



# 2.4/5GHz Dual-Band 1x1 Wi-Fi® 6 + Bluetooth Low Energy 5.4 + 802.15.4 Tri-Radio Solution

## IW610

**Active**

Last Updated: Apr 25, 2025

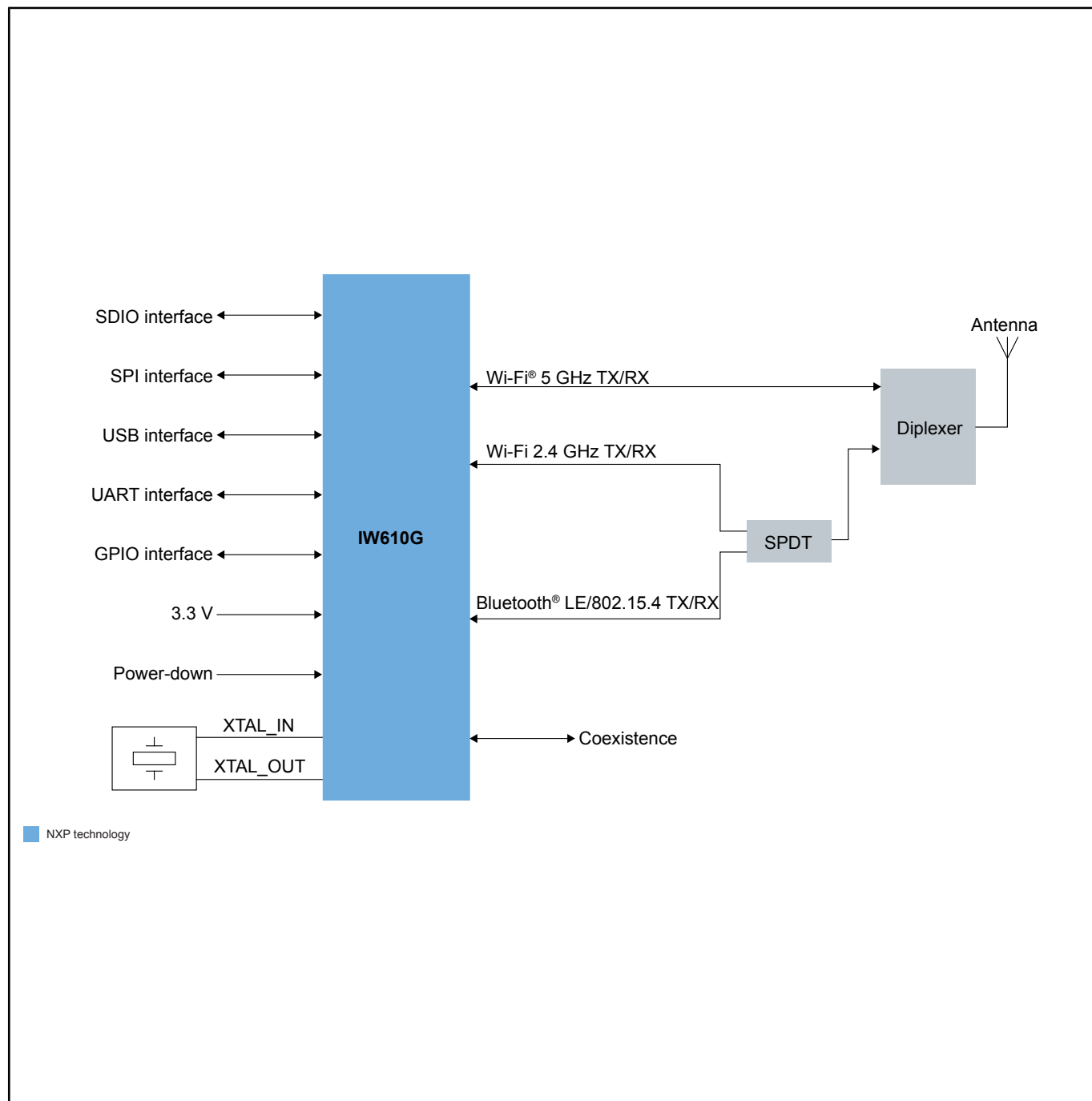
The IW610 Family features a 1x1 Dual-band (2.4 GHz / 5 GHz) Wi-Fi 6 radio subsystem, offering improved network efficiency, reduced latency and extended range compared to previous Wi-Fi standards. Its Bluetooth LE radio supports a high-speed data rate of 2 Mbit/s, along with long-range communication and extended advertising for network commissioning and sensor aggregation. The IW610 Family supports both dual and single-antenna configurations, ensuring efficient coexistence between internal and external radios.

