Overview

XR819 is a fully integrated 2.4G WLAN SoC to support IEEE 802.11 b/g/n. It is optimized for mobile applications such as PDAs and portable media players.

Highlights

- Highest level of integration effectively reducing the BOM cost and delivering faster time-to-market for new WLAN enabled products.
- The low power consumption and intelligent host off loading of beacon as well as the packet processing ensure better battery life.
- Remarkable sensitivity performance (<-72dBm@MCS7) and high level of transmitting power (>19dBm@1Mbps), ensuring long distance and robust connection.
- 5x5mm QFN package is suitable for very compact design.

Features

- Compatible with IEEE 802.11 b/g/n standard
- WLAN solution with fully integrated
  - High power PA
  - TR switch
  - Internal RF impedance matching network
  - OFDM/CCK PHY and MAC processor
  - SDIO 2.0 host interface
- Clocks
  - XTAL or external reference clock input from 13~52MHz
  - Internal or external Low power clock at 32.768 kHz
- On-chip auto calibrations
The WLAN subsystem includes a single-band 2.4G RF transceiver (RX and TX), PA and LNA including RF switch, RFPLL, PMU, OFDM/CCK PHY and MAC processor, that keep data communications with host using SDIO 2.0. This application has industry leading low cost BOM to simplify product development.

**Applications**

- Tablet PC applications
- Portable media player (PMP) applications
- Portable gaming device (PGD) applications
- Smart internet TV box applications
- Internet of Thing (IOT)

**Block Diagram**

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