



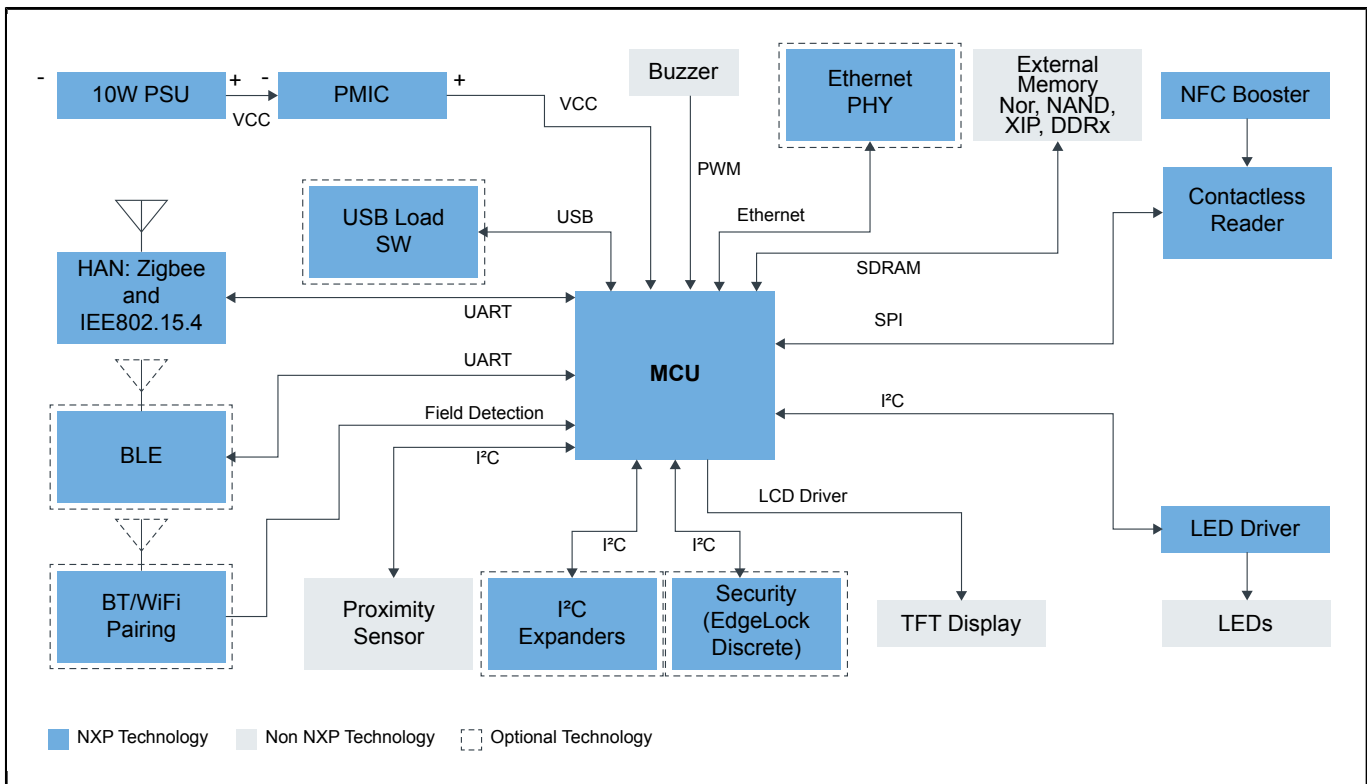
エネルギー・ゲートウェイ

Last Updated: Dec 18, 2023

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センサとの通信には、ZigBee、Sigfox、Bluetooth Low EnergyなどのRFテクノロジーが使用されます。

