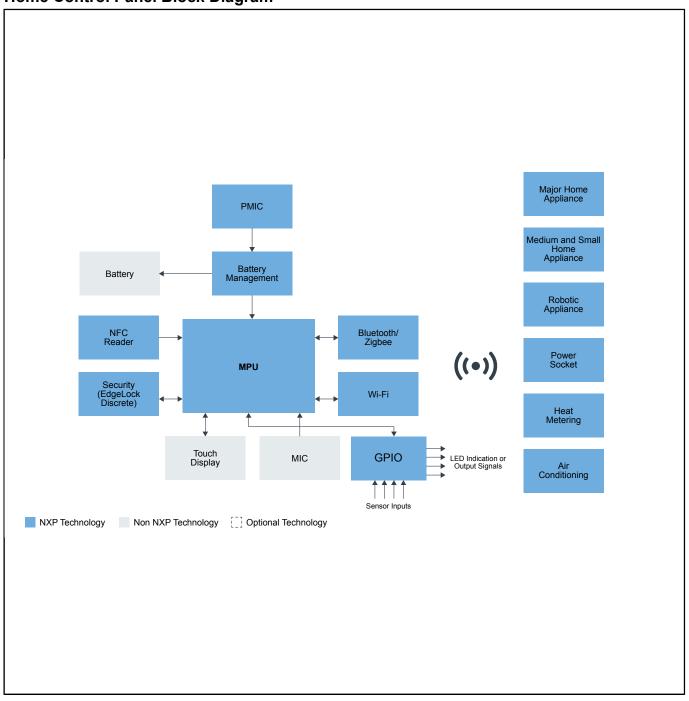


Last Updated: Dec 6, 2023

Appliances are smarter than before. With the help of sensors and connectivity they can do more for their owners: be activated by voice or face recognition, work when electricity peaks are low or even send information to the manufacturer to create a preventive maintenance appointment. With NXP's secure connectivity applications, you can have a centralized control panel that cannot just work for appliances, but also for smart devices throughout your home.

Home Control Panel Block Diagram



Recommended Products for Home Control Panel		
MPU	• i.MX8MMINI: i.MX 8M Mini - Arm [®] Cortex [®] -A53, Cortex-M4, Audio, Voice, Video	
PMIC	PCA9450: Power Management IC (PMIC) for i.MX 8M Mini/Nano/Plus	
Battery Management	Battery Management: Battery Management	
Security (EdgeLock Discrete)	SE050: EdgeLock [®] SE050: Plug and Trust Secure Element Family – Enhanced IoT security with high flexibility EDGELOCK-A5000: EdgeLock [®] A5000 Plug and Trust Secure Authenticator: Authentication Made Secure, Scalable and Easy	
NFC Reader	PN7160: NFC Plug and Play Controller with Integrated Firmware and NCI Interface	
Bluetooth Zigbee	* K32W061_41: K32W061/41: High-Performance, Secure and Ultra-Low-Power MCU for Zigbee [®] ,Thread TM , and Bluetooth [®] LE 5.0 with Built-In NFC Option	
Wi-Fi	* 88MW32X 802.11n Wi-Fi [®] Microcontroller SoC * IW416: 2.4/5 GHz Dual-Band 1x1 Wi-Fi [®] 4 (802.11n) + Bluetooth [®] 5.2 Solution	
Major Home Appliance	Major Home Appliances: Major Home Appliances	
Small and Medium Appliance	Small and Medium Appliances: Small and Medium Appliances	
Robotic Appliances	Robotic Appliance: Robotic Appliance	
Power Socket	Smart Power Socket and Light Switch: Smart Power Socket and Light Switch	
Heat Metering	Heat Metering: Heat Metering	
Air Conditioning	Air Conditioning (AC): Air Conditioning (AC)	
Air Conditioning GPIO	PCAL9714: 14-Bit SPI I/O Expander with Agile I/O Features PCAL9722: 22-Bit SPI I/O Expander with Agile I/O Features	
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Air Conditioning GPIO	MCX-A14X-A15X: MCX A14x/15x MCUs with Arm [®] Cortex [®] M33, Scalable Device Options, Low Power and Intelligent Peripherals MCX-N94X-N54X: MCX N94x/54x Highly Integrated Multicore MCUs with On-Chip Accelerators, Intelligent Peripherals and Advanced Security PCAL9714: 14-Bit SPI I/O Expander with Agile I/O Features PCAL9722: 22-Bit SPI I/O Expander with Agile I/O Features

View our complete solution for Home Control Panel.

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

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