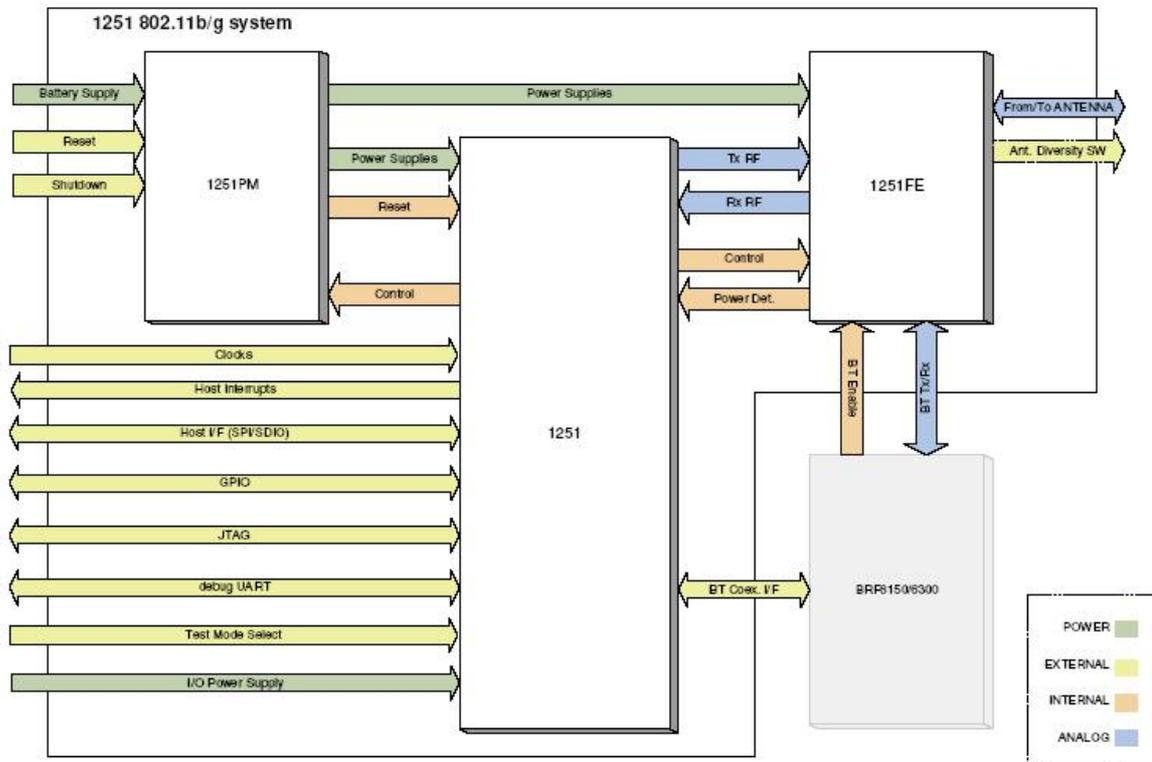# WLAN Hardware Structure

System Block Diagram

WL1251

The WL1251 is a single-chip wireless local area network (WLAN) medium-access controller (MAC) spread-spectrum baseband processor and 2.4GHz RF radio that combines high performance and functionality. The WL1251 is optimized for mobile applications where small PCB footprint, low cost and low power consumption. The WL1251 supports IEEE Std 802.11b (2.4GHz band) and 802.11g (2.4GHz band) systems. Data rates up to 54Mbit/s may be provided in 802.11g mode of operation.

WL1251FE

As part of Texas Instruments 802.11b/g chipset, the WL1251FE device is the RF front-end. It is designed for glue less interface to WL1251 single chip Baseband/MAC/Xcvr with no RF matching required. The WL1251FE is designed for mobile applications. As a consequence its design is optimized for small physical size and power efficiency.

WL1251PM

The WL1251PM provides power to the WL1251 WLAN SoC and WL1251FE chips. To reduce system costs and PCB area, a power management IC is desirable to consolidate discrete regulators and reduce system cost (Chip and RBOM) and PCB area.