



XR819

IEEE 802.11 B/G/N

2.4G WLAN SoC

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 ($<-72\text{dBm@MCS7}$) and high level of transmitting power ($>19\text{dBm@1Mbps}$), ensuring long distance and robust connection.



5x5mm QFN package is suitable for very compact design.

Features

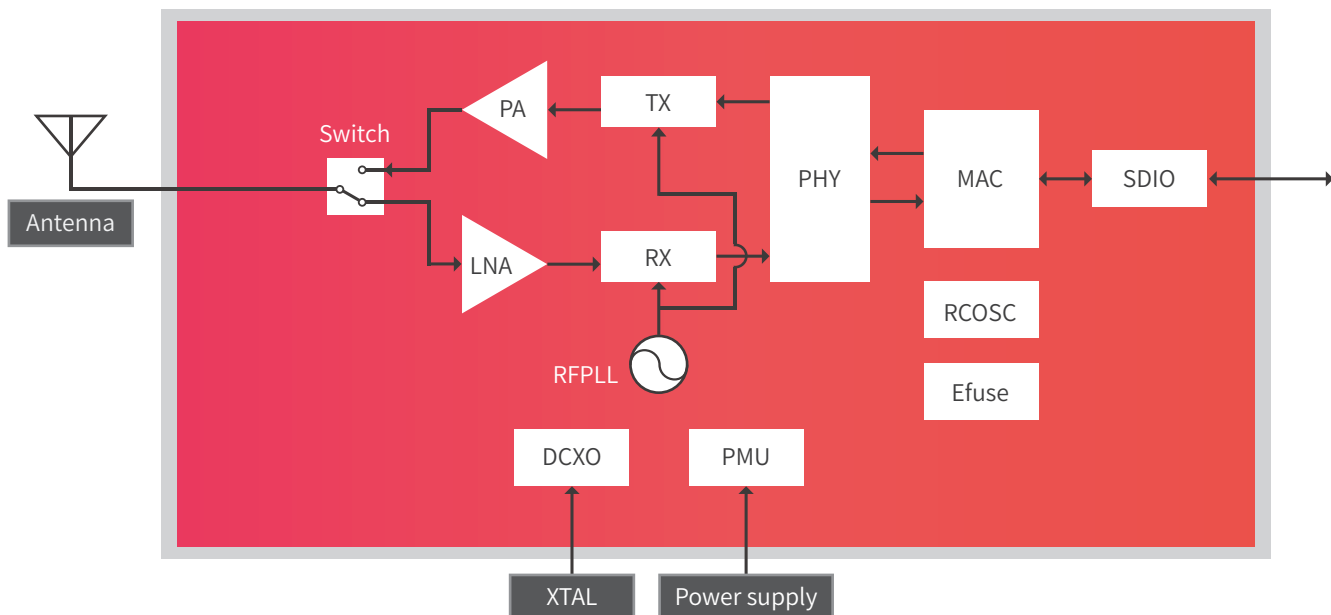
- Compatible with IEEE 802.11 b/g/n standard
- WLAN solution with fully integrated
 - High power PA
 - TR switch
 - Internal RF impedance matching network
 - OFDM/CCK PHY and MAC processor
 - SDIO 2.0 host interface
- Clocks
 - XTAL or external reference clock input from 13~52MHz
 - Internal or external Low power clock at 32.768 kHz
- On-chip auto calibrations

- Intelligent adaptive power control
- Support
 - 6 Mbps to 65 Mbps OFDM
 - 11 Mbps and 5.5 Mbps CCK and legacy
 - 2 Mbps and 1 Mbps DSSS data rates
- Wi-Fi Direct support with concurrent operation
- Supports MAC enhancements
- Package
 - 5x5mm 40pin QFN

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



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.