



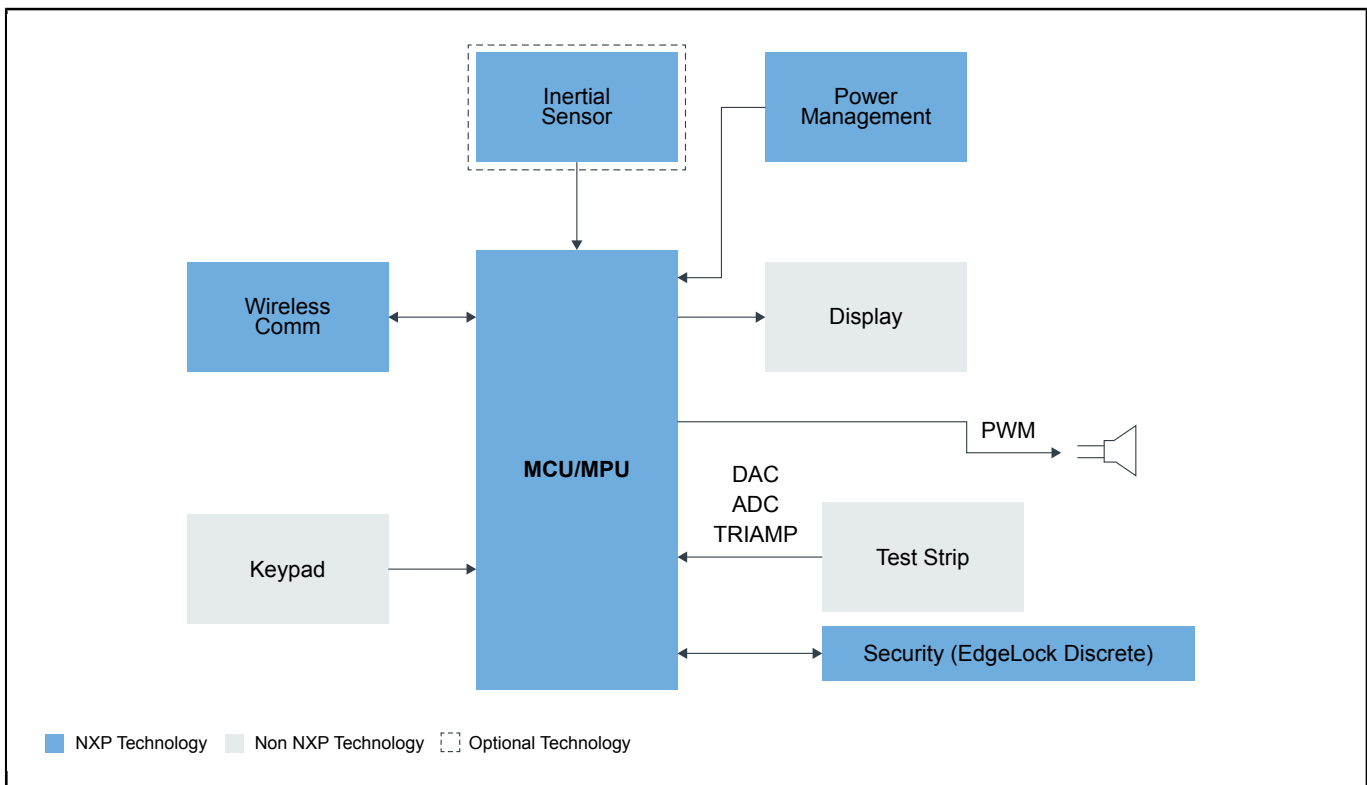
Blood Glucose Management

Last Updated: Dec 30, 2021

NXP® offers specific MCUs (featuring integrated analog blocks and ZigBee®) and proprietary wireless solutions that support home-based blood glucose management devices for people with Type 1 and Type 2 diabetes.

Blood glucose management is intended to control insulin pumps and continuously monitor patient's glucose levels remotely, this action helps regulate glucose, recommend insulin dosage and food dietary.

