



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

IW610

Active

Last Updated: Dec 23, 2025

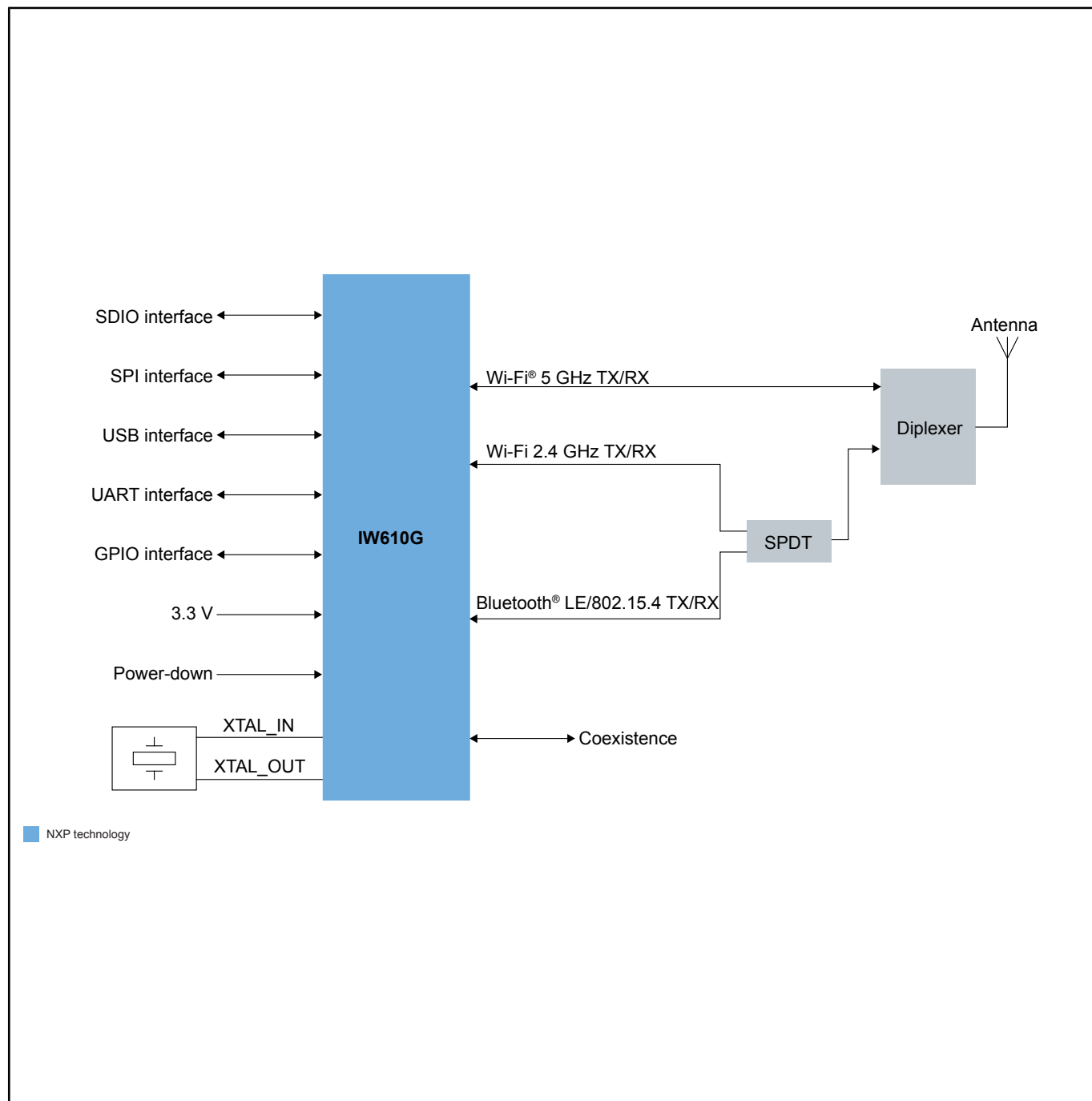
The IW610 Family features a 1x1 Dual-band (2.4 GHz / 5 GHz) Wi-Fi 6 radio subsystem, offering improved network efficiency, reduced latency and extended range compared to previous Wi-Fi standards. Its Bluetooth LE radio supports a high-speed data rate of 2 Mbit/s, along with long-range communication and 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.

