



# Smart Lock

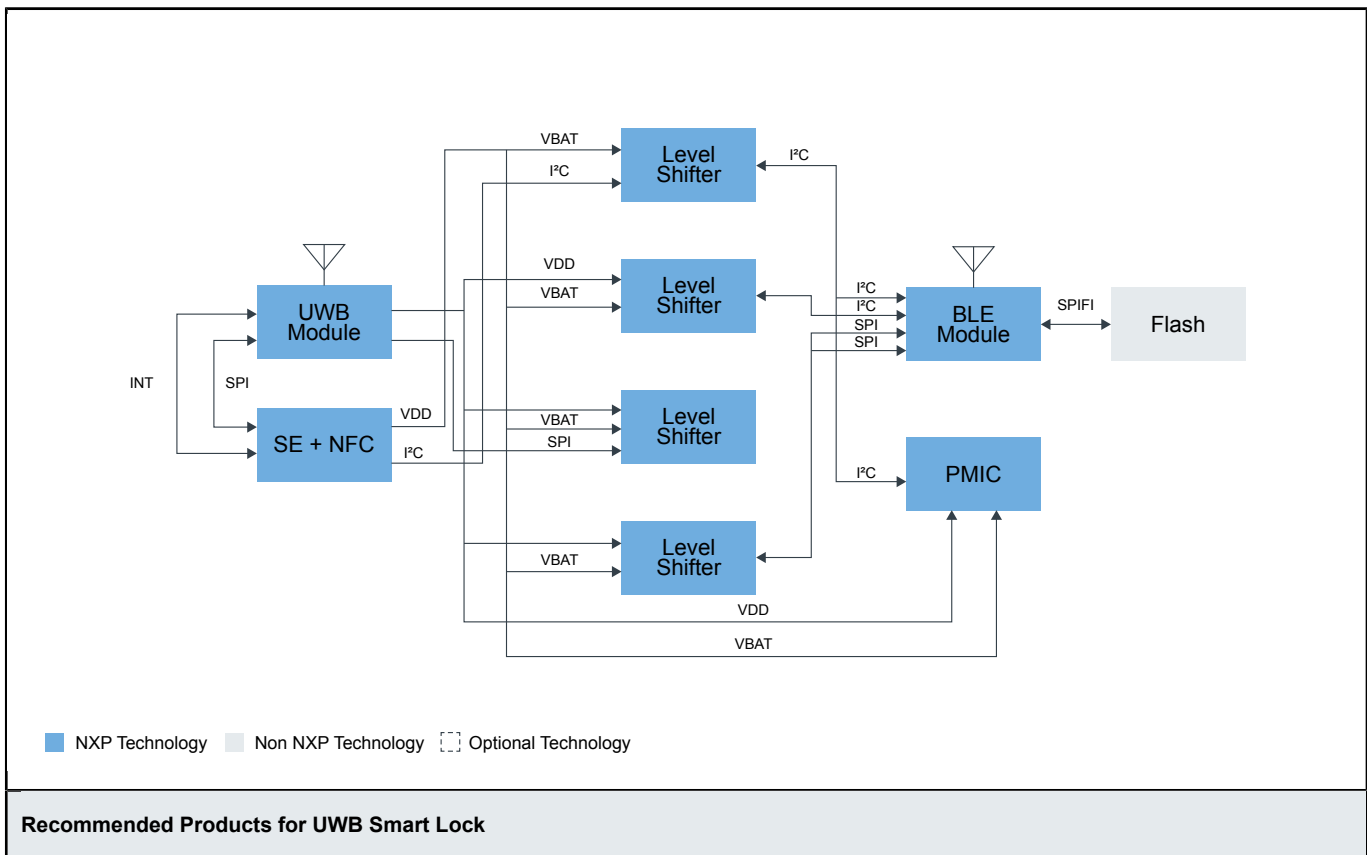
Last Updated: Aug 22, 2022

Physical and information security is a growing concern in the connected world. Smart locks are one piece of the puzzle in controlling access to both information and physical spaces.

A smart lock can be accessed via NFC contact or contactless technology and use Bluetooth® low energy or ultra-wide band(UWB) to communicate with a user's smartphone, adding an additional level of security. Interaction with smart locks can range from something as simple as status LEDs to LCD panels with touchscreen control.

