

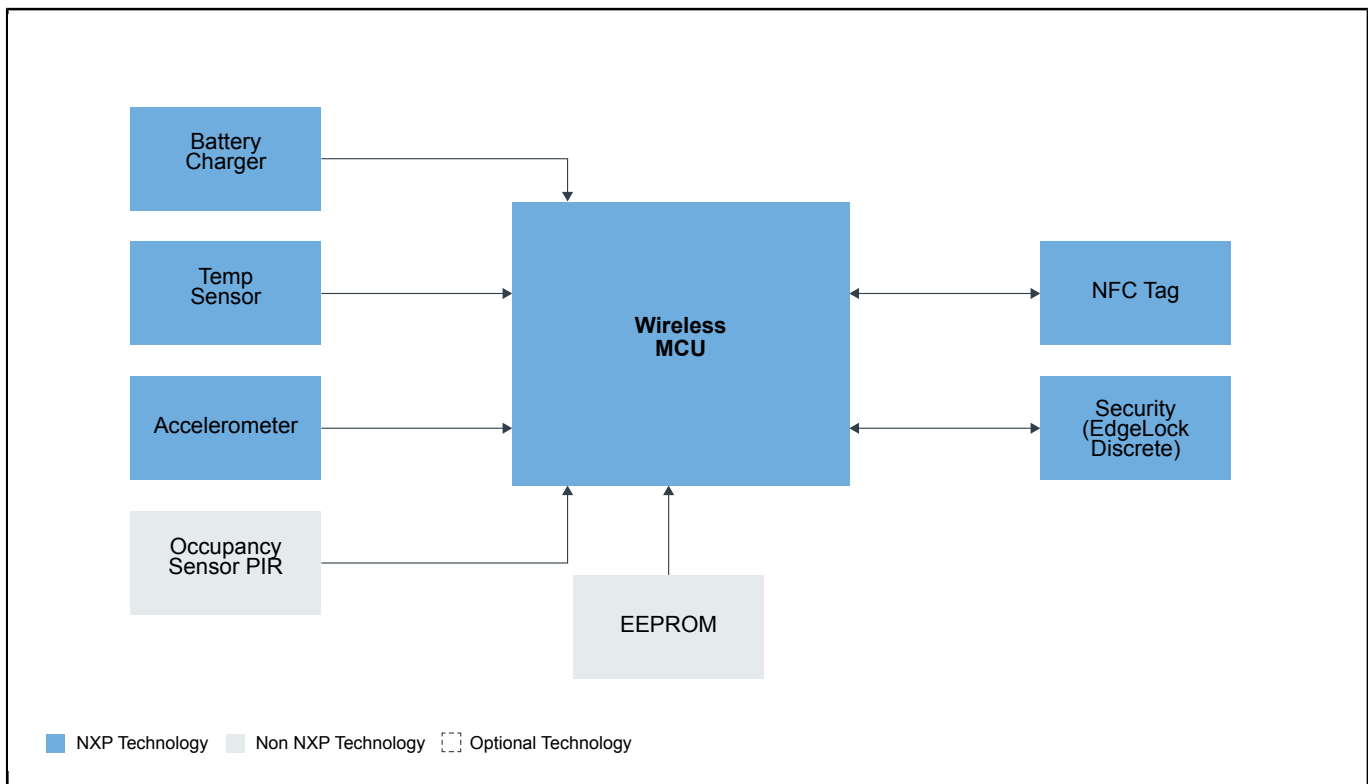


Building Security and Surveillance

Last Updated: Feb 26, 2025

NXP's wide portfolio offers a number of options for buildings security solutions. Our wireless MCUs are the choice when a battery-powered, occupancy sensor or a surveillance low-power system is required. The cost-effective crossover i.MX RT MCUs offer a great solution for video processing and data management for wireless IP video cameras. NXP's WIFI 6 modules ensure low latency and high-quality connection for IP cameras solutions.

