

# XR819

## Xradio Technology

# 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 ( $>19\text{dBm}@1\text{Mbps}$ ), ensuring long distance and robust connection.
-  5x5mm QFN package is suitable for very compact design.

### Features

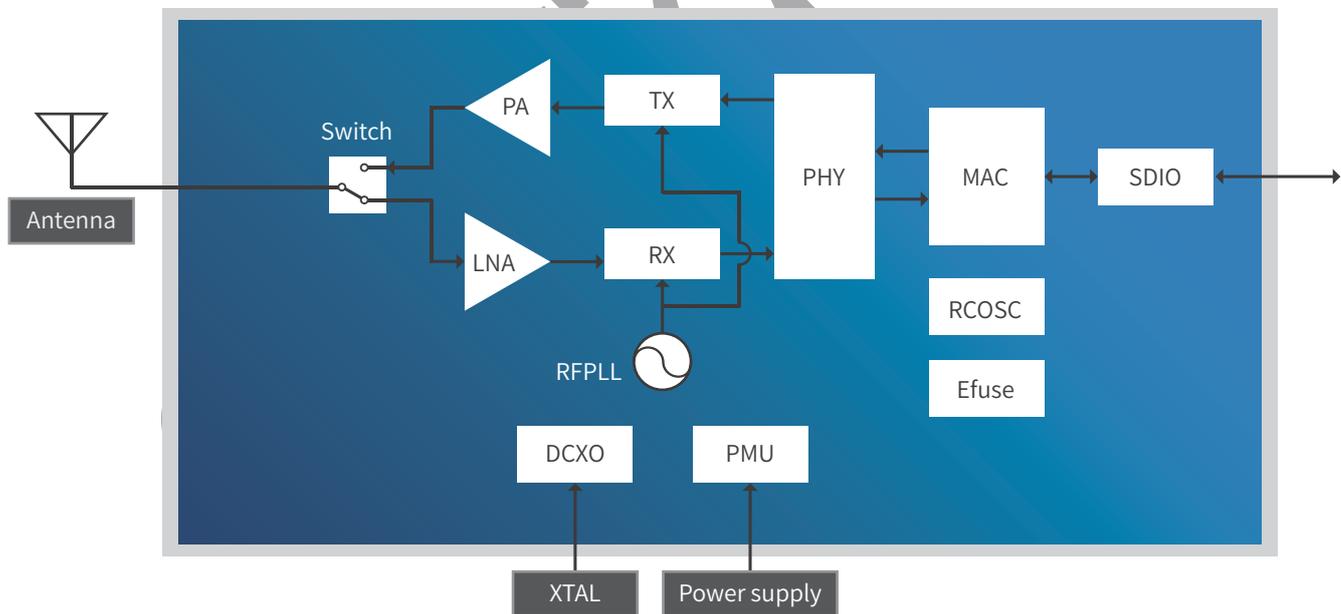
- Compatible with IEEE 802.11 b/g/n standard
- WLAN solution with fully integrated
  - High power PA
  - TR switch
  - Internal RF impedance matching network
  - OFDM/CCK PHY and MAC processor
  - SDIO 2.0 host interface
- Clocks
  - XTAL or external reference clock input from 13~52MHz
  - Internal or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