Smart Watch

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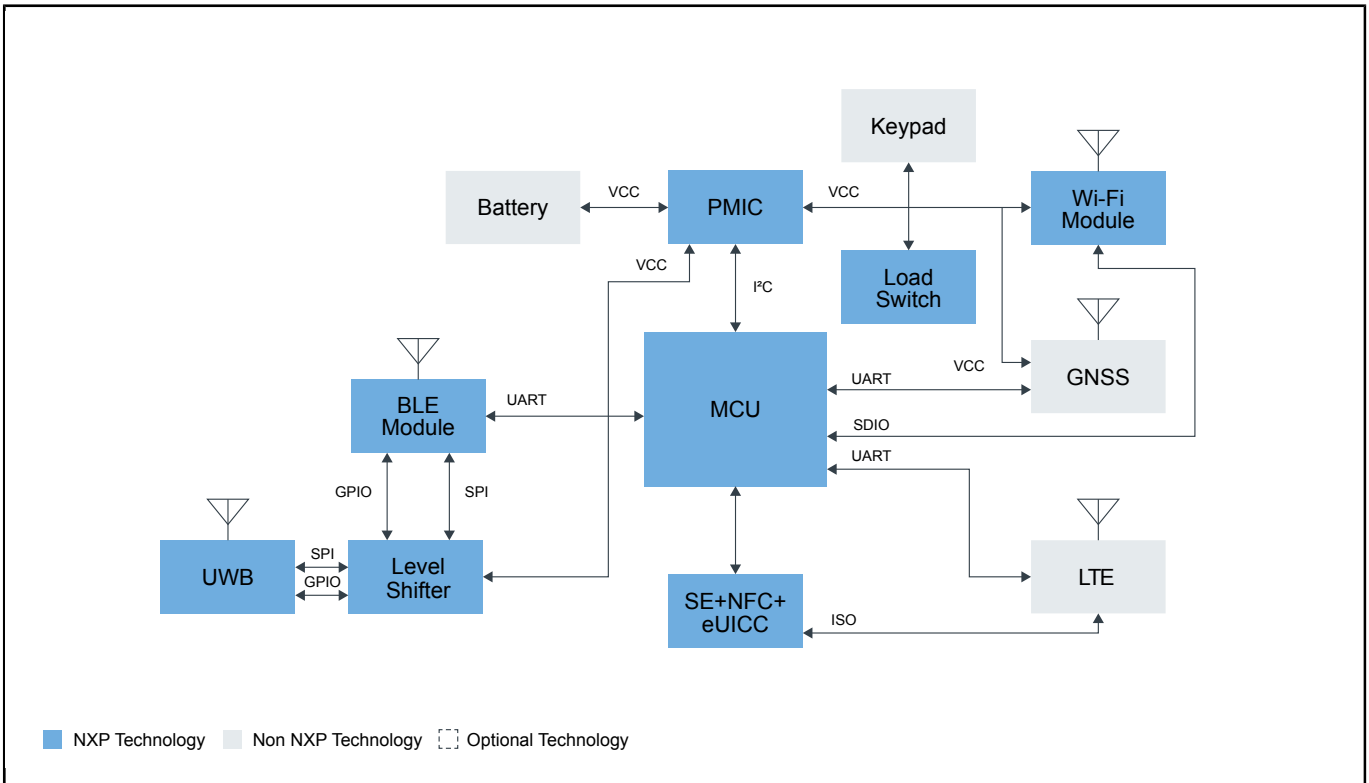
Comfort, compact, fashionable, rich user experience, low power consumption and performance efficiency are just a few requirements of smart watch designers.

With a broad portfolio of sensors, connectivity, security and embedded processing, NXP's technology is designed to meet the growing and demanding need of smart watch designs. Take the i.MX RT500 family of crossover MCUs for example. This family of MCUs is optmimized for low-power HMI application by combining a graphics engine and a streamlined Cadence® Tensilica® Fusion F1 DSP core with a next-generation Arm® Cortex®-M33 core.