Blood glucose management Block Diagram

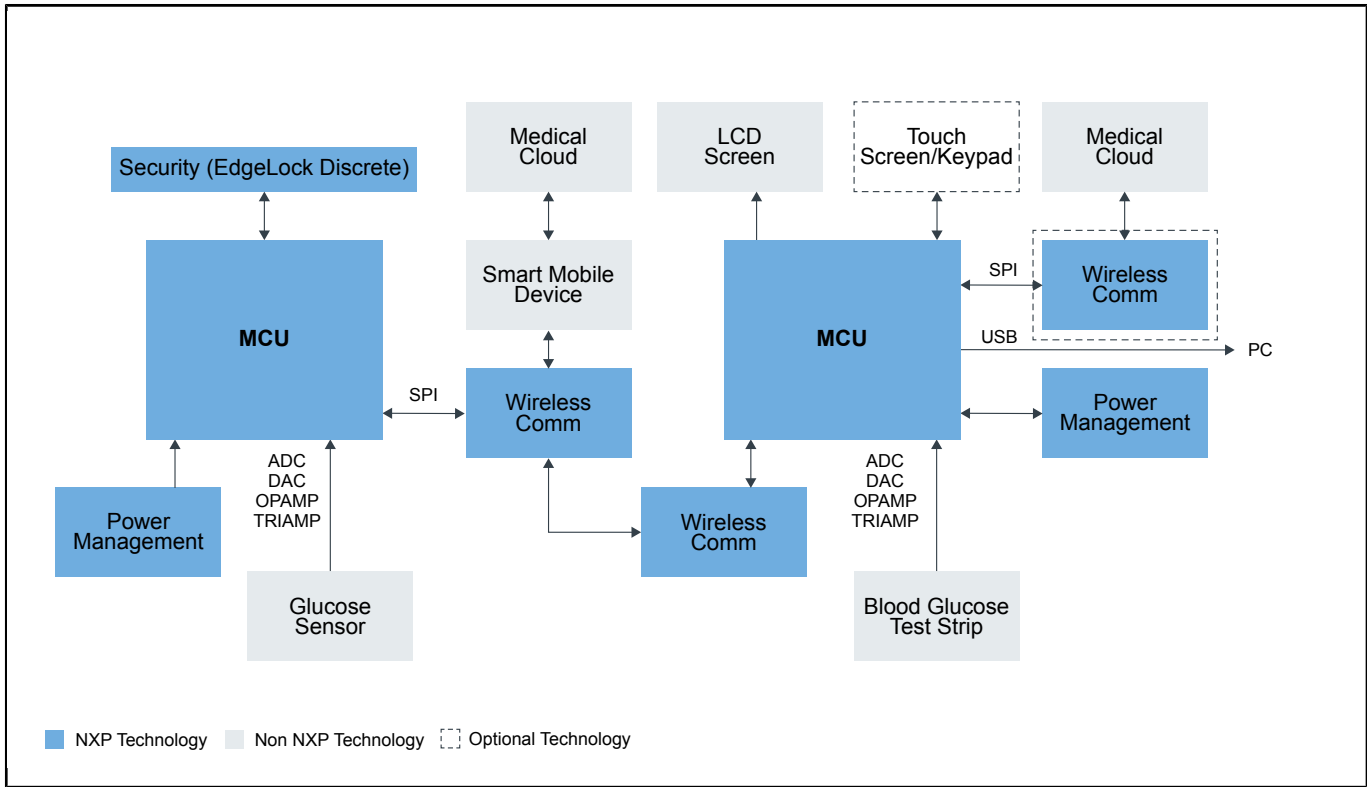


Recommended Products for Blood glucose management

MCU/MPU	<ul style="list-style-type: none"> • K Series Cortex-M4: Kinetis® K Series: High-Performance Microcontrollers (MCUs) based on Arm® Cortex®-M4 Core • KL3x: Kinetis® KL3x-48 MHz, Segment LCD Ultra-Low-Power Microcontrollers (MCUs) based on Arm® Cortex®-M0+ Core • LPC54000 Cortex-M4 : LPC54000 Series: Power-Efficient Microcontrollers (MCUs) Based on Arm® Cortex®-M4 Core
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	<ul style="list-style-type: none"> • i.MX6UL: i.MX 6UltraLite Processor - Low-Power, Secure, Arm® Cortex®-A7 Core
Inertial Sensor	<ul style="list-style-type: none"> • MMA8451Q: ±2g/±4g/±8g, Low g, 14-bit Digital Accelerometer
Power Management	<ul style="list-style-type: none"> • MC34712: 3.0A 1.0MHz Integrated DDR Switch-Mode Power Supply • MC34713: 5.0A 1.0MHz Integrated Single Switch-Mode Power Supply • MC34716: 1.0 MHz Dual Switch-Mode DDR Power Supply • MC34717: 5.0A 1.0MHz Integrated Dual Switch-Mode Power Supply
Wireless Communication	<ul style="list-style-type: none"> • NFC Tags for Electronics: NFC Tags for Electronics • KW31Z: Kinetis® KW31Z-2.4 GHz Bluetooth Low Energy Wireless Radio Microcontroller (MCU) based on Arm® Cortex®-M0+ Core • IW416: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 4 (802.11n) + Bluetooth® 5.2 Solution
Security (EdgeLock Discrete)	<ul style="list-style-type: none"> • EdgeLock® SE050: Plug & Trust Secure Element Family – Enhanced IoT security with high flexibility

