

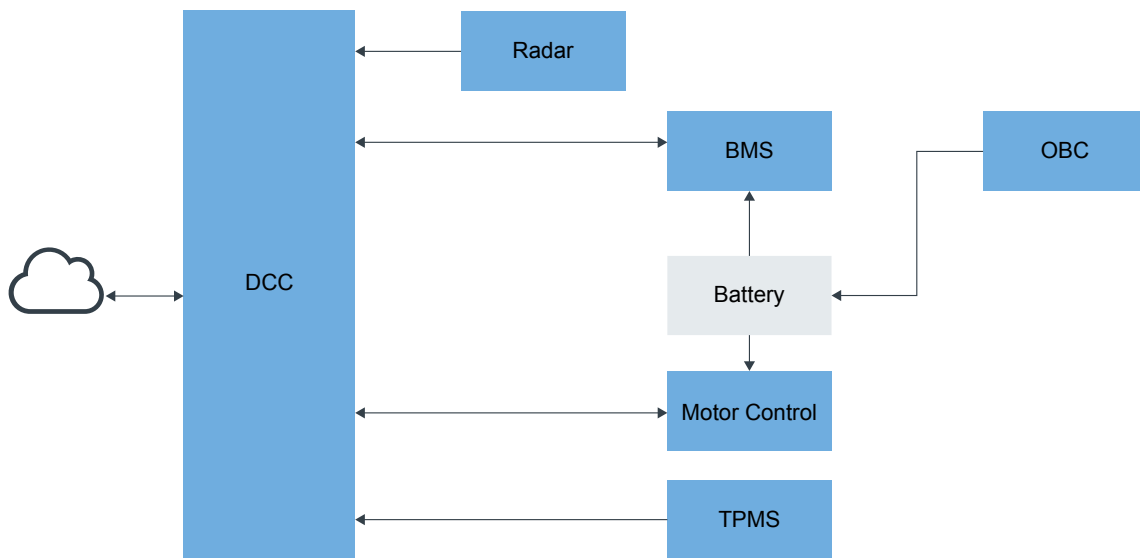


# E-Scooter

Last Updated: Apr 18, 2024

The e-scooter is part of a broader ecosystem of electrified solutions that make life simpler, smarter and greener at every step: changing or charging the battery as well as sharing and driving the EV. Data is constantly analyzed to improve the efficiency of the vehicle, extend the range and increase the battery lifetime. Part of the future of mobility, the e-scooter offers a great experience and performance by adding smart connectivity solutions that connect the two-wheeler to the cloud. It follows industry standards that allows for continuous improvement to performance over time with over the air updates.

## E-Scooter - Future Mobility Block Diagram



■ NXP Technology   
 ■ Non NXP Technology   
  Optional Technology

### Recommended Products for E-Scooter - Future Mobility

DCC

- **S32K1**: S32K1 Microcontrollers for Automotive General Purpose
- **FS86**: Safety System Basis Chip For Domain Controller, Fit For ASIL B and D
- **FS8400**: Safety System Basis Chip for S32 Microcontrollers, Fit for ASIL B
- **PF81-PF82**: 12-Channel Power Management Integrated Circuit (PMIC) for High-Performance Processing Applications
- **PCA2131**: Nano-Power Highly Accurate RTC with Integrated Quartz Crystal for Automotive Applications
- **NX5P3090UK**: USB PD and Type-C Current-Limited Power Switch
- **TJA1021**: ISO17987 LIN 2.1/SAE J2602 Transceiver
- **TJA1153**: Secure HS-CAN Transceiver with Sleep Mode
- **TJA1103**: TJA1103, ASIL B Compliant Automotive Ethernet 100BASE-T1 PHY Transceiver
- **i.MX8M**: i.MX 8M Family - Arm® Cortex®-A53, Cortex-M4, Audio, Voice, Video
- **S32K3**: S32K3 Microcontrollers for Automotive General Purpose
- **KW39-38-37**: KW39/38/37: 32-Bit Bluetooth 5.0 Long-Range MCUs with CAN FD and LIN Bus Options, Arm® Cortex®-M0+ Core
- **88W8987**: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 5 (802.11ac) + Bluetooth® 5.2 Solution

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               | <ul style="list-style-type: none"> <li>• <a href="#">NCJ38A</a>: Automotive-Qualified Embedded Secure Element (SE)</li> <li>• <a href="#">NCx3320</a>: Automotive-Grade NFC Frontend IC</li> <li>• <a href="#">NCJ29D5</a>: Trimension™ NCJ29D5: UWB IC for Automotive Applications</li> <li>• <a href="#">HB2002</a>: SPI-Programmable H-Bridge Brushed DC Motor Driver</li> <li>• <a href="#">XS2410</a>: Quad 100 mΩ / Dual 50 mΩ, 3.0 V to 60 V High-Side Switch</li> <li>• <a href="#">TJA1042</a>: High-Speed CAN Transceiver with Standby Mode</li> <li>• <a href="#">FXLS8967AF</a>: ±2g/±4g/±8g/±16g, Low Power 12-bit Digital Accelerometer</li> </ul> |
| Radar         | <ul style="list-style-type: none"> <li>• <a href="#">S32R294</a>: Radar Microcontroller</li> <li>• <a href="#">TEF82xx</a>: Fully Integrated 77 GHz RFCMOS Automotive Radar Transceiver</li> <li>• <a href="#">TJA1120</a>: TJA1120, ASIL B Compliant Automotive Ethernet 1000BASE-T1 PHY Transceiver</li> <li>• <a href="#">TJA1103</a>: TJA1103, ASIL B Compliant Automotive Ethernet 100BASE-T1 PHY Transceiver</li> </ul>                                                                                                                                                                                                                                    |
| BMS           | <ul style="list-style-type: none"> <li>• <a href="#">S32K1</a>: S32K1 Microcontrollers for Automotive General Purpose</li> <li>• <a href="#">UJA1169ATK</a>: Mini High-Speed CAN System Basis Chip</li> <li>• <a href="#">MC33664</a>: Isolated Network High-Speed Transceiver</li> <li>• <a href="#">MC33771C</a>: 14-Channel Li-Ion Battery Cell Controller IC</li> <li>• <a href="#">PCA85073A</a>: Automotive Tiny Real-Time Clock/Calendar with Alarm Function and I<sup>2</sup>C-Bus</li> </ul>                                                                                                                                                            |
| TPMS          | <ul style="list-style-type: none"> <li>• <a href="#">NTM88</a>: NTM88 Highly Integrated Tire Pressure Sensor Family</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Motor Control | <ul style="list-style-type: none"> <li>• <a href="#">FS26</a>: Safety System Basis Chip with Low Power, for ASIL D Systems</li> <li>• <a href="#">S32K3</a>: S32K3 Microcontrollers for Automotive General Purpose</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| OBC           | <ul style="list-style-type: none"> <li>• <a href="#">S32K1</a>: S32K1 Microcontrollers for Automotive General Purpose</li> <li>• <a href="#">TJA1042</a>: High-Speed CAN Transceiver with Standby Mode</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                |

View our complete solution for [E-Scooter](#).

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

---

**[www.nxp.com](http://www.nxp.com)**

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2024 NXP B.V.