Wireless Occupancy Sensor Block Diagram

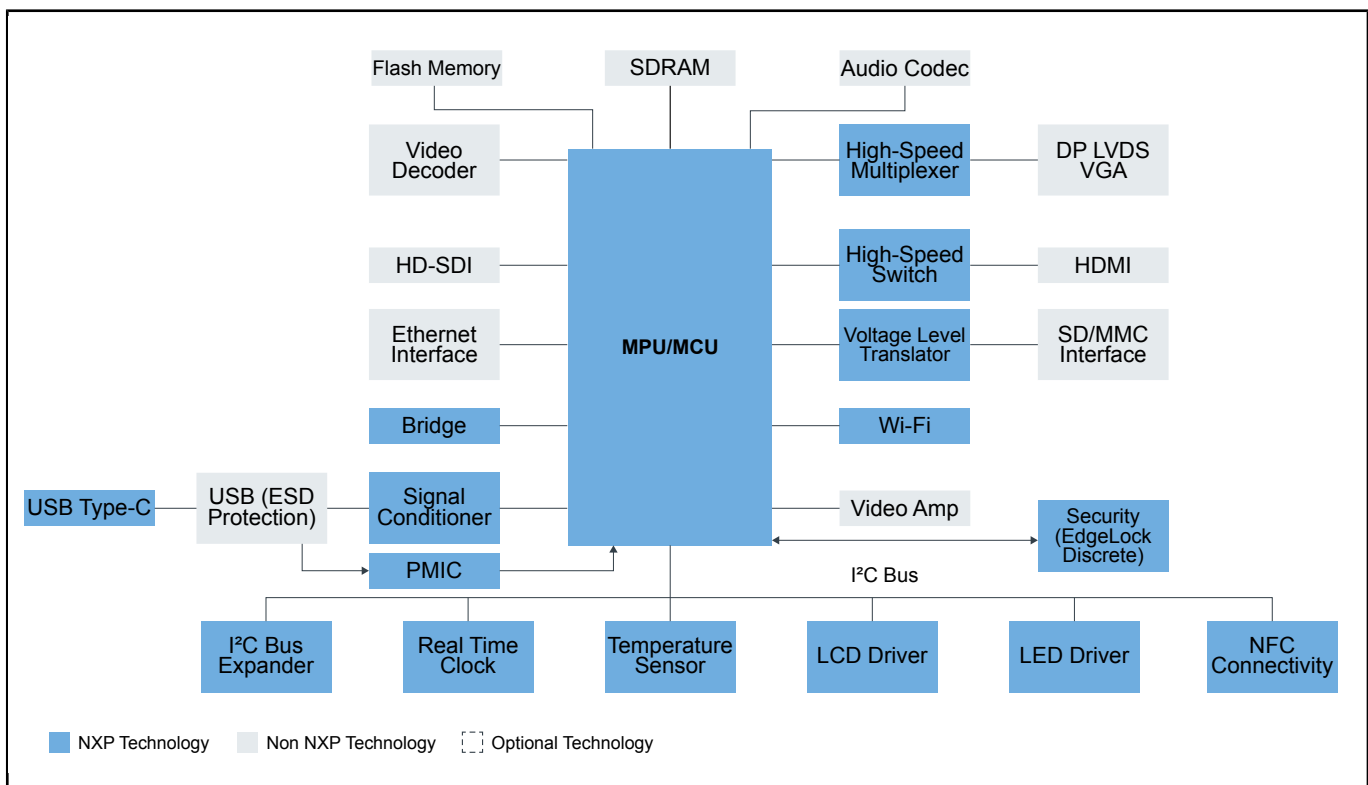


Recommended Products for Wireless Occupancy Sensor

Wireless MCU	<ul style="list-style-type: none">• MCX-A13X-A14X-A15X: MCX A13x, 14x, 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• JN5189_88_T: JN5189/88 (T): High-Performance and Ultra-Low-Power MCUs for Zigbee® and Thread with Built-In NFC Option• QN9090-30: QN9090/30: Bluetooth Low-Energy MCU with Arm®Cortex®-M4 CPU, Energy Efficiency, Analog and Digital Peripherals and NFC Tag Option• RW610: Wireless MCU with Integrated Radio: 1x1 Wi-Fi® 6 + Bluetooth® Low Energy 5.4 Radios• RW612: Wireless MCU with Integrated Tri-radio: 1x1 Wi-Fi® 6 + Bluetooth® Low Energy 5.4 / 802.15.4
--------------	--

