

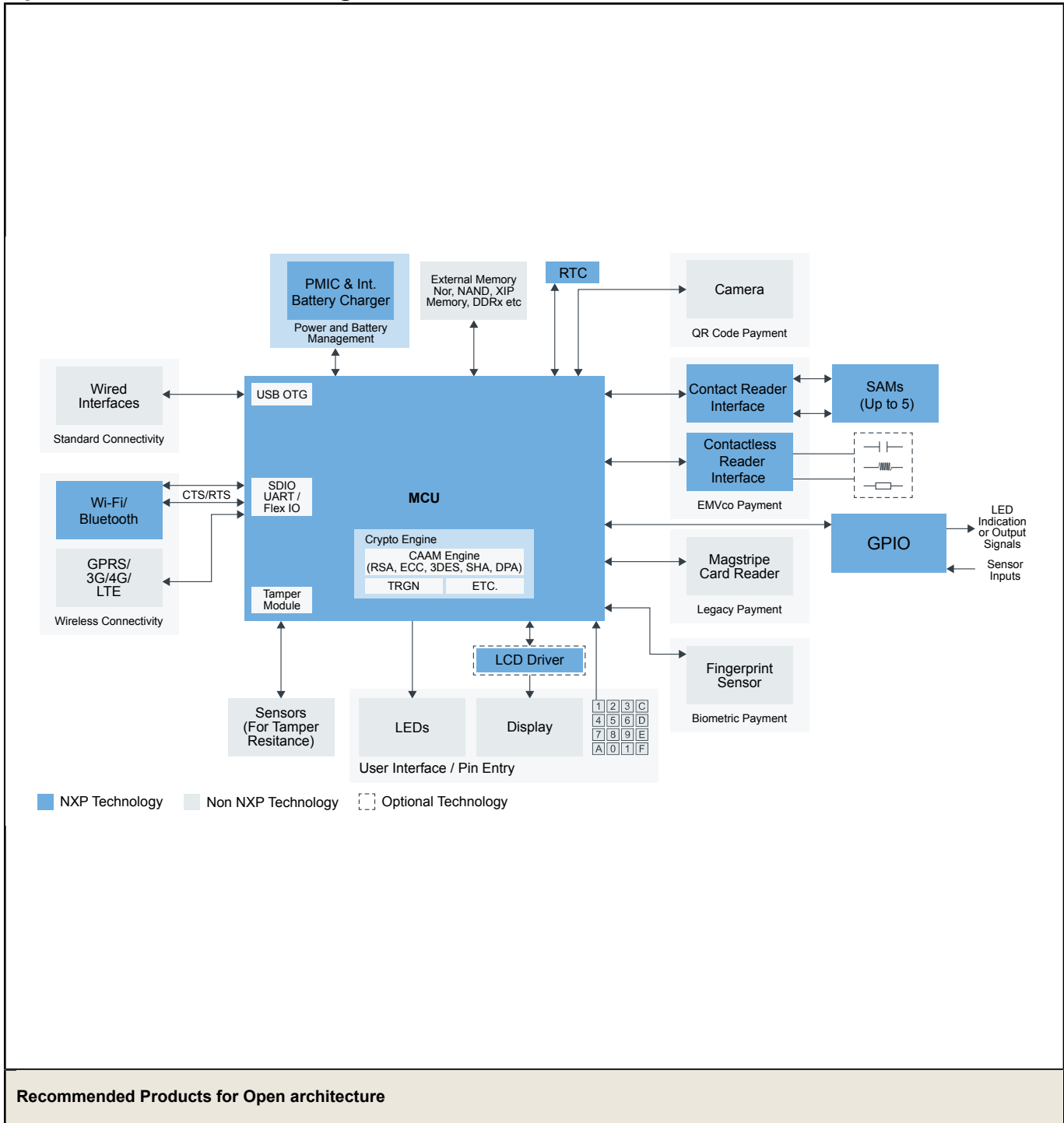


# Open and Closed Loop Payments

Last Updated: Feb 4, 2025

Our highly secure and certified IC and software-based payment solutions enable seamless payment experiences, whether you are using a credit card, cell phone, smart card or wearable. Our solutions support the use of open loop payments that are directly linked to your credit or debit card as well as closed loop payments with preloaded value (micropayments).

