Wristband

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 | LMX RT500 Crossover MCU with Arm® Cortex®-M33, DSP and GPU Cores |
**Inertial Sensor**
- **MMA8451Q**: ±2g/±4g/±8g, Low g, 14-bit Digital Accelerometer
- **FXLS8741Q**: ±2g/±4g/±8g, Low g, 14-Bit Digital Accelerometer

**Pressure Sensors**
- **MPL3115A2**: Absolute Digital Pressure Sensor (20 to 110 kPa)

**Magnetometer**
- **FXOS8700CQ**: Digital Motion Sensor - 3D Accelerometer (±2g/±4g/±8g) + 3D Magnetometer

**Level Translator**
- **PCA9306**: Dual Bidirectional I²C-Bus and SMBus Voltage-Level Translator
- **P3A9606**: Dual Bidirectional I²C/I³C-Bus and SPI Voltage-Level Translator

**Power Management**
- **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**
- **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**
- **NFC Readers**: EdgeVerse™ NFC Readers

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View our complete solution for Wristband.

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