Continuous Glucose Monitor Block Diagram

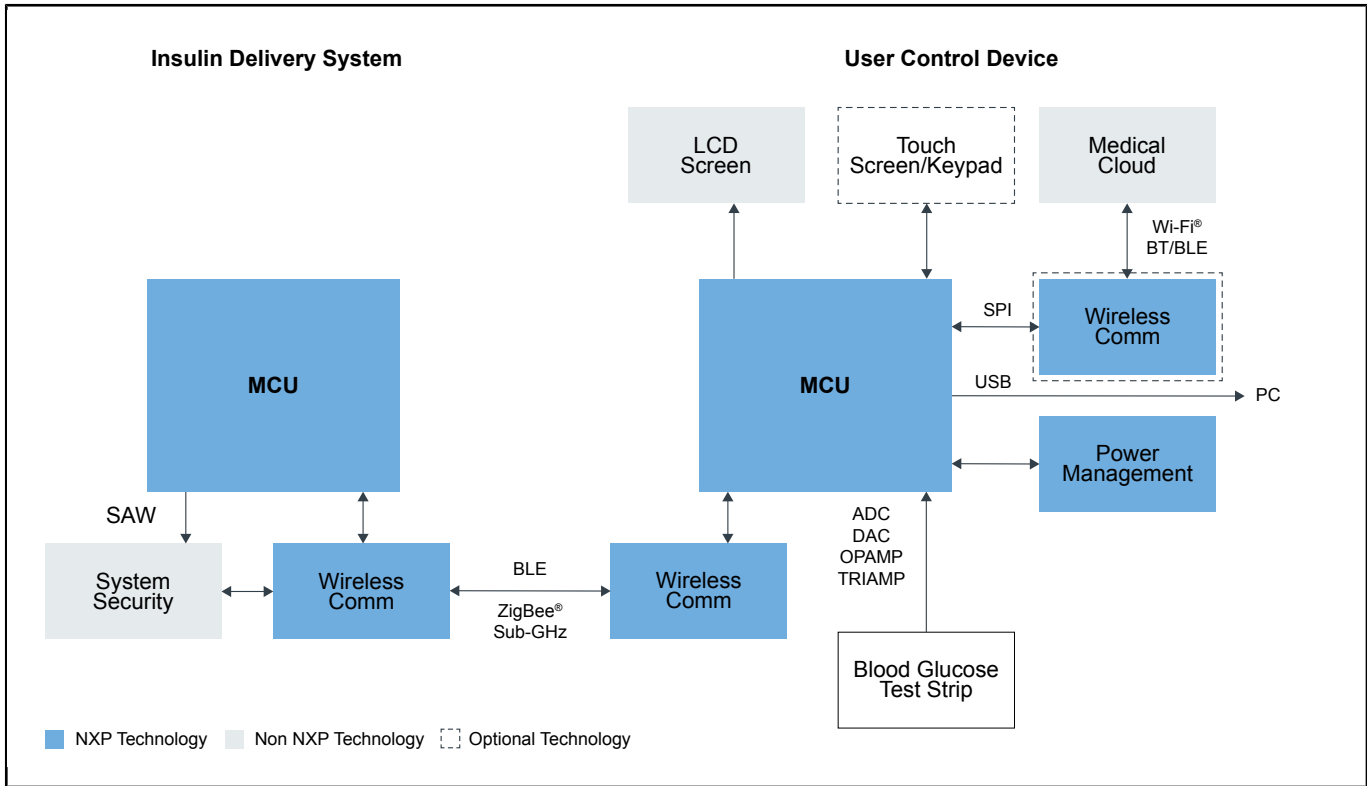


Recommended Products for Continuous Glucose Monitor

MCU	<ul style="list-style-type: none"> • K Series Cortex-M4: Kinetis® K Series: High-Performance Microcontrollers (MCUs) based on Arm® Cortex®-M4 Core • KL2x: Kinetis® KL2x-72/96 MHz, USB Ultra-Low-Power Microcontrollers (MCUs) based on Arm® Cortex®-M0+ Core • K53_100: Kinetis® K53-100 MHz, USB, Segment LCD, Ethernet Microcontrollers (MCUs) based on Arm® Cortex®-M4 Core • i.MX7S: i.MX 7Solo Processors - Heterogeneous Processing with Arm® Cortex®-A7 and Cortex-M4 Cores
Power Management	<ul style="list-style-type: none"> • MC34712: 3.0A 1.0MHz Integrated DDR Switch-Mode Power Supply

Wireless Communication	<ul style="list-style-type: none"> • KW31Z: Kinetis® KW31Z-2.4 GHz Bluetooth Low Energy Wireless Radio Microcontroller (MCU) based on Arm® Cortex®-M0+ Core • IW416: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 4 (802.11n) + Bluetooth® 5.2 Solution
Security (EdgeLock Discrete)	<ul style="list-style-type: none"> • EdgeLock® SE050: Plug & Trust Secure Element Family – Enhanced IoT security with high flexibility

Wireless Insulin Pump Block Diagram



