

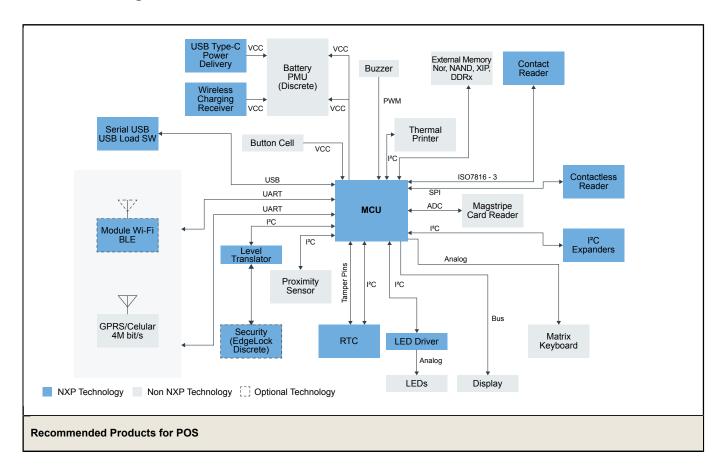
## **POS Terminal**

Last Updated: Mar 14, 2024

Point of Sale (PoS) terminals are key elements in payment systems for retailers or restaurants in Smart Cities. These battery-powered terminals have small form factors and can integrate functions such as a display, a card reader, a keypad and a printer. Terminals usually include wireless communication to a back-office server or a main stationary ePOS terminal. They also support magnetic, smart and contactless payment cards.

NXP solutions power secure, on-the-go mobile payment terminals, providing end users the ease-of-use of contact and contactless payment. Our security features help the designer to get the necessary PCI PTS PIN entry device (PED) and EMVCo certifications.

## **POS Block Diagram**



MCU	MCX A14x/15x MCUs with Arm <sup>®</sup> Cortex <sup>®</sup> M33, Scalable Device Options, Low Power and Intelligent Peripherals     MCX N94x/54x Highly Integrated Multicore MCUs with On-Chip Accelerators, Intelligent Peripherals and Advanced Security     K81_150: Kinetis K81-150 MHz HW Cryptographic Co-Processor, Anti-Tamper and QuadSPI Microcontrollers (MCUs) Based on Arm <sup>®</sup> Cortex <sup>®</sup> -M4 Core     i.MX RT1170: 1 GHz Crossover MCU with Arm <sup>®</sup> Cortex <sup>®</sup> Cores      USB Type-C Power Delivery PHY and Protocol IC
USB Type C Delivery	
RTC	PCF85053A: Bootable CPU RTC with Two I²C Buses, 128 Byte SRAM and Alarm Function     PCF2129: Accurate RTC with Battery Backup     PCF2131: Nano-Power Highly Accurate RTC with Integrated Quartz Crystal
Contact Reader	TDA8035HN: High-Integrated and Low-Power Smart Card Interface     TDA8026ET: Multiple Smart Card Slot Interface
Contactless Reader	PN5190: NFC Frontend supporting challenging RF environment for payment, physical access control
I2C Expander	PCAL6408A: Low-Voltage Translating, 8-Bit I <sup>2</sup> C-Bus/SMBus I/O Expander     PCAL9722: 22-Bit SPI I/O Expander with Agile I/O Features     PCAL9714: 14-Bit SPI I/O Expander with Agile I/O Features
Wireless Charging receiver	MWPR1516: 15 Watt Wireless Charging Receiver ICs
Wi-Fi + Bluetooth	QN908x: Ultra-Low-Power Bluetooth Low Energy System on Chip Solution  2.4/5 GHz Dual-Band 1x1 Wi-Fi <sup>®</sup> 4 (802.11n) + Bluetooth <sup>®</sup> 5.2 Solution  88MW32X 802.11n Wi-Fi <sup>®</sup> Microcontroller SoC  88W8987: 2.4/5 GHz Dual-Band 1x1 Wi-Fi <sup>®</sup> 5 (802.11ac) + Bluetooth <sup>®</sup> 5.2 Solution
Level Translator	<ul> <li>PCA9306: Dual Bidirectional I<sup>2</sup>C-Bus and SMBus Voltage-Level Translator</li> <li>P3A9606: Dual Bidirectional I3C/I<sup>2</sup>C-Bus and SPI Voltage-Level Translator</li> </ul>
Security (EdgeLock Discrete)	<ul> <li>EdgeLock<sup>®</sup> SE050: Plug and Trust Secure Element Family – Enhanced IoT security with high flexibility</li> <li>EdgeLock<sup>®</sup> SE051: Proven, Easy-to-Use IoT Security Solution with Support for Updatability and Custom Applets</li> </ul>
Serial USB Load SW	NX5P3290UK: USB PD and Type-C Current-Limited Power Switch
LED Driver	PCA9632: 4-Bit Fm+ I²C-Bus Low-Power LED Driver

View our complete solution for POS Terminal.

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

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