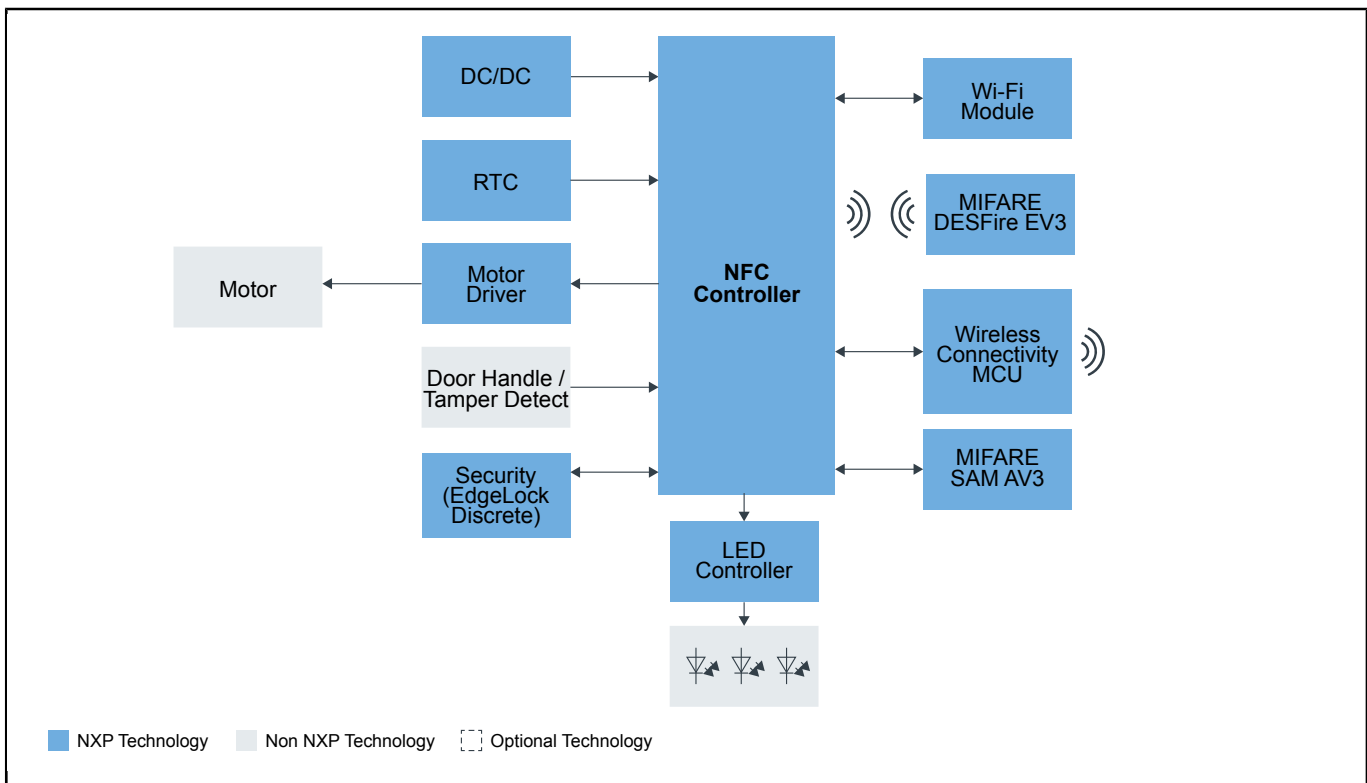
NXP provides a variety of connectivity options like low-power NFC, Bluetooth Low Energy or UWB. We also have analog components to complete the design of the smart lock.

## UWB Smart Lock Block Diagram



UWB Module	<ul style="list-style-type: none"> <li>• <a href="#">Trimension™ SR150: Secure UWB Solution for IoT Devices</a></li> </ul>
Level Shifter	<ul style="list-style-type: none"> <li>• <a href="#">NTS0102: Dual-Supply Translating Transceiver (Open-Drain, Auto-Direction Sensing)</a></li> <li>• <a href="#">NTB0104: Dual-Supply Translating Transceiver (Auto-Direction Sensing, Three-State)</a></li> </ul>
BLE Module	<ul style="list-style-type: none"> <li>• <a href="#">QN9090/30: Bluetooth Low-Energy MCU with Arm®Cortex®-M4 CPU, Energy Efficiency, Analog and Digital Peripherals and NFC Tag Option</a></li> </ul>
PMIC	<ul style="list-style-type: none"> <li>• <a href="#">PF1510: Power Management Integrated Circuit (PMIC) for Low Power Application Processors</a></li> </ul>