Battery Charger	<ul style="list-style-type: none"> • BC3770: 2 A Switch-Mode Li-ion/Li-polymer Battery Charger
NFC Tag	<ul style="list-style-type: none"> • NTAG5-LINK: NTAG® 5 Link: NFC Forum-Compliant I²C Bridge for IoT on Demand
Temperature Sensor	<ul style="list-style-type: none"> • P3T1035xUK: I3C, I²C-Bus, ±0.5 °C Accuracy, Digital Temperature Sensor • P3T2030xUK: I3C, I²C-Bus, 2.0 °C Accuracy, Digital Temperature Sensor • PCT2202UK: Ultra-Low-Power, 1.8 V, 1 Deg. C Accuracy, Digital Temperature Sensor with I²C-Bus Interface • LM75B: Digital Temperature Sensor and Thermal Watchdog
Security (EdgeLock Discrete)	<ul style="list-style-type: none"> • SE050: EdgeLock® SE050: Plug and Trust Secure Element Family – Enhanced IoT Security with High Flexibility • SE051: EdgeLock® SE051: Proven, Easy-to-Use IoT Security Solution with Support for Updatability and Custom Applets
Accelerometer	<ul style="list-style-type: none"> • FXLS8971CF: ±2g/±4g/±8g/±16g, Low Power 12-Bit Digital Accelerometer • FXLS8974CF: ±2g/±4g/±8g/±16g, Low-Power 12-Bit Digital IoT Accelerometer