Smart Watch UWB Block Diagram



Recommended Products for Smart Watch UWB	
MCU	• 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 • i.MX-RT500: i.MX RT500 Crossover MCU with Arm® Cortex®-M33, DSP and GPU Cores • i.MX7ULP: i.MX 7ULP Family, Ultra-Low-Power with Graphics
PMIC	• PCA9420-PCA9421: PMIC for Low Power Applications • PCA9460: 13-Channel Power Management Integrated Circuit (PMIC) for Ultra Low Power Application
Wireless	• 88W8801: 2.4 GHz Single-Band 1x1 Wi-Fi® 4 (802.11n) Solution • QN9090-30: QN9090/30: Bluetooth Low-Energy MCU with Arm®Cortex®-M4 CPU, Energy Efficiency, Analog and Digital Peripherals and NFC Tag Option • Ultra-Wideband (UWB): Ultra wideband (UWB)
Wireless	• 88W8801: 2.4 GHz Single-Band 1x1 Wi-Fi® 4 (802.11n) Solution • QN9090-30: QN9090/30: Bluetooth Low-Energy MCU with Arm®Cortex®-M4 CPU, Energy Efficiency, Analog and Digital Peripherals and NFC Tag Option • Ultra-Wideband (UWB): Ultra wideband (UWB)
Load Switch	• NX3P2902BUK: Logic-Controlled High-Side Power Switch
Level Shifter	• NTS0308E: 8-Bit Dual-Supply Translating Transceiver (Open-Drain, Auto-Direction Sensing)
UWB	• SR150: Trimension™ SR150: Secure UWB Solution for IoT Devices

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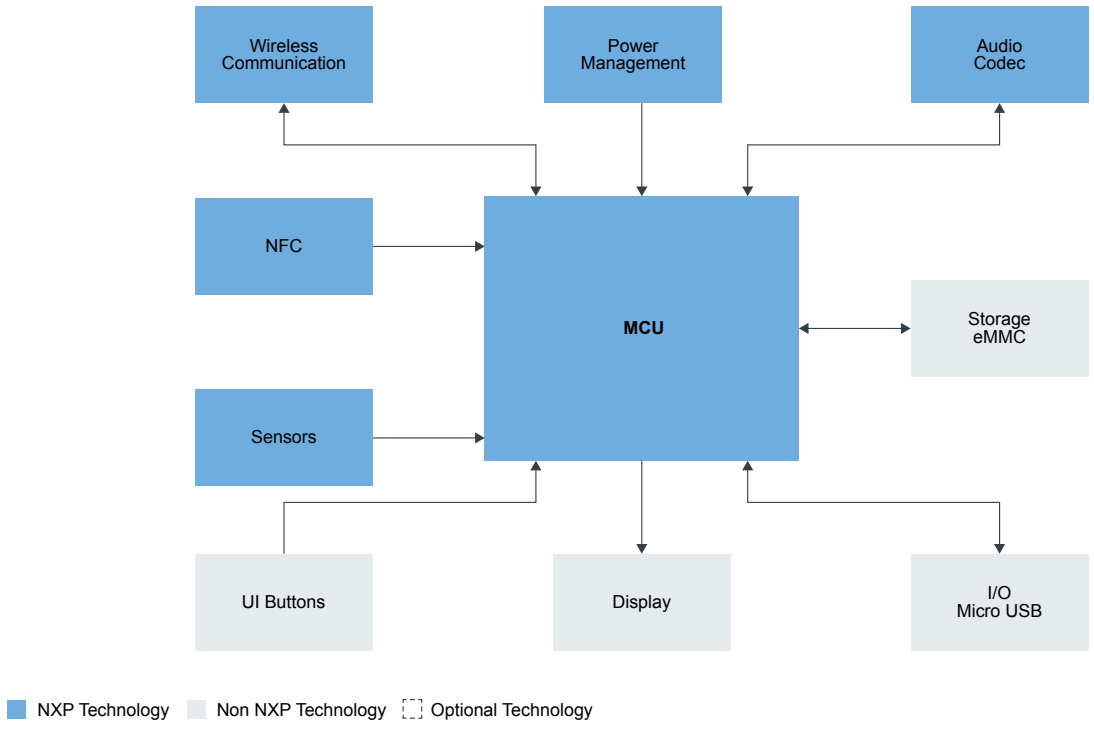

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Power Management	• PF1510: Power Management Integrated Circuit (PMIC) for Low Power Application Processors • PF1550: PMIC with 1A Li+ Linear Battery Charger for Low Power Processor Systems • PF3000: 12-Channel Configurable PMIC for i.MX6 and i.MX7 Application Processors • PCA9460: 13-Channel Power Management Integrated Circuit (PMIC) for Ultra Low Power Application
Wireless Communication	• KW31Z: Kinetis® KW31Z-2.4 GHz Bluetooth Low Energy Wireless Radio Microcontroller (MCU) based on Arm® Cortex®-M0+ Core • IW416: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 4 (802.11n) + Bluetooth® 5.2 Solution
NFC	• NTAG_I2C: NTAG I²C Plus 2K: NFC Forum Type 2 Tag with I²C Interface
Sensor	• FXLS8974CF: ±2g/±4g/±8g/±16g, Low-Power 12-Bit Digital IoT Accelerometer • MPL3115A2: Absolute Digital Pressure Sensor (20 to 110 kPa) • MMA8451Q: ±2g/±4g/±8g, Low g, 14-bit Digital Accelerometer
Audio Codec	• SGTL5000: Ultra-Low-Power Audio Codec

View our complete solution for Smart Watch.

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