Recommended Products for Wireless Insulin Pump

MCU	<ul style="list-style-type: none"> • KL1x: Kinetis® KL1x-48 MHz, Mainstream Small Ultra-Low Power Microcontrollers (MCUs) based on Arm® Cortex®-M0+ Core • KL4x: Kinetis® KL4x-48 MHz, USB, Segment LCD, Ultra-Low-Power Microcontrollers (MCUs) based on Arm® Cortex®-M0+ Core • K2x USB: Kinetis® K2x USB Microcontrollers (MCUs) based on Arm® Cortex®-M4 Core • K5x Measurement: Kinetis® K5x Measurement Microcontrollers (MCUs) based on Arm® Cortex®-M4 Core • LPC54000 Cortex-M4: LPC54000 Series: Power-Efficient Microcontrollers (MCUs) Based on Arm® Cortex®-M4 Core
Wireless Connectivity	<ul style="list-style-type: none"> • Bluetooth Low Energy: Bluetooth® Smart/Bluetooth Low Energy • IW416: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 4 (802.11n) + Bluetooth® 5.2 Solution
Power Management	<ul style="list-style-type: none"> • PF3000: 12-Channel Configurable PMIC for i.MX6 and i.MX7 Application Processors • MMPF0200: 12-Channel Configurable PMIC

View our complete solution for [Blood Glucose Management](#).

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

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