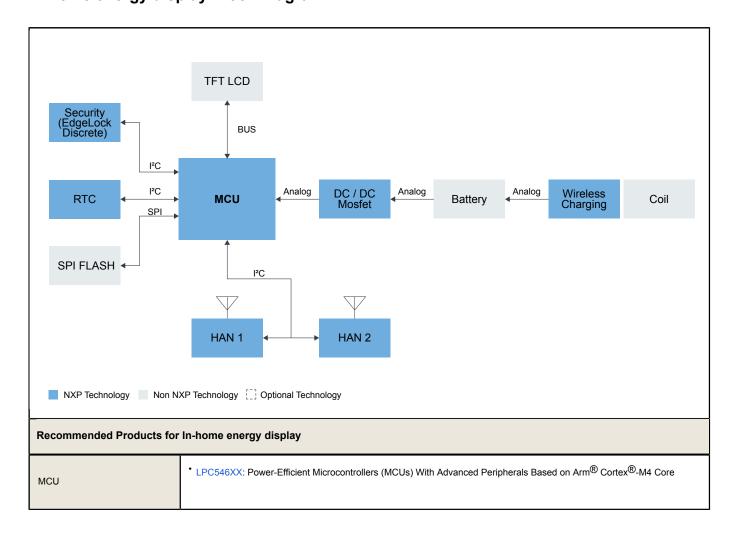


# In-Home Energy Display

Last Updated: Apr 18, 2024

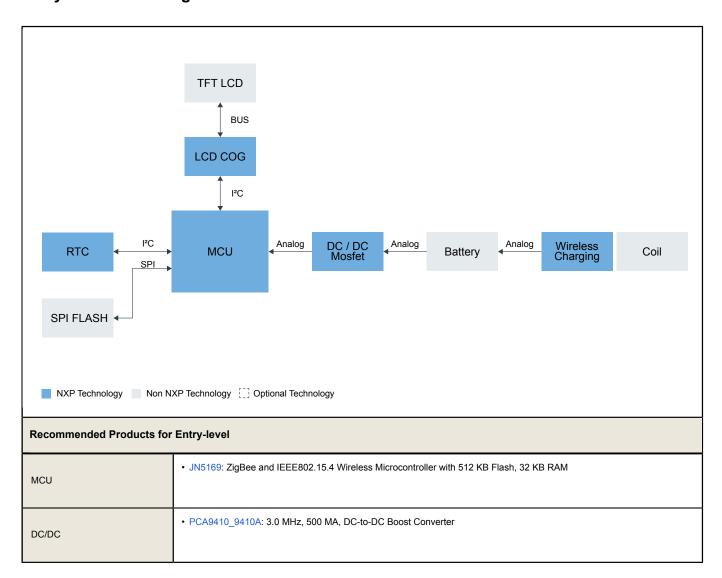
In-Home Energy Displays are popular among residents who want to track and manage their energy consumption and costs. These displays are typically user-interactive and allow the operator to access real-time up-to-date information. Therefore, the handheld display must have a processor for system management, wireless connectivity to access consumption and cost data via multiple communication protocols, a real-time clock for time-stamping data and issuing various system alarms, and load switches for effectively managing the power consumption within the display system.

#### In-home energy display Block Diagram



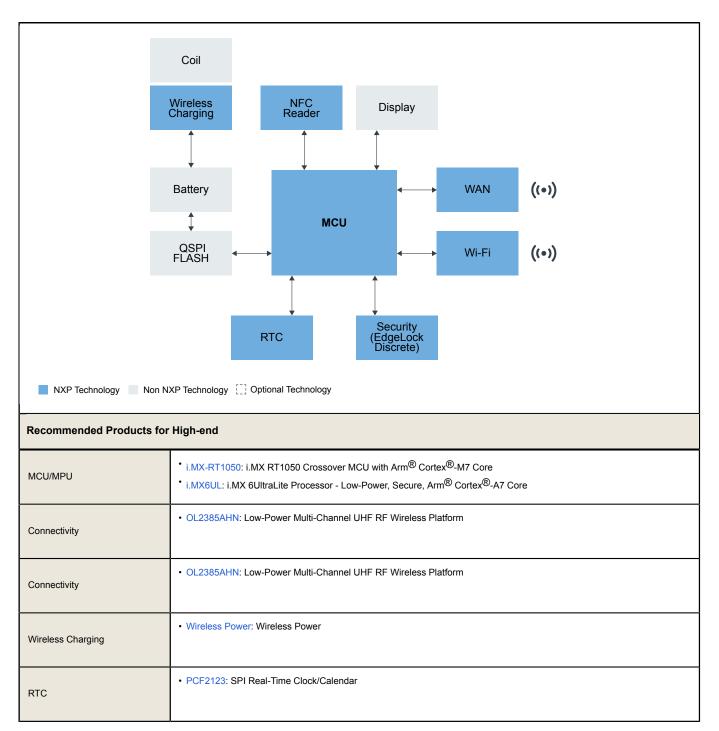
Security (EdgeLock Discrete)	SE050: EdgeLock® SE050: Plug and Trust Secure Element Family – Enhanced IoT security with high flexibility
RTC	PCA2131: Nano-Power Highly Accurate RTC with Integrated Quartz Crystal for Automotive Applications
HAN	<ul> <li>JN5169: ZigBee and IEEE802.15.4 Wireless Microcontroller with 512 KB Flash, 32 KB RAM</li> <li>OL2385AHN: Low-Power Multi-Channel UHF RF Wireless Platform</li> </ul>
HAN	JN5169: ZigBee and IEEE802.15.4 Wireless Microcontroller with 512 KB Flash, 32 KB RAM     OL2385AHN: Low-Power Multi-Channel UHF RF Wireless Platform
DC/DC	PCA9410_9410A: 3.0 MHz, 500 MA, DC-to-DC Boost Converter
Wireless Charging	Wireless Power: Wireless Power

### **Entry-level Block Diagram**



LCD COG	PCF85133U: Universal LCD Driver for Low Multiplex Rates
RTC	PCA2131: Nano-Power Highly Accurate RTC with Integrated Quartz Crystal for Automotive Applications
Wireless Charging	Wireless Power: Wireless Power

## **High-end Block Diagram**



Security (EdgeLock Discrete)	SE050: EdgeLock® SE050: Plug and Trust Secure Element Family – Enhanced IoT security with high flexibility
NFC Reader	PN7160: NFC Plug and Play Controller with Integrated Firmware and NCI Interface

View our complete solution for In-Home Energy Display.

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

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