IP Camera Surveillance Block Diagram

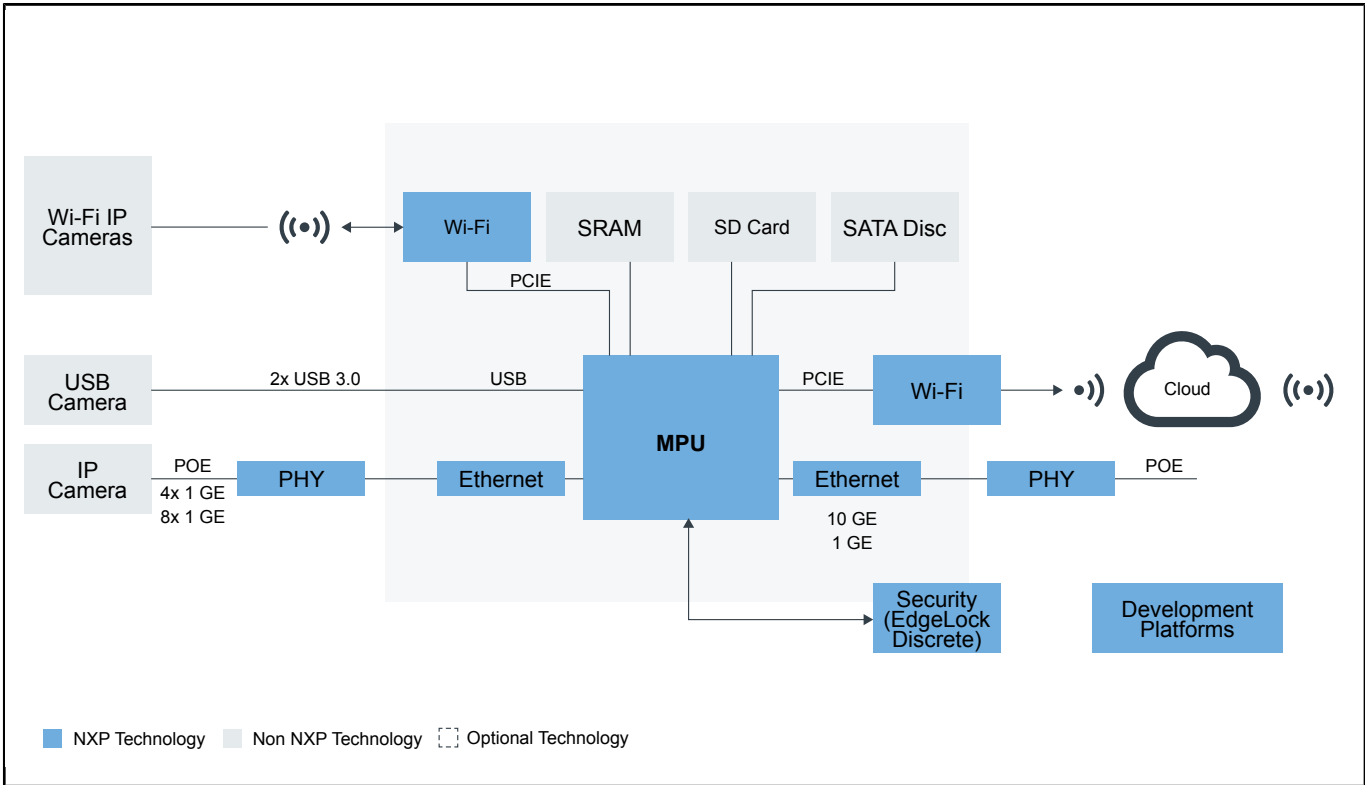


Recommended Products for IP Camera Surveillance

MPU/MCU	<ul style="list-style-type: none"> • MCX-A13X-A14X-A15X: MCX A13x, 14x, 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 • i.MX 8 Applications Processors: i.MX 8 Series Applications Processors Multicore Arm® Cortex® Processors • i.MX7ULP: i.MX 7ULP Family, Ultra-Low-Power with Graphics • i.MX-RT1060: i.MX RT1060: Crossover MCU with Arm® Cortex®-M7
NFC Connectivity	<ul style="list-style-type: none"> • NTAG5-LINK: NTAG® 5 Link: NFC Forum-Compliant I²C Bridge for IoT on Demand

