



2.4/5 GHz Dual-Band 2x2 Wi-Fi® 6 (802.11ax) + Bluetooth® 5.3 Automotive Solution

88Q9098

Last Updated: Dec 5, 2025

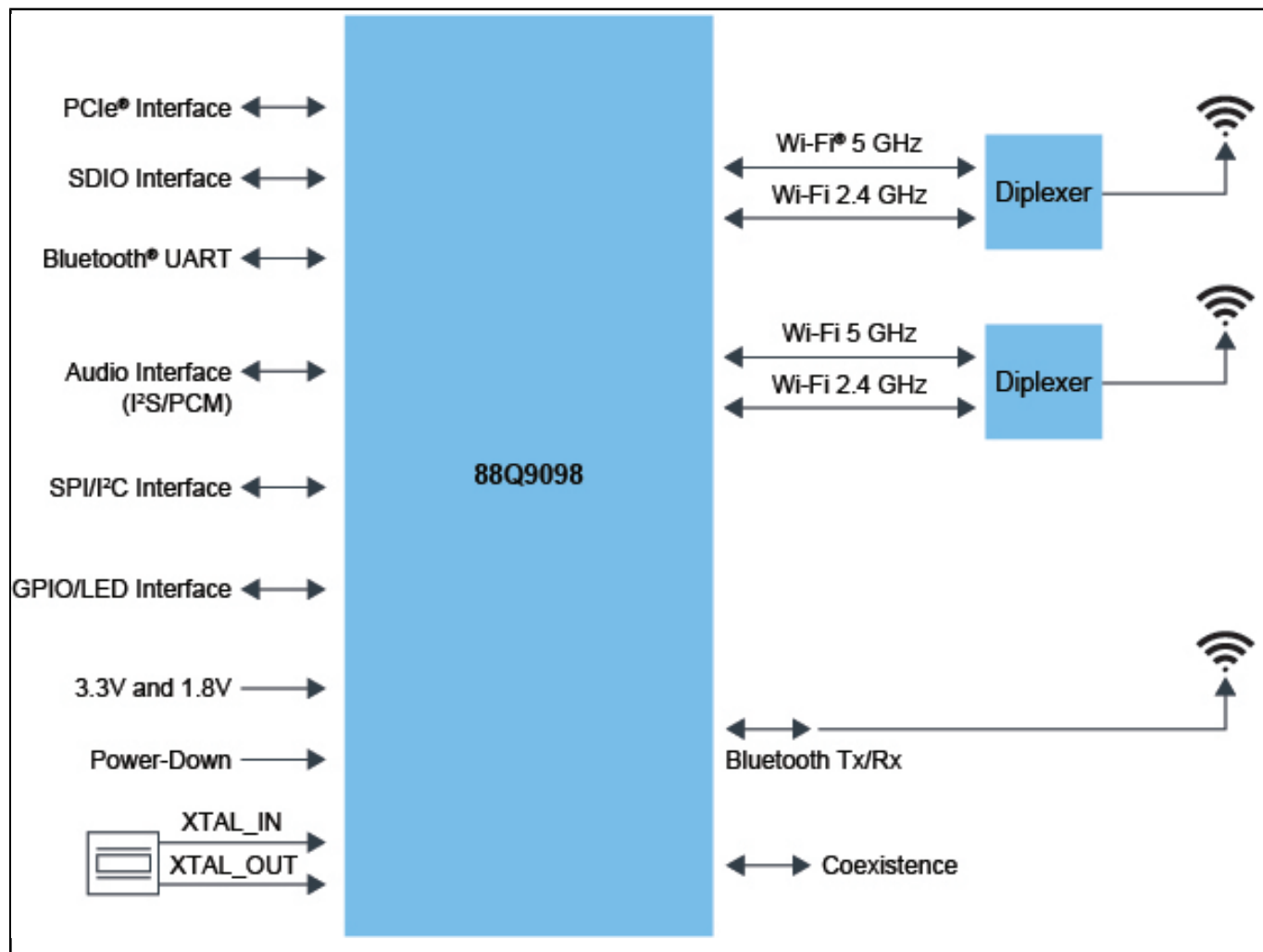
The 88Q9098 family of automotive wireless SoCs is the industry's first Wi-Fi 6 solution based on the latest IEEE 802.11ax standards supporting 2x2 plus 2x2 concurrent dual Wi-Fi and dual-mode Bluetooth 5.3. Delivering reliable and high-performance wireless connectivity is becoming more difficult in the increasingly congested automobile environment. The new 88Q9098 combo solution enables gigabit-level performance, superior reliability, and enhanced security for the car and extends leadership in providing comprehensive Wi-Fi 6 solutions. Our innovative concurrent dual Wi-Fi architecture sets a new technology precedent, integrating two complete Wi-Fi subsystems into a single SoC, and enabling two independent 2x2 data streams to run concurrently and at full throughput.

