



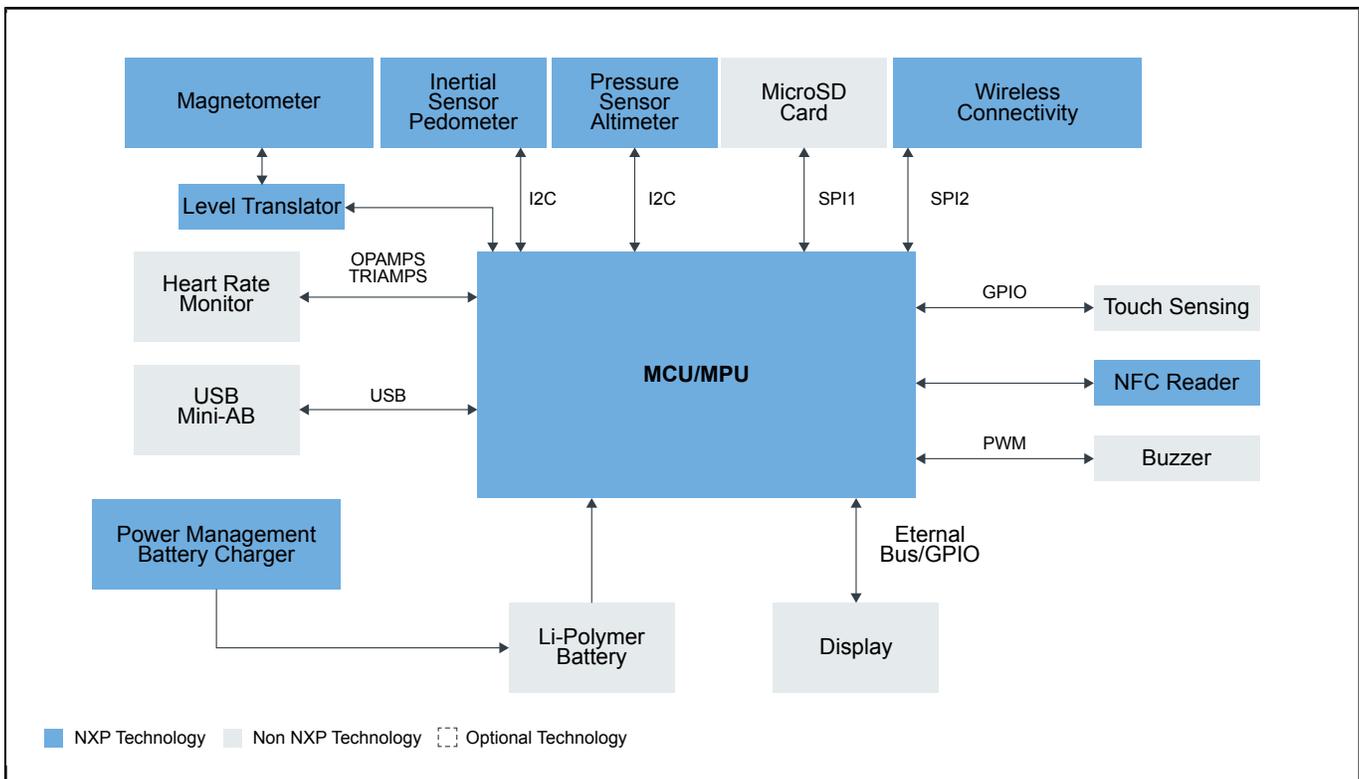
Wristband

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An activity tracking device is worn on the body and used to collect, process, explain and outline the collected data with the goal of improving both health and fitness performance. These devices are also able to wirelessly transfer this data to another smart device for storage or further processing.

NXP's power-efficient, edge-computing MCUs, secure connectivity options and sensors are a great match for designing an activity and wellness tracker.

Wristband Block Diagram



Recommended Products for Wristband

MCU/MPU

* i.MX RT500 Crossover MCU with Arm® Cortex®-M33, DSP and GPU Cores

	<ul style="list-style-type: none"> • LPC546XX: Power-Efficient Microcontrollers (MCUs) With Advanced Peripherals Based on Arm® Cortex®-M4 Core
Inertial Sensor	<ul style="list-style-type: none"> • MMA8451Q: ±2g/±4g/±8g, Low g, 14-bit Digital Accelerometer • FXLS8471Q: ±2g/±4g/±8g, Low g, 14-Bit Digital Accelerometer
Pressure Sensors	<ul style="list-style-type: none"> • MPL3115A2: Absolute Digital Pressure Sensor (20 to 110 kPa)
Magnetometer	<ul style="list-style-type: none"> • FXOS8700CQ: Digital Motion Sensor - 3D Accelerometer (±2g/±4g/±8g) + 3D Magnetometer
Level Translator	<ul style="list-style-type: none"> • PCA9306: Dual Bidirectional I²C-Bus and SMBus Voltage-Level Translator • P3A9606: Dual Bidirectional I3C/I²C-Bus and SPI Voltage-Level Translator
Power Management	<ul style="list-style-type: none"> • MC34673: 1.2 A Single-Cell Li-Ion / Li-Polymer Battery Charger • MMPF0100: 14-Channel Configurable PMIC • PCA9460: 13-Channel Power Management Integrated Circuit (PMIC) for Ultra Low Power Application • PF3001: 10-Channel Configurable PMIC for i.MX6 and i.MX7 Application Processors
Wireless Connectivity	<ul style="list-style-type: none"> • KW41Z: Kinetis® KW41Z-2.4 GHz Dual Mode: Bluetooth® Low Energy and 802.15.4 Wireless Radio Microcontroller (MCU) based on Arm® Cortex®-M0+ Core • QN908x: Ultra-Low-Power Bluetooth Low Energy System on Chip Solution • QN9090/30: Bluetooth Low-Energy MCU with Arm®Cortex®-M4 CPU, Energy Efficiency, Analog and Digital Peripherals and NFC Tag Option • 88W9064: 2.4/5 GHz Dual-Band 4x4 Wi-Fi® 6 (802.11ax) Access Solution
NFC Reader	<ul style="list-style-type: none"> • NFC Readers: EdgeVerse™ NFC Readers

View our complete solution for [Wristband](#).

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