



# Wireless MCU with Integrated Radio: 1x1 Wi-Fi® 6 + Bluetooth® Low Energy 5.4 Radios

## RW610

Last Updated: May 9, 2024

The RW610 is a highly integrated, low-power wireless MCU with an integrated MCU and Wi-Fi® 6 + Bluetooth® Low Energy (LE) 5.4 radios designed for a broad array of applications, including connected smart home devices, gaming controllers, enterprise and industrial automation, smart accessories and smart energy.

The RW610 MCU subsystem includes a 260 MHz Arm® Cortex®-M33 core with Trustzone™-M, 1.2 MB on-chip SRAM and a high-bandwidth Quad SPI interface with an on-the-fly decryption engine for securely accessing off-chip XIP flash.

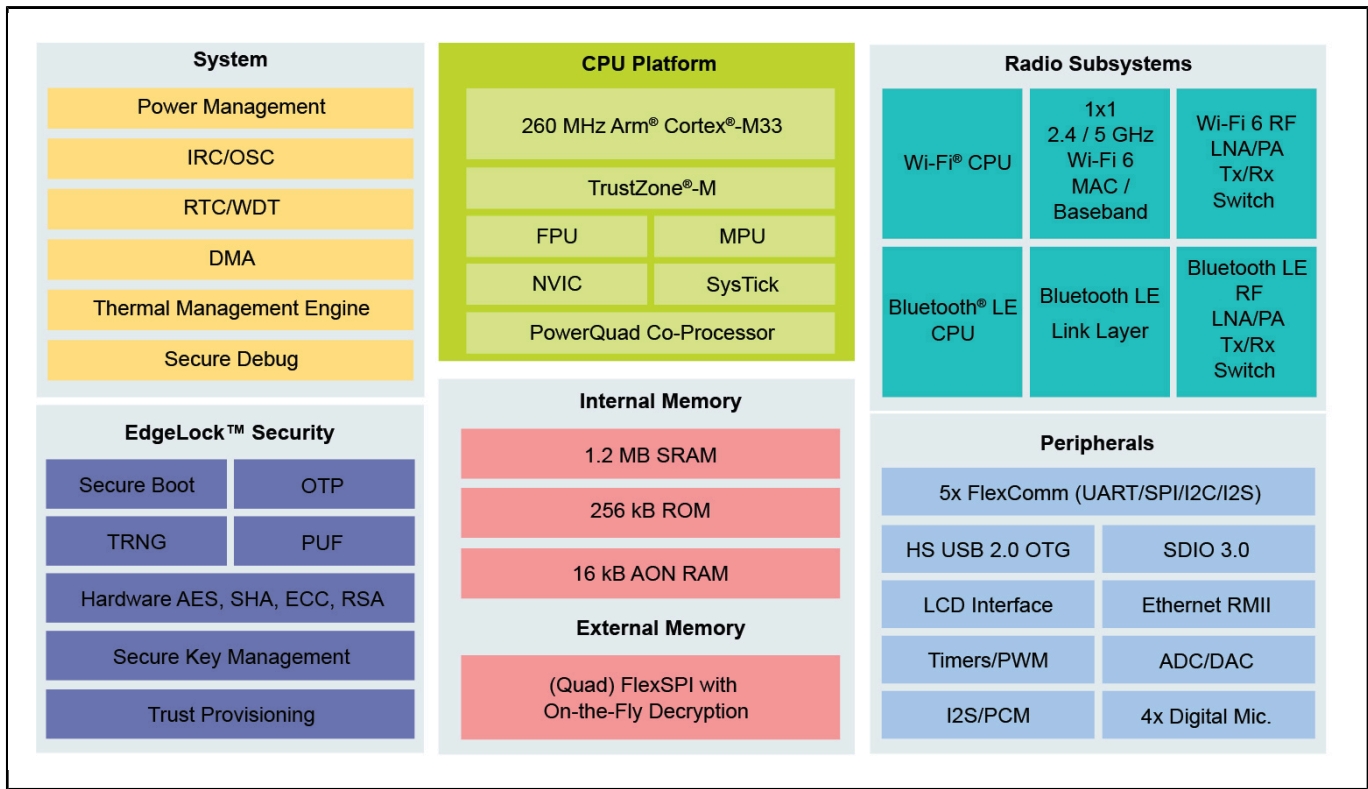
The RW610 includes a full-featured 1x1 dual-band (2.4 GHz/5#GHz) 20 MHz Wi-Fi 6 (802.11ax) subsystem bringing higher throughput, better network efficiency, lower latency and improved range over previous generation Wi-Fi standards. The Bluetooth LE radio supports 2 Mbit/s high-speed data rate, long range and extended advertising.

