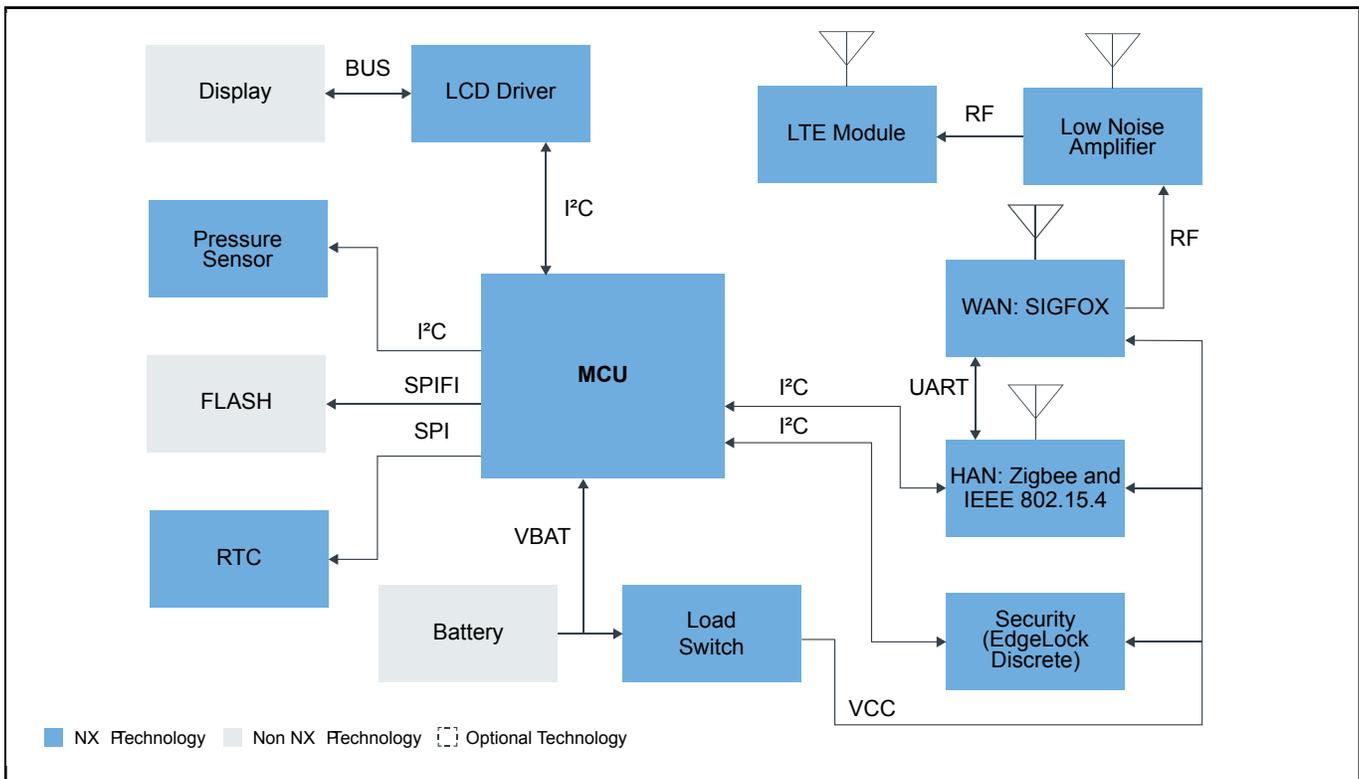# Water Meter

Last Updated: Oct 10, 2022

NXP connectivity solutions for smart metering address the challenges smart cities face for reliable, secure communications for remote metering and home energy management. We enable remote metering with NAN technologies like IEEE 802.15.4 and Wireless MBUS. Additionally, NXP fosters smart energy management inside homes with HAN technologies like ZigBee.