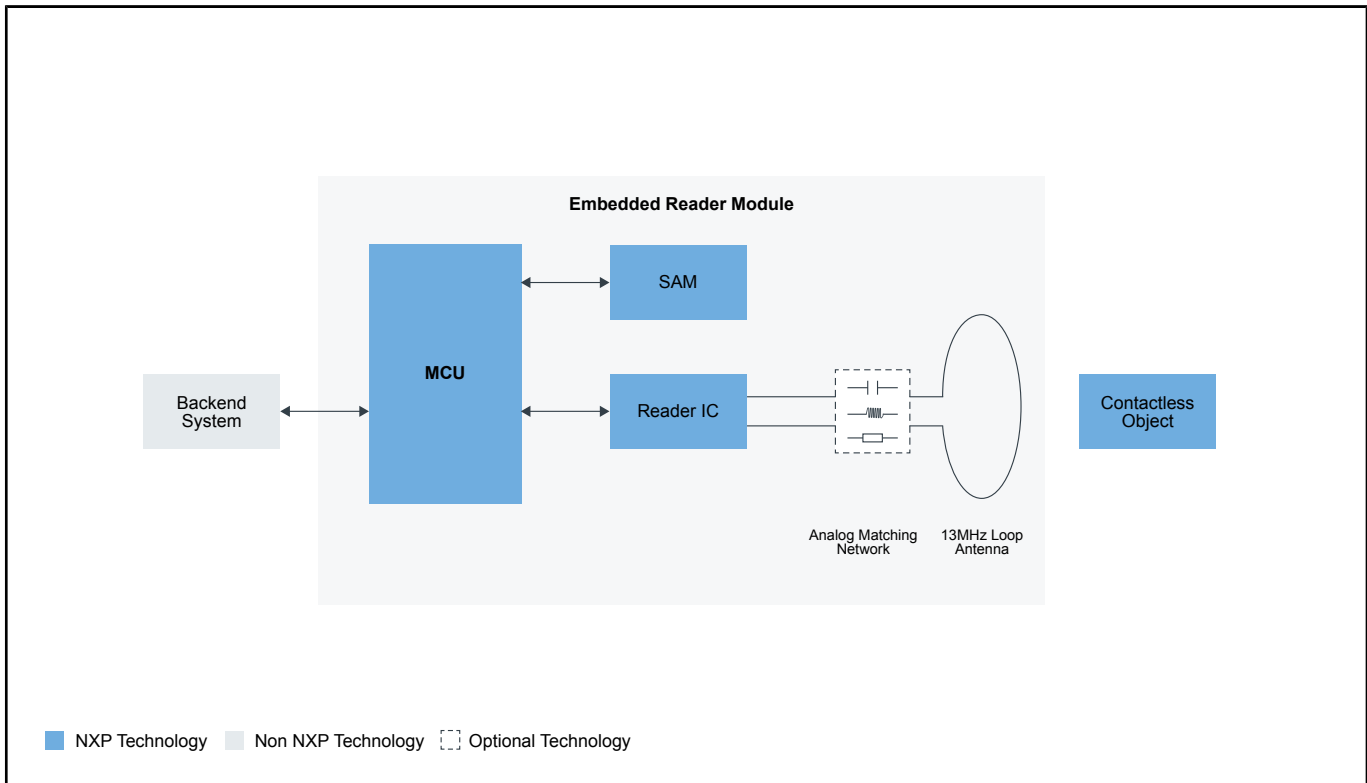
## Open architecture Block Diagram





	<ul style="list-style-type: none"> <li>• <a href="#">PCAL9722</a>: 22-Bit SPI I/O Expander with Agile I/O Features</li> </ul>
Air Conditioning GPIO	<ul style="list-style-type: none"> <li>• <a href="#">PCAL9714</a>: 14-Bit SPI I/O Expander with Agile I/O Features</li> <li>• <a href="#">PCAL9722</a>: 22-Bit SPI I/O Expander with Agile I/O Features</li> </ul>
Air Conditioning GPIO	<ul style="list-style-type: none"> <li>• <a href="#">PCAL9714</a>: 14-Bit SPI I/O Expander with Agile I/O Features</li> <li>• <a href="#">PCAL9722</a>: 22-Bit SPI I/O Expander with Agile I/O Features</li> </ul>
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Air Conditioning GPIO	<ul style="list-style-type: none"> <li>• <a href="#">MCX A13x, 14x, 15x MCUs with Arm® Cortex® M33, Scalable Device Options, Low Power and Intelligent Peripherals</a></li> <li>• <a href="#">MCX-N94X-N54X</a>: MCX N94x/54x Highly Integrated Multicore MCUs with On-Chip Accelerators, Intelligent Peripherals and Advanced Security</li> <li>• <a href="#">PCAL9714</a>: 14-Bit SPI I/O Expander with Agile I/O Features</li> <li>• <a href="#">PCAL9722</a>: 22-Bit SPI I/O Expander with Agile I/O Features</li> </ul>
RTC	<ul style="list-style-type: none"> <li>• <a href="#">PCF85053A</a>: Bootable CPU RTC with Two I<sup>2</sup>C Buses, 128 Byte SRAM and Alarm Function</li> </ul>

## Close architecture Block Diagram



### Recommended Products for Close architecture

SAM	<ul style="list-style-type: none"> <li>• <a href="#">MIFSAMAV3</a>: MIFARE SAM AV3</li> </ul>
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Reader IC	<ul style="list-style-type: none"> <li>• <a href="#">CLRC66303HN</a>: CLRC663 plus Family: High-Performance NFC Frontends</li> <li>• <a href="#">PN5190</a>: NFC Frontend supporting challenging RF environment for payment, physical access control</li> </ul>
Contactless Object	<ul style="list-style-type: none"> <li>• <a href="#">MF3DHx3</a>: MIFARE<sup>®</sup> DESFire<sup>®</sup> EV3: High-Security IC for Contactless Smart City Services</li> <li>• <a href="#">MFPEV2</a>: MIFARE Plus<sup>®</sup> EV2: Secure IC for Contactless Smart City Services</li> <li>• <a href="#">NTAG424DNA</a>: NTAG<sup>®</sup> 424 DNA / 424 DNA TagTamper – Advanced Security and Privacy for Trusted IoT Applications</li> <li>• <a href="#">NTAG213_215_216</a>: NTAG<sup>®</sup> 213/215/216: NFC Forum Type 2 Tag Compliant IC with 144/504/888 Bytes User Memory</li> <li>• <a href="#">MIFARE 2GO</a>: MIFARE<sup>®</sup> 2GO</li> </ul>
MCU	<ul style="list-style-type: none"> <li>• <a href="#">K81_150</a>: Kinetis K81-150 MHz HW Cryptographic Co-Processor, Anti-Tamper and QuadSPI Microcontrollers (MCUs) Based on Arm<sup>®</sup> Cortex<sup>®</sup>-M4 Core</li> <li>• <a href="#">LPC1100</a>: Scalable Entry Level 32-bit Microcontroller (MCU) based on Arm Cortex-M0 Cores</li> </ul>

View our complete solution for [Open and Closed Loop Payments](#).

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

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