EdgeLock® security technology is incorporated, offering secure boot, secure debug, secure firmware updates and secure life cycle management as well as hardware cryptography and physically unclonable function (PUF) for secure key management.

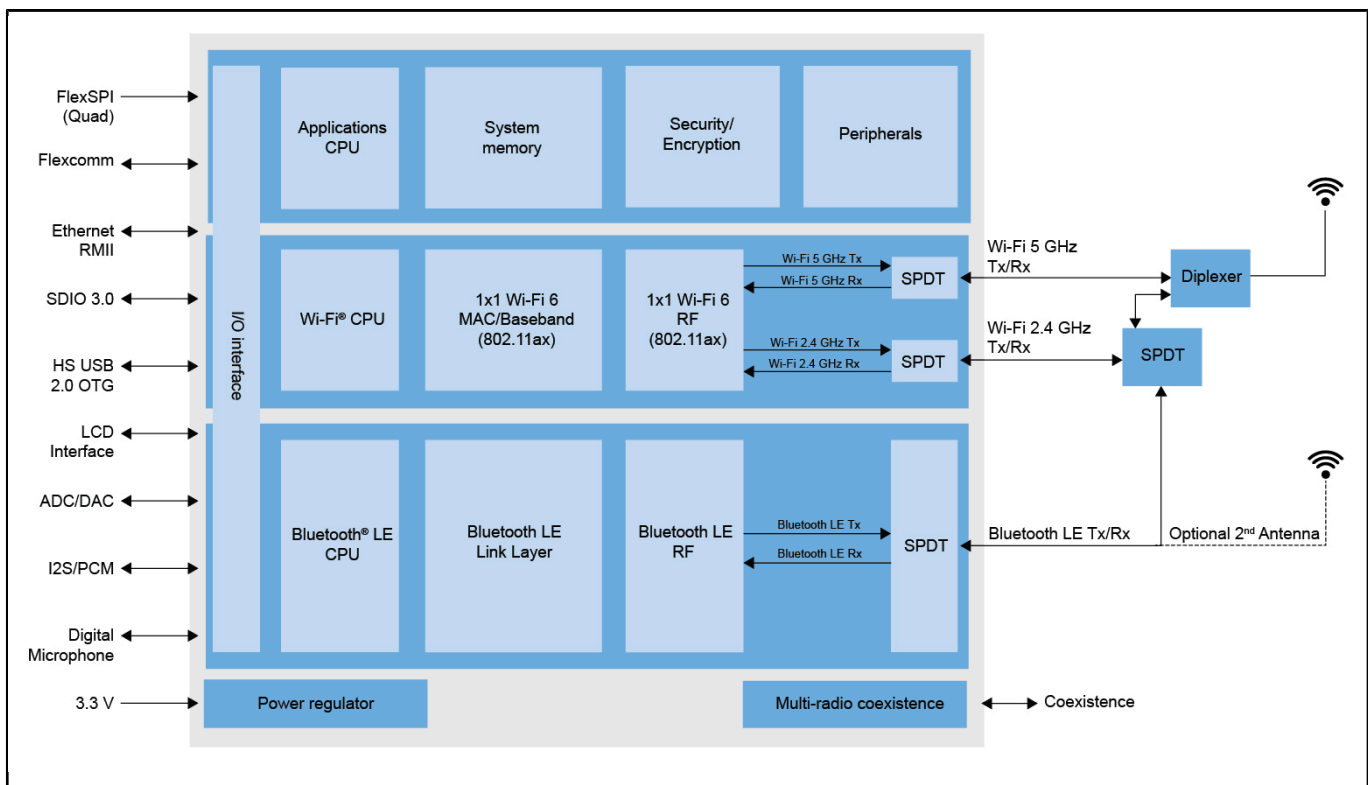
The advanced design of the RW610 delivers tight integration, low power and highly secure operation in a space- and cost-efficient wireless MCU requiring only a single 3.3#V power supply.

Wireless modules based on the NXP RW610 are offered by leading [module manufacturers](#).

## RW610 Main Subsystems Block Diagram



## RW610 Block Diagram Block Diagram



View additional information for [Wireless MCU with Integrated Radio: 1x1 Wi-Fi® 6 + Bluetooth® Low Energy 5.4 Radios](#).

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

---

**[www.nxp.com](http://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. © 2024 NXP B.V.