Flow meters help smart cities measure the volume of water at a specific time or over a long period. The measurement is then displayed on low-power segment LCDs, often driven by segment LCD drivers on an MCU. Advanced flow meters incorporate RF communication interfaces for connecting to one-way or two-way RF meter reading systems.
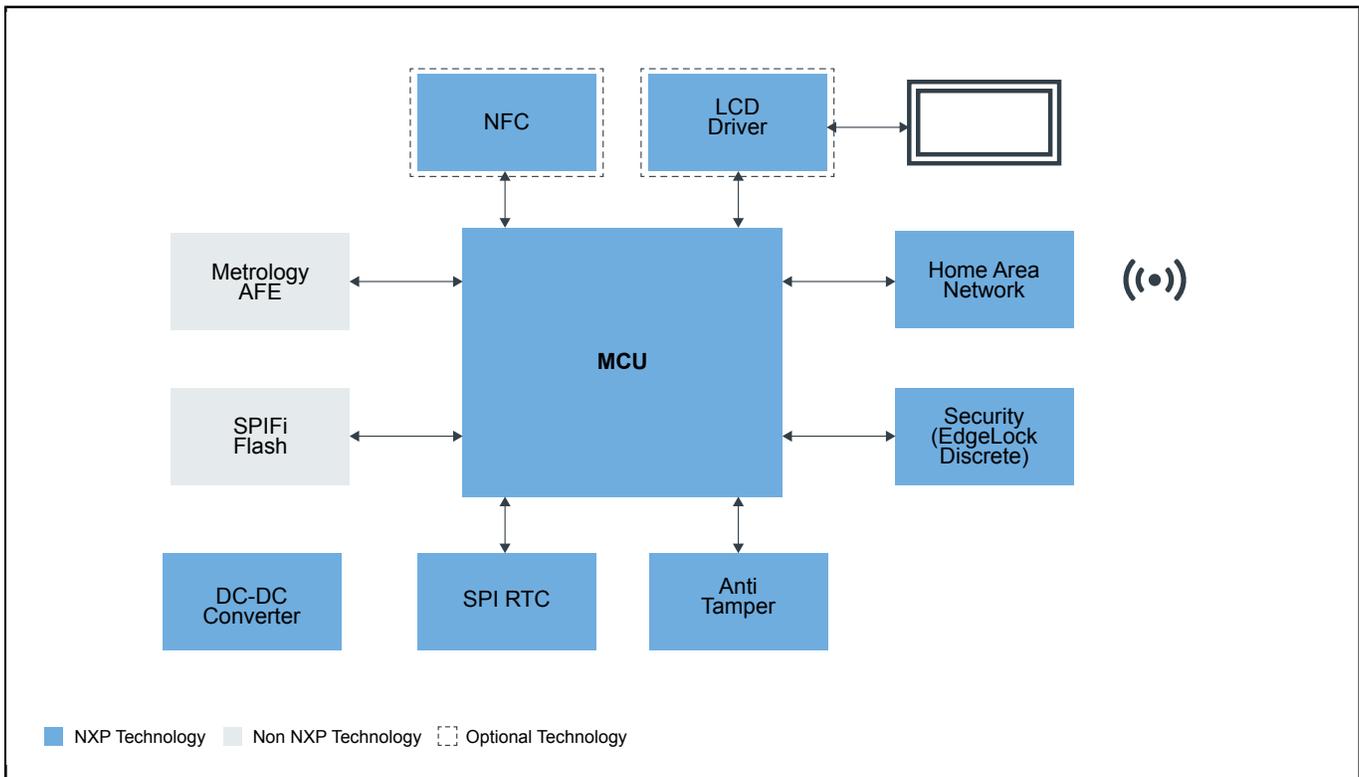
Water meter LPC Block Diagram

Recommended Products for Water meter LPC	
MCU	• LPC546XX: Power-Efficient Microcontrollers (MCUs) With Advanced Peripherals Based on Arm® Cortex®-M4 Core

Home Area Network	• JN5169: ZigBee and IEEE802.15.4 Wireless Microcontroller with 512 KB Flash, 32 KB RAM • K32W061/41: High-Performance, Secure and Ultra-Low-Power MCU for Zigbee®,Thread™, and Bluetooth® LE 5.0 with Built-In NFC Option
Wide Area Network	• OL2385AHN: Low-Power Multi-Channel UHF RF Wireless Platform
Low noise amplifier	• BGS8L5: SiGe:C LNA LTE Bypass
Driver	• PCF85133U: Universal LCD Driver for Low Multiplex Rates
Peripherals	• PCF2123: SPI Real-Time Clock/Calendar • MPXx5050: Differential and Gauge Pressure Sensor (-50 to 50 kPa) • PCF2131: Nano-Power Highly Accurate RTC with Integrated Quartz Crystal
Security (EdgeLock Discrete)	• EdgeLock® SE050: Plug & Trust Secure Element Family – Enhanced IoT security with high flexibility
Peripherals	• Peripherals: Differential and Gauge Pressure Sensor (-50 to 50 kPa) • Peripherals: SPI Real-Time Clock/Calendar • Peripherals: Nano-Power Highly Accurate RTC with Integrated Quartz Crystal
RF Switch (LTE)	• NX3P2902BUK: Logic-Controlled High-Side Power Switch • SA630D: Single-Pole Double-Throw (SPDT) Switch
RF Switch (LTE)	• NX3P2902BUK: Logic-Controlled High-Side Power Switch • SA630D: Single-Pole Double-Throw (SPDT) Switch

Water Meter KL Block Diagram

Recommended Products for Water Meter KL	
MCU	• KL8x: Kinetis® KL8x-72/96 MHz Secure Ultra-Low Power Microcontrollers (MCUs) based on Arm® Cortex®-M0+ Core • KL3x: Kinetis® KL3x-48 MHz, Segment LCD Ultra-Low-Power Microcontrollers (MCUs) based on Arm® Cortex®-M0+ Core
Security (EdgeLock Discrete)	• EdgeLock® SE050: Plug & Trust Secure Element Family – Enhanced IoT security with high flexibility
Wireless	• JN5169: ZigBee and IEEE802.15.4 Wireless Microcontroller with 512 KB Flash, 32 KB RAM
Anti Tamper	• FXOS8700CQ: Digital Motion Sensor - 3D Accelerometer (±2g/±4g/±8g) + 3D Magnetometer
RTC	• PCF2123: SPI Real-Time Clock/Calendar • PCF2131: Nano-Power Highly Accurate RTC with Integrated Quartz Crystal
Driver	• PCF85133U: Universal LCD Driver for Low Multiplex Rates
Power Management	• PCA9410_9410A: 3.0 MHz, 500 MA, DC-to-DC Boost Converter
NFC	• PN5190: NFC Frontend supporting challenging RF environment for payment, physical access control

View our complete solution for Water Meter.

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