Energy Gateway i.MX Block Diagram



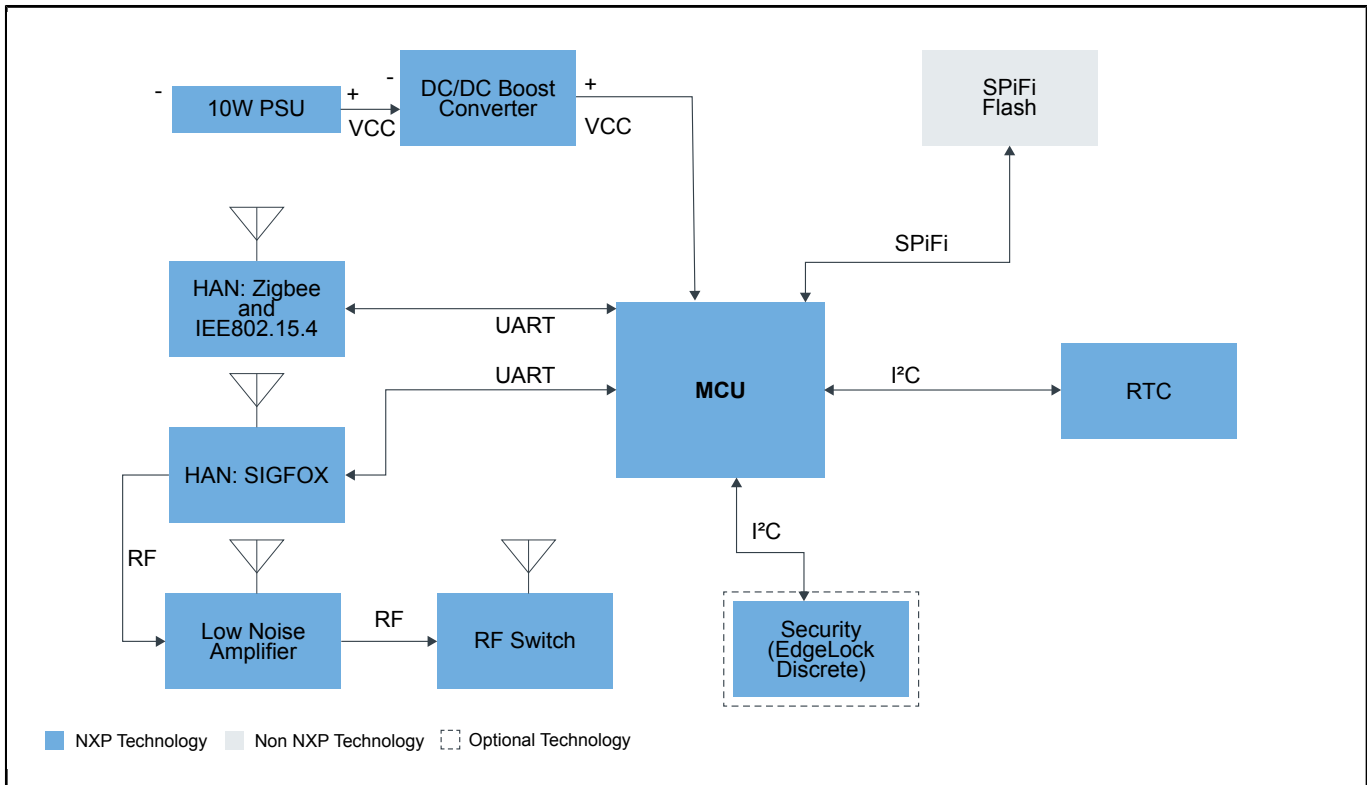
Recommended Products for Energy Gateway i.MX

MCU

* **i.MX6UL:** i.MX 6UltraLite Processor - Low-Power, Secure, Arm® Cortex®-A7 Core