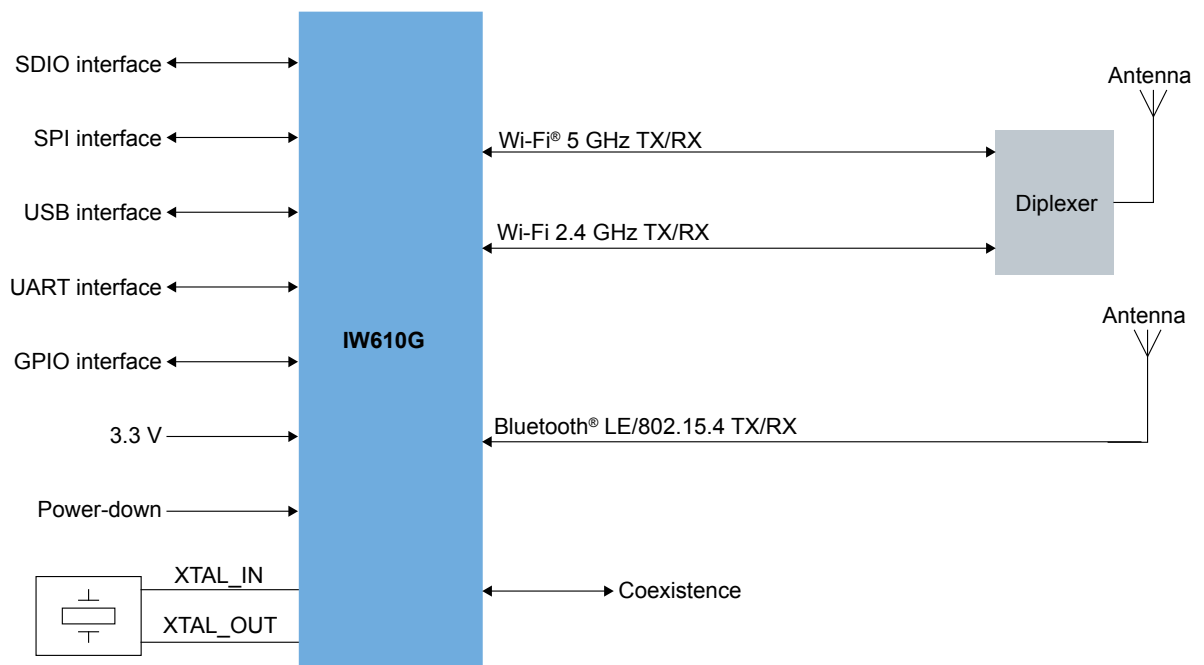
The IW610 is compatible with NXP's i.MX MPUs, i.MX RT and MCX host platforms. Its modular host driver architecture allows for easy integration with other MCUs and MPUs with minimal effort. It offers multiple interfaces for connecting to external processors, including SDIO and USB for Wi-Fi, UART or USB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

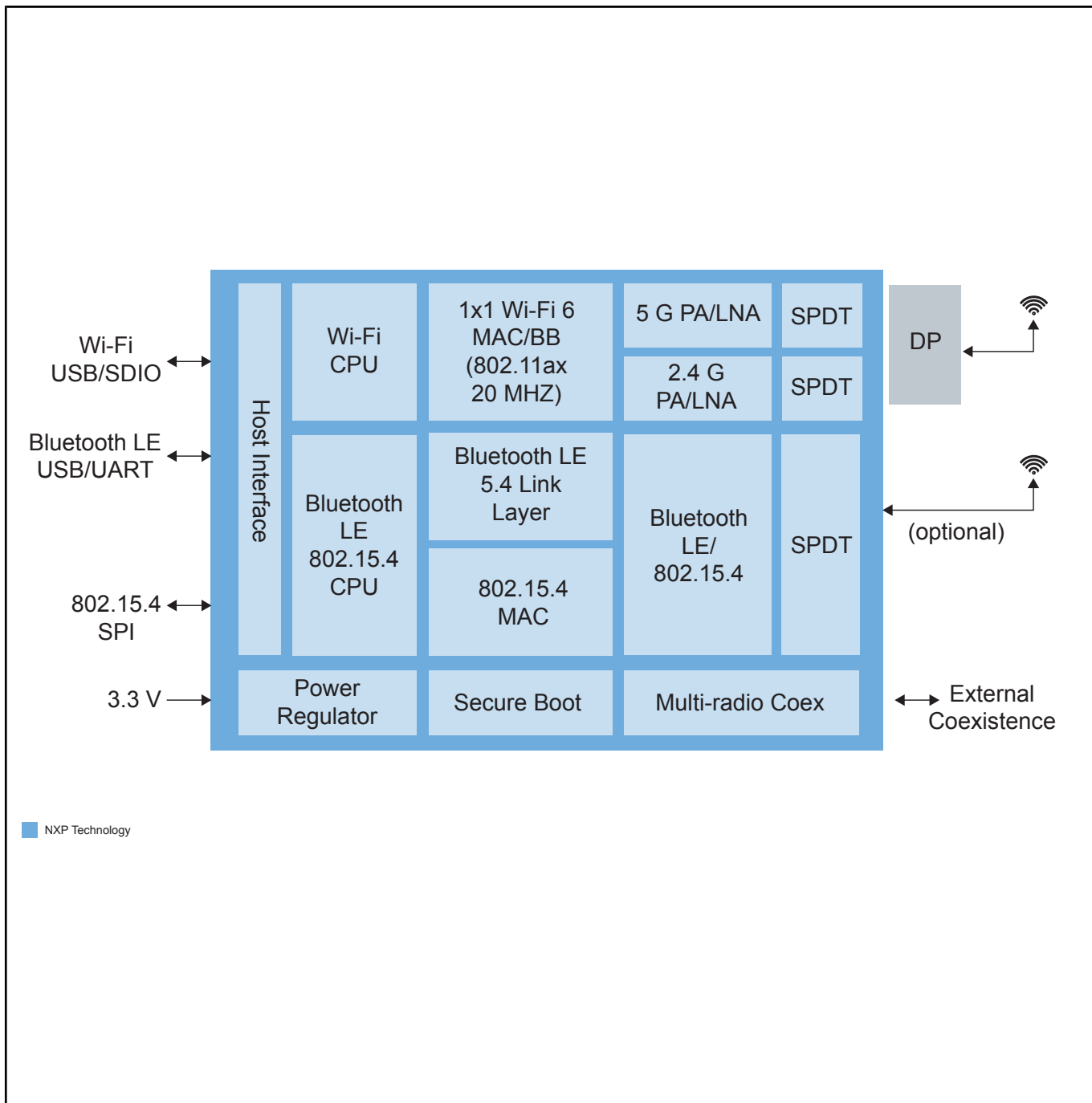


IW610 Application Diagram – Dual Antenna Block Diagram



■ 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](#).

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

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. © 2026 NXP B.V.