## Smart Lock PN7362 Block Diagram

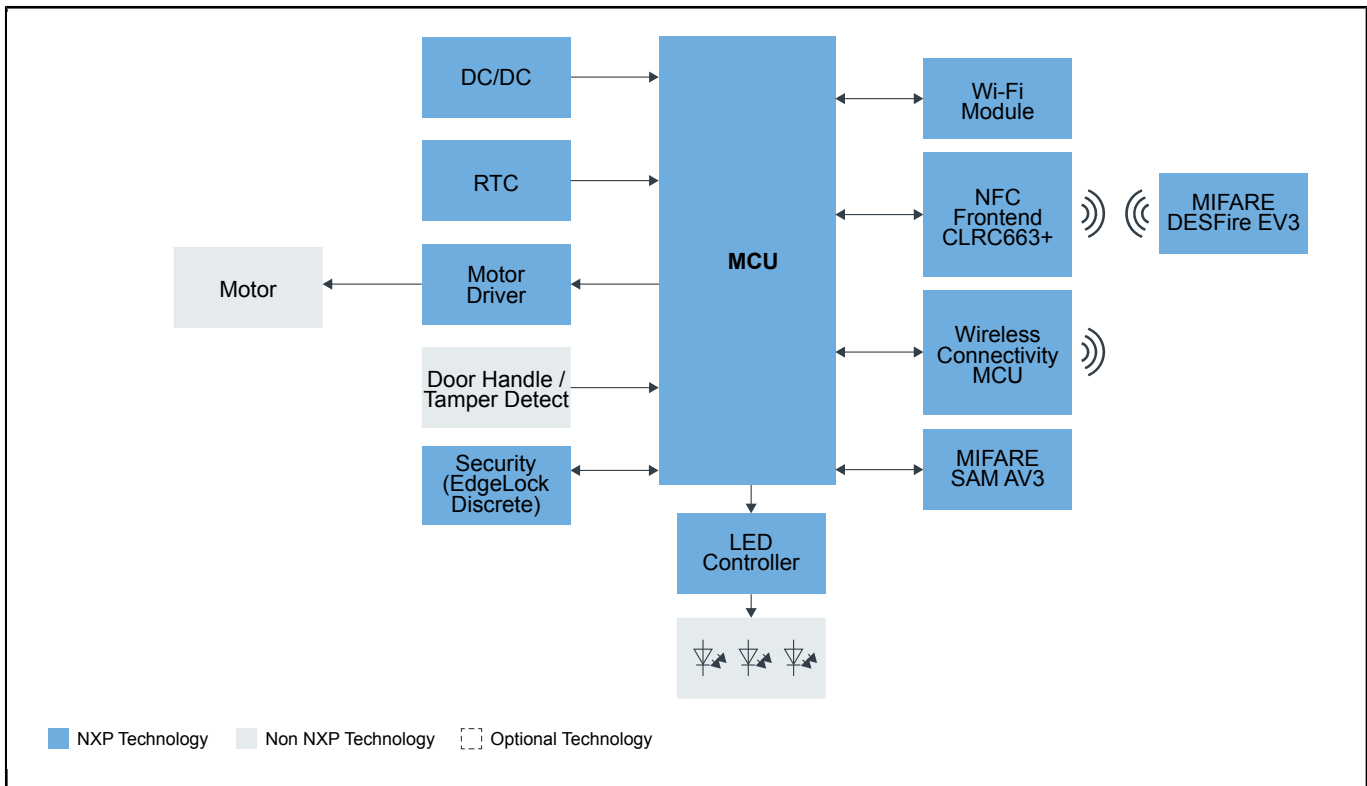


### Recommended Products for Smart Lock PN7362

NFC Controller	<ul style="list-style-type: none"> <li>• <a href="#">PN736X: NFC Cortex-M0 Microcontroller</a></li> <li>• <a href="#">PN5190: NFC Frontend supporting challenging RF environment for payment, physical access control</a></li> <li>• <a href="#">CLRC663 plus Family: High-Performance NFC Frontends</a></li> </ul>
Wireless Connectivity MCU	<ul style="list-style-type: none"> <li>• <a href="#">KW31Z: Kinetis® KW31Z-2.4 GHz Bluetooth Low Energy Wireless Radio Microcontroller (MCU) based on Arm® Cortex®-M0+ Core</a></li> </ul>
DC-DC	<ul style="list-style-type: none"> <li>• <a href="#">PCA9410_9410A: 3.0 MHz, 500 MA, DC-to-DC Boost Converter</a></li> </ul>
RTC	<ul style="list-style-type: none"> <li>• <a href="#">PCF8523: 100 NA Real-Time Clock/Calendar with Battery Backup</a></li> </ul>

LED Controller	<ul style="list-style-type: none"> <li>• <a href="#">PCA9956BTW</a>: 24-Channel Fm+ I<sup>2</sup>C-Bus 57 mA/20 V Constant-Current LED Driver</li> </ul>
MIFARE DESFire EV3	<ul style="list-style-type: none"> <li>• <a href="#">MIFARE<sup>®</sup> DESFire<sup>®</sup> EV3</a>: High-Security IC for Contactless Smart City Services</li> </ul>
Motor Driver	<ul style="list-style-type: none"> <li>• <a href="#">MPC17510</a>: H-Bridge, Brushed DC Motor Driver, 2-15 V, 3.8 A, 200 kHz</li> </ul>
Secure Element	<ul style="list-style-type: none"> <li>• <a href="#">MIFARE SAM AV3</a></li> <li>• <a href="#">EdgeLock<sup>®</sup> SE050</a>: Plug &amp; Trust Secure Element Family – Enhanced IoT security with high flexibility</li> </ul>
Wi-Fi	<ul style="list-style-type: none"> <li>• <a href="#">2.4/5 GHz Dual-Band 1x1 Wi-Fi<sup>®</sup> 4 (802.11n) + Bluetooth<sup>®</sup> 5.2 Solution</a></li> <li>• <a href="#">88MW32X 802.11n Wi-Fi<sup>®</sup> Microcontroller SoC</a></li> </ul>
