High performance and extended range for A/V streaming and digital TV applications

NXP® 88W8997 802.11ac wave 2 2 x 2 Wi-Fi® Dual Band with Bluetooth® 5 SoC

This Wave-2 combo SoC significantly increases bandwidth available over the Wi-Fi link and network capacity for densely populated environments and extends wireless capabilities to additional use cases such as real-time video streaming, peer-to-peer gaming and media sharing.

PRODUCT OVERVIEW

The NXP 88W8997 SoC is the industry's first 28 nm, 802.11ac (Wave-2), 2 x 2 MU-MIMO combo solution with support for Bluetooth 5.1. The design enhancements and the low-power 28 nm process technology reduce the power consumption by up to 40% over existing solutions. This SoC features the highest level of integration in the market, including dual-band power amplifiers (PAs), low-noise amplifiers (LNAs) and switches, reducing the board-level bill of materials to the bare minimum and enabling easy chip-on-board and module design for board markets.

TARGET APPLICATIONS

▶ Tablets

▶ Mobile computing

▶ Gaming

▶ Set-top boxes

▶ TVs

88W8997 BLOCK DIAGRAM
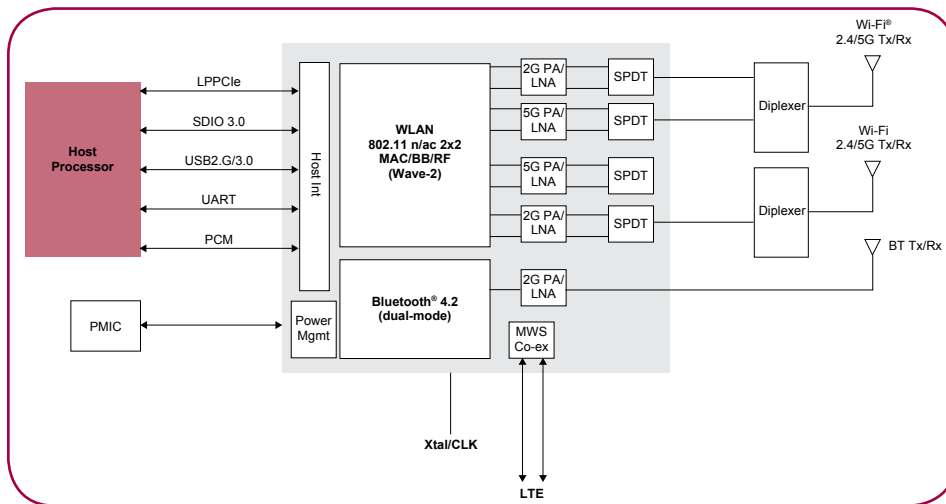
KEY FEATURES

FEATURES
2 x 2, MU-MIMU combo, with low-power 28 nm design
Bluetooth 5.1, including support for features such as 2 Mbit/s Bluetooth LE and direction-finding using angle of arrival (AoA)
Dual-band PAs, LNAs, and switches
Concurrent applications support a device to have two independent radio links without compromising the 2 x 2 MIMO link
Precision indoor location capability using IEEE® 802.11mc and Bluetooth LE direction finding