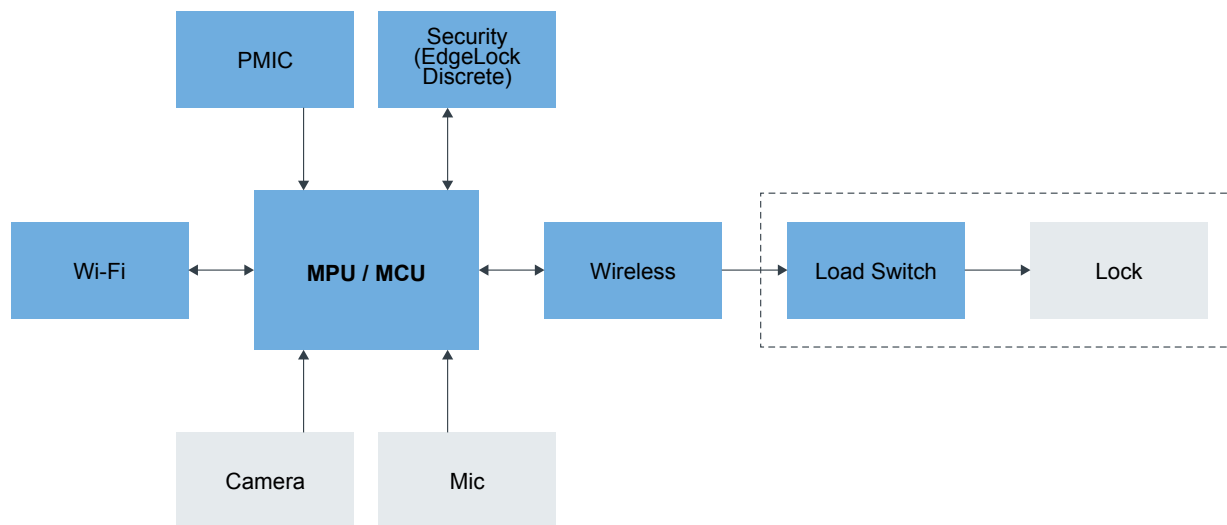
	<ul style="list-style-type: none"> • NTAG5-BOOST: NTAG® 5 Boost: NFC Forum-Compliant I²C Bridge for Tiny Devices
Wireless MCU	<ul style="list-style-type: none"> • 88W9098: 2.4/5 GHz Dual-Band 2x2 Wi-Fi® 6 (802.11ax) + Bluetooth® 5.3 • IW611: 2.4/5GHz Dual-band 1x1 Wi-Fi® 6 (802.11ax) + Bluetooth® 5.4 Solution • IW612: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 6 (802.11ax) + Bluetooth® 5.4 + 802.15.4 Tri-Radio Solution • IW620: 2.4/5 GHz Dual-Band 2x2 Wi-Fi® 6 (802.11ax) + Bluetooth® 5.1 Solution • IW416: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 4 (802.11n) + Bluetooth® 5.2 Solution
Voltage Level Translator	<ul style="list-style-type: none"> • NTS0304E: 4-Bit Dual-Supply Translating Transceiver (Open-Drain, Auto-Direction Sensing) • GTL2014PW: 4-Bit LVTTTL-to-GTL Transceiver
High-speed Multiplexer	<ul style="list-style-type: none"> • CBTL04083A_CBTL04083B: 3.3 V, Four Differential Channel, 2-1 Multiplexer/Demultiplexer Switch for PCI Express Gen3 • CBTL06DP213EE: Third Generation High-Performance DisplayPort Multiplexer • CBTL08GP053EV: USB Type-C High-Performance Crossbar Switch IC
LED Driver	<ul style="list-style-type: none"> • PCA9624: 8-Bit Fm+ I²C-Bus 100 MA 40 V LED Driver
LCD Driver	
Real-time Clock	<ul style="list-style-type: none"> • PCA8565: Real-Time Clock/Calendar
Temperature Sensor	<ul style="list-style-type: none"> • P3T1035xUK: I3C, I²C-Bus, ±0.5 °C Accuracy, Digital Temperature Sensor • P3T2030xUK: I3C, I²C-Bus, 2.0 °C Accuracy, Digital Temperature Sensor • PCT2202UK: Ultra-Low-Power, 1.8 V, 1 Deg. C Accuracy, Digital Temperature Sensor with I²C-Bus Interface • LM75B: Digital Temperature Sensor and Thermal Watchdog
I2C Bus Expander	<ul style="list-style-type: none"> • General Purpose I/O (GPIO): General Purpose I/O (GPIO)
USB Type-C	<ul style="list-style-type: none"> • PTN5110: USB PD TCPC PHY IC • PTN5150: CC Logic for USB Type-C Applications
High-speed Switch	<ul style="list-style-type: none"> • CBTL08GP053EV: USB Type-C High-Performance Crossbar Switch IC • CBTL06DP213EE: Third Generation High-Performance DisplayPort Multiplexer • CBTL06GP213EE: Second Generation High-Performance General Purpose Switch
Signal Conditioner	<ul style="list-style-type: none"> • PTN36043x: USB Type-C SuperSpeed Active Switch
Bridge	<ul style="list-style-type: none"> • Bridges: Bridge IC Solutions
Security (EdgeLock Discrete)	<ul style="list-style-type: none"> • SE050: EdgeLock® SE050: Plug and Trust Secure Element Family – Enhanced IoT Security with High Flexibility • SE051: EdgeLock® SE051: Proven, Easy-to-Use IoT Security Solution with Support for Updatability and Custom Applets • EDGELOCK-A5000: EdgeLock® A5000 Plug and Trust Secure Authenticator: Authentication Made Secure, Scalable and Easy
PMIC	<ul style="list-style-type: none"> • PCA9460: 13-Channel Power Management Integrated Circuit (PMIC) for Ultra Low Power Application

