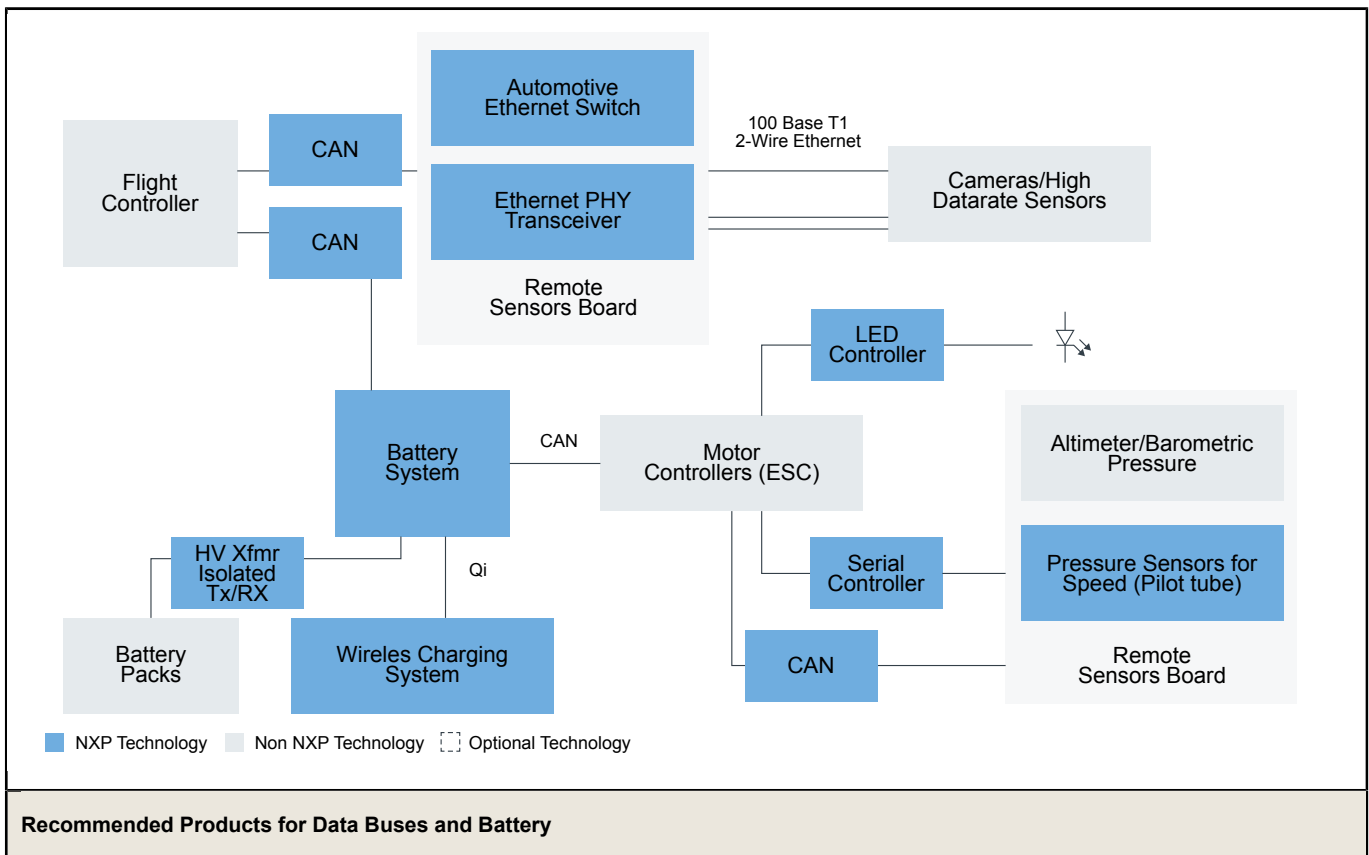


# Data Buses and Battery Management

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	<ul style="list-style-type: none"> <li>• <a href="#">MC33771B</a>: 14-Channel Li-Ion Battery Cell Controller IC</li> </ul>
Wireless charging system	<ul style="list-style-type: none"> <li>• <a href="#">MWCT2xx3A</a>: 15 Watt Wireless Charging Transmitter ICs for Automotive Applications</li> </ul>
HV Xfmr Isolated Tx/RX	<ul style="list-style-type: none"> <li>• <a href="#">MC33664</a>: Isolated Network High-Speed Transceiver</li> <li>• <a href="#">MC33665A</a>: General Purpose BMS Communication TPL Transceiver and CAN FD Gateway</li> </ul>
CAN	<ul style="list-style-type: none"> <li>• <a href="#">TJA1044</a>: High-Speed CAN Transceiver with Standby Mode - Mantis Family</li> <li>• <a href="#">TJA1462</a>: CAN Signal Improvement Capability Transceiver with Standby Mode</li> </ul>
Serial Bus	<ul style="list-style-type: none"> <li>• <a href="#">PCA9564</a>: Parallel Bus to I<sup>2</sup>C-Bus Controller</li> </ul>
LED Controller	<ul style="list-style-type: none"> <li>• <a href="#">PCA9685</a>: 16-Channel, 12-Bit PWM Fm+ I<sup>2</sup>C-Bus LED Controller</li> </ul>
Automotive Ethernet Switch	<ul style="list-style-type: none"> <li>• <a href="#">SJA1105EL</a>: <a href="#">Five- Ports AVB Automotive Ethernet Switch</a>: SJA1105EL: Five- Ports AVB Automotive Ethernet Switch</li> <li>• <a href="#">TJA1101</a>: TJA1101B, IEEE 100BASE-T1 Compliant Automotive Ethernet PHY Transceiver</li> <li>• <a href="#">MC33664</a>: Isolated Network High-Speed Transceiver</li> </ul>
Pressure Sensor for Speed	<ul style="list-style-type: none"> <li>• <a href="#">NMH1000</a>: NMH1000 Ultra-Low Power and Low-Voltage Magnetic Switch</li> </ul>
Automotive Ethernet Switch	<ul style="list-style-type: none"> <li>• <a href="#">TJA1100</a>: TJA1100, IEEE 100BASE-T1 Compliant Automotive Ethernet PHY Transceiver</li> <li>• <a href="#">SJA1105EL</a>: SJA1105EL: Five- Ports AVB Automotive Ethernet Switch</li> <li>• <a href="#">MC33664</a>: Isolated Network High-Speed Transceiver</li> </ul>

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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