	<ul style="list-style-type: none"> • i.MX6S: i.MX 6Solo Processors – Single-Core, Multimedia, 3D Graphics, Arm® Cortex®-A9 Core
Power Management	<ul style="list-style-type: none"> • TEA1721DT: HV Start-up Flyback Controller with Integrated MOSFET for 5 W Applications, F~Burst = 1270 Hz • PF3001: 10-Channel Configurable PMIC for i.MX6 and i.MX7 Application Processors
Wireless	<ul style="list-style-type: none"> • JN5169: ZigBee and IEEE802.15.4 Wireless Microcontroller with 512 KB Flash, 32 KB RAM • NTAG213F_216F: NTAG213F, NTAG216F: NFC Forum Type 2 Tag Compliant IC with 144/888 B User Memory and Field Detection • QN9080: QN908x: Ultra-Low-Power Bluetooth Low Energy System on Chip Solution • IW416: 2.4/5 GHzデュアルバンド1x1 Wi-Fi® 4 (802.11n) およびBluetooth® 5.2ソリューション • 88W8977: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 4 (802.11n) + Bluetooth® 5.2 Solution
Drivers	<ul style="list-style-type: none"> • NX5P3290UK: USB PD and Type-C Current-Limited Power Switch • PCA9550: 2-Bit I²C-Bus LED Driver with Programmable Blink Rates • PCAL6408A: Low-Voltage Translating, 8-Bit I²C-Bus/SMBus I/O Expander
NFC	<ul style="list-style-type: none"> • PCA9410_9410A: 3.0 MHz, 500 MA, DC-to-DC Boost Converter • PN5190: 困難なRF環境にも対応する、決済および物理的アクセス制御向けNFCフロントエンド
Drivers	<ul style="list-style-type: none"> • NX5P3290UK: USB PD and Type-C Current-Limited Power Switch • PCAL9722: Agile I/O機能搭載22ビットSPI I/Oエクспанダ • PCAL9714: Agile I/O機能搭載14ビットSPI I/Oエクспанダ • PCA9550: 2-Bit I²C-Bus LED Driver with Programmable Blink Rates • PCAL6408A: Low-Voltage Translating, 8-Bit I²C-Bus/SMBus I/O Expander
Wireless	<ul style="list-style-type: none"> • JN5169: ZigBee and IEEE802.15.4 Wireless Microcontroller with 512 KB Flash, 32 KB RAM • NTAG213F_216F: NTAG213F, NTAG216F: NFC Forum Type 2 Tag Compliant IC with 144/888 B User Memory and Field Detection • QN9080: QN908x: Ultra-Low-Power Bluetooth Low Energy System on Chip Solution • IW416: 2.4/5 GHzデュアルバンド1x1 Wi-Fi® 4 (802.11n) およびBluetooth® 5.2ソリューション • 88W8977: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 4 (802.11n) + Bluetooth® 5.2 Solution
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Transceiver	<ul style="list-style-type: none"> • TJA1101: TJA1101B、IEEE 100BASE-T1準拠、車載用イーサネットPHYトランシーバ
Security (EdgeLock Discrete)	<ul style="list-style-type: none"> • SE050: EdgeLock® SE050 : Plug & Trustセキュア・エレメント・ファミリー - 柔軟性に優れた、IoT向けの高度なセキュリティ