Surveillance System Block Diagram



Recommended Products for Surveillance System	
Layerscape SoC	<ul style="list-style-type: none"> • LS1046A: Layerscape® 1046A and 1026A Processors • LX2160A: Layerscape® LX2160A, LX2120A, LX2080A Processors
Development Platforms	<ul style="list-style-type: none"> • elQ AI Development Environment: elQ® AI Software Development Environment
Ethernet PHY	<ul style="list-style-type: none"> • F104S8A: F104S8A Four-port Gigabit Ethernet Copper PHY
Security (EdgeLock Discrete)	<ul style="list-style-type: none"> • SE050: EdgeLock® SE050: Plug and Trust Secure Element Family – Enhanced IoT Security with High Flexibility • SE051: EdgeLock® SE051: Proven, Easy-to-Use IoT Security Solution with Support for Updatability and Custom Applets
Wi-Fi	<ul style="list-style-type: none"> • 88W9098: 2.4/5 GHz Dual-Band 2x2 Wi-Fi® 6 (802.11ax) + Bluetooth® 5.3 • IW611: 2.4/5GHz Dual-band 1x1 Wi-Fi® 6 (802.11ax) + Bluetooth® 5.4 Solution • IW612: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 6 (802.11ax) + Bluetooth® 5.4 + 802.15.4 Tri-Radio Solution • IW620: 2.4/5 GHz Dual-Band 2x2 Wi-Fi® 6 (802.11ax) + Bluetooth® 5.1 Solution
Ethernet PHY	<ul style="list-style-type: none"> • F104S8A: F104S8A Four-port Gigabit Ethernet Copper PHY

Video Doorbell Block Diagram



■ NXP Technology ■ Non NXP Technology □ Optional Technology

Recommended Products for Video Doorbell

MCU/MPU	<ul style="list-style-type: none"> • MCX-A13X-A14X-A15X: MCX A13x, 14x, 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 • i.MX8MMINI: i.MX 8M Mini - Arm® Cortex®-A53, Cortex-M4, Audio, Voice, Video • i.MX-RT1170: i.MX RT1170: 1 GHz Crossover MCU with Arm® Cortex® Cores
PMIC	<ul style="list-style-type: none"> • PCA9450: Power Management IC (PMIC) for i.MX 8M Mini/Nano/Plus • PF81-PF82: 12-Channel Power Management Integrated Circuit (PMIC) for High-Performance Processing Applications • PCA9460: 13-Channel Power Management Integrated Circuit (PMIC) for Ultra Low Power Application
Wi-Fi	<ul style="list-style-type: none"> • 88W8987: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 5 (802.11ac) + Bluetooth® 5.2 Solution • IW416: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 4 (802.11n) + Bluetooth® 5.2 Solution • RW610: Wireless MCU with Integrated Radio: 1x1 Wi-Fi® 6 + Bluetooth® Low Energy 5.4 Radios • RW612: Wireless MCU with Integrated Tri-radio: 1x1 Wi-Fi® 6 + Bluetooth® Low Energy 5.4 / 802.15.4 • IW612: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 6 (802.11ax) + Bluetooth® 5.4 + 802.15.4 Tri-Radio Solution • IW610: 2.4/5#GHz Dual-Band 1x1 Wi-Fi® 6 + Bluetooth Low Energy 5.4 + 802.15.4 Tri-Radio Solution
Wireless	<ul style="list-style-type: none"> • 88W8987: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 5 (802.11ac) + Bluetooth® 5.2 Solution • QN9090-30: QN9090/30: Bluetooth Low-Energy MCU with Arm® Cortex®-M4 CPU, Energy Efficiency, Analog and Digital Peripherals and NFC Tag Option
Load Switch	<ul style="list-style-type: none"> • NX30P6093: High-Voltage I²C Controlled Overvoltage Protection Load Switch

View our complete solution for [Building Security and Surveillance](#).

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

www.nxp.com

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2025 NXP B.V.