Incorporating NXP's EdgeLock™ security technology, the IW610 provides robust protection for secure boot, firmware updates and lifecycle management. Its advanced design delivers tight integration, low power consumption and secure operation, all in a compact, cost-efficient package.

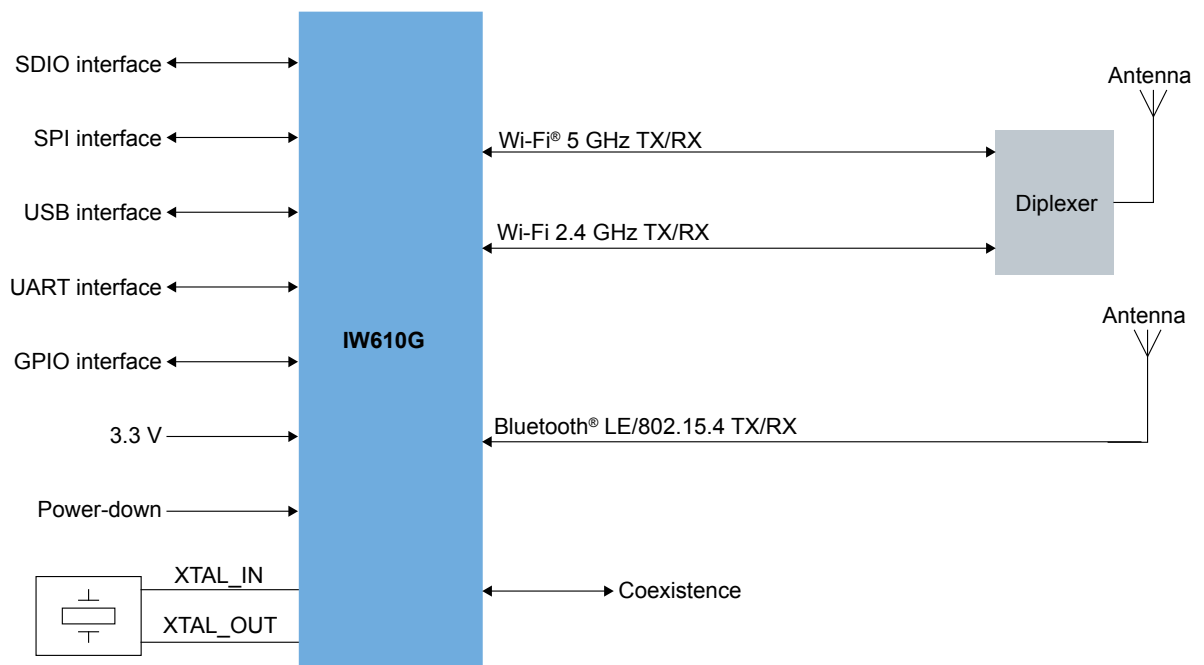
The IW610 is compatible with NXP's i.MX MPUs, i.MX RT and MCX host platforms. Its modular host driver architecture allows for easy integration with other MCUs and MPUs with minimal effort. It offers multiple interfaces for connecting to external processors, including SDIO and USB for Wi-Fi, UART or USB for Bluetooth and SPI for 802.15.4.

Wireless modules based on the IW610 are available from leading module manufacturers, providing a convenient solution for rapid deployment.