Energy Gateway LPC Block Diagram

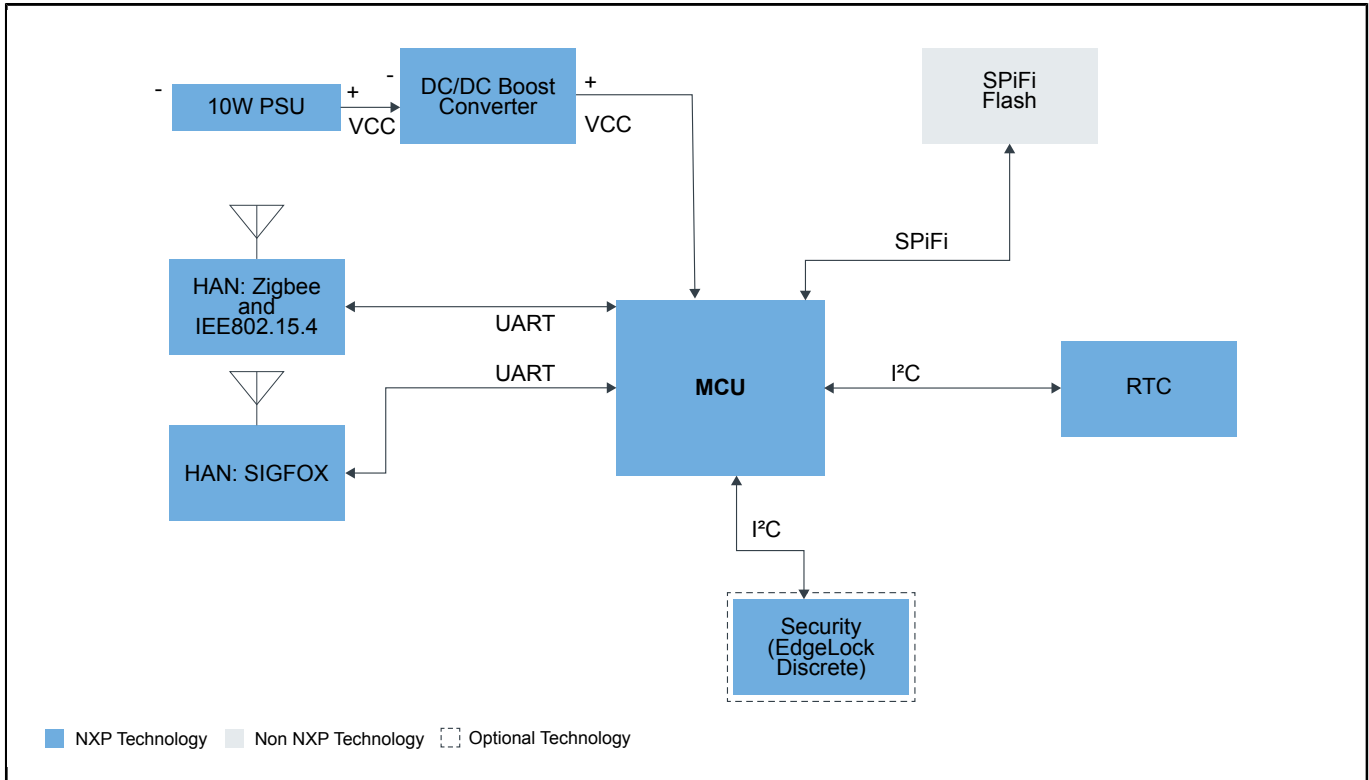


Recommended Products for Energy Gateway LPC

MCU	<ul style="list-style-type: none"> • LPC540XX: Power-Efficient Microcontrollers (MCUs) with Advanced Peripherals Based on Arm® Cortex®-M4 Core
Power Management	<ul style="list-style-type: none"> • PCA9410_9410A: 3.0 MHz, 500 MA, DC-to-DC Boost Converter • TEA1721DT: HV Start-up Flyback Controller with Integrated MOSFET for 5 W Applications, F~Burst = 1270 Hz
Wireless	<ul style="list-style-type: none"> • OL2385AHN: Low-Power Multi-Channel UHF RF Wireless Platform • IW416: 2.4/5 GHzデュアルバンド1x1 Wi-Fi® 4 (802.11n) およびBluetooth® 5.2ソリューション • 88W8977: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 4 (802.11n) + Bluetooth® 5.2 Solution • JN5169: ZigBee and IEEE802.15.4 Wireless Microcontroller with 512 KB Flash, 32 KB RAM • BGS8H2: SiGe:C Low-Noise Amplifier MMIC with Bypass Switch for LTE
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	<ul style="list-style-type: none"> • 88W8977: 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"> • SE050: EdgeLock® SE050 : Plug & Trustセキュア・エレメント・ファミリー - 柔軟性に優れた、IoT向けの高度なセキュリティ
RTC	<ul style="list-style-type: none"> • PCA2131: Nano-Power Highly Accurate RTC with Integrated Quartz Crystal for Automotive Applications

Energy Gateway LPC Basic Block Diagram



Recommended Products for Energy Gateway LPC Basic

MCU	<ul style="list-style-type: none"> • LPC540XX: Power-Efficient Microcontrollers (MCUs) with Advanced Peripherals Based on Arm® Cortex®-M4 Core
Security (EdgeLock Discrete)	<ul style="list-style-type: none"> • SE050: EdgeLock® SE050 : Plug & Trustセキュア・エレメント・ファミリー - 柔軟性に優れた、IoT向けの高度なセキュリティ
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ENERGY-GATEWAY-BD3-BNDL2	<ul style="list-style-type: none"> • PCA9410_9410A: 3.0 MHz, 500 MA, DC-to-DC Boost Converter • TEA1721DT: HV Start-up Flyback Controller with Integrated MOSFET for 5 W Applications, F~Burst = 1270 Hz
Power Management	<ul style="list-style-type: none"> • PCA9410_9410A: 3.0 MHz, 500 MA, DC-to-DC Boost Converter • TEA1721DT: HV Start-up Flyback Controller with Integrated MOSFET for 5 W Applications, F~Burst = 1270 Hz

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