Security (EdgeLock Discrete)	<ul style="list-style-type: none"> <li>• <a href="#">EdgeLock<sup>®</sup> SE050</a>: Plug &amp; Trust Secure Element Family – Enhanced IoT security with high flexibility</li> <li>• <a href="#">EdgeLock<sup>®</sup> SE051</a>: Proven, Easy-to-Use IoT Security Solution with Support for Updatability and Custom Applets</li> <li>• <a href="#">EdgeLock<sup>®</sup> A5000</a> Plug &amp; Trust Secure Authenticator: Authentication Made Secure, Scalable and Easy</li> </ul>

## Smart Lock w/CLRC663 Block Diagram



### Recommended Products for Smart Lock w/CLRC663

MCU	<ul style="list-style-type: none"> <li>• <a href="#">PN736X</a>: NFC Cortex-M0 Microcontroller</li> <li>• <a href="#">PN5190</a>: NFC Frontend supporting challenging RF environment for payment, physical access control</li> <li>• <a href="#">CLRC663 plus Family</a>: High-Performance NFC Frontends</li> </ul>
NFC	<ul style="list-style-type: none"> <li>• <a href="#">CLRC663 plus Family</a>: High-Performance NFC Frontends</li> </ul>

	<ul style="list-style-type: none"> <li>• <a href="#">PN736X</a>: NFC Cortex-M0 Microcontroller</li> <li>• <a href="#">PN5190</a>: NFC Frontend supporting challenging RF environment for payment, physical access control</li> </ul>
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DC-DC	<ul style="list-style-type: none"> <li>• <a href="#">PCA9410_9410A</a>: 3.0 MHz, 500 MA, DC-to-DC Boost Converter</li> </ul>
RTC	<ul style="list-style-type: none"> <li>• <a href="#">PCF8523</a>: 100 NA Real-Time Clock/Calendar with Battery Backup</li> </ul>
LED Controller	<ul style="list-style-type: none"> <li>• <a href="#">PCA9956BTW</a>: 24-Channel Fm+ I<sup>2</sup>C-Bus 57 MA/20 V Constant-Current LED Driver</li> </ul>
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View our complete solution for [Smart Lock](#).

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

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