## IW610 Application Diagram – Single Antenna Block Diagram

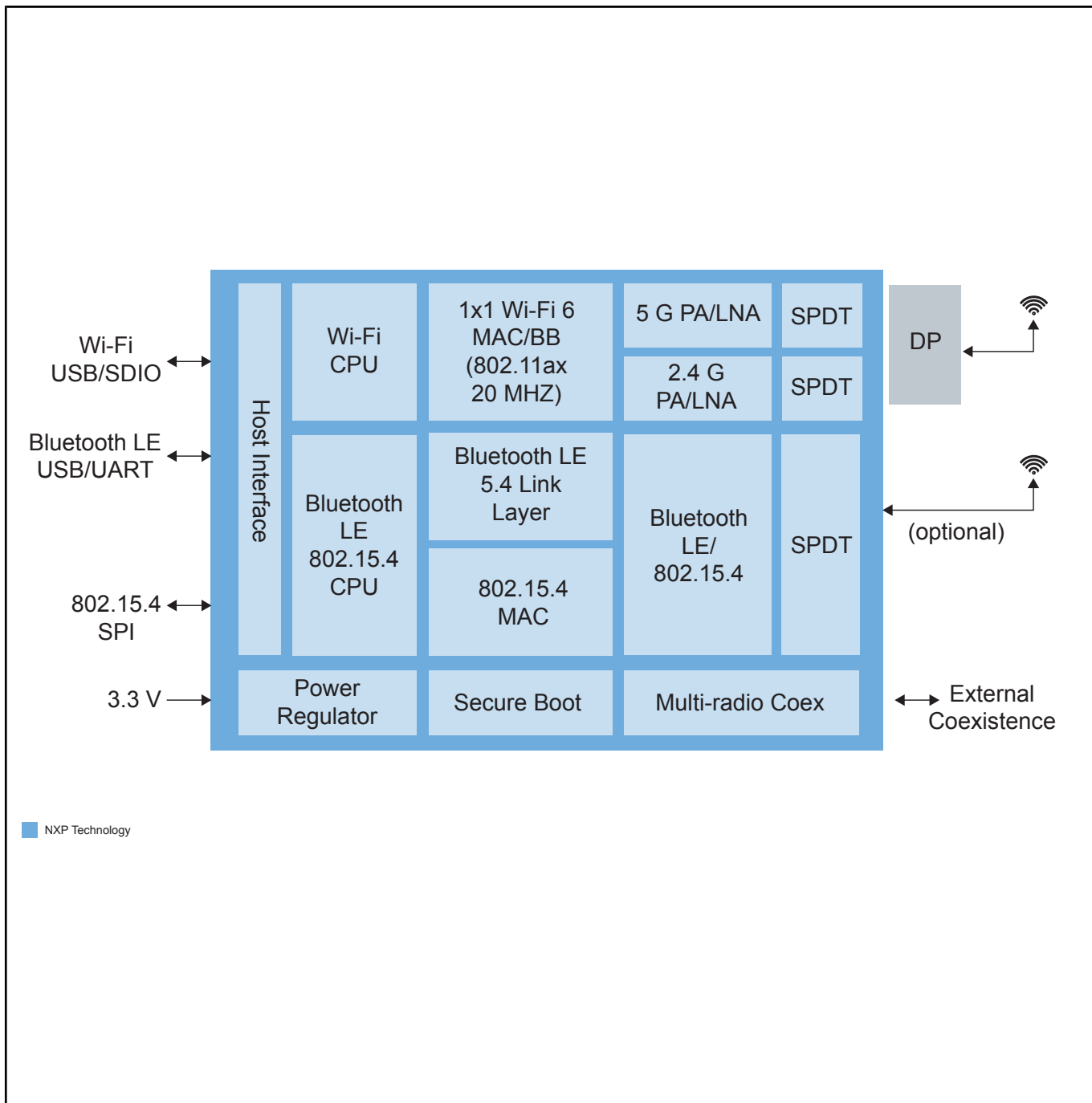


## IW610 Application Diagram – Dual Antenna Block Diagram



■ NXP technology

**IW610 Internal Block Diagram Block Diagram**



View additional information for [2.4/5GHz Dual-Band 1x1 Wi-Fi® 6 + Bluetooth Low Energy 5.4 + 802.15.4 Tri-Radio Solution](#).

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