The 88Q9098 family of footprint compatible wireless solutions include:

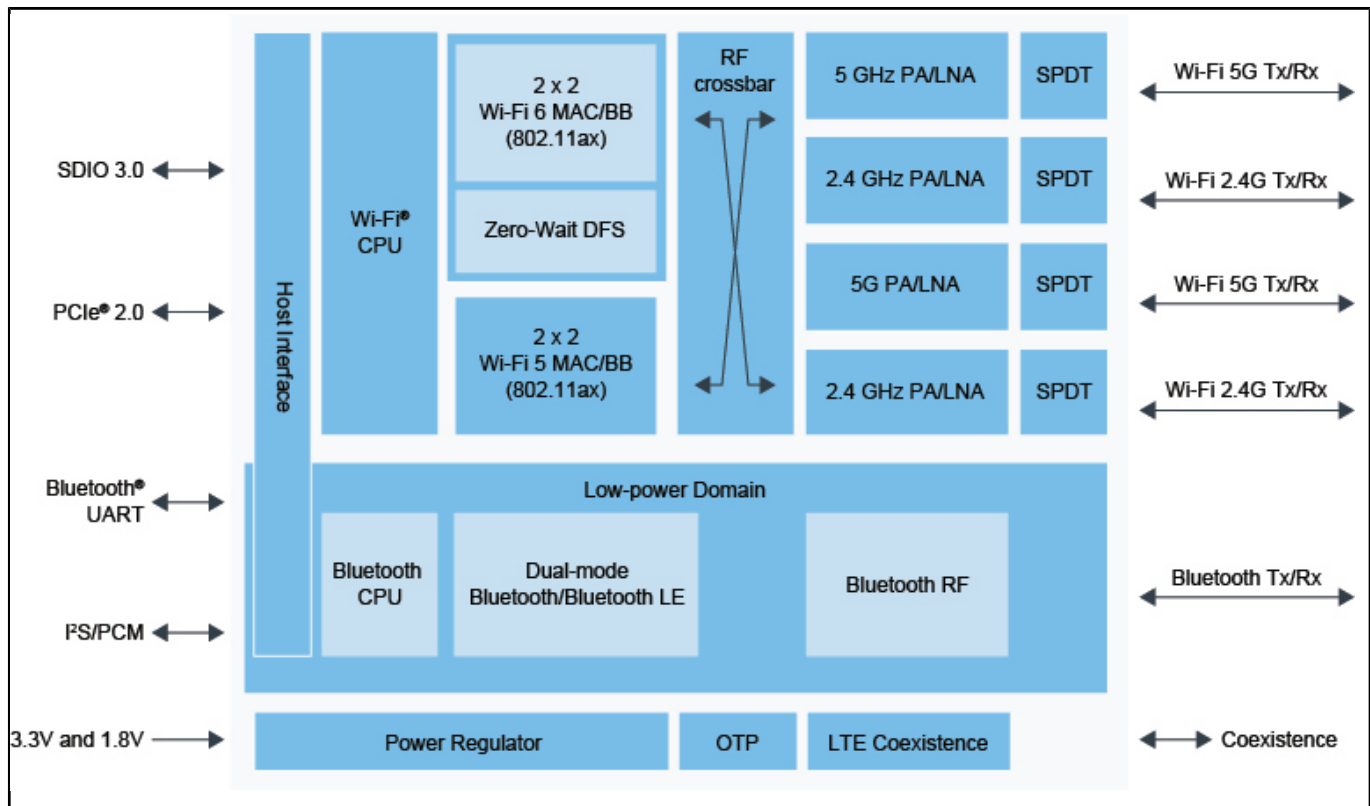
- 88Q9098 - 2x2 + 2x2 Concurrent Dual Wi-Fi with Bluetooth 5 (AEC-Q100 grade 3)
- 88Q9098S - 2x2 + 2x2 Concurrent Dual Wi-Fi with Bluetooth 5 (AEC-Q100 grade 2)

Wireless modules based on the NXP 88Q9098 are offered by leading [module manufacturers](#).

88Q9098 SoC Application Block Diagram (Internal PA/LNA/SW) Block Diagram



88Q9098 SoC Internal Block Diagram Block Diagram



View additional information for [2.4/5 GHz Dual-Band 2x2 Wi-Fi® 6 \(802.11ax\) + Bluetooth® 5.3 Automotive Solution](#).

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

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