



where  
wireless  
begins

## RFS W5100 WiFLEX™

### 2.4 & 5 GHz Dual-Band Wireless LAN Transceiver Chipset

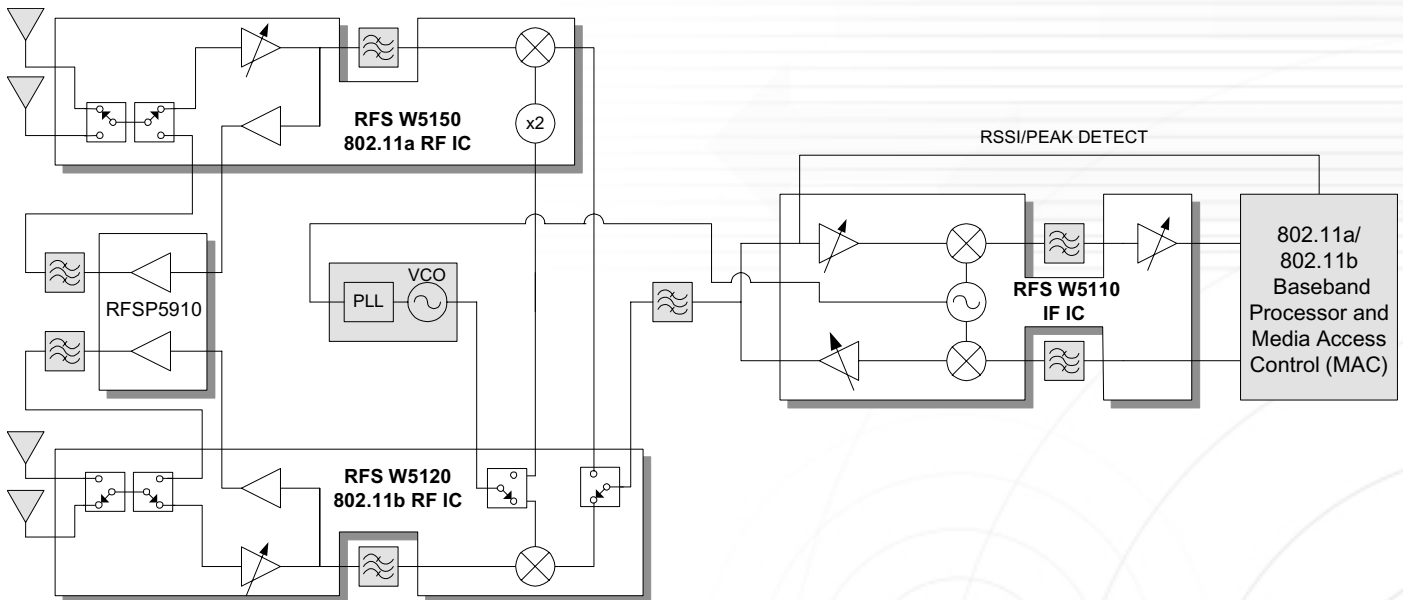
#### PRODUCT DESCRIPTION

The RFS W5100 is the industry's first dual-band transceiver chipset designed for use in wireless local area network (WLAN) systems using orthogonal frequency division multiplexing (OFDM) at 2.4 and 5 GHz. As the first in the WiFLEX™ family of transceiver products, the three ICs are targeted for network interface cards (NIC) and access points that can support 802.11a, 802.11b and 802.11g standards. The RFS W5100 enables either direct sequence spread spectrum (DSSS) or OFDM modulation at both 2.4 and 5 GHz to allow a seamless transition across bands for maximum data rates and throughput at all times.

RF Solutions' WiFLEX™ transceiver chipsets are designed to facilitate flexible implementation for a variety of WLAN solutions across multiple bands and standards. Based on the user's needs, the chips can be used independently for single band solutions or together as a dual band combination. As an added feature for increased flexibility, the RFS W5100 chipset is compatible with a variety of dual-band-capable baseband processors to achieve a complete WLAN communication system.

The RFS P5910 is a dual-band power amplifier designed to complement 802.11a/b/g radios as a final stage in the transmit chain to enable greatly improved range and coverage. When coupled with RF Solutions' RFS P5910 single-chip dual-band power amplifier, the RFS W5100 chipset is an ideal transceiver solution for your wireless LAN card design.

#### WLAN SYSTEM BLOCK DIAGRAM



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## FEATURES

- Flexible Multimode Dual-band Solution
  - 2.4 GHz 802.11b (DSSS)
  - 2.4 GHz 802.11g (OFDM)
  - 5 GHz 802.11a (OFDM)
  - Variable Gain Front End
- Separate internal LNAs increase receiver sensitivity, maximizing range and throughput
- Independent 2.4 GHz and 5 GHz transmitter outputs ensure maximum flexibility for more reliable coverage
- Optimal partitioning to support multiple baseband ICs
- Cost effective RF WLAN solution
- RSSI/Peak Detect
- AGC Control
- Transmit Power Control (TPC)
- Allows independent transmit and receive diversity
- Low-IF Output 20-80 MHz
- 5 x 5 mm Package (each chip)

## APPLICATIONS

- WLAN Network Interface Cards
- WLAN Access Points
- U-NII Fixed Wireless Transceivers
- 2.4 GHz ISM Transceivers

## MULTIPLE SOLUTION CAPABILITY

- 802.11a/b/g
  - RFS W5110
  - RFS W5120
  - RFS W5150
  - RFS P5910

